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Carrier Voice over IP Performance Management Operational Measurements Volume 4

ATTENTION

The Carrier VoIP Performance Management Operation Measurements Reference document uses four volumes to describe operational measurements (listed alphabetically) that provide information on how to load various components of the DMS switch.

What's new in (I)SN09?

The following new OMs have been added to this volume:

- RecordingSystem
- RECSTRMCOLL
- Registration
- ServerCpuAndMemory
- ServerInterface
- ServerPartition
- ServerProcessorLoad
- ServerProcessStatistics
- ServicePackage
- Session
- SIP_Delay_Report
- SIP_Inbound_Response_Report
- SIP_Outbound_Response_Report

- SIP_Transaction_Report
- SIPReport
- SIPTransaction
- StdRecordStream
- SyncSystem
- Transfer
- UserProvisioning
- Voicemail

Introduction

Operational Measurements (OMs) provide information on how to load various Components of the DMS switch. Periodic scans of switch parts and activities allow you to gather OM information. Specified parameters define the collection, storage, and transmission of data. OMs provide the following types of data:

- Description
- Registers
 - event counts. Peg counts are registers that increase each time an event occurs.
 - usage counts. Usage counts scan or sample equipment at equal intervals. These counts increase registers when the scan detects equipment in a specific state.
- Associated OM groups

OM information can appear on a terminal or printer. The system can transmit the information to a recording device for additional processing. To request data display at a specified output device, you can enter user commands. You can enter data in tables to schedule the output of the data in advance.

For more information on how to set up an OM system, refer to the *DMS-100 Family Basic Administration Procedures*, 297-1001-300.

In this document

The OMs in an office are dynamic and depend on the switch type(s). For comprehensiveness, this document describes OMs available in an office type of OFFCOMB. The document also describes OMs that are associated with specific components and OMs that are common in Carrier VoIP and DMS.

The following table lists the OM groups alphabetically (from Q to Z) and whether they are associated with a component or common in Carrier VoIP and DMS. For a description of an OM group, click on the OM group name.

OM groups available in Carrier VoIP (Sheet 1 of 9)

Name	Description	Device, Manager or Application
QMSACT	Queue Management System activity	Common
<u>QMSDATA</u>	Queue Management System data	Common
<u>QMSMIS</u>	Queue Management System management information system	Common
RADR	Receiver attachment delay recorder	Common
RCF	Remote call forwarding	Common
RCHDOPT	Residential call hold	Common
RCVR	Receiver service circuits	Common
RecordingSyste m	Recording System	MCS 5200
RECSTRMCOL L	Record Stream Collectors	MCS 5200
Registration	Registration	MCS 5200
REVALLO	Revenue allocation for coin-originated toll calls	Common
RLCDIS	Remote line concentrating module intraswitched calls	Common
RLDBD	Remote line drawer Bd-channel	Common
RLDBRA	Remote Line Drawer Basic Rate Access	Common
RLDMSGT	Remote line drawer message counter	Common
RLDSTAT	Remote line drawer status	Common
RLT	Release Link Trunk attempts to the Equal-Access End Office	Common

OM groups available in Carrier VoIP (Sheet 2 of 9)

Name	Description	Device, Manager or Application
RMSGOMGP	ISDN Rapid Messaging events	Common
RND	Redirecting Number Delivery	Common
ROAPPL	Remote operation service application	Common
ROMISC	Remote operation service office wide	Common
RRTE	Reroute control	Common
RSCIR	Remote switching center interswitching channel traffic	Common
RSCIS	Remote switching center intraswitching traffic	Common
RSDTLINE	Restricted Dial Tone	Common
RTEASUM	Real-time tool equal access summary	Common
RTESVCS	Routelist Services	Common
RTFEAT	Real-time tool feature activations	Common
RTLTSUM	Real-time tool line and trunk call attempts summary	Common
RTRSCCP	Real-time Rating Signaling Connection Control Part	Common
RTRTCAP	Real-time Rating Transaction Capabilities Application Part	Common
<u>SACB</u>	Subscriber activated call blocking	Common
<u>SCA</u>	Selective Call Acceptance	Common
SCAISERV	Switch-to-computer application interface service	Common
SCAISRV2	Switch Computer Application Interface 2	Common
SCAISRV3	Switch Computer Application Interface 3	Common
SCAISRV4	Switch Computer Application Interface 4	Common

OM groups available in Carrier VoIP (Sheet 3 of 9)

Name	Description	Device, Manager or Application
SCAITRAN	Switch-to-computer application interface transport	Common
SCF	Selective Call Forwarding	Common
SCMP	Series Completion	Common
<u>SCPOTS</u>	Speed Calling in the POTS Environment	Common
<u>SCRJ</u>	Selective Call Rejection	Common
<u>SDS</u>	Special Delivery Service	Common
SEIUTRAN	SCAI Link EIU Transport	Common
<u>SERVACT</u>	Service Activation	Common
ServerCpuAndM emory	Server CPU and Memory	MCS 5200
ServerInterface	Server Interface	MCS 5200
<u>ServerPartition</u>	Server Partition	MCS 5200
ServerProcessor Load	Server Processor Load	MCS 5200
ServerProcessSt atistics	Server Processor Statistics	MCS 5200
<u>ServicePackage</u>	Service Package	MCS 5200
Session	Session	MCS 5200
SETRAF	Service evaluation traffic data	Common
SIMRING	Simultaneous Ringing User Interface	Common
SIP Delay Rep	SIP Delay Report	MCS 5200
SIP Inbound R esponse Report	SIP Inbound Response Report	MCS 5200

OM groups available in Carrier VoIP (Sheet 4 of 9)

Name	Description	Device, Manager or Application
SIP Outbound Response Repo	SIP Outbound Response Report	MCS 5200
SIP Transaction Report	SIP Transaction Report	MCS 5200
SIPGW CALLP	SIP Gateway call processing events	NGSS
SIPGW MISC	SIP Gateway miscellaneous call events	NGSS
SIPGW SERVI CES	SIP Gateway subscription and referral events	NGSS
SIPGW TLS	SIP Gateway transport layer security callp security events	NGSS
SIPReport	SIP Report	MCS 5200
<u>SIPTransaction</u>	SIP Transaction	MCS 5200
SITE	Traffic-related counts and dial-tone speed recording	MG9K
SITE2	Traffic-related counts and dial-tone speed recording 2	MG9K
SITE3	Traffic-related counts and dial-tone speed recording 3	Common
SLLCOM	Site line load control	Common
SLLNK	SL-100 link	Common
SLLNKINC	SL-100 incoming link	Common
SLM	System load module	Common
SLQ	Single Line Queue	Common
SLVPOPT	Single line variety package option	Common
<u>SMCOM</u>	Software maintenance critical application operational measurements	Common

OM groups available in Carrier VoIP (Sheet 5 of 9)

Name	Description	Device, Manager or Application
SME	Signaling management environment	Common
SMGENOM	Software maintenance general operational measurements	Common
<u>SMNCOM</u>	Software maintenance not critical application operational measurements	Common
<u>SMSTOPS</u>	Short Message Service - TOPS	Common
<u>SOTS</u>	Supplementary office traffic summary	Common
SPC	Semipermanent connections	Common
SPEEDCAL	Speed calling short and long lists	Common
<u>SPMACT</u>	SPM Activity Counting	IW_SPM_IP
SPMOVLD	Spectrum Overload Statistics	MG4K
SPMUSAGE	SPM Universal Activity Gauging Element	IW_SPM_IP
<u>SPPIN</u>	Station programmable PIN	Common
<u>SPRING</u>	Subscriber Programmable Ringing	Common
SRA	Suppressed Ringing Access	Common
<u>SRAOM</u>	Suppressed Ringing Access Operational Measurement	Common
StdRecordStrea m	Standard Record Stream	MCS 5200
STN	Special tones	Common
STORE	Data and program store	Common
SVCT	Service circuits	Common
SyncSystem	Synchronization System	MCS 5200
SYSPERF	System performance	Common

OM groups available in Carrier VoIP (Sheet 6 of 9)

Name	Description	Device, Manager or Application
TC7WRLSS	TOPS - Common Channel Signaling System 7 - Wireless	Common
TCAPERRS	Transaction Capabilities Application Part Error Counts	Common
TCAPUSAG	Transaction Capabilities Application Part Usage	Common
TCW	Talking Call Waiting	Common
TDCPROT	TMS data channel X.25 Protocol	Common
TDCROUT	TMS data channel router	Common
<u>TDGTHRU</u>	TOPS Datagram Throughput	Common
TFREE533	Toll-Free 533 (Bellcore)	Common
<u>TM</u>	Trunk modules	Common
<u>TME</u>	Terminal management environment	Common
TONES	Tones (traffic for tone generators)	Common
TOPAAPPL	TOPS AIN Application	Common
TOPASCCP	TOPS AIN Signaling Connection Control Part	Common
TOPATCAP	TOPS AIN Transaction Capabilities Application Part	Common
TOPPACT1	TOPS open position protocol action identifiers group 1	Common
TOPPACT2	TOPS open position protocol action identifiers group 2	Common
TOPPACT3	TOPS open position protocol action identifiers group 3	Common
TOPPACT4	TOPS open position protocol action identifiers group 4	Common

OM groups available in Carrier VoIP (Sheet 7 of 9)

Name	Description	Device, Manager or Application
TOPPDID1	TOPS open position protocol data identifiers group 1	Common
TOPPDID2	TOPS open position protocol data identifiers group 2	Common
TOPPDID3	TOPS open position protocol data identifiers group 3	Common
TOPPDID4	TOPS open position protocol data identifiers group 4	Common
TOPPDID5	TOPS open position protocol data identifiers group 5	Common
TOPPDID6	TOPS open position protocol data identifiers group 6	Common
<u>TOPPMSG</u>	TOPS open position protocol message	Common
TOPQOCPS	TOPS Queue Management System (QMS) Operator Centralization (OC) Position Seizures (TOPQOCPS)	Common
<u>TOPS950</u>	Traffic operator position system 950	Common
TOPSAICC	TOPS automated intercept call completion	Common
TOPSALT	TOPS alternate host	Common
TOPSARU	TOPS audio response unit (ARU)	Common
TOPSBRND	TOPS branding announcement	Common
TOPSCCAB	TOPS) directory assistance call completion (DACC) alternate billing	Common
TOPSDBA	Traffic Operator Position System directory assistance	Common
TOPSDACC	TOPS directory assistance call completion (DACC)	Common

OM groups available in Carrier VoIP (Sheet 8 of 9)

Name	Description	Device, Manager or Application
TOPSDEV	Traffic Operator Position System output devices	Common
TOPSEA	Traffic operator position system equal access	Common
<u>Transfer</u>	Transfer	MCS 5200
<u>TRK</u>	Trunk group traffic	Common
TRK2	Trunk group 2	Common
TRK2NET1	Trunk to Network Group 1	CS2K
TRK2NET2	Trunk to Network Group 2	CS2K
TRNK2	Trunk group 2	Common
TRKQOSOM	Trunk Quality of Service Operational Measurement	Common
<u>UPSNFAIL</u>	UCS PSN Failure	Common
<u>UserProvisionin</u>	User Provisioning	MCS 5200
<u>UTR</u>	Universal Tone Receiver	Common
<u>VAMPACG</u>	Variable Advanced Intelligent Network Messaging and Automatic Code Gaping	Common
<u>VoiceMail</u>	VoiceMail	MCS 5200
<u>VOW</u>	Virtual Office Worker	Common
VPTRUSAG	Variable AIN Message Platform Transaction Resource Identifier Usage	Common
VTCAPERR	Variable AIN Messaging Platform Transaction Capabilities Part Base Error	Common
VTCAPRCV	Variable AIN Messaging Platform Transaction Capabilities Received	Common

OM groups available in Carrier VolP (Sheet 9 of 9)

Name	Description	Device, Manager or Application
VTCAPSNT	Variable AIN Messaging Platform Transaction Capabilities Sent	Common
<u>WINTOPS</u>	Wireless Intelligent Network -TOPS	Common
<u>XPMLNK</u>	XPM Link	MG9K
XPMOCC	Central Processing Unit (CPU) occupancy	GWC
XPMOVLD	XPM Overload	GWC

Supplementary OMs

The following documents reference OMs that do not appear in this document:

- North American DMS-100 Operations Measurements Reference Manual, 297-8021-814
- Carrier VoIP SN07 OSS (ATM and IP) Advance Feature Guide, PLN-07AT-OSS
- Carrier VoIP Fault Management Logs Reference, NN10275-909

QMSACT

Description

Queue Management System activity (QMSACT)

The OM group QMSACT records events that occur in the Queue Management System call and agent manager (QMS CAM) when the QMS CAM interacts with other applications.

The OM group QMSACT provides one tuple for each office. The following table lists the key and info fields associated with OM group QMSACT.

Key field	Info field
none	The information field QMS_APPLN_INDEX_REGIST ER_INFO is present.

Related functional groups

Multiple applications and products use the general purpose utility QMS CAM.

Registers

The following table lists the registers associated with OM group QMSACT and what they measure. For a description of a register, click on the register name.

Registers for OM group QMSACT

Register name	Measures
AGREQCAN	Agent request canceled
CALLARIV	Call arrivals
CALLDEFL	Call deflected
CALLQD	Call queued
GOTAVAG	Got available agent
GOTSPLCL	Got special call
IMEDPAG	Immediately available priority agent

Registers for OM group QMSACT

Register name	Measures
<u>IMEDQAG</u>	Immediately available agent with call queue profile
IMEDTAG	Immediately available agent with controlled traffic profile
NOSPLCL	Special call not found
OVLMAX	Call overflowed, MAXSIZE exceeded
OVLNOCQE	Call queue elements overflowed
SPLCLREQ	Special call request

AGREQCAN

Register type

Peg

Description

Agent request canceled (AGREQCAN)

The register AGREQCAN increases each time the CAM removes a call in a call queue for the application. The CAM removes the call because the application cancels the agent request.

Associated registers

The register <u>CALLQD</u> increases each time an application presents a call to the CAM. The CAM places the call in queue because an agent is not available to serve the call.

The register <u>GOTAVAG</u> increases each time an agent becomes available. The CAM selects a call from the call queue of the application. The agent handles the call.

The register <u>GOTSPLCL</u> increases each time the CAM finds a call in the call queue of the application. A request for a special call causes the CAM to find the call.

The register <u>CALLQD</u> = <u>GOTAVAG</u> + <u>GOTSPLCL</u> + <u>AGREQCAN</u>

Note: The sum of this formula can be different from register CALLQD because peg counts occur during different reporting periods.

Extension registers AGREQCN2

Associated logs

There are no associated logs.

CALLARIV

Register type

Peg

Description

Call arrivals (CALLARIV)

The register CALLARIV increases each time an application presents a call to the CAM.

Associated registers

The register <u>IMEDQAG</u> increases each time an agent with a call queue profile is available to serve the call.

The register <u>IMEDTAG</u> increases each time an agent with a controlled traffic profile is available to serve the call.

The register <u>IMEDPAG</u> increases each time an agent in the priority agent queue is available to serve the call.

The register <u>CALLQD</u> increases each time the system places a call in the queue because an agent is not available to serve the call.

The register <u>CALLDEFL</u> increases each time the system deflects a call because an agent is not available to serve the call. The projected wait time exceeds the maximum limit.

The register OVLMAX increases each time the system deflects a call because an agent is not available to serve the call. The number of calls in the queue exceeds the maximum limit.

The register OVLNOCQE increases each time the system deflects a call because an agent is not available to serve the call. The call queuing elements are exhausted for the complete application.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

Extension registers CALLARV2

Associated logs

There are no associated logs.

CALLDEFL

Register type

Peg

Description

Call deflected (CALLDEFL)

The register CALLDEFL increases each time an application presents a call to the CAM. The CAM deflects the call because an agent is not available to serve the call. The projected wait time exceeds the value of the field MAXSIZE for the application queue in table QMSCQDEF.

Associated registers

The register <u>CALLARIV</u> increases each time an application presents a call to the CAM.

The register <u>IMEDQAG</u> increases each time an agent with a call queue profile is available to serve the call.

The register <u>IMEDTAG</u> increases each time an agent with a controlled traffic profile is available to serve the call.

The register **IMEDPAG** increases each time an agent in the priority agent queue is available to serve the call.

The register <u>CALLQD</u> increases each time the CAM places a call in the queue. The CAM places a call in the queue when an agent is not available to serve the call.

The register <u>OVLMAX</u> increases each time the CAM deflects a call. The deflection occurs when an agent is not available to serve the call. The number of calls in the queue exceeds the maximum limit.

The register <u>OVLNOCQE</u> increases each time the CAM deflects a call. The deflection occurs when an agent is not available to serve the call. The call queuing elements are exhausted for the complete application.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

Extension registers

CALLDEF2

Associated logs

There are no associated logs.

CALLQD

Register type

Peg

Description

Call queued (CALLDEF2)

The register <u>CALLQD</u> increases each time an application presents a call to the CAM. The CAM places the call in queue because an agent is not available to serve the call.

Associated registers

The register <u>CALLARIV</u> increases each time an application presents a call to the CAM.

The register <u>IMEDQAG</u> increases each time an agent with a call queue profile is available to serve the call.

The register IMEDTAG increases each time an agent with a controlled traffic profile is available to serve the call.

The register <u>IMEDPAG</u> increases each time an agent in the priority agent queue is available to serve the call.

The register <u>CALLDEFL</u> increases each time the CAM deflects a call because an agent is not available to serve the call. The system deflects a call when the projected wait time exceeds the maximum limit.

The register OVLMAX increases each time the CAM deflects a call because an agent is not available to serve the call. The number of calls in the queue exceeds the maximum limit.

The register OVLNOCQE increases each time the CAM deflects a call because an agent is not available to serve the call. The call queuing elements are exhausted for the complete application.

The register GOTAVAG increases each time an agent becomes available. The CAM selects a call from the call queue of the application. The agent handles the call.

The register <u>GOTSPLCL</u> increases each time the CAM detects a call in the application of the call queue. A request for a special call causes the CAM to find a call.

The register <u>AGREQCAN</u> increases each time the CAM removes a call from the call queue for the application. The CAM removes the call when the application cancels the agent request.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

The register <u>CALLQD</u> = <u>GOTAVAG</u> + <u>GOTSPLCL</u> + <u>AGREQCAN</u>

Note: The sum of this formula can be different from register CALLQD because peg counts occur during different reporting periods.

Extension registers

CALLQD2

Associated logs

There are no associated logs.

GOTAVAG

Register type

Peg

Description

Got available agent (GOTAVAG)

The register <u>GOTAVAG</u> increases each time an agent becomes available. The CAM selects a call from the queue. The agent handles the call.

Associated registers

The register <u>CALLQD</u> increases each time the CAM places a call in the queue. This increase occurs because an agent is not available to serve the call.

The register <u>GOTSPLCL</u> increases each time the CAM finds a call in the call queue of the application. A request for a special call causes the CAM to find the call.

The register <u>AGREQCAN</u> increases each time the CAM removes a call from the call queue of the application. The CAM removes a call when the application cancels the agent request.

The register CALLQD = GOTAVAG + GOTSPLCL + AGREQCAN

Note: The total of this formula can be different from register CALLQD because peg counts occur during different reporting periods.

Extension registers

GOTAVAG2

Associated logs

There are no associated logs.

GOTSPLCL

Register type

Peg

Description

Got special call (GOTSPLCL)

The register GOTSPLCL increases each time the CAM finds a call in the call queue of the application for an agent. A request for a special call causes the CAM to find the call.

Associated registers

The register <u>CALLQD</u> increases each time the CAM places a call in the queue. This increase occurs because an agent is not available to serve the call.

The register GOTAVAG increases each time an agent becomes available. The CAM selects a call from the call queue of the application. The agent handles the call.

The register <u>AGREQCAN</u> increases each time the CAM removes a call from the call queue of the application. The CAM removes a call when the application cancels the agent request.

The register SPLCLREQ increases each time the QMS CAM receives a request for a special call.

The register **NOSPLCL** increases each time an application makes a special call request. A call is not available in the requested queue.

The register <u>CALLQD</u> = <u>GOTAVAG</u> + <u>GOTSPLCL</u> + <u>AGREQCAN</u> SPLCLREQ = <u>GOTSPLCL</u> + <u>NOSPLCL</u>

Extension registers

GOTSPCL2

Associated logs

There are no associated logs.

IMEDPAG

Register type

Peg

Description

Immediately available priority agent (IMEDPAG)

The register IMEDPAG increases each time an application presents a call to the CAM. An agent in the priority agent queue is available to serve the call.

Associated registers

The register <u>CALLARIV</u> increases each time an application presents a call to the CAM.

The register <u>IMEDQAG</u> increases each time an agent with a call queue profile is available to serve the call.

The register <u>IMEDTAG</u> increases when an agent with a controlled traffic profile is available to serve the call.

The register <u>CALLQD</u> increases when the CAM places a call in the queue because an agent is not available to serve the call.

The register <u>CALLDEFL</u> increases when the CAM deflects a call because an agent is not available to serve the call. The projected wait time exceeds the maximum limit.

The register OVLMAX increases each time the system deflects a call because an agent is not available to serve the call. The number of calls in the queue exceeds the maximum limit.

The register OVLNOCQE increases each time the system deflects a call because an agent is not available to serve the call. This process exhausts the call queuing elements for the complete application.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

Extension registers

IMEDPAG2

Associated logs

There are no associated logs.

IMEDQAG

Register type

Peg

Description

Immediately available agent with call queue profile (IMEDQAG)

The register <u>IMEDQAG</u> increases each time an application presents a call to the CAM. An agent with call queue profile is available to serve the call.

Associated registers

The register <u>CALLARIV</u> increases each time an application presents a call to the CAM.

The register <u>IMEDTAG</u> increases when an agent with a controlled traffic profile is available to serve the call.

The register **IMEDPAG** increases each time an agent in the priority agent queue is available to serve the call.

The register <u>CALLQD</u> increases when the CAM places a call in the queue because an agent is not available to serve the call.

The register <u>CALLDEFL</u> increases each time the CAM deflects a call because an agent is not available to serve the call. The projected wait time exceeds the maximum limit.

The register OVLMAX increases each time the CAM deflects a call because an agent is not available to serve the call. The projected wait time exceeds the maximum limit.

The register OVLNOCQE increases each time the CAM deflects a call because an agent is not available to serve the call. The call queuing elements are exhausted for the complete application.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

Extension registers

IMEDQAG2

Associated logs

There are no associated logs.

IMEDTAG

Register type

Peg

Description

Immediately available agent with controlled traffic profile (IMEDTAG)

The register IMEDTAG increases when an application presents a call to the CAM. An agent with a controlled traffic profile is immediately available to serve the call.

Associated registers

The register <u>CALLARIV</u> increases each time an application presents a call to the CAM. The register IMEDQAG increases when an agent with a call queue profile is available to serve the call.

The register <u>IMEDPAG</u> increases when an agent in the priority agent queue is available to serve the call.

The register <u>CALLQD</u> increases when the CAM places a call in the queue because an agent is not available to serve the call.

The register <u>CALLDEFL</u> increases each time the CAM deflects a call because an agent is not available to serve the call. The projected wait time exceeds the maximum limit.

The register OVLMAX increases each time the CAM deflects a call because an agent is not available to serve the call. The number of calls in the queue exceeds the maximum limit.

The register <u>OVLNOCQE</u> increases each time the CAM deflects a call because an agent is not available to serve the call. The call queuing elements are exhausted for the complete application.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

Extension registers

IMEDTAG2

Associated logs

There are no associated logs.

NOSPLCL

Register type

Peg

Description

Special call not found (NOSPLCL)

The register NOSPLCL increases when an application makes a special call request. A call is not available in the requested queue.

Associated registers

The register GOTSPLCL increases when the CAM finds a call in the call queue of the application. A request for a special call causes the CAM to find the call.

The register SPLCLREQ increases each time the QMS CAM receives a request for a special call.

The register <u>SPLCLREQ</u> = <u>GOTSPLCL</u> + <u>NOSPLCL</u>

Extension registers

NOSPLCL2

Associated logs

There are no associated logs.

OVLMAX

Register type

Peg

Description

Call overflowed, MAXSIZE exceeded (OVLMAX)

The register OVLMAX increases each time the CAM deflects the call queue from the call because an agent is not available. The number of calls in the queue exceeds the maximum value for the queue of the application in table QMSCQDEF.

Associated registers

The register <u>CALLARIV</u> increases each time an application presents a call to the CAM.

The register <u>IMEDQAG</u> increases when an agent with a call queue profile is available to serve the call.

The register <u>IMEDTAG</u> increases when an agent with a controlled traffic profile is available to serve the call.

The register <u>IMEDPAG</u> increases when an agent in the priority agent queue is available to serve the call.

The register <u>CALLQD</u> increases when the system places a call in the queue because an agent is not available to serve the call.

The register <u>CALLDEFL</u> increases each time the CAM deflects a call because an agent is not available to serve the call. The projected wait time exceeds the maximum limit.

The register <u>OVLNOCQE</u> increases each time the CAM deflects a call because an agent is not available to serve the call. The call queuing elements are exhausted for the complete application.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

OVLNOCQE

Register type

Peg

Description

Call queue elements overflowed (OVLNOCQE)

The register OVLNOCQE increases each time an application presents a call to the CAM. The CAM deflects the call because an agent is not available to serve the call. The call queuing elements are exhausted for the complete application.

Associated registers

The register <u>CALLARIV</u> increases each time an application presents a call to the CAM.

The register <u>IMEDQAG</u> increases when an agent with a call queue profile is available to serve the call.

The register <u>IMEDTAG</u> increases when an agent with a controlled traffic profile is available to serve the call.

The register **IMEDPAG** increases when an agent in the priority agent queue is available to serve the call.

The register <u>CALLQD</u> increases when the CAM places a call in the queue because an agent is not available to serve the call.

The register <u>CALLDEFL</u> increases each time the CAM deflects a call because an agent is not available to serve the call. The projected wait time exceeded the maximum limit.

The register OVLMAX increases each time the CAM deflects a call because an agent is not available to serve the call. The number of calls in the call queue exceeds the maximum limit.

The register <u>CALLARIV</u> = <u>IMEDQAG</u> + <u>IMEDTAG</u> + <u>IMEDPAG</u> + <u>CALLQD</u> + <u>CALLDEFL</u> + <u>OVLMAX</u> + <u>OVLNOCQE</u>

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPLCLREQ

Register type

Peg

Description

Special call request (SPLCLREQ)

The register SPLCLREQ increases each time an application makes a special call request. This request is a one-shot request for a call from a specific queue. The agent is not idled if a call is not found.

Associated registers

The register <u>GOTSPLCL</u> increases each time the CAM finds a call in the call queue of the application. A request for a special call causes the CAM to find the call.

The register **NOSPLCL** increases each time an application makes a special call request. A call is not available in the requested queue.

The register <u>SPLCLREQ</u> = <u>GOTSPLCL</u> + <u>NOSPLCL</u>

Extension registers

SPCLRQ2

Associated logs

There are no associated logs.

QMSDATA

Description

Queue Management System data (QMSDATA)

The OM group QMSDATA records events in the Queue Management System call and agent manager (QMS CAM). The system searches call and agent queues in response to requests from QMS applications.

The OM group QMSDATA provides one tuple for each office. The following table lists the key and info fields associated with OM group QMSDATA.

Key field	Info field
none	QMS_APPLN_INDEX_REGIST ER_INFO

Related functional groups

Multiple applications and products use the general purpose utility QMS CAM.

Registers

The following table lists the registers associated with OM group QMSDATA and what they measure. For a description of a register, click on the register name.

Registers for OM group QMSDATA

Register name	Measures
CQAQATT	Call queue profile agent queue search attempts
CQAQDEPT	Call queue profile agent queue search depth
CQAQSRCH	Call queue profile agent queue searches
CQELHIGH	Call queue elements high-water mark
CQSCONS	Call queues considered
CQSRCATT	Call queue search attempts
CTAQATT	Controlled traffic agent queue search attempts

Registers for OM group QMSDATA

Register name	Measures
CTAQDEPT	Controlled traffic agent queue search depth
PRAQATT	Call queue profile priority agent queue search attempts
PRAQDEPT	Call queue profile priority agent queue search depth

CQAQATT

Register type

Peg

Description

Call queue profile agent queue search attempts (CQAQATT)

Register <u>CQAQATT</u> increases when the system searches an idle agent for the application of the call queue profile agent queues.

Associated registers

Register <u>CQAQSRCH</u> counts the number of call queue profile agent queues that the system searches. The system finds an idle agent to serve the call.

<u>CQAQSRCH</u> / <u>CQAQATT</u> = average number of call queue profile agent queues searched.

Extension registers

CQAQATT2

Associated logs

There are no associated logs.

CQAQDEPT

Register type

Peg

Description

Call queue profile agent queue search depth (CQAQDEPT)

Register <u>CQAQDEPT</u> records the depth to which the system searches the call queue profile agent queue before the system finds an idle agent.

Associated registers

Register <u>CQAQSRCH</u> counts the number of call queue profile agent queues the system searches. The system searches the call queue profile agent queues until the system finds an idle agent to serve the call.

<u>CQAQDEPT</u> / <u>CQAQSRCH</u> = average depth that the system searches an application of the call queue profile agent queue

Extension registers

CQAQDEP2

Associated logs

There are no associated logs.

CQAQSRCH

Register type

Peg

Description

Call queue profile agent queue searches (CQAQSRCH)

Register <u>CQAQSRCH</u> counts call queue profile agent queues the system searches. The system searches the call queue profile agent queues until the system finds an idle agent to serve the call. This search does not search the priority agent queue.

Associated registers

Register <u>CQAQDEPT</u> records the depth to which the system searches the call queue profile agent queue. The system searches the call queue profile agent until the system finds an idle agent.

Register <u>CQAQATT</u> increases when the system searches the application of the call queue profile agent queues for an idle agent.

<u>CQAQDEPT</u> / <u>CQAQSRCH</u> = average depth that an application's call queue profile agent queues are searched

<u>CQAQSRCH</u> / <u>CQAQATT</u> = average number of call queue profile agent queues searched

Extension registers

CQAQSRC2

Associated logs

There are no associated logs.

CQELHIGH

Register type

Peg

Description

Call queue elements high-water mark (CQELHIGH)

Register CQELHIGH records the maximum number of call queue elements for the complete application that are in one in use. At one time, the call queue elements are in use during the preceding OM transfer period. The OM transfer period last 15 to 30 mins. To predict use, gather high-water marks for the busiest hours, of the busiest days of the year. These time periods must follow the High-Day Busy Hour or the Extreme Value Engineering supply. Use this data to calculate and adjust the supply of call queue elements. The elements cannot be more than 80% used during the busiest times.

At the beginning of each transfer period, the system initializes the active register to the number of call queue elements in use. The system continuously updates the active register in the transfer period. The updates occur when the number of call queue elements in use exceeds the recorded value before.

At the end of the 15 or 30 min transfer period, the system transfers the active register value to the holding register (CQELHIGH). The system retains the active register value without change until the system overwrites the active register when the next transfer period ends.

The system takes the maximum value of all the high-water marks observed. The system observes these high-water marks during each transfer period on the most busiest days of the year. Add an additional amount to this value to make sure the application of software resources does not exceed the objective 80% peak. Entries for the calculated value appear in the entry of the application for field CQELEMS in table QAPLNDEF.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CQSCONS

Register type

Peg

Description

Call queues considered (CQSCONS)

Register CQSCONS counts the number of call queues that the system considers when an application of the call queue profile agent becomes available. The application becomes available before the system selects a call, or the system idles the agent because the list of the call queues in the profile becomes exhausted.

Associated registers

Register <u>CQSRCATT</u> increases when an application of the call queue profile agent becomes available to handle a call. The system searches the application and the queues for a call the agent can serve.

<u>CQSCONS</u> / <u>CQSRCATT</u> = average number of call queues that the system searches when a call queue profile agent becomes available

Extension registers

CQSCONS2

Associated logs

There are no associated logs.

CQSRCATT

Register type

Peg

Description

Call queue search attempts (CQSRCATT)

Register CQSRCATT monitors when an application of the call queue profile agent becomes available to handle a call. The system searches call queues in the call queue profile of the agent for a call that the agent can serve.

Associated registers

Register <u>CQSCONS</u> counts the number of call queues the system considers before the system selects a call for an idle call queue profile agent.

<u>CQSCONS</u> / <u>CQSRCATT</u> = average number of call queues that the system searches when a call queue profile agent becomes available

Extension registers

CQSRCAT2

Associated logs

There are no associated logs.

CTAQATT

Register type

Peg

Description

Controlled traffic agent queue search attempts (CTAQATT)

Register CTAQATT increases when the system searches for an idle agent in an application of the controlled traffic agent queue.

Associated registers

Register <u>CTAQDEPT</u> records the depth to which the system searches the controlled traffic agent queue before the system finds an idle agent.

Register <u>CTAQDEPT</u> / <u>CTAQATT</u> counts the average depth to which the system searches the application of the controlled traffic agent queue.

Extension registers

CTAQATT2

Associated logs

There are no associated logs.

CTAQDEPT

Register type

Peg

Description

Controlled traffic agent queue search depth (CTAQDEPT)

Register <u>CTAQDEPT</u> records the depth to which the system searches the controlled traffic agent queue before the system finds an idle agent.

Associated registers

Register <u>CTAQATT</u> increases when the system searches for an idle agent in an application of the controlled traffic agent queue.

<u>CTAQDEPT</u> / <u>CTAQATT</u> = average depth that the system searches the controlled traffic agent queue of an application

Extension registers CTAQDEP2

Associated logs

There are no associated logs.

PRAQATT

Register type

Peg

Description

Call queue profile priority agent queue search attempts (PRAQATT)

Register PRAQATT increases when the system searches the call queue profile priority agent queue for an idle agent to serve the call. Entries for the priority agent queue are in table QMSCQDEF.

Associated registers

Register <u>PRAQDEPT</u> records the depth to which the system searches the call queue profile priority agent queue of an application. The system searches the queue of an application until the system finds an idle agent to serve the call.

<u>PRAQDEPT</u> / <u>PRAQATT</u> = average depth that the system searches call queue profile priority queues are searched

Extension registers

PRAQATT2

Associated logs

There are no associated logs.

PRAQDEPT

Register type

Peg

Description

Call gueue profile priority agent gueue search depth (PRAQDEPT)

Register PRAQDEPT records the depth to which the system searches an application of the call queue profile priority agent queue. The system searches the application until the system finds an idle agent. The system must find an idle agent to serve the call before the system reaches the end of the queue.

Associated registers

Register <u>PRAQATT</u> increases when the system searches the call queue profile priority agent queue. The system searches the queue until the system finds an idle agent to serve the call.

PRAQDEPT / PRAQATT = average depth that the system searches the call queue profile priority queues

Extension registers PRAQDEP2

Associated logs

There are no associated logs.

QMSMIS

Description

Queue Management System management information system (QMSMIS)

The OM group QMSMIS measures message activity for the Queue Management System (QMS) management information system (MIS) interface.

The OM group QMSMIS provides up to two tuples per office. A tuple is added for each tuple added to table QMSMIS.

The following table lists the key and info fields associated with OM group QMSMIS.

Key field	Info field
0 or 1	TOPS or OSSAIN - name associated with the QMS MIS application datafilled in table QMSMIS.

Related functional groups

QMSMIS interface

Registers

The following table lists the registers associated with OM group QMSMIS and what they measure. For a description of a register, click on the register name.

Registers for OM group QMSMIS

Register name	Measures
BUFFAIL	Buffers failed to be sent
BUFFSX	Buffers sent across
BUFIP1SX	Buffers sent across first IP connection
BUFIP2SX	Buffers sent across second IP connection
BUFIP3SX	Buffers sent across third IP connection

Registers for OM group QMSMIS

Register name	Measures
BUFIP4SX	Buffers sent across fourth IP connection
BUFIP1TL	Buffers sent on first IP connection total count
BUFIP2TL	Buffers sent on second IP connection total count
BUFIP3TL	Buffers sent on third IP connection total count
BUFIP4TL	Buffers sent on forth IP connection total count
POSMSG	Position message
QUEMSG	Queue message
SESNMSG	Session event message

BUFFAIL

Register type

Peg

Description

Buffers failed to be sent (BUFFAIL)

Register BUFFAIL increases when the DMS switch fails to send a QMSMIS buffer across the multiprotocol controller (MPC) links. If a link is not in service to the MIS, register BUFFAIL does not increase.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates QMIS100 when the DMS switch fails to send a QMSMIS buffer over the MPC links. The system generates QMIS101 when the DMS switch fails to send a QMSMIS buffer over the Ethernet.

BUFFSX

Register type

Peg

Description

Buffers sent across (BUFFSX) Register BUFFSX increases when the system sends a QMSMIS buffer across the MPC links to the MIS device.

Associated registers

There are no associated registers.

Extension registers

BUFFSX2

Associated logs

There are no associated logs.

BUFIP1SX

Register type

Peg

Description

Buffers sent across first IP connection

Register BUFIP1SX counts the number of buffers successfully sent across the first IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP1S2

Associated logs

There are no associated logs.

BUFIP2SX

Register type

Peg

Description

Buffers sent across second IP connection

Register BUFIP2SX counts the number of buffers successfully sent across the second IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP2S2

Associated logs

There are no associated logs.

BUFIP3SX

Register type

Peg

Description

Buffers sent across third IP connection

Register BUFIP3SX counts the number of buffers successfully sent across the third IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP3S2

Associated logs

There are no associated logs.

BUFIP4SX

Register type

Peg

Description

Buffers sent across third IP connection

Register BUFIP4SX counts the number of buffers successfully sent across the fourth IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP4S2

Associated logs

There are no associated logs.

BUFIP1TL

Register type

Peg

Description

Buffers sent on first IP connection total count

Register BUFIP1TL provides a count of the total IP buffers sent out on the first IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP1T2

Associated logs

There are no associated logs.

BUFIP2TL

Register type

Peg

Description

Buffers sent on second IP connection total count

Register BUFIP2TL provides a count of the total IP buffers sent out on the second IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP2T2

Associated logs

There are no associated logs.

BUFIP3TL

Register type

Peg

Description

Buffers sent on third IP connection total count

Register BUFIP3TL provides a count of the total IP buffers sent out on the third IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP3T2

Associated logs

There are no associated logs.

BUFIP4TL

Register type

Peg

Description

Buffers sent on forth IP connection total count

Register BUFIP4TL provides a count of the total IP buffers sent out on the fourth IP connection to an off-board facility.

Associated registers

There are no associated registers.

Extension registers

BUFIP4T2

Associated logs

There are no associated logs.

POSMSG

Register type

Peg

Description

Position message (POSMSG)

Register POSMSG increases when the Traffic Operator Position System (TOPS) QMS generates the QMS position event message.

Associated registers

There are no associated registers.

Extension registers

POSMSG2

Associated logs

There are no associated logs.

QUEMSG

Register type

Peg

Description

Queue message (QUEMSG)

Register QUEMSG increases when the TOPS or OSSAIN QMS generates a call queue event message.

Associated registers

There are no associated registers.

Extension registers

QUEMSG2

Associated logs

There are no associated logs.

SESNMSG

Register type

Peg

Description

Session event message (SESNMSG)

Register SESNMSG increases when the OSSAIN QMS generates an OSSAIN session event message.

Associated registers

There are no associated registers.

Extension registers

SESNMSG2

Associated logs

There are no associated logs.

RADR

Description

Receiver attachment delay recorder (RADR)

The OM group RADR provides information about receiver attachment delay recorder (RADR) tests.

The OM group RADR generates test call originations. The OM group generates originations to determine the interval between a request and a connection for attachment to a receiver.

The system tests each receiver type available at the switch. To determine switch congestion, the user can compare threshold values that the operating company sets. The fields RADUDLYT and RADLDLYT in table RADR specify upper and lower delay thresholds. Field RADCALL in table RADR specify the number of test calls the RADR must initiate each hour.

The following formula calculates the correct test rate for each hour: 3600 / (3600/RADCALLR).

The following table lists the key and info fields associated with OM group RADR.

Key field	Info field
RCVR_KIND. This field identifies one of the following receiver types (see list)	RAD_PHYSTUPLE_FOR_OMS. The information field consists of the following three fields in table RADR that the operating company sets. This field does not include universal tone receivers [UTR].

OM group RADR provides one tuple for each receiver type.

- ATDRCVR Audio tone detector receiver
- ATDUKRCF A-law audio tone detector (U.K.)
- DGTRCVR Digitone receiver
- DTUKRCVR A-law Digitone receiver (U.K.)
- DT300RCV Gateway Digitone receiver
- KSR2OCVR Licensee receiver

- KSR2ICVR Licensee receiver
- MFRCVR Multifrequency receiver
- MF300RCVR Gateway multifrequency receiver
- UTRCVR Universal tone receiver
- RADCALLR—desired number of test calls in each hour (zero for UTR because normal calls are counted)
- RADLDLYT—lower delay threshold in seconds (three for UTR)
- RADUDLYT—upper delay threshold in seconds (seven for UTR)

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RADR and what they measure. For a description of a register, click on the register name.

Registers for OM group RADR

Register name	Measures
RADLDLYP	RAD lower delay threshold
RADTESTC	RAD test calls
RADUDLYP	RAD upper delay threshold

RADLDLYP

Register type

Peg

Description

RAD lower delay threshold (RADLDLYP)

The register RADLDLYP increases

- when a test request for attachment to a receiver takes longer to satisfy than the lower delay threshold
- when no receivers are available to satisfy a test request for attachment to a receiver. When the receiver queue overflows.

Field RADLDLYT in table RADR specifies the lower delay threshold.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RADTESTC

Register type

Peg

Description

RAD test calls (RADTESTC)

The register RADTESTC counts test call originations. This register counts originations to determine the interval between a request for an attachment to a receiver and the time of connection.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RADUDLYP

Register type

Peg

Description

RAD upper delay threshold (RADUDLYP)

The register RADUDLYP increases

- when a test request for attachment to a receiver takes longer to satisfy than the upper delay threshold
- when no receivers are available to satisfy a test request for attachment to a receiver. When the receiver queue overflows.

Field RADUDLYT in table RADR specifies the upper delay threshold.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logsThere are no associated logs.

RCF

Description

Remote call forwarding (RSF)

The OM group RCF counts remote call forwarded calls to toll offices with centralized automatic message accounting (CAMA) billing systems. The OM group RCF also counts remote call forwarded calls to intertoll trunks in local automatic message accounting (LAMA) offices. Two registers count call forward attempts and calls the system fails to forward. The usage register records if remote call forwarded calls are in progress.

The system provides RCF for all types of DMS offices.

The following table lists the key and info fields associated with OM group RCF.

Key field	Info field
RCFOM_INDEX is the RCF operational measurement index.It is an integer in the range 0 to 127.	RCF_OMINFO

Key field

The system assigns index 0 to the complete office. The operating company assigns indices 1 to 127 to the first 127 remote call forwarding (RCF) directory numbers.

The OM group RCF allows the operating company to monitor calls on 127 RCF directory numbers. To monitor an RCF directory number not in the 127 assigned directory numbers, the system must relocate the directory number to the group of 127.

Info field

RCF_OMINFO contains the following:

- Register RCFOM_INDEX, RCF_KEY, RCF_SNPA, RCF_DN.
- Register RCFOM_INDEX is the RCF operational measurement index. It is an integer in the range 0 to 127.
- Register RCF_KEY is the call forwarding index.
- Register RCF_SNPA is the serving numbering plan-area for the base station.

- Register RCF_DN is the directory number for the base station.
- The user enters the RCF operational measurement index is in field RCFOMIND in table CFW.
- The call forwarding index is entered in field CFWINDEX in table CFW.
- The maximum number of calls that the system can forward at the same time is entered in field MAXCALLS in table CFW.
- The block toll completing calls is entered in field BLKTLCMP in table CFW.
- Register CFW_EXT_BLOCKS is entered in table OFCENG.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RCF and what they measure. For a description of a register, click on the register name.

Registers for OM group RCF

Register name	Measures
RCFDFLD	Remote call forward calls deflected
RCFOFFRD	Remote call forward calls deflected
RCFUSAG	Calls forwarded use count

RCFDFLD

Register type

Peg

Description

Remote call forward calls deflected (RCFDFLD)

Register RCFDFLD counts calls that the system does not forward for the following reasons:

- originator is a test facility
- the system reaches the maximum number of calls allowed (MAXCALLS in table CFW)
- toll call blocking is occurring

- service circuit does not exist (CFW_EXT_BLOCKS in table OFCENG)
- the system reaches maximum CFW chain size (5)
- call is operator busy verification call
- the system suspends the remote call forward directory number

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCFOFFRD

Register type

Peg

Description

Call forward attempts (RCFOFFRD)

Register <u>RCFOFFRD</u> counts remote call forwarding attempts. This register including calls the system later blocks because of network blockage or because the remote station is busy.

Associated registers

Register <u>RCFDFLD</u> counts calls that the system does not forward.

RCFOFFRD - RCFDFLD = calls successfully forwarded

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCFUSAG

Register type

Usage

Description

Calls forwarded use count (RCFUSAG)

RCFUSAG is a use register. The scan rate is 100 s.

RCFUSAG records if call forwarded calls are in progress.

Associated registersThere are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCHDOPT

Description

Residential call hold (RCHDOPT)

The OM group RCHDOPT provides information about the use of the residential call hold (RCHD) feature. Residential call hold is a line option that allows the subscriber to place the call on hold. To place a call on hold, the subscriber must flash the hook-switch, dial an access code and go on hook.

The OM group RCHDOPT contains four registers that count the following:

- attempts to use the RCHD feature
- RCHD calls abandoned before the subscriber retrieves call or before the timer expires
- RCHD calls taken down because the timer expires
- attempts to use the RCHD feature that fail

The OM group RCHDOPT provides one tuple for each office. The following table lists the key and info fields associated with OM group RCHDOPT.

Key field	Info field
none	none

The office parameter SLVP_RCHD_TIMER specifies the timing values for option RCHD. The office parameter contains two fields: INTER_RING_DELAY and MAX_RING_DURATION. The field INTER_RING_DELAY specifies the time between reminder rings when the subscriber places a call on hold. The field MAX_RING_DURATION specifies the maximum time that a call can remain on hold.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RCHDOPT and what they measure. For a description of a register, click on the register name.

Registers for OM group RCHDOPT

Register name	Measures
RCHDABD	Residential call hold abandoned calls
RCHDATT	Residential call hold attempts
RCHDOVFL	Residential call hold failures
RCHDTEX	Residential call hold timer expired

RCHDABD

Register type

Peg

Description

Residential call hold abandoned calls (RCHDABD)

The register RCHDABD counts residential call hold calls abandoned before the subscriber retrieves the call or before the timer expires.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCHDATT

Register type

Peg

Description

Residential call hold attempts (RCHDATT)

The register RCHDATT increases when a subscriber with the residential call hold (RCHD) line option dials the RCHD access code.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCHDOVFL

Register type

Peg

Description

Residential call hold failures (RCHDOVFL)

The register RCHDOVFL counts the number of attempts to use residential call hold that failed.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCHDTEX

Register type

Peg

Description

Residential call hold timer expired (RCHDTEX)

The register RCHDTEX counts the number of residential call hold calls taken down because the timer expired.

The field MAX_RING_DURATION of office parameter SLVP_RCHD_TIMER specifies the maximum time a call can remain on hold.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logsThere are no associated logs.

RCVR

Description

Receiver service circuits (RCVR)

The OM group RCVR counts successful and failed attempts to obtain receiver circuits in the DMS.

The following requests receivers:

- calls from Digitone lines
- calls from trunks
- RADR tests
- dial tone speed tests
- CAMA-ONI/RONI positions, when the operator jacks-in
- blue box detection feature, on activation at a MAP
- maintenance personnel for line or trunk testing

The audio tone detector that the datapath automatic modem insertion (AMI) feature uses is a receiver circuit. The RCVR includes calls that use AMI.

Register RCVR can indicate underprovisioning, missing cards, or faults.

OM group RCVR provides one tuple for each receiver. The following table lists the key and info fields associated with OM group RCVR.

Key field	Info field
COMMON_LANGUAGE_NAME entered in table RECEIVER	RCVR_INFO entered in table RECEIVER indicates the number of different types of receivers

Receiver types include:

- RCVRMF: multifrequency receiver
- RCVRRDGT: digitone receiver
- RCVRATD: audio tone detector receiver
- RCVRMCCS: mechanized calling card service receiver
- MF300: gateway multifrequency receiver

- DGT300: gateway digitone receiver
- KSR20CVR: licensee receiver
- KSR21CVR: licensee receiver
- RCVRCOIN: automatic coin toll service receiver
- RCVATDUK: A-Law ATD for MCL
- RCVRDTUK: A-Law receiver for MCL
- RCVRCDC: coin detection circuit

Related functional groups

The following functional groups associate with OM group RCVR:

- Mechanized calling card service
- DMS-300
- Datapath

Registers

The following table lists the registers associated with OM group RCVR and what they measure. For a description of a register, click on the register name.

Registers for OM group RCVR

Register name	Measures
RCVMBU	Receiver manual busy usage
RCVOVFL	Receiver overflows
RCVQABAN	Receiver queue abandons
RCVQOCC	Receiver queue occupancy
RCVQOVFL	Receiver queue overflow
RCVSBU	Receiver system busy usage
RCVSZRS	Receiver seizures
RCVTRU	Receiver traffic usage

RCVMBU

Register type

Peg

Description

Receiver manual busy usage (RCVMBU)

Register RCVMBU is a usage register. The scan rate is 10 s. Register RCVMBU records if the following trunks use receivers:

- trunks that a maintenance person (tk_man_busy) removes from service
- trunks the system seizes for manual or system action (tk_seized)

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCVOVFL

Register type

Peg

Description

Receiver overflows (RCVOVFL)

Register RCVOVFL increases when the system cannot satisfy a request for a receiver because all receivers are busy.

When all receivers are busy, the request attempts to enter the wait queue for the receiver type.

Associated registers

RCVR_RCVOVFL - RCVR_RCVQOVFL = Calls that enter the wait queue

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCVQABAN

Register type

Peg

Description

Receiver queue abandons (RCVQABAN)

Register RCVQABAN increases when the system deletes a request for a receiver from the wait queue because the caller abandons the call.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCVQOCC

Register type

Usage

Description

Receiver queue occupancy (RCVQOCC)

Register RCVQOCC is a usage register. The scan rate is 10 s. Register RCVQOCC records if receiver requests are in the wait queue.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCVQOVFL

Register type

Peg

Description

Receiver queue overflow (RCVQOVFL)

Register RCVQOVFL increases when a request for a register fails to enter the wait queue because the queue is full.

The size of the wait queue equals the number of receivers, except for Digitone receivers, entered in table RECEIVER. The wait queue size

for Digitone receivers equals half of the number entered in table RECEIVER or 100. The Digitone receivers equal half of the number that is less than the other.

The system routes the overflow of incoming calls from the receiver queue to no service circuit (NOSC) treatment.

The system routes the overflow of outgoing calls from the receiver queue back to where the calls started.

Associated registers

Register TRK_INFAIL counts the overflow of incoming calls from the receiver queue that the system routes to NOSC treatment.

Extension registers

There are no extension registers.

Associated logs

The system generates OM2200 when a threshold condition is exceeded.

RCVSBU

Register type

Peg

Description

Receiver system busy usage (RCVSBU)

Register RCVSBU is a usage register. The scan rate is 10 s. Register RCVSBU records if the following trunks uses receivers:

- trunks that system maintenance (tk_system_busy) removes from service
- trunks that are not available to traffic because the associated peripheral modules are out of service (tk_pm_busy)
- trunks that maintenance slates for use after call processing, but are available now (tk_deloaded)

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RCVSZRS

Register type

Peg

Description

Receiver seizures (RCVSZRS)

Register RCVSZRS increases when the system receives the assigned call.

Register RCVSZRS increases before the system sets a network path from the receiver to the line, trunk, or position. If a path is not available, the system releases the receiver.

The system routes incoming calls that are not assigned a receiver on second attempt to no service circuit (NOSC) treatment. The system routes calls that are not able to get a network path on second attempts to network blockage heavy traffic (NBLH) treatment.

Associated registers

There are no associated registers.

Extension registers

RCVSZ2

Associated logs

There are no associated logs.

RCVTRU

Register type

Peg

Description

Receiver traffic usage (RCVTRU)

Register RCVTRU is a usage register. The scan rate is 10 s. Register RCVTRU records if the following trunks use receivers:

- trunks that carry traffic (tk_cp_busy)
- trunks that carry traffic and inform maintenance when idle (tk_cp_busy_deloaded)
- trunks the far-end office seize for lockout (tk_lockout)

Associated registers

There are no associated registers.

Extension registers RCVTRU2

Associated logsThere are no associated logs.

RecordingSystem

Description

This OM Group contains OMs related to the recording system which writes OAM record into files. In this release, it contains only one register namely closedFileCount. For a particular system of a particular stream, this OM group will contain an OM row of closedFileCount.

The following table lists the key and info fields associated with OM group RecordingSystem.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group RecordingSystem:

All MCS network elements

Registers

The following table lists the registers associated with OM group RecordingSystem and what they measure. For a description of a register, click on the register name.

Registers for OM group RecordingSystem

Register name	Measures
closedFileCount	closed file count
processedFileCount	processed file count

closedFileCount

Register type

Peg

Description

It counts the number of closed files in the spool directory of a particular stream and a particular system. Files in the spool directory stores the raw OAM record and they will be sent to the element manager for formatting.

Associated registers

None

Extension registers

None

Associated logs

Minor and Major alarms would be raised when the value of closedFileCount exceeds certain thresholds. The threshold values for minor and major alarm for this OM are configured through engineering parameters for minorBackLogCount and majorBackLogCount respectively. These engineering parameters are grouped under the parameter group of Log, OM and Accounting for its corresponding system.

processedFileCount

Register type

Peg

Description

It counts the number of files that have been transferred to the appropriate EM component (i.e. FPM/AM) for processing.

Associated registers

None

Extension registers

None

Associated logs

RECSTRMCOLL

Description

This OM Group contains OM counters to monitor the performance of standard record stream record collectors on element managers. Each particular stream and particular system (log, om and accounting) would contain a particular OM row.

The following table lists the key and info fields associated with OM group RECSTRMCOLL.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group RECSTRMCOLL:

 Accounting Manager, Session Manager, Fault/Performance Manager

Registers

The following table lists the registers associated with OM group RECSTRMCOLL and what they measure. For a description of a register, click on the register name.

Registers for OM group RECSTRNCOLL

Register name	Measures
recordsReceived	records received
ackSent	acknowledgements sent
nackSent	number of acknowledgements sent
queryReceived	queries received

recordsReceived

Register type

Peg

Description

Number of OAM record received

Associated registers

None

Extension registers

None

Associated logs

None

ackSent

Register type

Peg

Description

Number of acknowledgement sent to indicate the transfer of record is succeeding.

Associated registers

nackSent

Extension registers

None

Associated logs

None

nackSent

Register type

Peg

Description

Number of acknowledgement sent to indicate the transfer of record is failed.

Associated registers

<u>ackSent</u>

Extension registers

None

Associated logs

None

queryReceived

Register type

Peg

Description

Number of query received for its status.

Associated registers

None

Extension registers

None

Associated logs

Registration

Description

This OM group tracks down the usage and outcome for authentication requests.

The following table lists the key and info fields associated with OM group Registration.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group Registration:

Session Manager

Registers

The following table lists the registers associated with OM group Registration and what they measure. For a description of a register, click on the register name.

Registers for OM group Registration

Register name	Measures
<u>regSuccess</u>	registrations succesful
<u>regFailure</u>	registrations failed
regBadExtensionFailure	registrations with bad extension failures

regSuccess

Register type

Peg

Description

Tracks down successful registrations with respect to the Registrar service.

Associated registers

Extension registers

None

Associated logs

None

regFailure

Register type

Peg

Description

Tracks known failures in the registrar service: for instance, if a user could not be found, or the message was invalid

Associated registers

None

Extension registers

None

Associated logs

None

regBadExtensionFailure

Register type

Peg

Description

Tracks registrations rejected due to unsupported encryption header.

Associated registers

None

Extension registers

None

Associated logs

REVALLO

Description

Revenue allocation for coin-originated toll calls (REVALLO) The OM group REVALLO provides information on operator-attached intervals (OAI) during coin-originated toll calls. The OM group REVALLO provides for DMS-100 offices.

The OM group REVALLO provides one tuple for each office. The following table lists the key and info fields associated with OM group REVALLO.

Key field	Info field
none	none

Field OPTIONS in table AMATKOPT is entered with the value REVALL if the system generates local automatic message accounting (LAMA) records for revenue allocation.

Field RECRKEY in table RECEIVER entered with value RCVRCDC indicates that a pool of coin detection circuits (CDC) is available for revenue allocation.

Field NAME in table SPMSIDX entered with value SPMS_INDEX adds registers to store information on receiver type RCVRCDC. Field DATA in table SPMSIDX entered with value SPMS_ACC_REGS adds registers to store information on receiver type RCURCDC.

Office parameter REVALL_NUMBER_OF_EXTENSION_BLOCKS in table OFCENG indicates the number of extension blocks allocated for revenue allocation.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group REVALLO and what they measure. For a description of a register, click on the register name.

Registers for OM group REVALLO

Register name	Measures
OAICOIN	Coin collection
OAINCDC	No coin detection circuit
OAITOT	Total operator-attached intervals

OAICOIN

Register type

Peg

Description

Coin collection (OAICOIN) Register OAICOIN counts operator-attached intervals the switching system monitors during which the system collects coins.

Associated registers

Register **OAITOT** counts operator-attached intervals.

Register <u>OAINCDC</u> counts operator-attached intervals the switching system does not monitor because of a blocked circuit.

Extension registers

OAICOIN2

Associated logs

There are no associated logs.

OAINCDC

Register type

Peg

Description

No coin detection circuit (OAINCDC)

Register OAINCDC counts operator-attached intervals the switching system does not monitor because of a blocked circuit.

The following conditions can cause circuit blockage:

- lack of an extension block
- lack of a coin detection circuit receiver
- lack of a response from a coin detection circuit receiver that is not correct

Associated registers

Register **OAITOT** counts operator-attached intervals.

Register <u>OAICOIN</u> counts operator-attached intervals the switching system monitors during which the system collects coins.

Extension registers

OAINCDC2

Associated logs

There are no associated logs.

OAITOT

Register type

Peg

Description

Total operator-attached intervals (OAITOT)

Register OAITOT counts operator-attached intervals.

Associated registers

Register <u>OAINCDC</u> counts operator-attached intervals the switching system does not monitor because of a blocked circuit.

Register <u>OAICOIN</u> counts operator-attached intervals the switching system monitors during which the system collects coins.

Extension registers

OAITOT2

Associated logs

There are no associated logs.

RLCDIS

Description

Remote line concentrating module intraswitched calls (RLCDIS)

The OM group (RLCDIS) provides information on traffic for intraswitched calls in:

a remote line concentrating module (RLCM)

an intraswitch remote line concentrating module (IRLCM)

Intraswitching enables an RLCM or IRLCM to switch calls internally when RLCM or IRLCM service the calling and called parties.

If idle intraswitch channels are not available when an RLCM or IRLCM attempts to intraswitch, the following occurs. The RLCM or IRLCM reports blocking to the central control (CC). The system switches the call through the host office network.

Six registers count the following types of RLCM or IRLCM intraswitched call attempts:

- unit 0 or unit 1
- within or between units
- blocked in both units
- blocked in unit 0 or in unit 1

The usage registers record the number of RLCM or IRLCM intraswitch channels in use as follows:

- in unit 0
- in unit 1
- within units 0 and 1
- between units 0 and 1

One RLCM or IRLCM unit can perform a takeover of the other unit. When this takeover occurs, RLCDIS continues to associate intraswitched calls with the unit that supports the calling and called parties.

The OM group RLCDIS continues to associate intraswitched calls even if the unit is out of service. The OM group RLCDIS does not apply to

integrated services line modules (ISLM) and line concentrating modules for ISDN (LCMI).

The operating company uses RLCDIS data to monitor the intraswitched call traffic in an RLCM or IRLCM. The operating company uses RLCDIS data to make sure that the configuration meets traffic requirements.

The OM group RLCDIS provides one tuple for each RLCM or IRLCM that the info field identifies. The following table lists the key and info fields associated with OM group RLCDIS.

Key field	Info field
none	Info field RLCDIS_INFO is the RLCM or IRLCM identifier. Info field RLCDIS_INFO consists of RLCMINFO and subfield values for site, frame, and unit entered in field LCMNM in table LCMINV.

Field INTRASW in table LCMINV must be entered to enable intraswitching for the RLCM. Office parameter INTL_INTRASWITCHING in table OFCOPT must be entered to enable intraswitching for the IRLCM.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RLCDIS and what they measure. For a description of a register, click on the register name.

Registers for OM group RLCDIS

Register name	Measures
ISTOTATT	Total intraswitching call attempts
ISTOTBLK	Total intraswitched calls blocked
ISTOTTRU	Total intraswitch channels traffic busy usage
ISUN0ATT	Intraswitched unit 0 call attempts
ISUN0BLK	Total intraswitched unit 0 calls blocked

Registers for OM group RLCDIS

Register name	Measures
ISUN0TRU	Intraswitching unit 0 traffic busy usage
ISUN1ATT	Intraswitched unit 1 call attempts
ISUN1BLK	Intraswitched unit 1 calls blocked
ISUN1TRU	Intraswitching unit 1 traffic busy usage

ISTOTATT

Register type

Peg

Description

Register total intraswitching call attempts (ISTOTATT) Register ISTOTATT counts intraswitch call attempts that occur in an RLCM or IRLCM, including the following components:

- intraswitched calls when the same unit of the RLCM or IRLCM services both the calling and called parties
- intraswitched calls when different units of the RLCM or IRLCM service the calling and called parties
- call attempts that the system blocks because all intraswitching channels are busy

Associated registers

Register <u>ISTOTATT</u> counts intraswitched call attempts that occur in unit 0 of an RLCM or IRLCM.

Register <u>ISUN1ATT</u> counts intraswitched call attempts that occur in unit 1 of an RLCM or IRLCM.

The number of interswitched call attempts = ISTOTATT - (ISUN0ATT + ISUN1ATT).

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ISTOTBLK

Register type

Peg

Description

Register Total intraswitched calls blocked (ISTOTBLK)

Register ISTOTBLK increases when the system blocks an intraswitched call attempt in RLCM or IRLCM because intraswitch channels are not available. Register ISTOTBLK counts intraswitched calls if the same unit or different units of RLCM or IRLCM service both calling parties.

When the system blocks an intraswitched call, the system notifies the CC and switches the call through the network modules.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ISTOTTRU

Register type

Usage

Description

Register Total intraswitch channels traffic busy usage (ISTOTTRU)

Register ISTOTTRU is a usage register. The system scans the channels every 100 s. The results are accumulated in the remote and the counter is updated in the CM every 15 minutes. Register ISTOTTRU records if intraswitch channels are in use within units or between units of an RLCM or IRLCM.

Associated registers

Register <u>ISTOTTRU</u> records if intraswitch channels are in use in unit 0 of an RLCM or IRLCM.

Register LMD_LMTRU records if lines are in use.

LMTRU = 2 (ISTOTTRU)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ISUN0ATT

Register type

Peg

Description

Register Intraswitched unit 0 call attempts (ISUN0ATT) Register ISUN0ATT counts intraswitched call attempts that occur when unit 0 of an RLCM or IRLCM services calling and called parties. Register ISUN0ATT counts calls that the system interswitches in unit 0. Register ISUN0ATT also counts calls that the system blocks in unit 0 because all intraswitch channels are busy.

Register ISUN0ATT does not count call attempts when the called party is already off hook.

Associated registers

Register <u>ISTOTATT</u> counts intraswitched call attempts that occur in RLCM or IRLCM. R

Register <u>ISUN1ATT</u> counts intraswitched call attempts that occur in unit 1 of RLCM or IRLCM.

The number of interswitched call attempts = RLCDIS_<u>ISTOTATT</u>-(RLCDIS_<u>ISUN0ATT</u> + RLCDIS_<u>ISUN1ATT</u>)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ISUN0BLK

Register type

Peg

Description

Register Total intraswitched unit 0 calls blocked (ISUN0BLK)

Register ISUN0BLK increases when the system blocks an intraswitched call attempt in unit 0 of RLCM or IRLCM. The system blocks the call because intraswitch channels are not available.

When the system blocks an intraswitched call, the system notifies the CC and switches the call through the network modules.

Associated registers

Register <u>ISUN1BLK</u> increases when the system blocks an intraswitched call attempt in unit 1 of RLCM or IRLCM. The system blocks the call because the intraswitch channels are not available.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ISUN0TRU

Register type

Peg

Description

Register Intraswitching unit 0 traffic busy usage (ISUN0TRU)

Register ISUN0TRU is a usage register. The system scans the channels every 100 s. The results are accumulated in the remote and the counter is updated in the CM every 15 minutes. Register ISUN0TRU records if intraswitch channels are in use in unit 0 of an RLCM or IRLCM.

Associated registers

Register <u>ISUN1TRU</u> records if intraswitch channels are in use within units and between units of an RLCM or IRLCM.

Register LMD LMTRU records if lines are in use.

LMD_LMTRU = 2 (RLCDIS_<u>ISTOTTRU</u>)

Extension registers

There are no extension registers.

Associated logs

ISUN1ATT

Register type

Peg

Description

Register Intraswitched unit 1 call attempts (ISUN1ATT)

Register ISUN1ATT counts intraswitched call attempts that occur when unit 1 of an RLCM or IRLCM services calling and called parties. Register ISUN1ATT counts calls that the system intraswitches in unit 1. Register ISUN1ATT also counts calls that the system blocks in unit 1 because all intraswitch channels are busy.

Register ISUN1ATT does not count call attempts when the called party is already off hook.

Associated registers

Register <u>ISUNOATT</u> counts intraswitched call attempts in unit 0 of an RLCM or IRLCM.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ISUN1BLK

Register type

Peg

Description

Register Intraswitched unit 1 calls blocked (ISUN1BLK)

Register ISUN1BLK increases when the system blocks an intraswitched call attempt in unit 1 of RLCM or IRLCM. The system blocks the call because no intraswitch channels are available.

When the system blocks an intraswitched call, the system notifies the CC and switches the call through the network modules.

Associated registers

Register <u>ISUNOBLK</u> increases when the system blocks an intraswitched call attempt in unit 0 of RLCM or IRLCM. The system blocks the call because no intraswitch channels are available.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ISUN1TRU

Register type

Peg

Description

Register Intraswitching unit 1 traffic busy usage (ISUN1TRU)

Register ISUN1TRU is a usage register. The system scans the channels every 100 s. The results are accumulated in the remote and the counter is updated in the CM every 15 minutes. Register ISUN1TRU records if intraswitch channels are in use in unit 1 of an RLCM or IRLCM.

Associated registers

Register <u>ISUNOTRU</u> records if intraswitch channels are in use in unit 0 of an RLCM or IRLCM.

Register LMD_LMTRU records if lines are in use.

LMD_LMTRU = 2 (RLCIS_<u>ISTOTTRU</u>)

Extension registers

There are no extension registers.

Associated logs

RLDBD

Description

Remote line drawer Bd-channel

The OM group RLDBD provides information on an RLD Bd-channel. Operating company administrators can use this information to check normal transmission of information (frames) on the links between the RLD and the packet handler.

The OM group RLDBD contains five types of registers that count the following RLD Bd-channel events:

- One register counts the number of frames to be transmitted, but were discarded.
- One register counts the number of frames received with CRC errors.
- One register counts the number of discarded frames.
- Two registers count the number of received and transmitted frames to and from the packet handler.

The following table lists the key and info fields associated with OM group RLDBD.

Key field	Info field
RLD_BRA_BD_STAT_OM_KEY	RLDBRA_BD_STAT_OMINFO

Related functional groups

The following functional group is associated OM group RLDBD: Base Remote Generic - BAS00012.

Registers

The following table lists the registers associated with OM group RLDBD and what they measure. For a description of a register, click on the register name.

Registers for OM group RLDBD

Register name	Measures
IBDTXDSC	number of Bd-channel frames destined for a packet handler that an RLD discards because of hardware problem.
<u>IBDCRC</u>	number of Bd-channel frames received from a packet handler and the RLD discards because of cyclic redundancy check (CRC) errors
<u>IBDRXDSC</u>	number of Bd-channel frames that a packet handler receives and an RLD discards
<u>IBDTXPH</u>	number of Bd-channel frames that an RLD transmits to a packet handler
<u>IBDRXPH</u>	number of Bd-channel frames that an RLD receives from a packet handler.

IBDTXDSC

Register type

Peg

Description

Register IBDTXDSC counts the number of Bd-channel frames destined for a packet handler that an RLD discards because of hardware problem.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBDCRC

Register type

Peg

Description

Register IBDCRC counts the number of Bd-channel frames that are received from a packet handler and the RLD discards because of cyclic redundancy check (CRC) errors.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBDRXDSC

Register type

Peg

Description

Register IBDRXCSC counts the number of Bd-channel frames that a packet handler receives and an RLD discards because of the following reasons:

- invalid LTIDs
- messages that cannot be decoded
- flow control problems
- aborts
- hardware errors

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBDTXPH

Register type

Peg

Description

Register IBDTXPH counts the number of Bd-channel frames that an RLD transmits to a packet handler.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBDRXPH

Register type

Peg

Description

Register IBDRXPH counts the number of Bd-channel frames that an RLD receives from a packet handler. Each unit in IBDRXPH represents 100 frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

RLDBRA

Description

Remote Line Drawer Basic Rate Access

The OM group RLDBRA provides information about RLD D-channels for operating company administrators to check normal transmission of information (frames) on the links between the RLD and the NT1.

The following table lists the key and info fields associated with OM group RLDBRA.

Key field	Info field
RLD_BRA_BD_STAT_OM_KEY	RLDBRA_BD_STAT_OMINFO

Related functional groups

The following functional group is associated with OM group RLDBRA: Base Remotes Generic - BAS00012.

Registers

The following table lists the registers associated with OM group RLDBRA and what they measure. For a description of a register, click on the register name.

Registers for OM group RLDBRA

Register name	Measures
<u>IBRTXDSC</u>	the number of frames destined for a packet handler that the RLD discards because of hardware problems
<u>IBRCRC</u>	the RLD basic rate access (BRA) D-channel frames that are discarded because of a CRC error.
IBRRXDSC	BRA D-channel frames the RLD discards
<u>IBRS0TX</u>	BRA D-channel SAPI 0 frames that are transmitted by an RLD
IBRS16TX	BRA D-channel SAPI 16 frames that are transmitted by an RLD

Registers for OM group RLDBRA

Register name	Measures
IBRSATX	BRA D-channel SAPI 63 frames that are transmitted by an RLD
<u>IBRS0RX</u>	BRA D-channel SAPI 0 frames that an RLD receives
IBRX16RX	BRA D-channel SAPI 16 frames that an RLD receives
IBRSARX	BRA D-channel SAPI 63 frames that an RLD receives
IBRLKREI	number of link resets by the RLD
IBRLKREP	number of link resets by a far-end device (peer)
IBRRNRI	number of RNR (receiver not ready) frames that an RLD sends to a far-end device (peer)
<u>IBRRNRP</u>	number of RNR (receiver not ready) frames that an RLD receives from far-end device (peer)
IBRREJTX	number of reject frames that are transmitted by an RLD
IBRREJRX	number of reject frames that are received by an RLD

IBRTXDSC

Register type

Peg

Description

Register IBRTXDSC counts the number of frames that are destined for a packet handler the RLD discards because of hardware problems.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The following logs are output in relation to register IBRTXDSC:

- ISDN200 This log is output once a day and displays the following information for up to 10 ISDN lines for each generation: — total number of frames received and transmitted
 - number of received and retransmitted frames where errors exceed the threshold value
 - percentage of the total frames represented by the previously described error
- ISDN201 This log is output once a day and displays the percentage of errors and retransmitted ISDN frames in the switch.

IBRCRC

Register type

Peg

Description

Register IBRCRC counts the RLD basic rate access (BRA) D-channel frames that are discarded because of a CRC error.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRRXDSC

Register type

Peg

Description

Register IBRRXDSC counts the BRA D-channel frames the RLD discards because of the following problems:

- an unregistered terminal endpoint identifier (TEI)
- a message that cannot be decoded
- flow control problems
- a partially received message
- sequencing errors
- SAPI that is not known

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRS0TX

Register type

Peg

Description

Register IBRS0TX counts the BRA D-channel SAPI 0 frames that are transmitted by an RLD. The SAPI 0 frames indicate a request for call control.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRS16TX

Register type

Peg

Description

Register IBRS16TX counts BRA D-channel SAPI 16 frames that are transmitted by an RLD. The SAPI 16 frames indicate a request for packet-switched service.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRSATX

Register type

Peg

Description

Register IBRSATX counts the BRA D-channel SAPI 63 frames that are transmitted by an RLD. All SAPI 63 frames indicate a request for layer 2 management services, such as terminal endpoint identifier management, error reporting, and physical link control. Each unit in IBRSATX represents 100 frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRSORX

Register type

Peg

Description

Register IBRS0RX counts the BRA D-channel SAPI 0 frames that an RLD receives. All SAPI 0 frames indicate a request for call control. Each unit in IBRS0RX represents 100 frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRX16RX

Register type

Peg

Description

Register IBRX16RX counts the BRA D-channel SAPI 16 frames that an RLD receives. The SAPI 16 frames indicate a request for

packet-switched service. Each unit in IBRS16RX represents 100 frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRSARX

Register type

Peg

Description

Register IBRSARX counts the BRA D-channel SAPI 63 frames that an RLD receives. The SAPI 63 frames indicate a request for layer 2 management services, such as terminal endpoint identifier management, error reports, and physical link control. Each unit in IBRSATX represents 100 frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

ISDN200 and ISDN201

IBRLKREI

Register type

Peg

Description

Register IBRLKREI counts the number of link resets by the RLD.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBRLKREP

Register type

Peg

Description

Register IBRLKREP counts the number of link resets by a far-end device (peer).

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBRRNRI

Register type

Peg

Description

Register IBRRNRI counts the number of RNR (receiver not ready) frames that an RLD sends to a far-end device (peer).

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBRRNRP

Register type

Peg

Description

Register IBRRNRP counts the number of RNR (receiver not ready) frames that an RLD receives from far-end device (peer).

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBRREJTX

Register type

Peg

Description

Register IBRREJTX counts the number of reject frames that are transmitted by an RLD. Reject frames indicate the far-end lost one of the in sequence frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IBRREJRX

Register type

Peg

Description

Register IBRREJRX counts the number of reject frames that are received by an RLD. The reject frames indicate that one of the in sequence frames is missing.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

RLDMSGT

Description

Remote line drawer message counter

The OM group RLDMSGCT provides information about remote line drawer (RLD) messages to and from the extended multiprocessor system (XMS) peripheral module (XPM). This information allows operating company system administrators to check normal transmission of messages and LAPD protocol performance on the LAPD data link between the RLD and the XPM.

The OM group RLDMSGCT contains 14 types of registers that count the following data:

- Two registers count the number of received and transmitted service access point identifier 0 SAPI 0 frames.
- One register counts the number of frames received with cyclic redundancy check (CRC) errors.
- One register counts the number of frames that are discarded.
- One register counts the number of frames to be transmitted that were discarded.
- Two registers count the number of link resets by an RLD far-end-device (peer)
- Two registers count the number of received and transmitted reject frames.
- Two registers count the number of received and transmitted receiver not ready (RNR) frames.
- Messages with an invalid node number received by the RLD from the C-side XPM.
- Two registers count messages correctly received or transmitted from the RLD to the C-side XPM.

OMgroup RLDMSGCT provides one tuple per RLD LAPD link defined in the switch. The following table lists the key and info fields associated with OM group RLSMSGT.

Key field	Info field
RLDMSGCT_OMTYPE	RLDMSGCT_OMINFO

Related functional groups

The following functional group is associated with OM group RLDMSGCT: Base Remotes Generic - BAS00012.

Registers

The following table lists the registers associated with OM group RLSMSGT and what they measure. For a description of a register, click on the register name.

Registers for OM group RLSMSGT

Register name	Measures
MSGTXDSC	number of messaging frames destined for the Star Hub and discarded by the Star Module because of hardware problems.
MSGCRC	Star Module messaging frames discarded because of a CRC error
MSGRXDSC	messaging frames discarded by the Star Module
MSGS0TX	messaging frames that are transmitted by a Star Module
MSGS0RX	messaging frames that received by a Star Module
MSGLKREI	number of link resets by the Star Module
MSGLKREP	number of link resets by a far-end device (peer)
MSGRNRI	number of receiver not ready (RNR) frames that a Star Module sends to far-end device (peer)
MSGRNRP	number of RNR frames that a Star Module receives from far-end device (peer)
MSGREJTX	number of reject frames transmitted by a Star Module
MSGREJRX	number of reject frames received by a Star Module
MSGSUCRX	messages from the C-side XPM that were successfully received by the Star Module

Registers for OM group RLSMSGT

Register name	Measures
MSGSUCTX	messages from the Star Module that were successfully transmitted to the C-side XPM
MSGINVND	messages received by a Star Module from the C-side XPM that have an invalid node number

MSGTXDSC

Register type

Peg

Description

Register MSGTXDSC counts the number of messaging frames that are destined for the Star Hub and are discarded by the Star Module because of hardware problems.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGCRC

Register type

Peg

Description

Register MSGCRC counts the Star Module messaging frames discarded because of a CRC error.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

MSGRXDSC

Register type

Peg

Description

Register MSGRXDSC counts the messaging frames discarded by the Star Module because of the following problems:

- unregistered terminal endpoint identifier (TEI)
- message that cannot be decoded
- flow control problems
- partially received message
- sequencing errors
- unknown SAPI

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGS0TX

Register type

Peg

Description

Register MSGS0TX counts the messaging frames that are transmitted by a Star Module. Each unit in MSGS0TX represents 100 frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGS0RX

Register type

Peg

Description

Register MSGS0RX counts the messaging frames that received by a Star Module. Each unit in MSGS0RX represents 100 frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGLKREI

Register type

Peg

Description

Register MSGLKREI counts the number of link resets by the Star Module.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGLKREP

Register type

Peg

Description

Register MSGLKREP counts the number of link resets by a far-end device (peer).

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

MSGRNRI

Register type

Peg

Description

Register counts the number of receiver not ready (RNR) frames that a Star Module sends to far-end device (peer).

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGRNRP

Register type

Peg

Description

Register MSGRNRP counts the number of RNR frames that a Star Module receives from far-end device (peer).

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGREJTX

Register type

Peg

Description

Register MSGREJTX counts the number of reject frames transmitted by a Star Module. A reject frame indicates that the far-end has lost one of the sequenced frames.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGREJRX

Register type

Peg

Description

Register MSGREJRX counts the number of reject frames received by a Star Module. Reject frames indicate that one of the sequenced frame is missing.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGSUCRX

Register type

Peg

Description

Register MSGSUCRX counts messages from the C-side XPM that were successfully received by the Star Module.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGSUCTX

Register type

Peg

Description

Register MSGSUCTX counts messages from the Star Module that were successfully transmitted to the C-side XPM.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGINVND

Register type

Peg

Description

Register MSGINVND counts messages received by a Star Module from the C-side XPM that have an invalid node number.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

RLDSTAT

Description

Remote line drawer status

The OM group RLDSTAT provides information about remote line drawer (RLD) processor occupancy, so that operating company administrators can measure RLD processor performance.

The OM group RLDSTAT contains six types of registers that count the following RLD processor data:

- One register provides the RLD processor overhead (this value calculates once every 24 hours for in service [InSv] or in-service trouble [ISTb] RLDs).
- One register provides the average processor occupancy value (in percent) for the collection time interval.

Note: Office parameters OMXFR and OMHISTORION determine the collection time interval. The parameter can be one of the following values: 5, 15, or 30 minutes.

- One register provide the average processor occupancy (in percent) used by call processing during the collection time interval.
- Two registers provide the lowest and highest processor occupancy (in percent) over the last collection time interval.
- One register provides the average amount of time (in percent) when the microprocessor has no activity during the collection time interval.

The following table lists the key and info fields associated with OM group RLDSTAT.

Key field	Info field
RLD_BRA_BD_STAT_OM_KEY	RLDBRA_BD_STAT_OMINFO

Related functional groups

The following functional group is associated with OM group RLDSTAT: Base Remotes Generic - BAS00012.

Registers

The following table lists the registers associated with OM group RLDSTAT and what they measure. For a description of a register, click on the register name.

Registers for OM group RLDSTAT

Register name	Measures
RLDOVHD	amount of processor use dedicated to overhead in each collection time interval
RLDAVOC	the average processor occupancy (in percent) for each collection time interval
RLDAVCP	average processor occupancy (in percent) used for call processing during each collection time interval
RLDPKOC	peak processor occupancy (in percent) over each collection time interval
RLDLOWOC	lowest processor occupancy value (in percent) over each collection time interval

RLDOVHD

Register type

Usage

Description

Register RLDOVHD records the amount of processor use dedicated to overhead in each collection time interval.

The overhead value is used as a constant for calculating the average call processor usage (RLDAVCP). The overhead constant is used over a 24-hour period. During this time, the available time value in each collection time interval is checked to determine if it is highest recorded value.

Note: (Highest availability = lowest occupancy). If this value is higher than any of the previous records, this value is stored. The stored value is used to get the overhead constant for the next 24-hour period.

Associated registers

The validation formula for register RLDOVHD is

RLDOVHD = 100 - lowest <u>RLDAVOC</u> over a 24-hour period.

Note: RLDAVOC is the RLD average occupancy. The lowest RLDAVOC = Highest availability over 24-hour period.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RLDAVOC

Register type

Usage

Description

Register RLDAVOC updates every minute to record the average processor occupancy (in percent) for each collection time interval.

Associated registers

RLDAVAIL updates every minute to record the average amount of time (in percent) when the microprocessor has no activity during each collection time interval.

The validation formula for RLDAVOC is as follows:

RLDAVOC = 100 - RLDAVAIL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RLDAVCP

Register type

Usage

Description

Register RLDAVCP updates every minute to record the average processor occupancy (in percent) used for call processing during each collection time interval.

Associated registers

<u>RLDAVOC</u> updates every minute to record the average processor occupancy (in percent) for each collection time interval.

<u>RLDOVHD</u> records the amount of processor usage dedicated to overhead in each collection time interval.

The validation formula for register RLDAVCP is

RLDAVCP = 100 - RLDOVHD - RLDAVAIL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RLDPKOC

Register type

Usage

Description

Register RLDPKOC records the peak processor occupancy (in percent) over each collection time interval. Samples are taken every minute in each collection time interval to determine the lowest available time. The peak occupancy is determined as follows:

RLDPKOC = 100 - lowest available time

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RLDLOWOC

Register type

Usage

Description

Register RLDLOWOC records the lowest processor occupancy value (in percent) over each collection time interval. Samples are taken every minute in each collection time interval to determine the highest available time. The low occupancy value is determined as follows:

RLDLOWOC = 100 - highest available time

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

RLT

Description

The operational measurements (OM) group RLT counts and records the number of Release Link Trunk attempts to the Equal-Access End Office (EAEO) on an office-wide basis. The OM group RLT contains one register. The one register is RLTATMPT.

OM group RLT provides only one tuple for the EAEO. The following table lists the key and info fields associated with OM group RLT.

Key field	Info field
REGISTER_INDEX_RANGE is an integer of 0, which indicates that 0 is the only valid entry.	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RLT and what they measure. For a description of a register, click on the register name.

Registers for OM group RLT

Register name	Measures
RLTATMPT	number of attempts the EAEO makes to utilize the option RLT.

RLTATMPT

Register type

Peg

Description

Register Release Link Trunking Attempt (RLTATMPT) counts the number of attempts the EAEO makes to utilize the option RLT. The EAEO receives an integrated services digital network user part (ISUP REL) release complete message with a service activation parameter (SAP) of the RLT_REQUEST_MSG. In order to receive the ISUP REL, the EAEO must set the ISUP intertoll (IT) trunk with the option RLT assigned in Table TRKOPTS.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Register RLTATMPT is related to the log report DFIL324.

RMSGOMGP

Description

Operational measurements group RMSGOMGP measures events relating to ISDN Rapid Messaging (RM). Register RMBRIOOS counts the number of times RM places a BRI logical terminal identifier (LTID) RM out-of-service.

The following table lists the key and info fields associated with OM group RMSGOMGP.

Key field	Info field
none	none

Related functional groups

The following functional group is associated with OM group RMSGOMGP: NIO NI-98 Enh PhII

Registers

The following table lists the registers associated with OM group RMSGOMGP and what they measure. For a description of a register, click on the register name.

Registers for OM group RMSGOMGP

Register name	Measures
RMBRIOOS	events relating to ISDN Rapid Messaging

RMBRIOOS

Register type

Peg

Description

RMSGOMGP measures events relating to ISDN Rapid Messaging. Register RMBRIOOS counts the number of times RM places a BRI LTID RM out-of-service.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

RMSG600 and RMSG601

Log report RMSG600 occurs each time RM places a BRI LTID in an RM temporary out-of-service state.

Log report RMSG601 occurs each time RM places a BRI LTID in an RM permanent out-of-service state.

RND

Description

Redirecting Number Delivery OM group RND provides ISDN Basic Rate Interface (BRI) Redirecting Number Delivery traffic measurements for the switch. These measurements include deliveries of one or two redirecting numbers or non-delivery events.

The following table lists the key and info fields associated with OM group RND.

Key field	Info field
none	none

Related functional groups

The CLASS/CMS RES functional groups are associated with RND.

Registers

The following table lists the registers associated with OM group RND and what they measure. For a description of a register, click on the register name.

Registers for OM group RND

Register name	Measures
RNDDEL	Redirecting Number Delivery
RNDPDEL	Redirecting Number Delivery Private Delivery
RNDODEL	Redirecting Number Delivery Out-of-Area Delivery
TRNDDEL	Two Redirecting Number Delivery
TRNDPVPV	Two Redirecting Number Delivery Private, Private
<u>TRNDPBPB</u>	Two Redirecting Number Delivery Public, Public
TRNDPBPV	Two Redirecting Number Delivery Public, Private
TRNDPVPB	Two Redirecting Number Delivery Private, Public

RNDDEL

Register type

Peg

Description

Register Redirecting Number Delivery This register counts once for each redirecting number delivered as an actual ten-digit DN. This register increments when a redirecting number goes to an ISDN BRI set. This register does not increment for a private or not available number.

Associated registers

There are no associated registers.

Extension registers

RNDDEL2

Associated logs

There are no associated logs.

RNDPDEL

Register type

Peg

Description

Register Redirecting Number Delivery Private Delivery

This register increments for each private (P) redirecting number. This register increments when a private redirecting number indication goes to an ISDN BRI set.

Associated registers

There are no associated registers.

Extension registers

RNDPDEL2

Associated logs

There are no associated logs.

RNDODEL

Register type

Peg

Description

Register Redirecting Number Delivery Out-of-Area Delivery This register counts when an outside area (O) indication appears in the calling number field. This register increments when a not available redirecting number indication goes to an ISDN BRI set.

Associated registers

There are no associated registers.

Extension registers

RNDODEL2

Associated logs

There are no associated logs.

TRNDDEL

Register type

Peg

Description

Register Two Redirecting Number Delivery This register increments when two redirecting numbers deliver to a terminating set.

Associated registers

The following registers relate to register TRNDDEL:

- register TRNDPVPV
- register TRNDPBPB
- register TRNDPBPV
- register TRNDPVPB

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRNDPVPV

Register type

Peg

Description

Register Two Redirecting Number Delivery Private, Private This register increments when two private redirecting numbers deliver to the terminating set.

Associated registers

TRNDDEL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRNDPBPB

Register type

Peg

Description

Register Two Redirecting Number Delivery Public, Public T

his register increments when two public redirecting numbers deliver to the terminating set.

Associated registers

TRNDDEL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRNDPBPV

Register type

Peg

Description

Register Two Redirecting Number Delivery Public, Private

This field increments when two redirecting numbers deliver to the terminating set. The first number is public and the second is private.

Associated registers

TRNDDEL

Extension registers

There are no extension registers.

Associated logs

TRNDPVPB

Register type

Peg

Description

Register Two Redirecting Number Delivery Private, Public

This field increments when two redirecting numbers deliver to the terminating set. The first number is private and the second is public.

Associated registers

TRNDDEL

Extension registers

There are no extension registers.

Associated logs

ROAPPL

Description

Remote operation service application (ROAPPL)

The OM group ROAPPL provides information on logon attempts, remote operations (RO), and active sessions that the RO service for an application processes.

The RO service is a communications interface between applications in the DMS switch and external processors. An RO is a task that a remote processor performs at the request of another processor. The main functions of the RO service are to receive, interpret and transmit remote operations.

The operating company uses the data that the ROAPPL supplies to assess the request for the RO service by each application. The operating company also uses the data to detect problems that the system encounters during the processing of RO requests.

Four peg registers count the following:

- all logon attempts for an exact application
- failed logon attempts for an exact application
- failed incoming ROs that the system directs to an exact application
- failed outgoing ROs that originate from an exact application

A usage register records if there are active (logged on) sessions for an exact application.

The OM group ROAPPL provides one tuple for each application. The following table lists the key and info fields associated with OM group ROAPPL.

Key field	Info field
Key field RO_APPL_INDEX consists of the application name. This field cannot be entered. The list of correct application names that appear as key field values are CMAP, FT, TRANS, DCR and CALM	Info field ROAPPL_ONMINFO consists of the application identifier

Related functional groups

The following are associated functional groups for OM group ROAPPL:

- DMS-100 Local
- DMS-100 International
- DMS-250 Toll/Tandem
- DMS-100/200 Local/Toll
- DMS-300
- Network Operations System (NOS)
- Central MAP (CMAP)
- Network Operations Protocol (NOP)
- Large Business Remote (LBR)

Registers

The following table lists the registers associated with OM group ROAPPL and what they measure. For a description of a register, click on the register name.

Registers for OM group ROAPPL

Register name	Measures
ROAPCON	Outgoing logon attempts
ROAPCONE	Outgoing logon attempt failures
ROAPFLOG	Remote operation service application failed logon attempt
ROAPIC	Remote operation service application incoming
ROAPLOGA	Remote operation service application logon attempt
ROAPOG	Remote operation service application outgoing
ROAPUSE	Remote operation service application use

ROAPCON

Register type

Peg

Description

Outgoing logon attempts (ROAPCON)

Register ROAPCON counts outgoing logon attempts. The register increases when the remote operations (RO) service establishes a link. The RO sends a logon RO to the remote destination.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ROAPCONF

Register type

Peg

Description

Outgoing logon attempt failures (ROAPCONF)

Register ROAPCONF counts outgoing logon attempts that fail.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates RO101 when the system attempts a remote logon.

ROAPFLOG

Register type

Peg

Description

Remote operation service application failed logon attempt (ROAPFLOG)

Register ROAPFLOG counts failed remote operation (RO) logon attempts associated with an exact application. The RO logon attempts fail because an application session is not available.

For register ROAPFLOG to increase, the RO service must perform all of the following steps:

- establish a link
- receive an RO logon request with a correct application identifier
- fail in an attempt to log on to the application

The RO service will fail to logon to an application if the application initialization fails. The RO service can fail if the application started all available sessions.

Associated registers

Register ROAPLOGA counts all logon attempts for an exact application.

Extension registers

There are no extension registers.

Associated logs

The system generates register RO101 when the system attempts a remote logon. Log RO101 contains:

- a statement that indicates if the attempt was successful or unsuccessful
- a reason why a not complete attempt failed
- the session that received the logon request
- the name of the application that requested the logon

ROAPIC

Register type

Peg

Description

Remote operation service application incoming (ROAPIC)

Register ROAPIC counts failed incoming remote operations (RO) that are directed to an exact application. Register ROAPIC increases if the RO service can not decode an RO sent from a remote system in X.409 protocol.

Associated registers

Register ROAPOG counts failed outgoing ROs that the system cannot code into X.409 protocol by the RO service.

Extension registers

There are no extension registers.

Associated logs

The system generates RO103 when the remote operation service cannot code or decode. Log RO103 includes:

- a statement that indicates the system can not translate the RO (coded or decoded)
- the session that associates with the error
- the type of error
- the operation identifier
- the name of the application that associates with the RO

ROAPLOGA

Register type

Peg

Description

Remote operation service application logon attempt (ROAPLOGA)

Register ROAPLOGA counts logon attempts associated with an exact application. Register ROAPLOGA increases if the RO service performs both of the following steps:

- establishes a link
- receives an RO logon request that contains a correct application identifier

Associated registers

Register ROAPFLOG counts failed logon attempts associated with an exact application. The attempts fail because of errors or because an application session is not available.

Register ROMISC_ROMLOGA counts logon attempts by remote systems that the FO service processes.

Extension registers

There are no extension registers.

Associated logs

The system generates register RO101 when a user attempts a remote logon. RO101 contains the following:

- a statement that indicates if the attempt was successful
- the reason an attempt that is not complete failed
- the session that received the logon request
- the name of the application that requests the logon

ROAPOG

Register type

Peg

Description

Remote operation service application outgoing (ROAPOG)

Register ROAPOG counts failed outgoing remote operation (RO) that originate from a exact application. Register ROAPOG increases if the outgoing RO service cannot encode data from an application into X.409 protocol.

Associated registers

Register ROAPIC counts failed incoming ROs for an exact application that the RO service cannot decode from X.409 protocol.

Extension registers

There are no extension registers.

Associated logs

The system generates RO103 when the RO service cannot encode or decode an RO. Log RO103 includes the following:

- a statement that indicates the system can not translate the RO (coded or decoded)
- the session that associates with the error
- the type of error
- the operation identifier
- the name of the application for the RO

ROAPUSE

Register type

Usage

Description

Remote operation service application use (ROAPUSE)

Register ROAPUSE is a usage register. The scan rate is 100 s. Register ROPAUSE records if an exact application has active sessions.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates RO103 when the remote operation service cannot code or decode a remote operation (RO). Log RO103 includes the following:

- a statement that indicates the system can not translate the RO (coded or decoded)
- the session associated with the error
- the type of error
- the operation identifier
- the name of the application for the RO

ROMISC

Description

Remote operation service office wide (ROMISC)

The OM group ROMISC counts logon attempts that remote systems initiate. The OM group ROMISC also counts error conditions that occur when the remote operation (RO) service processes remote system requests. The system uses the data ROMISC supplies to assess the need for the RO service by all applications. The system also uses the data to detect problems.

The RO service is a communications interface between applications in the DMS switch and external processors. An RO is a task that a remote processor performs at the request of another processor. The main functions of the RO service are to receive, understand, and transmit remote operations.

The OM group ROMISC provides one tuple for each office. The following table lists the key and info fields associated with OM group ROMISC.

Key field	Info field
none	none

Related functional groups

The following functional groups are for OM group ROMISC:

- DMS-100 Local
- DMS-100 International
- DMS-250 Toll/Tandem
- DMS-100/200 Local/Toll
- DMS-300
- Network Operations System (NOS)
- Centralized MAP (CMAP)
- Network Operations Protocol (NOP)
- Large Business Remote (LBR)

Registers

The following table lists the registers associated with OM group ROMISC and what they measure. For a description of a register, click on the register name.

Registers for OM group ROMISC

Register name	Measures
ROCON	Outgoing logon attempts
ROCONF	Outgoing logon attempt failure
ROMFLOG	Remote operation service failed logon attempt
ROMLOGA	Remote operation service logon attempt
ROMTERM	Remote operation service terminations

ROCON

Register type

Peg

Description

Outgoing logon attempts (ROCON)

Register ROCON counts outgoing logon attempts. Register ROCON Increases when a host application attempts to set up an application association with a remote operations service.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ROCONF

Register type

Peg

Description

Outgoing logon attempt failure (ROCONF)

Register ROCONF counts outgoing logon attempts that fail.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates RO101 when the system attempts a remote logon.

ROMFLOG

Register type

Peg

Description

Remote operation service failed logon attempt (ROMFLOG)

Register ROMFLOG counts failed logon attempts that remote systems initiates. Register ROMFLOG increases if a logon fails because the setup of a switched virtual circuit (SVC) is not successful. A logon also fails if no correct application identifier is present in an RO.

Associated registers

Register ROMLOGA counts all logon attempts directed to the RO service from remote systems.

Register ROAPPL_ROAPFLOG counts failed logon attempts associated with an exact application.

Extension registers

There are no extension registers.

Associated logs

The system generates RO101 when the system attempts a remote logon. Log RO101 contains:

- a statement that indicates if the attempt was successful
- the reason why a logon attempt failed
- the session that received the logon request
- the name of the application that requests the logon

ROMLOGA

Register type

Peg

Description

Remote operation service logon attempt (ROMLOGA)

Register ROMLOGA counts logon attempts that involve the setup of a switched virtual circuit connection. The connection is between the remote system and the RO service. The system directs logon attempts to the RO service from remote systems.

Associated registers

Register <u>ROMFLOG</u> counts failed logon attempts that occur before an application logon begins.

Register ROAPPL_ROAPLOGA counts logon attempts that associate with an exact application.

Extension registers

There are no extension registers.

Associated logs

The system generates RO101 when the system attempts a remote logon. Log RO101 contains:

- · a statement that indicates if the attempt was successful
- the reason why a logon attempt failed
- the session that received the logon request
- the name of the application that requests the logon

ROMTERM

Register type

Peg

Description

Remote operation service terminations (ROMTERM)

Register ROMTERM counts session terminations with errors for all applications that use the remote operation (RO) service. An session termination with errors is a session not terminated by a normal logoff procedure. The causes of these session terminations with errors include the following:

- traps
- failures
- remote system disconnects

The system uses data that ROMTERM provides to determine the stability of the RO service.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates RO104 when a session termination with errors occurs. Termination can be a result of a remote system, by an application or by the remote operation (RO) service. Log RO104 contains

- the name of the system or software that terminated the session
- the reason for the termination
- the name of the application that uses the session

RRTE

Description

Reroute control (RRTE)

The OM group RRTE counts calls that reroute from a designated route list to a different route list in the route chain. The network management reroute control performs the reroutes.

Reroute control allows the operating company to reroute a percentage of calls. The system reroutes calls from a designated route list to a different route list in the route chain. The percentage level ranges from 1 to 100.

The OM group RRTE provides one tuple for each active reroute control. The maximum number of active network management controls is 256.

The percentage of calls to redirect appears in field LEVEL. The routes of redirected calls appear in fields TABID and KEY in subtable NWMRROUT of table REROUTE.

The user can enter a maximum of 1024 reroute numbers in table REROUTE. Each reroute number points to a maximum of 16 groups of routes and control percentage levels. Only one of the groups may be active at a time.

The following table lists the key and info fields associated with OM group RRTE.

Key field	Info field
the number of the reroute control as defined in field RRTNO in table REROUTE. The range is 0 to 1023.	none

Related functional groups

The RRTE functional group is available for all types of DMS offices.

Registers

The following table lists the registers associated with OM group RRTE and what they measure. For a description of a register, click on the register name.

Registers for OM group RRTE

Register name	Measures
RRTCNT	Rerouted calls

RRTCNT

Register type

Peg

Description

Rerouted calls (RRTCNT)

Register RRTCNT counts calls that are the reroute control reroutes.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates NWM300 when the system activates or deactivates the reroute control.

RSCIR

Description

Remote switching center interswitching channel traffic (RSCIR)

The OM group RSCIR evaluates traffic loads on interswitching channels. Interswitching channels are channels on the DS-1 links that connect two remote switching centers (RSC) located at a remote site.

The OMgroup RSCIR provides information about the following types of calls from a line at one RSC to a line at another RSC:

- line-to-line calls
- line-to-trunk calls
- trunk-to-line calls
- trunk-to-trunk calls

One usage register records the number of busy interswitching channels.

A remote site can host a maximum of two RSCs. Each RSC contains:

- a remote cluster controller (RCC)
- up to two remote maintenance modules (RMM)
- from 1 to 9 line concentrating modules (LCM) or nine remote line concentrating modules (RLCM)

DS-1 links connect the RCC to the host site. The RCC also connects to:

- LCMs (by DS30 links)
- RLCMs (by DS-1 links)
- RMMs (by DS30A links)
- trunks (by DS-1 links)
- the other RSC (by DS-1 links)

Time switches inside the RCCs handles the connection of channels on the links between the:

LCMs

RLCMs

RMMs

trunks

second RSC

Interswitched channels in the time switches of the two RSCs connect links of the two RSCs in the following ways:

- An LCM link of one RSC connects to an LCM link of the second RSC
- An LCM link of one RSC connects to a trunk link of the second RSC.
- A trunk link on one RSC connects to a trunk link of the second RSC.

OM group RSCIR provides one tuple for each RSC in an office. The following table lists the key and info fields associated with OM group RSCIR.

Key field	Info field
none	DUAL_RSC_OMINFO. This field consists of SITEYPE and XPMNO.

The SITETYPE consists of fixed parameters REMOTE and RSC.

The ADNUM is the node number of the RCC (0 to 4095).

To make sure DUAL_RSC_OMINFO prints part of RSCIR, the user must enter fields SITE, PMTYPE, and RCCNO in table RCCINV.

To obtain a printout of RSCIR the user must enter the interswitching links in table IRLNKV.

Related functional groups

The Remote Switching Center (RSC) functional group is for the OM group RSCIR.

Registers

The following table lists the registers associated with OM group RSCIR and what they measure. For a description of a register, click on the register name.

Registers for OM group RSCIR

Register name	Measures
RSCIRALL	Line-to-line calls attempted on interswitching channels
RSCIRALT	Line-to-trunk calls attempted on interswitching channels
RSCIRATL	Trunk-to-line calls attempted on interswitching channels
RSCIRATT	Trunk-to-trunk calls attempted on interswitching channels
RSCIRBLL	Line-to-line calls blocked by busy interswitching channels
RSCIRBLT	Line-to-trunk calls blocked by busy interswitching channels
RSCIRBTL	Trunk-to-line calls blocked by busy interswitching channels
RSCIRBTT	Trunk-to-trunk calls blocked by busy interswitching channels
RSCIRCBU	Busy interswitching channels

RSCIRALL

Register type

Peg

Description

Line-to-line calls attempted on interswitching channels (RSCIRALL)

Register RSCIRALL counts attempts to originate line-to-line calls on interswitching channels. The total includes calls that the system blocks because all interswitching channels are busy. The total excludes calls that cannot complete because the destination is busy.

Associated registers

Register <u>RSCIRBLL</u> counts line-to-line calls that busy interswitching channels block.

Not blocked line-to-line calls = RSCIRALL - RSCIRBLL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCIRALT

Register type

Peg

Description

Line-to-trunk calls attempted on interswitching channels (RSCIRALT)

Register RSCIRALT counts attempts to originate line-to-trunk calls on interswitching channels. The total includes calls that the system blocks because all interswitching channels are busy. The total excludes calls that cannot complete because the destination is busy.

Associated registers

Register <u>RSCIRBLT</u> counts line-to-trunk calls that busy interswitching channels block.

Not blocked line-to-trunk calls = RSCIRALT - RSCIRBLT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCIRATL

Register type

Peg

Description

Trunk-to-line calls attempted on interswitching channels (RSCIRATL)

Register RSCIRATL counts attempts to originate trunk-to-line calls on interswitching channels. The total includes calls that the system blocks

because all interswitching channels are busy. The total excludes calls that cannot complete because the destination is busy.

Associated registers

Register <u>RSCIRBTL</u> counts trunk-to-line calls that busy interswitching channels block.

Not blocked line-to-line calls = RSCIRATL - RSCIRBTL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCIRATT

Register type

Peg

Description

Trunk-to-trunk calls attempted on interswitching channels (RSCIRATT)

Register RSCIRATT counts attempts to originate trunk-to-trunk calls on interswitching channels. The total includes calls that the system blocks because all interswitching channels are busy. The total excludes calls that cannot complete because the destination trunk is busy.

Associated registers

RSCIRBTT counts trunk-to-trunk calls that busy interswitching channels block.

Not blocked trunk-to-trunk calls = RSCIRATT - RSCIRBTT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCIRBLL

Register type

Peg

Description

Line-to-line calls blocked by busy interswitching channels (RSCIRBLL)

Register RSCIRBLL increases when a line-to-line call cannot complete because all the interswitching channels are busy.

When a line-to-line call cannot complete because all of the interswitching channels are busy, software reroutes the call. The call travels through the DS-1 links to the host site.

Associated registers

Register <u>RSCIRALL</u> counts line-to-line calls attempted on interswitching channels.

Not blocked line-to-line calls = RSCIRALL - RSCIRBLL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCIRBLT

Register type

Peg

Description

Line-to-trunk calls blocked by busy interswitching channels (RSCIRBLT)

Register RSCIRBLT increases when a line-to-trunk call can not complete because all the interswitching channels are busy.

When a line-to-trunk call can not complete because all the interswitching channels are busy, software reroutes the call. The call travels through the DS-1 links to the host site. The call goes to the destination through a different trunk connected to the host site.

Associated registers

Register <u>RSCIRALT</u> counts line-to-trunk calls attempted on interswitching channels.

Not blocked line-to-line calls = RSCIRALT - RSCIRBLT

Extension registers

There are no extension registers.

Associated logs

RSCIRBTL

Register type

Peg

Description

Trunk-to-line calls blocked by busy interswitching channels (RSCIRBT)

Register RSCIRBTL increases when a trunk-to-line call cannot complete because all the interswitching channels are busy.

When a trunk-to-line call cannot complete because all the interswitching channels are busy, software reroutes the call. The call goes through the DS-1 links to the host site. The call goes to the destination through a different trunk connected to the host site.

Associated registers

Register <u>RSCIRATL</u> counts trunk-to-line calls attempted on interswitching channels.

Not blocked line-to-line calls = RSCIRATL - RSCIRBTL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCIRBTT

Register type

Peg

Description

Trunk-to-trunk calls blocked by busy interswitching channels (RSCIRBTT)

Register RSCIRBTT increases when a trunk-to-trunk call cannot complete. The call cannot complete because all the interswitching channels are busy.

When a trunk-to-trunk call cannot complete because all the interswitching channels are busy, software reroutes the call. The call travels through the DS-1 links to the host site.

Associated registers

Register <u>RSCIRATT</u> counts trunk-to-trunk calls attempted on interswitching channels.

Not blocked trunk-to-trunk calls = RSCIRATT - RSCIRBTL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCIRCBU

Register type

Usage

Description

Busy interswitching channels (RSCIRCBU)

Register RSCIRCBU is a usage register. The system scans the channels every 100 s. The results are accumulated in the remote and the counter is updated in the CM every 15 minutes. Register RSCIRCBU records if interswitched channels are busy. These channels carry line-to-line, line-to-trunk, trunk-to-line, and trunk-to-trunk calls.

Associated registers

Register LMD_LMTRU records the number of lines that are in line_cp_busy and line_cp_busy_deload states.

Register LMD_LMTRU = 2 X RSCIRCBU for interswitched call part of LMD_LMTRU.

Extension registers

There are no extension registers.

Associated logs

RSCIS

Description

Remote switching center intraswitching traffic (RSCIS)

Register RSCIS evaluates traffic loads on intraswitching channels in a remote switching center (RSC).

Eight peg registers count the following types of calls:

- Line-to-line calls that originate and terminate on lines that connect to the same RSC
- Line-to-trunk calls in the same RSC
- Trunk-to-line calls in the same RSC
- Trunk-to-trunk calls in the same RSC

One use register records the number of busy intraswitching channels in an RSC.

The RSC contains:

- a remote cluster controller (RCC)
- a maximum of two remote maintenance modules (RMM)
- a maximum of nine line concentrating modules (LCM) or nine remote line concentrating modules (RLCM)

The RCC connects to the host site by DS-1 links. The RSC connects to:

- LCMs (by DS30 links)
- RLCMs (by DS-1 links)
- RMMs (by DS30A links)
- trunks (by DS-1 links)

A time switch inside the RCC handles the connection of channels on:

- the links between the LCMs
- the RMMs
- the RLCMs
- the second RCC
- the trunks

Intraswitched channels in the time switch connect:

- a channel on an LCM link to a channel on another LCM link of the same RSC
- two channels on the same LCM of an RSC
- a channel on an LCM link to a channel on a trunk link of the same RSC

The OM group RSCIS provides one tuple for each RSC in an office. The following table lists the key and info fields associated with OM group RSCIS.

Key field	Info field
none	RSC_OMINFO. This field contains the following parts: SITETYPE and XMPNO. Part SITETYPE consists of fixed parameters REMOTE and RSC. Part XPMNO is the node number of the RCC (0 to 127).

To make sure that RCS_OMINFO appears in a printout of RSCIS, enter fields SITE, PMTYPE and RCCNO in table RCCINV.

Related functional groups

The Remote Switching Center (RSC) functional group associates with OM group RSCIS.

Registers

The following table lists the registers associated with OM group RSCIS and what they measure. For a description of a register, click on the register name.

Registers for OM group RSCIS

Register name	Measures
RSCISALL	Line-to-line calls attempted on intraswitching channels
RSCISALT	Line-to-trunk calls attempted on intraswitching channels
RSCISATL	Trunk-to-line calls attempted on intraswitching channels

Registers for OM group RSCIS

Register name	Measures
RSCISATT	Trunk-to-trunk calls attempted on intraswitching channels
RSCISBLL	Line-to-line calls blocked by busy intraswitching channels
RSCISBLT	Line-to-trunk calls blocked by busy intraswitching channels
RSCISBTL	Trunk-to-line calls blocked by busy intraswitching channels
RSCISBTT	Trunk-to-trunk calls blocked by busy intraswitching channels
RSCISCBU	Busy intraswitching channels

RSCISALL

Register type

Peg

Description

Line-to-line calls attempted on intraswitching channels (RSCISALL)

Register RSCISALL counts attempts to originate line-to-line calls on intraswitching channels. The total includes calls that the system blocks because all intraswitching channels are busy. The total excludes calls that do not complete because the destination is busy.

Associated registers

Register <u>RSCISBLL</u> counts line-to-line calls that busy intraswitching channels block.

Not blocked line-to-line calls = RSCIS_RSCISALL - RSCIS_RSCISBLL

Extension registers

There are no extension registers.

Associated logs

RSCISALT

Register type

Peg

Description

Line-to-trunk calls attempted on intraswitching channels (RSCISALT)

Register RSCISALT counts attempts to originate line-to-trunk calls on intraswitching channels. The total includes calls that the system blocks because all intraswitching channels are busy. The total excludes calls that do not complete because the destination is busy.

Associated registers

Register <u>RSCISBLT</u> increases when a line-to-trunk call does not complete because all intraswitching channels are busy.

Not blocked line-to-trunk calls = RSCIS_RSCISALT - RSCIS_RSCISBLT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCISATL

Register type

Peg

Description

Trunk-to-line calls attempted on intraswitching channels (RSCISATL)

Register RSCISATL counts attempts to originate trunk-to-line calls on intraswitching channels. The total includes calls that the system blocks because all intraswitching channels are busy. The total excludes calls that do not complete because the destination is busy.

Associated registers

Register <u>RSCISBTL</u> increases when a line-to-trunk call does not complete because all intraswitching channels are busy.

Not blocked line-to-line calls = RSCIS_RSCISATL - RSCIS_RSCISBTL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCISATT

Register type

Peg

Description

Trunk-to-trunk calls attempted on intraswitching channels (RSCISATT)

Register RSCISATT counts attempts to originate trunk-to-trunk calls on intraswitching channels. The total includes calls that the system blocks because all intraswitching channels are busy. The total excludes calls that do not complete because the destination trunk is busy.

Associated registers

Register RSCISBTT increases when a trunk-to-trunk call does not complete because all intraswitching channels are busy.

Not blocked trunk-to-trunk calls = RSCIS_RSCISATT - RSCIS_RSCISBTT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCISBLL

Register type

Peg

Description

Line-to-line calls blocked by busy intraswitching channels (RSCISBLL)

Register RSCISBLL increases when a line-to-line call does not complete because all intraswitching channels are busy.

When a line-to-line call does not complete, because all intraswitching channels are busy, software reroutes the call. The call travels through the DS-1 links to the host site.

Associated registers

Register <u>RSCISALL</u> counts attempts to originate line-to-line calls on intraswitching channels.

Not blocked line-to-line calls = RSCIS_RSCISALL - RSCIS_RSCISBLL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCISBLT

Register type

Peg

Description

Line-to-trunk calls blocked by busy intraswitching channels (RSCISBLT)

Register RSCISBLT increases when a line-to-trunk call does not complete because all intraswitching channels are busy.

When a line-to-trunk call does not complete, because all intraswitching channels are busy, software reroutes the call. The call travels through the DS-1 links to the host site. The call travels to the destination through a different trunk that connects to the host site.

Associated registers

Register <u>RSCISALT</u> counts attempts to originate line-to-trunk calls on intraswitching channels.

Not blocked line-to-line calls = RSCIS_RSCISALT - RSCIS_RSCISBLT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCISBTL

Register type

Peg

Description

Trunk-to-line calls blocked by busy intraswitching channels (RSCSBTL)

Register RSCISBTL increases when a trunk-to-line call does not complete because all intraswitching channels are busy.

When a trunk-to-line call does not complete, because all intraswitching channels are busy, software reroutes the call. The call travels through the DS-1 links to the host site. The call travels to the destination through a different trunk connected to the host site.

Associated registers

Register <u>RSCISATL</u> counts attempts to originate trunk-to-line calls on intraswitching channels.

Not blocked line-to-line calls = RSCIS_RSCISATL - RSCIS_RSCISBTL

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSCISBTT

Register type

Peg

Description

Trunk-to-trunk calls blocked by busy intraswitching channels (RSCISBTT)

Register RSCISBTT increases when a trunk-to-trunk call does not complete. The call does not complete because all intraswitching channels are busy.

When a trunk-to-trunk call does not complete, because all intraswitching channels are busy, software reroutes the call. The call travels through the DS-1 links to the host site.

Associated registers

Register <u>RSCISATT</u> counts attempts to originate trunk-to-trunk calls on intraswitching channels.

Not blocked trunk-to-trunk calls = RSCIS_RSCISATT - RSCIS_RSCISBTT

Extension registers

There are no extension registers.

Associated logs

RSCISCBU

Register type

Peg

Description

Busy intraswitching channels (RSCISCBU)

Register RSCISCBU is a use register. Every 100 s, the system scans intraswitching channels and register RSCISCBU records the number of intraswitched channels that are busy. The results are accumulated in the remote and the counter in the CM is updated every 15 minutes.

These channels carry line-to-line, line-to-trunk, trunk-to-line, and trunk-to-trunk calls.

Associated registers

Register LMD_LMTRU records the number of lines that are call processing busy and the lines on which the system deloads call processing.

Register LMD_LMTRU = 2 ¥ RSCISCBU for the intraswitching channel use portion on LMD_LMTRU

Extension registers

There are no extension registers.

Associated logs

RSDTLINE

Description

Restricted Dial Tone

RSDT provides information on the number of transitions from RSDT eligible to RSDT in-effect, the number of transitions from RSDT in-effect to RSDT eligible, and the number of deletions from table RSDTLINE.

The following table lists the key and info fields associated with OM group RSDTLINE.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RSDTLINE and what they measure. For a description of a register, click on the register name.

Registers for OM group RSDTLINE

Register name	Measures
ELITOEFF	Restricted Dial Tone Eligible to In_Effect Status Change
EFFTOELI	Restricted Dial Tone In_Effect to Eligible Status Change
<u>DELSO</u>	Deleted by SERVORD
DELTC	Deleted by table control
DELACT	Deleted by feature activation
DELAUDIT	Deleted by Audit

ELITOEFF

Register type

Peg

Description

Register Restricted Dial Tone Eligible to In_Effect Status Change

ELITOEFF counts the number of times the LEN status for any line changes from ELIGIBLE to IN_EFFECT by use of the SERVORD OUT, SWAP, CLN, EXBDELM, or EXBDELG command.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

EFFTOELI

Register type

Peg

Description

Restricted Dial Tone In_Effect to Eligible Status Change

EFFTOELI counts the number of times the LEN status for any line changes from IN_EFFECT to ELIGIBLE by use of the SERVORDNEWOR COPYSET command.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DELSO

Register type

Peg

Description

Deleted by SERVORD

DELSO counts the number of LENs that are removed from table RSDTLINE by SERVORD commands CHG, NEW, COPYSET, or SWAP. LENs are removed because the LCC was changed from 1FR or RES/1FR or an RSDT incompatible option was assigned.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DELTC

Register type

Peg

Description

Deleted by table control.

DELTC counts each LEN that is removed from table RSDTLINE by a table control command.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DELACT

Register type

Peg

Description

Deleted by feature activation.

This register is pegged when an RSDT line is removed from table RSDTLINE during the activation of the feature with the RSDT CI command. Lines are removed because the LCC was not 1FR or RES/1FR, the line had an incompatible option, or because line data in table LNINV is not compatible with RSDT.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DELAUDIT

Register type

Peg

Description

Deleted by Audit.

DELAUDIT counts each LEN that is removed from table RSDTLINE by an RSDT audit. The LEN is deleted because the LCC was not 1FR or RES/1FR, an RSDT incompatible option was assigned, or the line data in table LNINV is not compatible with RSDT.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

RTEASUM

Description

REAL: TIME tool equal access summary (RTEASUM)

The OM group RTEASUM counts call attempts for equal access (EA) call destinations.

This OM group contains information about local access and transport access (LATA) call destinations. The LATA is the local area in a numbering plan area (NPA) that a carrier can handle. The number of attempts increases by destination and LATA route.

The system provides RTEASUM for all DMS offices.

The following table lists the key and info fields associated with OM group RTEASUM.

Key field	Info field
EA destination identifier	none

This group contains the destination tuples listed in the following table.

Destination type	Associated key
Extended Areas Service	EAS
IntraLATA	INTRA_LATA
Feature group A	FGA
Feature group B	FGB
Feature group C	FGC
Feature group D	FGD

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RTEASUM and what they measure. For a description of a register, click on the register name.

Registers for OM group RTEASUM

Register name	Measures
RTEA7AT	Call attempts using SS7 trunking
RTEAATT	Call attempts

RTEA7AT

Register type

Peg

Description

Call attempts using SS7 trunking (RTEA7AT)

Register RTEA7AT counts call attempts to a specified equal access destination that uses SS7 trunking.

Associated registers

There are no associated registers.

Extension registers

RTEA7AT2

Associated logs

There are no associated logs.

RTEAATT

Register type

Peg

Description

Call attempts (RTEAATT)

Register RTEAATT counts call attempts to a specified equal access destination.

Associated registers

There are no associated registers.

Extension registers

RTEAATT2

Associated logsThere are no associated logs.

RTESVCS

Description

The Operational measurements group (OMgroup) Routelist Services (RTESVCS) collects the number of Call Forward Interface Busy (CFIB) attempts.

OM group RTESVCS provides one tuple for each route to a base directory number (DN) that is subscribed to CFIB. The following table lists the key and info fields associated with OM group RTESVCS.

Key field	Info field
Route to CFIB	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RTESVCS and what they measure. For a description of a register, click on the register name.

Registers for OM group RTESVCS

Register name	Measures
CFIBATT	Base DN routelist is call processing busy, out-of-service, or unavailable and the switch attempts to forward the call to the remote DN
CFIBRDNA	successful CFIBs when the remote DN answers the forwarded call
CFIBRDNN	successful CFIBs when the call alerts the remote DN, but the remote DN does not answer
CFIBRDNB	successful CFIBs when the remote DN is busy. CFIBRDNB is an integer type of register
CFIBRNAR	successful CFIBs when the remote switch does not have resources to terminate the forwarded call
CFIBOGTB	CFIB failures due to the outgoing CCS7 trunk being busy

Registers for OM group RTESVCS

Register name	Measures
CFIBRUAV	CFIB failures due to unavailability of software resources to perform the CFIB
CFIBRCR	CFIB failures that are caused when the switch reaches the maximum number of redirections allowed
CFIBBNM	CFIB failures that are due to the bearer capability of the incoming call not matching any bearer capability of the provisioned remote DNs
CFIBXLAF	CFIB failures due to the inability to translate a remote DN
CFIBAMAF	CFIB failures due to the inability to setup billing
CFIBRTEF	CFIB failures due to the inability to route the base DN to remote DN portion of the call
CFIBTRMF	CFIB failures due to the inability to terminate the base DN to remote DN portion of the call.

CFIBATT

Register type

Peg

Description

The CFIB Attempts register pegs when the routelist to the base DN is call processing busy, out-of-service, or unavailable and the switch attempts to forward the call to the remote DN.

Associated registers

Because the switch pegs this register each time the call attempts to use CFIB, the count should be equal to the total number of successes and

failures combined. The following registers collect successes and failures:

- CFIB success:
 - <u>CFIBRDNA</u> (remote DN answered)
 - CFIBRDNN (remote DN alerted, but no answer)
 - <u>CFIBRDNB</u> (remote DN busy)
 - <u>CFIBRNAR</u> (remote switch does not have resources available)
- CFIB failure:
 - CFIBOGTB (outgoing trunk busy)
 - <u>CFIBRUAV</u> (software resource unavailable)
 - <u>CFIBRCR</u> (redirection maximum count reached)
 - CFIBBNM (bearer capability no match)
 - CFIBXLAF (translation failure for the base DN to remote DN portion of the call)
 - CFIBAMAF (automatic message accounting failure) —
 CFIBRTEF (routing failure for the base DN to remote DN portion
 of the call)
 - CFIBTRMF (termination failure for the base DN to remote DN portion of the call)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBRDNA

Register type

Peg

Description

The CFIB Remote DN Answered register counts the number of successful CFIBs when the remote DN answers the forwarded call. The register is an integer type register.

Associated registers

The <u>CFIBRDNA</u> register counts are part of the total attempts recorded on register CFIBATT.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBRDNN

Register type

Peg

Description

The CFIB Remote DN Alerted No Answer register counts the number of successful CFIBs when the call alerts the remote DN, but the remote DN does not answer. CFIBRDNN is an integer type of register.

Associated registers

The <u>CFIBRDNN</u> register counts are part of the total attempts recorded on register CFIBATT.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBRDNB

Register type

Peg

Description

The CFIB Remote DN Busy register counts the number of successful CFIBs when the remote DN is busy. CFIBRDNB is an integer type of register.

Associated registers

The <u>CFIBRDNB</u> register counts are part of the total attempts recorded on the CFIBATT register.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBRNAR

Register type

Peg

Description

The CFIB Remote No Available Resources register counts the number of successful CFIBs when the remote switch does not have resources to terminate the forwarded call. CFIBRNAR is an integer type of register.

Associated registers

The <u>CFIBRNAR</u> register counts are part of the total attempts recorded on the CFIBATT register.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBOGTB

Register type

Peg

Description

The CFIB Outgoing Trunk Busy register counts the number of CFIB failures due to the outgoing CCS7 trunk being busy. CFIBOGTB is an integer type of register.

Associated registers

The <u>CFIBOGTB</u> register counts are part of the total attempts recorded on register CFIBATT.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBRUAV

Register type

Peg

Description

The CFIB Software Resource Unavailable register counts the number of CFIB failures due to unavailability of software resources to perform the CFIB. CFIBRUAV is an integer type of register.

Associated registers

The CFIBRUAV register counts are part of the total attempts recorded on the CFIBATT register.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBRCR

Register type

Peg

Description

The CFIB Redirection Count Reached register counts the number of CFIB failures that are caused when the switch reaches the maximum number of redirections allowed. CFIBRCR is an integer type of register.

Associated registers

The <u>CFIBRCR</u> register counts are part of the total attempts recorded on the CFIBATT register.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBBNM

Register type

Peg

Description

The Bearer Capability No Match register counts the number of CFIB failures that are due to the bearer capability of the incoming call not matching any bearer capability of the provisioned remote DNs. CFIBBNM is an integer type of register.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBXLAF

Register type

Peg

Description

The CFIB Translations Failure register counts the number of CFIB failures due to the inability to translate a remote DN.

Associated registers

The <u>CFIBXLAF</u> register counts are part of the total attempts recorded on the CFIBATT register.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBAMAF

Register type

Peg

Description

The CFIB Automatic Message Accounting Failure register counts the number of CFIB failures due to the inability to setup billing. CFIBAMAF is an integer type of register.

Associated registers

The <u>CFIBAMAF</u> register counts are part of the total attempts recorded on the CFIBATT register.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBRTEF

Register type

Peg

Description

The CFIB Route Failure register counts the number of CFIB failures due to the inability to route the base DN to remote DN portion of the call.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CFIBTRMF

Register type

Peg

Description

The CFIB Termination Failure register counts the number of CFIB failures due to the inability to terminate the base DN to remote DN portion of the call.

Associated registers

The <u>CFIBTRMF</u> register counts are part of the total attempts recorded on the CFIBATT register.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RTFEAT

Description

REAL: TIME tool feature activations

The OM group RTFEAT counts activations of features that affect real time. The system provides RTFEAT for all DMS offices.

OM group RTFEAT provides one tuple for each office. The following table lists the key and info fields associated with OM group RTFEAT.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RTFEAT and what they measure. For a description of a register, click on the register name.

Registers for OM group RTFEAT

Register name	Measures
RTNETQUY	Network line status query
RTPBXLA	Private branch exchange line activations
RTPBXTA	Private branch exchange trunk activations
RTPVNLA	Private virtual network line activations
RTPVNTA	Private virtual network trunk activations

RTNETQUY

Register type

Peg

Description

Network line status query (RTNETQUY)

Register RTNETQUY counts network line status queries for automatic call back (ACB) and automatic recall (AR) call attempts.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RTPBXLA

Register type

Peg

Description

Private branch exchange line activations (RTPBXLA)

Register RTPBXLA counts private branch exchange calls made from a line.

Associated registers

There are no associated registers.

Extension registers

RTPBXLA2

Associated logs

There are no associated logs.

RTPBXTA

Register type

Peg

Description

Private branch exchange trunk activations (RTPBXTA)

Register RTPBXTA counts private branch exchange calls made from a trunk.

Associated registers

There are no associated registers.

Extension registers

RTPBXTA2

Associated logs

There are no associated logs.

RTPVNLA

Register type

Peg

Description

Private virtual network line activations (RTPVNLA)

Register RTPVNLA counts private virtual network calls made from a line.

Associated registers

There are no associated registers.

Extension registers

RTPVNLA2

Associated logs

There are no associated logs.

RTPVNTA

Register type

Peg

Description

Private virtual network trunk activations (RTPVNTA)

Register RTPVNTA counts private virtual network calls made from a trunk.

Associated registers

There are no associated registers.

Extension registers

RTPVNTA2

Associated logs

There are no associated logs.

RTLTSUM

Description

Real-time tool line and trunk call attempts summary (RTLTSUM)

The OM group RTLTSUM counts origination and termination attempts for each line and trunk type.

All DMS offices have the OM group RTFEAT.

The OM group RTLTSUM provides one tuple for each line or trunk type. The following table lists the key and info fields associated with OM group RTLTSUM.

Key field	Info field
line or trunk type identifier	none

This group contains the following line- and trunk-type tuples:

Line and trunk type tuples

Line or trunk type	Associated key
Plain ordinary telephone service, which includes DP, DTMF lines	POTS_RES
CLASS feature activation, RES/CMS	RES_CLASS
Coin telephones with	POTS_COIN
line class codes coin first (CCF), dial tone first (CDF)	
semi-post pay (CSP)	
coin free dial (CDF)	
coin message rate (CMR)	
Outwats, which include individual outwats (OWT) and two-way WATS (TWW)	OUTWATS
MDC 2500 sets	MDC_2500
MDC service, which includes electronic business sets (EBS) and MADN lines	MDC_MBS

Line and trunk type tuples

Line or trunk type	Associated key
Data circuits that use D type cards	DATAPATH
ISDN basic rate access (BRA) functional signaling	ISDN_FUNC
ISDN basic rate access (BRA) stimulus signaling	ISDN_STIM
ISDN primary rate access (PRA)	ISDN_PRA
MDC trunks	MDC_TRUNK

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group RTLTSUM and what they measure. For a description of a register, click on the register name.

Registers for OM group RTLTSUM

Register name	Measures
RTOATT	Originating call attempts
RTTATT	Terminating call attempts

RTOATT

Register type

Peg

Description

Originating call attempts (RTOATT)

Register RTOATT counts originating call attempts from a line or trunk of a specified type.

Associated registers

There are no associated registers.

Extension registers

RTOATT2

Associated logs

There are no associated logs.

RTTATT

Register type

Peg

Description

Terminating call attempts (RTTATT)

Register RTTATT counts terminating call attempts from a line or trunk of a specified type.

Associated registers

There are no associated registers.

Extension registers

RTTATT2

Associated logs

There are no associated logs.

RTRSCCP

Description

Real-Time Rating Signaling Connection Control Part

This OM group measures signaling connection control part statistics relating to external real-time rating. Registers in this group are only pegged when a Unitdata Service message is received.

The following table lists the key and info fields associated with OM group RTRSCCP.

Key field	Info field
none	none

Related functional groups

The following functional groups are associated with OM group RTRSCCP:

ENSV0001

Registers

The following table lists the registers associated with OM group RTRSCCP and what they measure. For a description of a register, click on the register name.

Registers for OM group RTRSCCP

Register name	Measures
RTRMISCE	Real-Time Rater Miscellaneous Error
RTRNETCG	Real-Time Rater Network Congestion
RTRNETFL	Real-Time Rater Network Failure
RTRNOXLA	Real-Time Rater No Transmission for any such Address
RTRNOXLS	Real-Time Rater No Transmission for this Specific Address
RTRSUBCG	Real-Time Rater Subsystem Congestion

Registers for OM group RTRSCCP

Register name	Measures
RTRSUBFL	Real-Time Rater Subsystem Failure
RTRUNEQ	Real-Time Rater Unequipped User

RTRMISCE

Register type

Peg

Description

Register Real-Time Rater Miscellaneous Error

This register is pegged each time an RTRS Unitdata Service message is received with a diagnostic other than those listed below.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP101

RTRNETCG

Register type

Peg

Description

Register Real-Time Rater Network Congestion

This register is pegged each time an RTRS Unitdata Service message is received with a diagnostic of ``Network Congestion".

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP101

RTRNETFL

Register type

Peg

Description

Register Real-Time Rater Network Failure

This register is pegged each time an RTRS Unitdata Service message is received with a diagnostic of ``Network Failure".

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP101

RTRNOXLA

Register type

Peg

Description

Register Real-Time Rater No Transmission for any such Address Register RTRNOXLA is pegged each time an RTRS Unitdata Service message is received with a diagnostic of ``No translation of such nature".

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP101

RTRNOXLS

Register type

Peg

Description

Register Real-Time Rater No Transmission for this Specific Address

Register RTRNOXLS is pegged each time an RTRS Unitdata Service message is received with a diagnostic of ``No translation for this specific address"

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP101

RTRSUBCG

Register type

Peg

Description

Register Real-Time Rater Subsystem Congestion

This register is pegged each time an RTRS Unitdata Service message is received with a diagnostic of ``Subsystem Congestion"

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP101

RTRSUBFL

Register type

Peg

Description

Register Real-Time Rater Subsystem Failure

This register is pegged each time an RTRS Unitdata Service message is received with a diagnostic of `` Subsystem Failure".

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RTRUNEQ

Register type

Peg

Description

Register Real-Time Rater Unequipped User

This register is pegged each time an RTRS Unitdata Service message is received with a diagnostic of ``Unequipped User".

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP101

RTRTCAP

Description

Real-Time Rating Transaction Capabilities Application Part

This OM group measures Transaction Capabilities Application Part statistics relating to external Real-Time Rating.

The following table lists the key and info fields associated with OM group RTRTCAP.

Key field	Info field
none	none

Related functional groups

The following functional groups are associated with OM group RTRTCAP:

ENSV0001

Registers

The following table lists the registers associated with OM group RTRTCAP and what they measure. For a description of a register, click on the register name.

Registers for OM group RTRTCAP

Register name	Measures
ABORTRCV	Abort Packages Received
ABORTSNT	Abort Packages Sent
INVKRCV	Invoke Components Received
INVKSNT	Invoke Components Sent
NOTRID	No Transaction IDs Available
PKGTMOUT	Package time-out
QWPSNT	Query with permission package sent
REJRCV	Reject Components Received

Registers for OM group RTRTCAP

Register name	Measures
REJSNT	Reject Components Sent
RESPRCV	Rating response package received
RTERRRCV	Return Error Components Received
RTERRSNT	Return Error Components Sent
RTRNRES	Return Result Components Received
UNIDSNT	Unidirectional Packages Received

ABORTRCV

Register type

Peg

Description

Register Abort Packages Received

Register ABORTRCV is pegged each time a real-time rating abort package is received from an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP100

ABORTSNT

Register type

Peg

Description

Register Abort Packages Sent

Register ABORTSNT is pegged each time a real-time rating abort package is successfully handed off to CCS7 software for transmission to an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INVKRCV

Register type

Peg

Description

Register Invoke Components Received

Register INVKRCV is pegged each time a real-time rating invoke (last) component is received from an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INVKSNT

Register type

Peg

Description

Register Invoke Components Sent

Register INKSNT is pegged each time a real-time rating invoke (last) component is successfully handed off to CCS7 software for transmission to an SCP.

Associated registers

There are no associated registers.

Extension registers

INVKSNT2

Associated logs

There are no associated logs.

NOTRID

Register type

Peg

Description

Register No Transaction IDs Available

Register NOTRID is pegged each time a request for a transaction ID fails.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP199

PKGTMOUT

Register type

Peg

Description

Register Package time-out

Register PKGTMOUT is pegged each time a time-out occurs on a real-time rating query sent to an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

QWPSNT

Register type

Peg

Description

Register QWPSNT

QWPSNT is pegged each time a real-time rating query with permission package is successfully handed off to CCS7 software for transmission to an SCP.

Associated registers

There are no associated registers.

Extension registers

QWPSNT2

Associated logs

There are no associated logs.

REJRCV

Register type

Peg

Description

Register Reject Components Received

Register REJRCV is pegged each time a real-time rating reject component is received from an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP100

REJSNT

Register type

Peg

Description

Register Reject Components Sent

Register REJSNT is pegged each time a real-time rating reject component is successfully handed off to CCS7 software for transmission to an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RESPRCV

Register type

Peg

Description

Register RESPRCV

Register RESPRCV is pegged each time a real-time rating response package is received from an SCP.

Associated registers

There are no associated registers.

Extension registers

RESPRCV2

Associated logs

There are no associated logs.

RTERRRCV

Register type

Peg

Description

Register Return Error Components Received

Register RTERRRCV is pegged each time a real-time rating return error component is received from an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TCAP100

RTERRSNT

Register type

Peg

Description

Register Return Error Components Sent

Register RTERRSNT is pegged each time an real-time rating return error component is successfully handed off to CCS7 software for transmission to an SCP

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RTRNRES

Register type

Peg

Description

Register Return Result Components Received

Register RTRNRES is pegged each time a real-time rating return result (last) component is received from an SCP.

Associated registers

There are no associated registers.

Extension registers

RTRNRES2

Associated logs

There are no associated logs.

UNIDSNT

Register type

Peg

Description

Unidirectional Packages Received

Register UNIDSNT is pegged each time an RTRS unidirectional package is successfully handed off to CCS7 software for transmission to an SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SACB

Description

Subscriber activated call blocking (SACB)

The OM group SACB measures the activation and deactivation of the SACB feature.

The OM group SACB provides one tuple for each office. The following table lists the key and info fields associated with OM group SACB.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SACB and what they measure. For a description of a register, click on the register name.

Registers for OM group SACB

Register name	Measures
SACBACT	SACB activation
SACBDACT	SACB deactivation
SACBEPIN	SACB exceeded PIN
SACBIPIN	SACB invalid PIN
SACBTNOR	SACB no resources

SACBACT

Register type

Peg

Description

SACB activation (SACBACT)

Register SACBACT increases when a subscriber activates the SACB feature. A subscriber enters the SACB activation code to activate the SACB feature.

Associated registers

SACBDACT, SACBIPIN, SACBEPIN, and SACBTNOR

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SACBDACT

Register type

Peg

Description

SACB deactivation (SACBDACT)

Register SACBDACT increases when a subscriber deactivates the SACB feature. A subscriber enters the SACB deactivation code to deactivate the SACB feature.

Associated registers

SACBACT, SACBIPIN, SACBEPIN, and SACBTNOR

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SACBEPIN

Register type

Peg

Description

SACB exceeded PIN (SACBEPIN)

Register SACBEPIN increases when a subscriber exceeds the maximum number of times allowed to enter the SACB PIN correctly.

Associated registers

SACBACT, SACBDACT, SACBIPIN, and SACBTNOR

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SACBIPIN

Register type

Peg

Description

SACB invalid PIN (SACBIPIN)

The subscriber attempts to activate or deactivate the SACB feature. Register SACBIPIN increases when a subscriber does not enter the SACB PIN correctly.

Associated registers

SACBACT, SACBDACT, SACBEPIN, and SACBTNOR

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SACBTNOR

Register type

Peg

Description

SACB no resources (SACBTNOR)

Register SACBTNOR increases when resources are not available when the subscriber attempts to activate or deactivate the SACB.

Associated registers

SACBACT, SACBDACT, SACBEPIN, and SACBIPIN

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCA

Description

OM group Selective Call Acceptance (SCA) monitors the use of the SCA feature. You can obtain this feature alone or as part of the universal access group of features.

SCA contains registers that count:

- SCA universal access attempts, activations, deactivations and denials
- requests for off-board service updates or changes. With the Off-board Service Control feature, off-board service updates peg certain registers when subscribers do one of the following from an off-board application:
 - query the status and/or programmed information of corresponding subscribed-to services
 - generate a request to activate, deactivate or change the services

For more information about the Off-board Service Control feature, refer to Advanced Intelligent Network Essentials Service Implementation Guide, 297-5161-021, and the Advanced Intelligent Network Essentials Service Enablers, 297-5161-022.

The Off-board Service Control feature applies only to DMS.

- attempts to access the screening list editing (SLE) function for SCA
- attempts to access SLE for SCA that the system denies because the system did not assign or activate the feature
- attempts to access SLE for SCA that the system denies because system resources are not available
- activations of SCA
- deactivations of SCA
- terminating calls that attempt to access SCA
- attempts to access SCA that the system denies
- attempts to access SCA that the system blocks because the system cannot access the screening list
- calls that SCA rejects
- calls that SCA accepts

SCF contains one usage register that records if a line uses SCA SLE.

The following table lists the key and info fields associated with OM group SCA.

Key field	Info field
None	None

Related functional groups

The MDC functional group is associated with OM group SCA.

Registers

The following table lists the registers associated with OM group SCA and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SCA (Sheet 1 of 2)

Register name	Measures
SCAACT	SCA activation
<u>SCAAUNV</u>	SCA activations universal
SCADACT	SCA deactivations
SCADENY	SCA denials universal
SCADUNV	SCA deactivations universal
SCAEATT	SCA editing attempts
SCAEDEN	SCA editing denied
SCAEOVF	SCA editing overflow
SCAEUSG	SCA editing use
SCASAT	SCA screening attempt
SCASBLK	SCA screening blocked
SCASDEN	SCA screening denied
SCASRJT	SCA call screening rejected

Registers for OM group SCA (Sheet 2 of 2)

Register name	Measures
SCASTRM	SCA call screening termination
SCAUNIV	SCA universal access attempts

SCAACT

Register type

Peg

Description

SCAACT counts activations of the SCA feature by subscribers.

For DMS only: Similar to operations performed by service access code controlled activation, SCAACT is pegged for each occurrence of an off-board service update activation request.

Associated registers

None

Extension registers

None

Associated logs

None

SCAAUNV

Register type

Peg

Description

SCAAUNV counts successful activations of the SCA feature by a universal user.

Associated registers

None

Extension registers

None

Associated logs

SCADACT

Register type

Peg

Description

SCADACT counts deactivations of the SCA feature by subscribers.

For DMS only: Similar to the operations performed by service access code controlled activation, SCADACT is pegged for each occurrence of an off-board service update deactivation request.

Associated registers

None

Extension registers

None

Associated logs

None

SCADENY

Register type

Peg

Description

SCADENY counts the number of times the system denies the SCA feature to a universal user. The system denies the SCA feature to a universal user because the DENYSCA option is in effect.

For DMS only: SCADENY is pegged for the following off-board service update request attempts:

- The DOR option is present on the SCA subscriber line.
- The SCA is enabled office wide, and the DENY SCA option is present on the subscriber line.

Associated registers

SCAEDEN

Extension registers

None

Associated logs

SCADUNV

Register type

Peg

Description

SCADUNV counts deactivations of the SCA feature by a universal user.

Associated registers

None

Extension registers

None

Associated logs

None

SCAEATT

Register type

Peg

Description

SCAEATT counts attempts to enter the screening list editing (SLE) function for the SCA.

For DMS only: The register is pegged each time a subscriber uses an edit session to update SCA programmed data. Similar to the operations performed in a service access code controlled edit session, SCAEATT is pegged for off-board service update requests to do one of the following:

- add or delete a DN to a subscriber SCA list
- delete all DNs in a subscriber SCA list
- delete all anonymous or private entries in a subscriber SCA list

Associated registers

None

Extension registers

None

Associated logs

SCAEDEN

Register type

Peg

Description

SCAEDEN counts attempts to access SLE for the SCA feature. The register counts attempts that the system denies for one of the following reasons:

- The system does not assign the SCA feature to the line.
- The system does not activate the SCA feature in the office
- The system denies a universal access attempt because the DENYSCA option is on the line

The system routes the call to feature not allowed (FNAL) treatment.

For DMS only: The register is pegged when a subscriber attempts to update SCA programmed data using an edit session, and the attempt is denied. SCAEDEN is pegged when the following is true for a given SCA off-board service update request:

- SLE is not enabled in table CUSTSTN.
- SCF is not enabled in table RESOFC.

Associated registers

None

Extension registers

None

Associated logs

None

SCAEOVF

Register type

Peg

Description

SCAEOVF counts denied attempts to access SLE for the SCA feature. The system denies the attempts because the required system resources are not available. When the required announcement circuits for SLE for SCA are not available, the call routes to no service circuit (NOSC) treatment. The system denies the SLE for SCA when other limits are present, like list data you cannot access. The system routes the call to no software resource (NOSR) treatment.

Associated registers

None

Extension registers

None

Associated logs

None

SCAEUSG

Register type

Usage

Scan rate

10 seconds

Description

SCAEUSG records if a line uses SLE for the SCA feature.

Associated registers

None

Extension registers

None

Associated logs

None

SCASAT

Register type

Peg

Description

SCASAT counts terminating calls that attempt to access the SCA feature.

Associated registers

None

Extension registers

SCASAT2

Associated logs

SCASBLK

Register type

Peg

Description

SCASBLK counts blocked attempts to the SCA feature. The system blocks the attempts because the system cannot access the screening list. When the system blocks SCA screening, the call proceeds as if the system screened and rejected the call.

Associated registers

None

Extension registers

None

Associated logs

None

SCASDEN

Register type

Peg

Description

SCASDEN counts denied attempts to use the SCA feature. When the system denies a call, the call proceeds as if the system screened and rejected the call.

Associated registers

None

Extension registers

None

Associated logs

None

SCASRJT

Register type

Peg

Description

SCASRJT counts calls that the SCA feature rejects. The system routes the call to SCA treatment.

Associated registers

None

Extension registers

SCASRJT2

Associated logs

None

SCASTRM

Register type

Peg

Description

SCASTRM count calls that the SCA feature accepts.

Associated registers

None

Extension registers

None

Associated logs

None

SCAUNIV

Register type

Peg

Description

SCAUNIV counts the number of times a universal user attempts to access the SCA feature.

Associated registers

SCAEATT

Extension registers

None

Associated logs

SCAISERV

Description

Switch-to-computer application interface service (SCAISERV)

The OM group SCAISERV provides information about switch-to-computer application interface (SCAI) service use. The Automatic Call Distribution (ACD) feature, also called CompuCALL, uses this interface between external host computers and the switch. The ACD feature allows calls to enter a queue if agents are not available to answer. Calls have a specified priority. When an agent is available, the system transfers calls from the queue. The system bases the calls on priority and arrival time.

This OM group provides counts of the number of calls received, calls queued, calls offered, and calls released. The OM group also counts the number of Return-Request and Return-Error messages sent from the switch to the host. The system sends Return-Request and Return-Error messages in response to information requests from the host. A Return-Request message contains the information asked for in the request. A Return-Error message indicates the reasons for failure to return the requested information.

The OM group SCAISERV registers monitor the DV_SET_FEATURE activity. This activity enables the CompuCALL host-switch remote operation feature. This activity provides ACD event messages the system sends when a change occurs in the state of the ACD agent position. ACD event messages are not sent when the switch receives a request for the state change. When the switch sends a response message related to event messages for this feature on SCAI, the correct register increases. The correct registers are AGLDINU, AGLDOUTU, AGRDYU, AGNRDYU, INREJ, and OUTREJ.

The OM group SCAISERV provides one tuple for each office. The following table lists the key and info fields associated with OM group SCAISERV.

Key field	Info field
SCAI_GROUP	none

Table SCAIGRP stores all SCAI groups in a switch. You must datafill tables SCAIGRP, SCAISSRV, and SCAIPROF to measure SCAI group use for each SCAI group.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SCAISERV and what they measure. For a description of a register, click on the register name.

Registers for OM group SCAISERV

Register name	Measures
ADDPYRE	Add party return error
ADDPYRR	Add party return result
AGLDINU	Agent logged in, not confirmed
AGLDOUTU	Agent logged out, not confirmed
<u>AGNRDYU</u>	Agent not ready, not confirmed
<u>AGRDYU</u>	Agent ready, not confirmed
CALLANSU	dv_Call_Answered_U message sent
CALLOFFU	dv_Call_Offered_U message sent
CALLQUED	dv_Call_Queued_U message sent
CALLRECC	dv_Call_Received_C message sent
CALLRELU	dv_Call_Release_U message sent
CALREDRE	dv_Call_Redirect return error
CALREDRR	dv_Call_Redirect return result
CONFPYRE	Conference party return error
CONFPYRR	Conference party return result
CONTSTRE	Continuity test return error
CONTSTRR	Continuity test return result
DNASSRE	DN associate return error
DNASSRR	DN associate return result

Registers for OM group SCAISERV

Register name	Measures
DROPPYRE	Drop party return error
DROPPYRR	Drop party return result
INREJ	Incoming reject message from host
MAKECRE	dv-Make-Call return error
MAKECRR	dv_Make_Call return result
<u>OUTREJ</u>	Outgoing reject message to host
RECCIGNR	dv_Call_Received_C ignored
RECCRE	dv_Call_Received_C return error
RESQRYRE	Resource query return error
RESQRYRR	Resource query return result
TRANPYRE	Transfer party return error
TRANPYRR	Transfer party return result

ADDPYRE

Register type

Peg

Description

Add party return error (ADDPYRE)

Register ADDPYRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host in response to the dv_Add_Party message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ADDPYRR

Register type

Peg

Description

Add party return result (ADDPYRR)

Register ADDPYRR counts the number of times the switch sends a Return-Result message to the host. The switch sends this message to the host in response to the dv_Add_Party message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AGLDINU

Register type

Peg

Description

Agent logged in, not confirmed (AGLDINU)

Register AGLDINU increases when the switch sends a dv_Agent_Logged_In_U event message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AGLDOUTU

Register type

Peg

Description

Agent logged out, not confirmed (AGLDOUTU)

Register AGLDOUTU increases when the switch sends a dv_Agent_Logged_In_U event message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AGNRDYU

Register type

Peg

Description

Agent not ready, not confirmed (AGNRDYU)

Register AGNRDYU increases when the switch sends a dv_Agent_Not_Ready_U event message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AGRDYU

Register type

Peg

Description

Agent ready, not confirmed (AGRDYU)

Register AGRDYU increases when the switch sends a dv_Agent_Ready_U event message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CALLANSU

Register type

Peg

Description

dv_Call_Answered_U message sent (CALLANSU)

Register CALLANSU counts the number of times the switch sends a dv_Call_Answered_U message to the host.

Register CALLANSU is not active.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CALLOFFU

Register type

Peg

Description

dv_Call_Offered_U message sent (CALLOFFU)

Register CALLOFFU counts the number of times the switch sends a dv_Call_Offered_U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CALLQUED

Register type

Peg

Description

dv_Call_Queued_U message sent (CALLQUED)

Register CALLQUED counts the number of times the switch sends a dv_Call_Queued_U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CALLRECC

Register type

Peg

Description

dv_Call_Received_C message sent (CALLRECC)

Register CALLRECC counts the number of times the switch sends a dv_Call_Received_C message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CALLRELU

Register type

Peg

Description

dv_Call_Release_U message sent (CALLRELU)

Register CALLRELU counts the number of times the switch sends a dv_Call_Release_U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CALREDRE

Register type

Peg

Description

dv_Call_Redirect return error (CALREDRE)

Register CALREDRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host based on the contents of the dv_Call_Redirect message received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CALREDRR

Register type

Peg

Description

dv_Call_Redirect return result (CALREDRR)

Register CALREDRR counts the number of times the switch sends a Return-Result message to the host. The switch sends this message to the host in response to the dv_Call_Redirect message received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONFPYRE

Register type

Peg

Description

Conference party return error (CONFPYRE)

Register CONFPYRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host in response to the dv_Conference_Party message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONFPYRR

Register type

Peg

Description

Conference party return result (CONFPYRR)

Register CONFPYRR counts the number of times the switch sends a Return-Result message to the host. The switch sends this message to the host in response to the dv_Conference_Party message received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONTSTRE

Register type

Peg

Description

Continuity test return error (CONTSTRE)

Register CONTSTRE counts the number of times the switch sends a Return-Error message to the host. Register CONTSTRE counts the number of times the switch receives this message from the host. The switch sends or receives this message in response to the dv_Appl_Continuity_Test message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONTSTRR

Register type

Peg

Description

Continuity test return result (CONTSTRR)

Register CONTSTRR counts the number of times the switch sends a Return-Result message to the host. Register CONTSTRR counts the number of times the switch receives this message from the host. The switch sends or receives a Return-Result message in response to the dv_Appl_Continuity_Test message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DNASSRE

Register type

Peg

Description

DN associate return error (DNASSRE)

Register DNASSRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host based on the contents of the dv_DN_Associate message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DNASSRR

Register type

Peg

Description

DN associate return result (DNASSRR)

Register DNASSRR increases when the switch sends a Return-Result message to the host in response to the dv_DN_Associate message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DROPPYRE

Register type

Peg

Description

Drop party return error (DROPPYRE)

Register DROPPYRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host in response to the dv_Drop_Party message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DROPPYRR

Register type

Peg

Description

Drop party return result (DROPPYRR)

Register DROPPYRR counts the number of times the switch sends a Return-Result message to the host. The switch sends this message to the host in response to the dv_Drop_Party message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INREJ

Register type

Peg

Description

Incoming reject message from host (INREJ)

Register INREJ increases when the switch receives a Reject message from the host application.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MAKECRE

Register type

Peg

Description

dv-Make-Call return error (MAKECRE)

Register MAKECRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host based on the contents of the dv_Make_Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MAKECRR

Register type

Peg

Description

dv_Make_Call return result (MAKECRR)

Register MAKECRR counts the number of times the switch sends a Return-Result message to the host. The switch sends this message to the host based on the contents of the dv_Make_Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

OUTREJ

Register type

Peg

Description

Outgoing reject message to host (OUTREJ)

Register OUTREJ increases when the switch receives a message from the host application. The switch cannot decode the header or the body of the message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RECCIGNR

Register type

Peg

Description

dv_Call_Received_C ignored (RECCIGNR)

Register RECCIGNR increases when the switch does not receive a response from the host in a specified time period. The response relates to the dv Call Received C message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates log SCAI200 when the host does not respond to a dv_Call_Received_C message in a specified time period. The switch sends this message.

RECCRE

Register type

Peg

Description

dv Call Received C return error (RECCRE)

Register RECCRE counts the number of times the switch receives a Return-Error message from the host. The switch receives this message from the host based on the contents of the dv_Call_Received_C message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RESQRYRE

Register type

Peg

Description

Resource query return error (RESQRYRE)

Register RESQRYRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host in response to the dv_Resource_Query message. The system sends this message when the system rejects the request for resource information. The system rejects resource information because:

- parameters are missing or not correct
- the host cannot request resource information
- data is temporarily not available

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RESQRYRR

Register type

Peg

Description

Resource query return result (RESQRYRR)

Register RESQRYRR counts the number of times the switch sends a Return-Result message to the host. The switch sends this message to the host in response to the dv_Resource_Query message. This

message contains ACD queue and agent information for the specified ACD directory number.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRANPYRE

Register type

Peg

Description

Transfer party return error (TRANPYRE)

Register TRANPYRE counts the number of times the switch sends a Return-Error message to the host. The switch sends this message to the host in response to the dv_Transfer_Party message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRANPYRR

Register type

Peg

Description

Transfer party return result (TRANPYRR)

Register TRANPYRR counts the number of times the switch sends a Return-Result message to the host. The switch sends this message to the host in response to the dv_Transfer_Party message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logsThere are no associated logs.

SCAISRV2

Description

Switch Computer Application Interface 2 (SCAISRV2)

The OM group SCAISRV2 was introduced because OM group SCAISERV was full. The OM group SCAISRV2 contains 32 registers that provide OM data on SCAI service use.

Nine registers monitor the CompuCALL host-switch remote operation feature. This feature enables a remote location to request login or logout to an Automatic Call Distribution (ACD) agent position. This feature also enables a remote location to make an ACD agent ready or not ready to receive ACD calls.

The switch sends a response message that relates to the activation of this feature on SCAI. The correct register increases as follows:

- The dv-Set-Feature message indicates that the feature engages.
 Register <u>SETFTRRE</u> increases if the switch responds with a
 dv-Return-Error message. (The error relates to the dv-Set-Feature
 message. The error does not relate to a specified function after the
 feature engages).
- The host application uses the dv-Set-Feature-Login message to instruct the switch to log into a specified ACD agent position. Register <u>LINAGRR</u> increases when the switch responds with a dv-Return-Result message. Register <u>LINAGRE</u> increases when the switch responds with a dv-Return-Error message.
- The host application uses the dv-Set-Feature-Logout message to instruct the switch to log out. The message instructs the switch to log out of a specified ACD agent position. Register <u>LOUTAGRR</u> increases when the switch responds with a dv-Return-Result message. Register <u>LOUTAGRE</u> increases when the switch responds with a dv-Return-Error message.
- The host application uses the dv-Set-Feature-Notready message to instruct the switch. The message instructs the switch to take a specified ACD agent position out of the current state. The message instructs the switch to put the specified ACD agent position into the Not Ready state. Register NRDYAGRR increases when the switch responds with a dv-Return-Result message. Register NRDYAGRE increases when the switch responds with a dv-Return-Error message.
- The host application uses the dv-Set-Feature-Ready message to instruct the switch. The message instructs the switch to make a

specified ACD agent position ready. The switch makes a specified ACD agent position ready to receive incoming ACD calls. Register RDYAGRR increases when the switch responds with a dv-Return-Result message. Register RDYAGRE increases when the switch responds with a dv-Return-Error message.

The correct register increases when one of the following messages occurs:

- The dv-Set-Offhook-U message occurs when a line that associates with the MDC or RES goes off-hook. Register <u>SETOFFHK</u> increases when the switch sends a dv-Set-Offhook-U message to the host.
- The dv-Message-Waiting-U message occurs when a message waiting event activates or deactivates. A message waiting event activates or deactivates on a line that associates with the MDC or RES. Register <u>MSGWAITU</u> increases when the switch sends a dv-Message-Waiting-U message to the host.
- The host application uses the dv-DN-Query message to return information about a MDC or RES DN. Information can include the following:
 - if the line associates with the MDC or RES DN
 - what the line state is (for example, idle, talking, or ringing)
 - if a message is waiting
- Register <u>DNQRYRR</u> increases when the switch responds with a Return-Result message. Register <u>DNQRYRE</u> increases when the switch responds with a Return-Error message.
- The host application uses the dv-Answer-Call message to answer an incoming call. The dv-Answer-Call message answers an incoming call on behalf of an ACD agent, MDC line, or RES line. Register <u>ANSCLLRR</u> increases when the switch responds with a Return-Result message. Register <u>ANSCLLRE</u> increases when the switch responds with a Return-Error message.
- The host application uses the dv-Release-Call message to release a call. The dv-Release-Call message releases a call on behalf of an ACD agent, MDC line, or RES line. Register <u>RELCLLRR</u> increases when the switch responds with a Return-Result message. Register <u>RELCLLRE</u> increases when the switch responds with a Return-Error message.
- The host application uses the dv-Hold-Call message to place a call on hold. The dv-Hold-Call message places a call on hold on behalf of an ACD agent, MDC line, or RES line. Register <u>HLDCLLRR</u> increases when the switch responds with a Return- Result

- message. Register <u>HLDCLLRE</u> increases when the switch responds with a Return-Result message.
- The host application uses the dv-Unhold-Call message to unhold a call. The dv-Unhold-Call message unholds a call on behalf of an ACD agent, MDC line, or RES line. The dv-Unhold-Call message unholds a call if CompuCALL placed the call on hold. Register UNHLDRR increases when the switch responds with a RETURN_RESULT message. Register UNHLDRE increases when the switch responds with a Return-Error message.
- The dv-Call-Unheld-U message occurs when a user on hold by CompuCALL "unholds" the call. a user "unholds" the call when the user presses the DN key on a MBS/MFT set or flashes the 500/2500 set. Register <u>UNHELDU</u> increases when the switch sends a dv-Call-Unheld-U message to the host.
- The host application uses the dv-Call-Consult-Originated-U
 message when one caller of a two-caller call activates the 3WC or
 CXR. The caller activates the 3WC or CXR to create a conference
 with a third caller. Register <u>CONSULTO</u> increases when the switch
 sends a dv-Call-Consult-Originated-U message to the host.
- The host application uses the dv-Call-Conferenced-U message when one caller initiates the 3WC or CXR message. One caller initiates the 3WC or CXR message to create a conference with all other callers. Register <u>CONFU</u> increases when the switch sends a dv-Call-Conferenced-U message to the host.
- The host application uses the dv-Call-Transferred-U message when one caller initiates the 3WC or CXR message. The caller initiates the 3WC or CXR to send the originator of a call to another party. Register <u>TRANSFER</u> increases when the switch sends a dv-Call-Transferred-U message to the host.
- The host computer sends the dv-Route-Call message to route a call in an ACD queue. In CompuCALL, the DN to which a call control message is sent does not have to associate with the call control message. The DN does not have to associate with the call control message before the DN receives the message. This message is a call control message. An association message that associates with the ACD group does not have to be sent before this message. Register RTECLLRR counts the number of times the switch sends a Return-Result reply to the host computer. The switch sends a Return-Result reply in response to the dv-Route-Call message. Register RTECLLRE counts the number of times the switch sends a Return-Error reply to the host computer. The switch sends a Return-Error reply in response to the dv-Route-Call message.

- The dv-Treatment-Complete-U message sends information to the host computer. The dv-Treatment-Complete-U message sends information that concerns an event that directly relates to the dv-Give-Treatment request. The dv-Give-Treatment request comes from the host computer. When the host computer associates with the ACD DN, the computer sends the message. The host computer uses the dv-DN-Associate host-to-switch message. Register TRTCOMPU counts the number of times the switch sends a dv-Treatment-Complete-U message to the host.
- The dv-Give-Treatment for RAN message occurs after the switch sends a dv-Call-Queued-U message to the host computer. The switch sends a dv-Call-Queued-U message when agents are not available. The switch sends a dv-Call-Queued-U message when the customer does not subscribe to the CompuCALL ACD Redirection Capability. The DN receives this message so that the caller on the other end can receive RAN. Register TRTRANRR counts the number of times the switch sends a Return-Result reply to the host computer. The switch sends a Return-Result reply in response to the dv-Give-Treatment message that requests RAN. Register TRTRANRE counts the number of times the switch sends a Return-Error reply to the host computer. The switch sends a Return-Error reply in response to the dv-Give-Treatment message that requests RAN.
- The dv-Give-Treatment for music message occurs after the switch sends a dv-Call-Queued-U message to the host computer. The switch sends a dv-Call-Queued-U message to the host computer when agents are not available. The switch sends a dv-Call-Queued-U message when the customer does not subscribe to the CompuCALL ACD Redirection Capability. The DN receives this message so that the caller on the other end can receive music. Register TRTMUSRR counts the number of times the switch sends a Return-Result reply to the host computer. The switch sends a Return-Result reply in response to the dv-Give-Treatment message that requests music. Register TRTMUSRE counts the number of times the switch sends a Return-Error reply to the host computer. The switch sends a Return-Error reply in response to the dv-Give-Treatment message that requests music.

The OM group SCAISRV2 provides one tuple per office. The following table lists the key and info fields associated with OM group SCAISRV2.

Key field	Info field
scai_group	none

The key field identifies the SCAI group name. The SCAI group name is a unique character string with a maximum length of 16 characters. Table SCAIGRP defines the SCAI group.

Related functional groups

The following functional groups that associate with OM group SCAISRV2:

- ACD, Extended Call Management (ECM)
- ACD CompuCALL
- ICCM Call Queue Management

Registers

The following table lists the registers associated with OM group SCAISRV2 and what they measure. For a description of a register, click on the register name.

Registers for OM group SCAISRV2

Register name	Measures
ANSCLLRE	Answer Call, Return Error
ANSCLLRR	Answer Call, Return-Result
CONFU	Call Conferenced
CONSULTO	Call Consult Originated
DNQRYRE	DN Query Error
DNQRYRR	DN Query Result
HLDCLLRE	Hold Call Request
HLDCLLRR	Hold Call, Return Result.
LINAGRE	Login Agent, Return Error
LINAGRR	Login Agent, Return-Result
LOUTAGRE	Logout Agent, Return-Error
LOUTAGRR	Logout Agent, Return-Result
<u>MSGWAITU</u>	Message Waiting
NRDYAGRE	Not Ready Agent, Return-Error

Registers for OM group SCAISRV2

Register name	Measures
NRDYAGRR	Not Ready Agent, Return-Result
RDYAGRE	Ready Agent, Return-Error
RDYAGRR	Ready Agent, Return-Result
RELCLLRE	Release Call, Return-Error
RELCLLRR	Release Call, Return-Result
RTECLLRE	Route Call, Return-Error
RTECLLRR	Route Call, Return-Result
SETFTRRE	Set Feature, Return-Error
SETOFFHK	Set Off Hook
TRANSFER	Call Transfer
TRTCOMPU	Treatment Complete
TRTMUSRE	Music, Return-Error
TRTMUSRR	Music, Return-Result
TRTRANRE	RAN, Return-Error
TRTRANRR	RAN, Return-Result
UNHELDU	Call Unheld
UNHLDRE	Unhold Call, Return-Error
UNHLDRR	Unhold Call, Return-Result

ANSCLLRE

Register type

Peg

Description

Register Answer Call, Return Error (ANSCLLRE)

This register increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Answer-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ANSCLLRR

Register type

Peg

Description

Register Answer Call, Return-Result.

This register increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message in response to a dv-Answer-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONFU

Register type

Peg

Description

Register Call Conferenced (CONFU)

This register increases when the switch sends a dv-Call-Conferenced-U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONSULTO

Register type

Peg

Description

Register Call Consult Originated (CONSULTO)

Register CONSULTO increases when the switch sends a dv-Call-Consult-Originated-U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DNQRYRE

Register type

Peg

Description

Register DN Query Error (DNQRYRE)

This register increases when the switch sends a dv-Return-Error message to the host. The switch sends a dv-Return-Error message to the host in response to a dv-DN-Query message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DNQRYRR

Register type

Peg

Description

Register DN Query Result (DNQRYRR)

Register (DNQYRR) increases when the switch sends a dv-Return-Result message to the host. The switch sends a dv-Return-Result message in response to a dv-DN-Query message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

HLDCLLRE

Register type

Peg

Description

Register Hold Call Request (HLDCLLRE)

Register HLDCCLRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Hold-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

HLDCLLRR

Register type

Peg

Description

Register Hold Call, Return Result.

This register increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message in response to a dv-Hold-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

LINAGRE

Register type

Peg

Description

Register Login Agent, Return Error (LINAGRE)

Register LINAGRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Set-Feature-Login message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

LINAGRR

Register type

Peg

Description

Register Login Agent, Return-Result (LINAGRR)

Register LINAGRR increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message in response to a dv-Set-Feature-Login message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

LOUTAGRE

Register type

Peg

Description

Register Logout Agent, Return-Error (LOUTAGRE)

Register LOUTAGRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Set-Feature-Logout message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

LOUTAGRR

Register type

Peg

Description

Register Logout Agent, Return-Result (LOUTAGRR)

Register LOUTAGRR increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message in response to a dv-Set-Feature-Logout message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MSGWAITU

Register type

Peg

Description

Register Message Waiting (MSGWAITU)

Register MSGWAITU increases when the switch sends a dv-Message-Waiting-U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NRDYAGRE

Register type

Peg

Description

Register Not Ready Agent, Return-Error (NADYAGRE)

Register NADYAGRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Set-Feature-Notready message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NRDYAGRR

Register type

Peg

Description

Register Not Ready Agent, Return-Result (NRDYAGRR)

Register (NRDYAGRR) increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message in response to a dv-Set-Feature-Notready message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RDYAGRE

Register type

Peg

Description

Register Ready Agent, Return-Error (RDYAGRE)

Register RDYAGRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Set-Feature-Ready message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RDYAGRR

Register type

Peg

Description

Register Ready Agent, Return-Result (RDYAGRR)

Register (RDYAGRR) increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message in response to a dv-Set-Feature-Ready message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RELCLLRE

Register type

Peg

Description

Register Release Call, Return-Error (RELCLLRE)

Register RELCLLRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Release-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RELCLLRR

Register type

Peg

Description

Register Release Call, Return-Result (RELCLLRR)

Register RELCLLRE increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message in response to a dv-Release-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

RTECLLRE

Register type

Peg

Description

Register Route Call, Return-Error (RTECLLRE)

Register RTCECLLRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Route-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RTECLLRR

Register type

Peg

Description

Register Route Call, Return-Result (RTECLLRR)

This register increases when the switch sends a Return-Result reply to the host. The switch sends a Return-Result reply in response to the dv-Route-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SETFTRRE

Register type

Peg

Description

Register Set Feature, Return-Error (SETFTRRE)

Register SETFTRRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Set-Feature message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SETOFFHK

Register type

Peg

Description

Register Set Off Hook (SETOFFHK)

Register SETOFFHK increases when the switch sends a dv-Set-Offhook-U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRANSFER

Register type

Peg

Description

Register Call Transfer (TRANSFER)

Register TRANSFER increases when the switch sends a dv-Call-Transferred-U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTCOMPU

Register type

Peg

Description

Register Treatment Complete (TRTCOMPU)

Register TRTCOMPU increases when the switch sends a dv-Treatment-Complete-U message to the host computer.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTMUSRE

Register type

Peg

Description

Register Music, Return-Error (TRTMUSRE)

Register TRTMUSRE increases when the switch sends a Return-Error message to the host computer. The switch sends a Return-Error message in response to a dv-Give-Treatment message that requests Music.

When the message validation process detects the error, the system increases register TRTMUSRE or TRTMSGRE. If the validation that detects the requested Music call treatment fails, the system increases register TRTMUSRE. If the validation that detects the requested call treatment fails, the system increases TRTMSGRE. Refer to OM group SCAISRV3 for information about register TRTMSGRE.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTMUSRR

Register type

Peg

Description

Register Music, Return-Result (TRTMUSRR)

Register (TRTMUSRR) increases when the switch sends a Return-Result message to the host computer. The switch sends a Return-Result message to the host computer in response to the dv-Give-Treatment message that requests music.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTRANRE

Register type

Peg

Description

Register RAN, Return-Error (TRTRANRE)

Register TRTRANRE increases when the switch sends a Return-Error message to the host computer. The switch sends a Return-Error message in response to the dv-Give-Treatment message that requests RAN.

When the message validation process detects the error, the system increases register TRTRANRE or TRTMSGRE. If the validation that detects the requested Recorded Announcement (RAN) treatment fails after the detection, the system increases register TRTRANRE. If the validation that detects the requested call treatment fails before the detection, the system increases register TRTMSGRE. Refer to OM group SCAISRV3 for information about register TRTMSGRE.

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTRANRR

Register type

Peg

Description

Register RAN, Return-Result (TRTRANRR)

Register TRTRANRR increases when the switch sends a Return-Result reply to the host computer. The switch sends a Return-Result reply to the host computer in response to dv-Give-Treatment message that requests RAN.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

UNHELDU

Register type

Peg

Description

Register Call Unheld (UNHELDU)

Register UNHELDU increases when the switch sends a dv-Call-Unheld-U message to the host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

UNHLDRE

Register type

Peg

Description

Register Unhold Call, Return-Error (UNHLDRE)

Register UNHLDRE increases when the switch sends a Return-Error message to the host. The switch sends a Return-Error message in response to a dv-Unhold-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

UNHLDRR

Register type

Peg

Description

Register Unhold Call, Return-Result (UNHLDRR)

Register UNHLDRR increases when the switch sends a Return-Result message to the host. The switch sends a Return-Result message to the host in response to a dv-Unhold-Call message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

SCAISRV3

Description

Switch Computer Application Interface 3

Operational measurement (OM) group Switch Computer Application Interface Service 3 (SCAISRV3) was introduced because OM groups SCAISERV and SCAISRV2 are full. SCAISRV3 contains 31 registers that provide OM data on SCAI service use.

One tuple is provided for each SCAI group. The following table lists the key and info fields associated with OM group SCAISRV3.

Key field	Info field
SCAI_group	none

The key field identifies the SCAI group name as defined in table SCAIGRP. The SCAI group name number is a character string with a maximum length of 16 characters.

Related functional groups

The functional groups that associate with OM group SCAISRV3 are as follows:

- CompuCALL Base
- ICM Call Center Server
- ICM Call Queue Management
- ICM Enhanced ICCM Functionality
- ICM Network ICM

Registers

The following table lists the registers associated with OM group SCAISRV3 and what they measure. For a description of a register, click on the register name.

Registers for OM group SCAISRV3

Register name	Measures
AGTSTACT	Agent Set Action
AGTSTATU	Agent Status, Invoke-Request

Registers for OM group SCAISRV3

Register name	Measures
APPQRYRE	Application Query, Return-Error
APPQRYRR	Application Query, Return-Result
CDNSTATU	CDN Status, Invoke-Request
CLGNAMEU	CDN Status, Invoke-Request
CLGNAMEU	Calling Name
EMKEVENTU	Emergency Key Event Message
LOBEVENTU	Line-Of-Business (LOB) Event Message
RSRVAGRE	Reserve Agent, Return Error
RSRVAGRR	Reserve Agent, Return Result
SETCDNRE	Set CDN, Return-Error
SETCDNRR	Set CDN, Return-Result
TRTAUDRE	Audio, Return-Result
TRTAUDRR	Audio, Return-Error
TRTBSYRE	Busy, Return-Error
TRTBSYRR	Busy, Return-Result
TRTDSCRE	Disconnect, Return-Error
TRTDSCRR	Disconnect, Return-Result
TRTFBYRE	Fast Busy, Return-Error
TRTFBYRR	Fastbusy, Return-Result
TRTMSGRE	Message, Return-Error
TRTRNGRE	Ringback, Return-Error
TRTRNGRR	Ringback, Return-Result
TRTSILRE	Silence, Return-Error

Registers for OM group SCAISRV3

Register name	Measures
TRTSILRR	Silence, Return Result
UNRSAGRE	Unreserve Agent, Return-Error
UNRSAGRR	Unreserve Agent, Return-Result
MWTACTRR	Message Waiting Return Result
MWTACTRE	Message Waiting Return Error

AGTSTACT

Register type

Peg

Description

Register Agent Set Action

The switch sends out a dv-Agent-SetAction-U for Unreserve agent event notification due to timer expiration and pegs register AGTSTACT.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AGTSTATU

Register type

Peg

Description

Agent Status, Invoke-Request

Register AGTSTATU counts the number of times the switch sends an Invoke-Request to the host computer in response to an Application Status Query message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

APPQRYRE

Register type

Peg

Description

Application Query, Return-Error

This register is pegged when the switch returns a Return-Error reply message to the host computer in response to an Application Status Query message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

APPQRYRR

Register type

Peg

Description

Application Query, Return-Result

Register APPQRYRR counts the number of times the switch returns a Return-Result reply message to the host computer in response to an Application Status Query message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

CDNSTATU

Register type

Peg

Description

CDN Status, Invoke-Request

Register CDNSTATU is pegged when the switch send an Invoke-Request to the host computer in response to an Application Status Query message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CLGNAMEU

Register type

Peg

Description

Register Calling Name

Register CLGNAMEU increases after the switch sends the dv-Call-Callingname-U invoke-request message to the host. This register can increase after the system delivers the name of the calling party through the TCAP or ISUP_PAM message. This register can increase when a query time-out occurs.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

EMKEVENTU

Register type

Peg

Description

Register Emergency Key Event Message

Register EMKEVENTU counts the number of times the switch sends a dv-EMK-U message to the host computer.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

LOBEVENTU

Register type

Peg

Description

Line-Of-Business (LOB) Event Message

Register LOBEVENTU counts the number of times the switch sends a dv-LOB-Event-U message to the host computer.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSRVAGRE

Register type

Peg

Description

Reserve Agent, Return Error

The switch sends out a Return Error in response to the dv-Set-Feature Reserve message and pegs register RSRVAGRE.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSRVAGRR

Register type

Peg

Description

Register Reserve Agent, Return Result

The switch sends out a Return Result in response to the dv-Set-Feature Reserve message and pegs register RSRVAGRR.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SETCDNRE

Register type

Peg

Description

Register Set CDN, Return-Error (SETCDNRE)

Register SETCDNRE counts the times the switch sends a Return-Error reply to the host computer. The switch sends this reply to the host computer in response to the dv-Set-CDN-State message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

SETCDNRR

Register type

Peg

Description

Register Set CDN, Return-Result (SETCDNRR)

Register SETCDNRR counts the times the switch sends a Return-Result reply to the host computer. The switch sends this reply in response to the dv-Set-CDN-State message.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTAUDRE

Register type

Peg

Description

Register Audio, Return-Result

Register TRTAUDRE counts the number of times, for each SCAI group, the switch sends a Return-Result reply message to the host computer in response to the dv-Give-Treatment message requesting Audio.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTAUDRR

Register type

Peg

Description

Register Audio, Return-Error

Register TRTAUDRR counts the number of times, for each SCAI group, the switch sends a Return-Error reply message to the host computer in response to the dv-Give-Treatment message requesting Audio.

The switch pegs either register <u>TRTAUDRE</u> or <u>TRTMSGRE</u>, depending on when the switch detects the error in the message validation process. If the validation fails after the switch detects the requested Audio call treatment, the switch pegs register <u>TRTAUDRE</u>. If the validation fails before the switch detects the requested call treatment, the switch pegs register TRTMSGRE.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTBSYRE

Register type

Peg

Description

Register Busy, Return-Error

Register TRTBSYRE increases when the switch sends a Return-Error message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Busy.

When the message validation process detects the error, register TRTBSYRE or <u>TRTMSGRE</u> increases. If the validation fails after the system detects the requested Busy call treatment, register <u>TRTBSYRE</u> increases. If the validation fails before the system detects the requested call treatment, register <u>TRTMSGRE</u> increases.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TRTBSYRR

Register type

Peg

Description

Register Busy, Return-Result (TRTBSYRR)

Register TRTBSYRR increases when the switch sends a Return-Result message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Busy.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTDSCRE

Register type

Peg

Description

Register Disconnect, Return-Error (TRTDSCRE)

Register TRTDSCRE increases when the switch sends a Return-Error message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Disconnect.

When the message validation process detects the error, register TRTDSCRE or TRTMSGRE increases. If the validation fails after the system detects the requested Disconnect call treatment, register TRTDSCRE increases. If the validation fails before the system detects the requested call treatment, register TRTMSGRE increases.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TRTDSCRR

Register type

Peg

Description

Register Disconnect, Return-Result (TRTDSCRR)

Register TRTDSCRR increases when the switch sends a Return-Result message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Disconnect.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTFBYRE

Register type

Peg

Description

Register Fast Busy, Return-Error (TRTFBYRE)

Register TRTFBYRE increases when the switch sends a Return-Error message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Fastbusy.

When the system detects an error in the message validation process, register TRTFBYRE or <u>TRTMSGRE</u> increases. If the validation fails after the system detects the requested Fastbusy call treatment, register TRTFBYRE increases. If the validation fails before the system detects the requested call treatment, register <u>TRTMSGRE</u> increases.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TRTFBYRR

Register type

Peg

Description

Register Fastbusy, Return-Result (TRTFBYRR)

Register TRTFBYRR increases when the switch sends a Return-Result message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Fastbusy.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTMSGRE

Register type

Peg

Description

Register Message, Return-Error (TRTMSGRE)

Register TRTMSGRE increases when the switch sends a Return-Error message to the host computer. The switch sends this message in response to a dv-Give-Treatment message.

If the message validation process fails before the system detects the requested type of call treatment, register TRTMSGRE increases. If the message validation process fails after the system detects the requested call treatment, one of the following registers increases:

- TRTMUSRE in OM group SCAISRV2
- TRTRANRE in OM group SCAISRV2
- TRTRNGRE in OM group SCAISRV3
- TRTBSYRE in OM group SCAISRV3
- TRTDSCRE in OM group SCAISRV3
- TRTFBYRE in OM group SCAISRV3
- TRTSILRE in OM group SCAISRV3

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTRNGRE

Register type

Peg

Description

Register Ringback, Return-Error (TRTRNGRE)

Register TRTRNGRE increases when the switch sends a Return-Error message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Ringback.

When the system detects an error in the message validation process, register TRTRNGRE or <u>TRTMSGRE</u> increases. If the message validation process fails after the system detects the requested Ringback call treatment, register TRTRNGRE increases. If the message validation process fails before the system detects the requested call treatment, register <u>TRTMSGRE</u> increases.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTRNGRR

Register type

Peg

Description

Register Ringback, Return-Result (TRTRNGRR)

Register TRTRNGRR increases when the switch sends a Return-Result to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Ringback.

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTSILRE

Register type

Peg

Description

Register Silence, Return-Error

Register TRTSILRE increases when the switch sends a Return-Error message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests Silence.

When the system detects an error in the message validation process, register TRTSILRE or <u>TRTMSGRE</u> increases. If the message validation process fails after the system detects the requested Silence call treatment, register TRTSILRE increases. If the message validation process fails before the system detects the requested call treatment, register <u>TRTMSGRE</u> increases.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRTSILRR

Register type

Peg

Description

Register Silence, Return Result

Register TRTSILRR increases when the switch sends a return result message to the host computer. The switch sends this message in response to the dv-Give-Treatment message that requests silence.

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

UNRSAGRE

Register type

Peg

Description

Register Unreserve Agent, Return-Error

The switch sends out a Return Error in response to the dv-Set-Feature Unreserve message and pegs register UNRSAGRE.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

UNRSAGRR

Register type

Peg

Description

Register Unreserve Agent, Return-Result

The switch sends out a Return-Result in response to the dv-Set-Feature Unreserve message and pegs register UNRSAGRR.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

MWTACTRR

Register type

Peg

Description

Message Waiting Return Result

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

MWTACTRE

Register type

Peg

Description

Register MWTACTRE increases when the DMS switch sends a Return-Error message to the host computer. The switch sends this message in response to an invalid dv-MWT-Act message request.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

SCAISRV4

Description

OM group Switch/Computer Application Interface 4 (SCAISRV4) has OM registers for the dv-Call-Held-U, dv-Set-Feature, dv-Reassign-Agent, dv-Controller-Released-U, dv-Noncontroller-Released-U, dv-Call-Progress-U and dv-Toggle-Call messages. The OM group SCAISRV4 contains registers that provide OM data on Switch/Computer Application Interface (SCAI) service use.

The following table lists the key and info fields associated with OM group SCAISRV4.

Key field	Info field
scai_group	None

The key field identifies the SCAI group name as defined in Table SCAIGRP. The SCAI group name is a character string with a maximum length of 16 characters.

Related functional groups

There are no functional groups associated with OM group SCAISRV4.

Registers

The following table lists the registers associated with OM group SCAISRV4 and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SCAISRV4 (Sheet 1 of 2)

Register name	Measures
HELDU	Call held (unsolicited)
CHFRCERE	Change force, return error
CHFRCERR	Change force, return result
CHWRAPRE	Change wrap, return error
CHWRAPRR	Change wrap, return result
REAGNRE	Reassign agent, return error

Registers for OM group SCAISRV4 (Sheet 2 of 2)

Register name	Measures
REAGNRR	Reassign agent, return result
CNTRLREL	Controller released
NCTRLREL	Non-Controller released
<u>CPGBUSYU</u>	Call progress busy (unsolicited)
CPGCONNU	Call progress connected (unsolicited)
CPGDIGCU	Call progress digit collection (unsolicited)
CPGMUSCU	Call progress music (unsolicited)
<u>CPGRANU</u>	Call progress ran (unsolicited)
CPGRINGU	Call progress ringback (unsolicited)
CPGSILU	Call progress silence (unsolicited)
<u>CPGTRTU</u>	Call progress treatment
TOGCLLRR	Toggle call - return result
TOGCLLRE	Toggle call - return error

HELDU

Register type

Peg

Description

HELDU is pegged when the SCAI application on the switch sends the call event message DV_CALL_HELD_U to the host application.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

CHFRCERE

Register type

Peg

Description

The switch sends out a Return Error message and pegs register CHFRCERE in response to the dv-Set-Feature Chgforce message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

None

CHFRCERR

Register type

Peg

Description

The switch sends out a Return Result message and pegs register CHFRCERR in response to the dv-Set-Feature Chgforce message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

SCAI502

CHWRAPRE

Register type

Peg

Description

The switch sends a Return Error message and pegs register CHWRAPRE in response to the dv-Set-Feature Chavwrap message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

None

CHWRAPRR

Register type

Peg

Description

The switch sends a Return Result and pegs CHWRAPRR in response to the dv-Set-Feature Chavwrap message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

SCAI501

REAGNRE

Register type

Peg

Description

The switch sends out a Return Error and pegs register REAGNRE in response to the dv-Reassign-Agent message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

None

REAGNRR

Register type

Peg

Description

The switch produces log SCAI500 when the host computer sends a dv-Reassign-Agent.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

SCAI500

CNTRLREL

Register type

Peg

Description

The switch sends a Controller Released message and pegs CNTRLREL in response to the dv-Controller-Released-U message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

None

NCTRLREL

Register type

Peg

Description

The switch sends a Non-Controller Released message and pegs NCTRLREL in response to the dv-Noncontroller-Released-U message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

CPGBUSYU

Register type

Peg

Description

The switch sends a dv-Call-Progress-U message with the tag CPG_BUSY_FUNCTION, and pegs register CPGBUSYU.

This register applies only to DMS.

Associated registers

<u>CPGCONNU</u>, <u>CPGDIGCU</u>, <u>CPGMUSCU</u>, <u>CPGRANU</u>, <u>CPGRINGU</u>, <u>CPGSILU</u>

Extension registers

None

Associated logs

None

CPGCONNU

Register type

Peg

Description

The switch sends a dv-Call-Progress-U message with the tag CPG_CONNECTED_FUNCTION, and pegs register CPGCONNU.

This register applies only to DMS.

Associated registers

<u>CPGBUSYU, CPGDIGCU, CPGMUSCU, CPGRANU, CPGRINGU, CPGSILU</u>

Extension registers

None

Associated logs

CPGDIGCU

Register type

Peg

Description

The switch sends a dv-Call-Progress-U message with the tag CPG_DIGCOLL_FUNCTION, and pegs register CPGDIGCU.

This register applies only to DMS.

Associated registers

<u>CPGBUSYU</u>, <u>CPGCONNU</u>, <u>CPGMUSCU</u>, <u>CPGRANU</u>, <u>CPGRINGU</u>, <u>CPGSILU</u>

Extension registers

None

Associated logs

None

CPGMUSCU

Register type

Peg

Description

The switch sends a dv-Call-Progress-U message with the tag CPG_MUSIC_FUNCTION, and pegs register CPGMUSCU.

This register applies only to DMS.

Associated registers

<u>CPGBUSYU, CPGCONNU, CPGDIGCU, CPGRANU, CPGRINGU, CPGSILU</u>

Extension registers

None

Associated logs

CPGRANU

Register type

Peg

Description

The switch sends a dv-Call-Progress-U message with the tag CPG_RAN_FUNCTION, and pegs register CPGRANU.

This register applies only to DMS.

Associated registers

<u>CPGBUSYU</u>, <u>CPGCONNU</u>, <u>CPGDIGCU</u>, <u>CPGMUSCU</u>, <u>CPGRINGU</u>, <u>CPGSILU</u>

Extension registers

None

Associated logs

None

CPGRINGU

Register type

Peg

Description

The switch sends a dv-Call-Progress-U message with the tag CPG_RINGBACK_FUNCTION, and pegs register CPGRINGU.

This register applies only to DMS.

Associated registers

CPGBUSYU, CPGCONNU CPGDIGCU, CPGMUSCU, CPGRANU, CPGSILU

Extension registers

None

Associated logs

CPGSILU

Register type

Peg

Description

The switch sends a dv-Call-Progress-U message with the tag CPG_SILENCE_FUNCTION, and pegs register CPGSILU.

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This register applies only to DMS.

Associated registers

<u>CPGBUSYU</u>, <u>CPGCONNU</u>, <u>CPGDIGCU</u>, <u>CPGMUSCU</u>, <u>CPGRANU</u>, <u>CPGRINGU</u>

Extension registers

None

Associated logs

None

CPGTRTU

Register type

Peg

Description

CPGTRTU is pegged each time the switch sends a dv-Call-progress-U message with the tag CPG_TRTMT_FUNCTION.

This register applies only to DMS.

Associated registers

<u>CPGBUSYU, CPGCONNU, CPGDIGCU, CPGRINGU, CPGRANU, CPGMUSCU, CPGSILU</u>

Extension registers

None

Associated logs

TOGCLLRR

Register type

Peg

Description

TOGCLLRR is pegged when the switch returns a RETURN-RESULT to the host computer in response to a dv-Toggle-Call message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

None

TOGCLLRE

Register type

Peg

Description

TOGCLLRE is pegged when the switch returns a RETURN-ERROR to the host computer in response to a dv-Toggle-Call message.

This register applies only to DMS.

Associated registers

None

Extension registers

None

Associated logs

SCAITRAN

Description

Switch-to-computer application interface transport (SCAITRAN)

The OM group SCAITRAN monitors incoming and outgoing queues that are part of the switch-to-computer application interface (SCAI) link used in the CompuCALL interface. The SCAI link allows two-way communication between applications on the DMS and applications on customer premises equipment (CPE).

The system uses OM group SCAITRAN in the automatic call distribution (ACD) service. In the ACD, the system evenly distributes incoming calls to a central directory number to a designated number of telephone sets. Data that the registers provide, which includes 16 high-water mark registers, enables the user to determine peak periods of use. Data that the registers provide also enables the user to determine if overflow conditions cause a loss of information.

The OM group SCAITRAN provides one tuple for each linkset. The following table lists the key and info fields associated with OM group SCAITRAN.

Key field	Info field
SCAICOMS_LKSET	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SCAITRAN and what they measure. For a description of a register, click on the register name.

Registers for OM group SCAITRAN

Register name	Measures
SCICQHI1	SCAI incoming queue high-water mark one
SCICQHI2	SCAI incoming queue high-water mark two
SCICQHI3	SCAI incoming queue high-water mark three

Registers for OM group SCAITRAN

Register name	Measures
SCICQHI4	SCAI incoming queue high-water mark four
SCICQHI5	SCAI incoming queue high-water mark five
SCICQHI6	SCAI incoming queue high-water mark six
SCICQHI7	SCAI incoming queue high-water mark seven
SCICQHI8	SCAI incoming queue high-water mark eight
SCOGQHI1	SCAI outgoing queue high-water mark one
SCOGQHI2	SCAI outgoing queue high-water mark two
SCOGQHI3	SCAI outgoing queue high-water mark three
SCOGQHI4	SCAI outgoing queue high-water mark four
SCOGQHI5	SCAI outgoing queue high-water mark five
SCOGQHI6	SCAI outgoing queue high-water mark six
SCOGQHI7	SCAI outgoing queue high-water mark seven
SCOGQHI8	SCAI outgoing queue high-water mark eight
SICQFAIL	SCAI incoming queue failures
SIMSGLST	SCAI incoming messages lost
SOCQFAIL	SCAI outgoing queue failures
SOMSGLST	SCAI outgoing messages lost
STOTMSGI	SCAI total incoming messages
STOTMSGO	SCAI total outgoing messages

SCICQHI1

Register type

Peg

Description

SCAI incoming queue high-water mark one (SCICQHI1)

Register SCICQHI1 records the maximum messages that wait in incoming queue 1 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a defined link in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum active switched virtual circuits (SVC) possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the auxiliary central processor (AUXCP) class
- distribute the SVC over multiple SVCs on multiple multiprotocol controller (MPC) cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Register SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Register SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCICQHI2

Register type

Peg

Description

SCAI incoming queue high-water mark two (SCICQHI2)

Register SCICQHI2 records the maximum messages that wait in incoming queue 2 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a defined link in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum active SVCs on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCICQHI3

Register type

Peg

Description

SCAI incoming queue high-water mark three (SCICQHI3)

Register SCICQHI3 records the maximum messages that wait in incoming queue 3 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a defined link in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum active SVCs on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information

Associated registers

Register SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Register SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCICQHI4

Register type

Peg

Description

SCAI incoming queue high-water mark four (SCICQHI4)

Register SCICQHI4 records the maximum messages that wait in incoming queue 4 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a defined link in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum active SVCs on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCICQHI5

Register type

Peg

Description

SCAI incoming queue high-water mark five (SCICQHI5)

Register SCICQHI5 records the maximum messages that wait in incoming queue 5 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a defined link in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum active SVCs on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCICQHI6

Register type

Peg

Description

SCAI incoming queue high-water mark six (SCICQHI6).

Register SCICQHI6 records the maximum number of messages waiting in incoming queue 6 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCICQHI7

Register type

Peg

Description

SCAI incoming queue high-water mark seven (SCICQHI7).

Register SCICQHI7 records the maximum number of messages waiting in incoming queue 7 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCICQHI8

Register type

Peg

Description

SCAI incoming queue high-water mark eight (SCICQHI8)

Register SCICQHI8 records the maximum number of messages waiting in incoming queue 8 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCICQHI registers (SCICQHI1 to SCICQHI8) represent the maximum number of active SVCs possible on a linkset.

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These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI1

Register type

Peg

Description

SCAI outgoing queue high-water mark one (SCOGQHI1).

Register SCOGQHI1 records the maximum number of messages waiting in outgoing queue 1 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI2 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI2

Register type

Peg

Description

SCAI outgoing queue high-water mark two (SCOGQHI2).

Register SCOGQHI2 records the maximum number of messages waiting in outgoing queue 2 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI3

Register type

Peg

Description

SCAI outgoing queue high-water mark three (SCOGQHI3).

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Register SCOGQHI3 records the maximum number of messages waiting in outgoing queue 3 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI4

Register type

Peg

Description

SCAI outgoing queue high-water mark four (SCOGQHI4).

Register SCOGQHI4 records the maximum number of messages waiting in outgoing queue 4 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI5

Register type

Peg

Description

SCAI outgoing queue high-water mark five (SCOGQHI5).

Register SCOGQHI5 records the maximum number of messages waiting in outgoing queue 5 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI6

Register type

Peg

Description

SCAI outgoing queue high-water mark six (SCOGQHI6).

Register SCOGQHI6 records the maximum number of messages waiting in outgoing queue 6 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI7

Register type

Peg

Description

SCAI outgoing queue high-water mark seven (SCOGQHI7).

Register SCOGQHI7 records the maximum number of messages waiting in outgoing queue 7 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming queues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCOGQHI8

Register type

Peg

Description

SCAI outgoing queue high-water mark eight (SCOGQHI8).

Register SCOGQHI8 records the maximum number of messages waiting in outgoing queue 8 during the last OM transfer period. The value ranges between 1 and 64 (the maximum size of an application work queue). Each of the eight queues has a corresponding link defined in the linkset. The linkset is datafilled in table SCAICOMS.

The eight SCOCQHI registers (SCOGQHI1 to SCOGQHI8) represent the maximum number of active SVCs possible on a linkset.

These registers determine if a minimum of one of the following actions is required:

- increase the percentage of time allocated to the AUXCP class
- distribute the SVC over multiple SVCs on multiple MPC cards
- use less groups for each directory number to reduce the requested information.

Associated registers

Registers SCICQHI1 to SCICQHI8 record the high-water marks of incoming gueues 1 to 8.

Registers SCOGQHI1 to SCOGQHI8 record the high-water marks of outgoing queues 1 to 8.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SICQFAIL

Register type

Peg

Description

SCAI incoming queue failures (SICQFAIL).

Register SICQFAIL increases when an incoming message (from the DMS to the application) cannot be queued. An incoming message (from the DMS to the application) cannot be queued because the input queue is full.

Associated registers

Register <u>SIMSGLST</u> increases when an incoming message is lost. An incoming message is lost because the input buffer is full.

Register SOGQFAIL increases when an outgoing message (from the application to the DMS) cannot be queued. An outgoing message (from the application to the DMS) cannot be queued because the output queue is full.

Registers <u>SIMSGLST</u> + SIGQFAIL = total incoming messages dropped at the SCAI link

Extension registers

There are no extension registers.

Associated logs

Log SCAI301 generates when an overflow condition exists at the SCAI link. When an overflow condition exists at the SCAI link, messages are lost.

SIMSGLST

Register type

Peg

Description

SCAI incoming messages lost (SIMSGLST).

Register SIMSGLST increases when an incoming message (from the DMS to the application) is lost at the SCAI link. An incoming message (from the DMS to the application) is lost because the input buffer is full.

Associated registers

Register <u>SICQFAIL</u> increases when an incoming message cannot be queued. An incoming message cannot be queued because the input queue is full.

Register <u>SOMSGLST</u> increases when an outgoing message (from the application to the DMS) is lost at the SCAI link. An outgoing message (from the application to the DMS) is lost because the output buffer is full.

Registers SIMSGLST + <u>SICQFAIL</u> = total incoming messages dropped at the SCAI link

Extension registers

There are no extension registers.

Associated logs

Log SCAI301 generates when an overflow condition exists at the SCAI link. When an overflow condition exists at the SCAI link, messages are lost.

SOCQFAIL

Register type

Peg

Description

SCAI outgoing queue failures (SOGQFAIL).

Register SOGQFAIL increases when an outgoing message (from the application to the DMS) cannot be queued. An outgoing message (from the application to the DMS) cannot be queued because the output queue is full.

Associated registers

Register <u>SICQFAIL</u> increases when an incoming message (from the DMS to the application) cannot be queued. An incoming message (from the DMS to the application) cannot be queued because the input queue is full.

Register SOMSGLST increases when a message is lost. A message is lost because the output buffer is full.

Registers <u>SOMSGLST</u> + SOGQFAIL = total outgoing messages not sent over the SCAI link

Extension registers

There are no extension registers.

Associated logs

Log SCAI301 generates when an overflow condition exists at the SCAI link. When an overflow condition exists at the SCAI link, messages are lost.

SOMSGLST

Register type

Peg

Description

SCAI outgoing messages lost (SOMSGLST).

Register SOMSGLST increases when an outgoing message (from the application to the DMS) is lost at the SCAI link. An outgoing message (from the application to the DMS) is lost because the output buffer is full.

Associated registers

Register SIMSGLST increases when an incoming message (from the DMS to the application) is lost. An incoming message (from the DMS to the application) is lost because the input buffer is full.

Register <u>SOCQFAIL</u> increases when a message cannot be queued. A message cannot be queued because the output queue is full.

Registers SOMSGLST + <u>SOCQFAIL</u> = total outgoing messages not sent over the SCAI link

Extension registers

There are no extension registers.

Associated logs

Log SCAI302 generates when this register increases.

STOTMSGI

Register type

Peg

Description

SCAI total incoming messages (STOTMSGI).

Register STOTMSGI increases when the SCAI link handles an incoming message (from the DMS to the application). This register increases if the message is processed further or dropped.

Associated registers

Register <u>STOTMSGO</u> increases when the SCAI link handles an outgoing message (from the application to the DMS).

Registers STOTMSGI + <u>STOTMSGO</u>= total messages processed by the SCAI link.

Registers STOTMSGI + <u>STOTMSGO</u> - <u>SIMSGLST</u> - <u>SOCQFAIL</u> = total messages successfully sent or received over the SCAI link

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

STOTMSGO

Register type

Peg

Description

SCAI total outgoing messages (STOTMSGO).

Register STOTMSGO increases when the SCAI link handles an outgoing message (from the application to the DMS). This register increases if the message is processed further or dropped.

Associated registers

Register <u>STOTMSGI</u> increases when the SCAI link handles an incoming message (from the DMS to the application).

Registers <u>STOTMSGI</u> + STOTMSGO= total messages processed by the SCAI link.

Registers <u>STOTMSGI</u> + STOTMSGO - <u>SIMSGLST</u> - <u>SOMSGLST</u> - <u>SICQFAIL</u> = total messages successfully sent or received over the SCAI link

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCF

Description

OM group Selective Call Forwarding (SCF) monitors the use of the SCF feature. This feature can be obtained alone or as part of the universal access group of features.

SCF contains peg registers that count:

- · common access attempts, activations, deactivations, and denials
- requests for off-board service updates or changes. With the Off-board Service Control feature, off-board service updates peg certain registers when subscribers do one of the following from an off-board application:
 - query the status and/or programmed information of corresponding subscribed-to services
 - generate a request to activate, deactivate or change the services

For more information about the Off-board Service Control feature, refer to Advanced Intelligent Network Essentials Service Implementation Guide, 297-5161-021, and the Advanced Intelligent Network Essentials Service Enablers, 297-5161-022.

The Off-board Service Control feature applies only to DMS.

- attempts to enter the screening list editing function for SCF
- attempts to access SLE for SCF that are denied either because SCF has not been assigned or activated or because of lack of system resources
- activations and deactivations of SCF
- calls forwarded through the base station by SCF
- calls routed to an SCF base station when SCF is active
- calls that attempt to use SCF that fail because of feature interactions
 - feature interactions
 - system resources or system failure are not available
 - the maximum number of simultaneous SCF calls has been reached

 calls that attempt to use SCF but are not screened because either the incoming directory number or the screening list is not available

SCF contains one usage register that records if a line uses SCF SLE.

The following table lists the key and info fields associated with OM group SCF.

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group SCF.

Registers

The following table lists the registers associated with OM group SCF and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SCF (Sheet 1 of 2)

Register name	Measures
SCFACT	SCF successful activations
<u>SCFAUNV</u>	SCF activations universal
<u>SCFDACT</u>	SCF successful deactivations
SCFDENY	SCF denials universal
SCFDUNV	SCF deactivations universal
SCFEATT	SCF editing attempts
SCFEDEN	SCF editing denial
SCFEOVF	SCF editing overflow
<u>SCFEUSG</u>	SCF editing usage
<u>SCFFAIL</u>	SCF failure
SCFFWD	SCF forwarded calls
SCFOVFL	SCF overflow

Registers for OM group SCF (Sheet 2 of 2)

Register name	Measures
SCFSAT	SCF screening attempt
SCFSBLK	SCF screening blocking
SCFSDEN	SCF screening denials
SCFSOVFL	SCF simultaneous overflow
SCFUNIV	SCF universal access attempts

SCFACT

Register type

Peg

Description

SCFACT counts calls that correctly activate the SCF feature by subscribers.

For DMS only: Similar to operations performed by service access code controlled activation, SCFACT is pegged for each occurrence of an off-board service update activation request.

Associated registers

None

Extension registers

None

Associated logs

None

SCFAUNV

Register type

Peg

Description

SCFAUNV counts correct activations by a universal user of the SCF feature.

Associated registers

None

Extension registers

None

Associated logs

None

SCFDACT

Register type

Peg

Description

SCFDACT counts the number of times a subscriber deactivates SCF service.

For DMS only: Similar to the operations performed by service access code controlled activation, SCFDACT is pegged for each occurrence of an off-board service update deactivation request.

Associated registers

None

Extension registers

None

Associated logs

None

SCFDENY

Register type

Peg

Description

SCFDENY increases when a subscriber attempts to update SCF programmed data using an edit session, and the attempt is denied because the DENY option is in effect.

For DMS only: SCFDENY is pegged for each of the following off-board service update request attempts:

- The DOR option is present on the SCF subscriber line
- SCF is enabled office wide, and the DENY SCF option is present on the subscriber line

Associated registers

SCFEDEN

Extension registers

None

Associated logs

None

SCFDUNV

Register type

Peg

Description

SCFDUNV counts deactivations of the SCF feature by a universal user.

Associated registers

None

Extension registers

None

Associated logs

None

SCFEATT

Register type

Peg

Description

SCFEATT counts attempts to access SLE for the SCF feature.

For DMS only: The register is pegged each time a subscriber uses an edit session to update SCF programmed data. Similar to the operations performed in a service access code controlled edit session, SCFEATT is pegged for off-board service update requests to:

- add or delete a DN to a subscriber SCF list
- delete all DNs in a subscriber SCF list
- delete all anonymous or private entries in a subscriber SCF list
- set or clear the forwarding DN

Associated registers

None

Extension registers

None

Associated logs

None

SCFEDEN

Register type

Peg

Description

SCFEDEN counts attempts to access SLE for the SCF feature that are denied. Attempts are denied for one of the following reasons:

- the SCF feature is not assigned to the line, or is not activated in the office
- a universal access attempt is denied because the DENYSCF option is on the line

The system routes the call to FNAL treatment.

For DMS only: SCFEDEN is pegged when a subscriber attempts to update SCF programmed data using an edit session, and the attempt is denied. SCFEDEN is pegged when the following is true for a given SCF off-board service update request.

- SLE is not enabled in table CUSTSTN.
- SCF is not enabled in table RESOFC.

Associated registers

None

Extension registers

None

Associated logs

LINE138

SCFEOVF

Register type

Peg

Description

SCFEOVF counts attempts to access SLE for the SCF feature that fail because of lack of system resources. If the attempt fails because of lack of hardware resources, the system routes the call to no service circuit (NOSC) treatment. If the attempt fails because of lack of software resources, the system routes the call to no software resource (NOSR) treatment.

Associated registers

None

Extension registers

None

Associated logs

LINE138

SCFEUSG

Register type

Usage

Scan rate

10 seconds

Description

SCFEUSG records if a line uses SLE for the SCF feature.

Associated registers

None

Extension registers

None

Associated logs

None

SCFFAIL

Register type

Peg

Description

SCFFAIL counts calls that attempt to forward. Calls that attempt to forward use the SCF feature but fail because of the following feature interactions:

- a call forwarding chain that exceeds five forwarding base stations
- call forwarding routing that fails or results in routing to an incorrect route
- detection of a call forwarding loop
- an attendant console involved in the call routes to a destination that requires a database query
- forwarding to a preset or meet-me conference call
- a verification call that results in forwarding

The system routes the call to busy (BUSY) treatment.

Associated registers

None

Extension registers

None

Associated logs

None

SCFFWD

Register type

Peg

Description

SCFFWD counts calls that the SCF feature forwards through a base station.

Associated registers

None

Extension registers

SCFFWD2

Associated logs

None

SCFOVFL

Register type

Peg

Description

SCFOVFL counts calls that attempt to forward. Calls that attempt to forward use the SCF feature but fail because of lack of system resources or because of system failure. If the attempt fails because of lack of hardware resources, the system routes the call to NOSC treatment. If the attempt fails because of lack of software resources, the system routes the call to NOSR treatment.

Associated registers

None

Extension registers

None

Associated logs

LINE138, TRK138

SCFSAT

Register type

Peg

Description

SCFSAT counts calls that the system routes to a base station when the SCF feature is active on the station.

Associated registers

None

Extension registers

SCFSAT2

Associated logs

None

SCFSBLK

Register type

Peg

Description

SCFSBLK counts calls that attempt to forward. Calls that attempt to forward use the SCF feature but are not screened because the screening list is not available.

Associated registers

None

Extension registers

None

Associated logs

None

SCFSDEN

Register type

Peg

Description

SCFSDEN counts calls that attempt to forward. Calls that attempt to forward use the SCF feature but are not screened because the incoming directory number is not available.

Associated registers

None

Extension registers

None

Associated logs

None

SCFSOVFL

Register type

Peg

Description

SCFSOVFL counts attempts to forward that use the SCF feature that fail. Attempts to forward can fail because the maximum number of simultaneous calls that can use SCF has been reached. The system routes the call to negative acknowledgement (NACK) treatment.

Associated registers

None

Extension registers

None

Associated logs

None

SCFUNIV

Register type

Peg

Description

SCFUNIV counts the number of times a universal user attempts to access the SCF feature.

Associated registers

SCFEATT

Extension registers

None

Associated logs

None

SCMP

Description

Series Completion (SCMP) is a line option feature that redirects calls from a busy Directory Number (DN) to another specified DN residing on the same switch. SCMP provides a method by which any user defined hunting algorithm can be implemented for a given group of lines.

This activity creates a multi tuple SCMP OM group for SCMP Lines. SCMP OMgroup has three OM registers: SCMPOVFL (SCMP overflow), SCMPATT (SCMP attempt) and SCMPANSR (SCMP Answer) which measures the operational performance of the SCMP lines by:

- counting overflow conditions
- · call attempts for BUSY SCMP lines
- locating an IDLE line from BUSY SCMP lines

Each SCMP line has separate OM tuple in SCMP OM group and is identified with SCMP_KEY. The mapped SCMP_KEY is associated with each SCMP line (range 0 - 32767) and used as an index to SCMP line and in the SCMPAUDT tool.

The following table lists the key and info fields associated with OM group SCMP.

Key field	Info field
SCMP_key	SCMP_OM_INFO_TYPE

SCMP_OM_INFO_TYPE consists of SCMP Base DN and Target DN.

- BASE_DN is the DN with SCMP option and the context DN for which CALLP is assigned. BASE_DN is 7- or 10- digits.
- TARGET_DN is the target DN for the current (context) SCMP line. Status of this DN decides the call flow and OM pegging. TARGET_DN is 7- or 10- digits.

When a termination attempt is made by a call on a DN with the SCMP option, and if the terminator is busy, a new DN is taken from the data associated with the SCMP option, and the call is routed to this new DN. In addition, the DN that the call is redirected to must be in the same local office as the original DN.

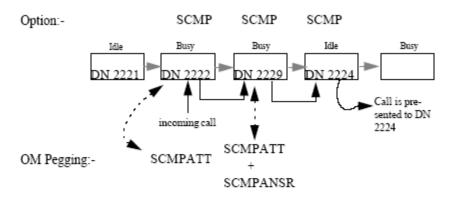
The SCMP option is used to direct a call to another DN with or without SCMP. This allows for the chaining of DNs with SCMP via a list. SCMP is very similar in function to Call Forward Busy and hunt group options. Series Completion differs from Call Forward Busy, in that it can only occur within DNs in the same local office, and is less restrictive than Call Forwarding in how many consecutive redirections may be allowed on a single call. Series Completion differs from Line Hunting in that there is no explicit group. However, a series completion list may be viewed as Linear, Circular or a combination of both, according to how the individual DNs are linked via SCMP

Related functional groups

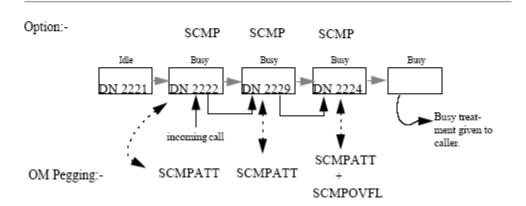
Linear

In the linear SCMP group, the last DN in the list does not have SCMP option assigned to it. If this DN is busy and is reached within Series Completion, the originator receives busy treatment.

OM Pegging in Linear SCMP group



Idle Station found during linear series completion

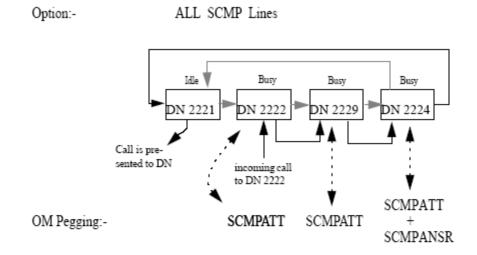


Idle Station NOT found during linear series completion

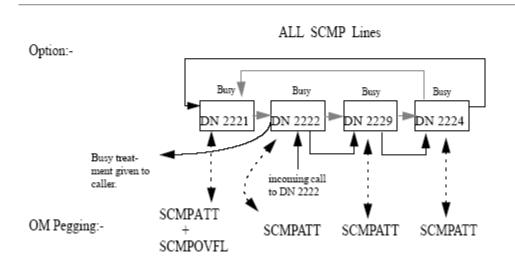
Circular

In the circular SCMP group, the last member in the list is defined to series complete to the first member in the list. If the hunt returns to the originally called DN before an idle DN is found, the calling party should receive busy treatment.

OM Pegging in Circular SCMP group



Idle Station found during circular series completion

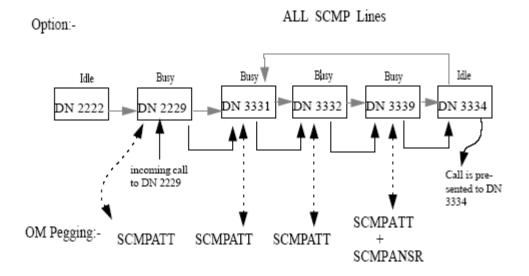


Idle Station NOT found during circular series completion

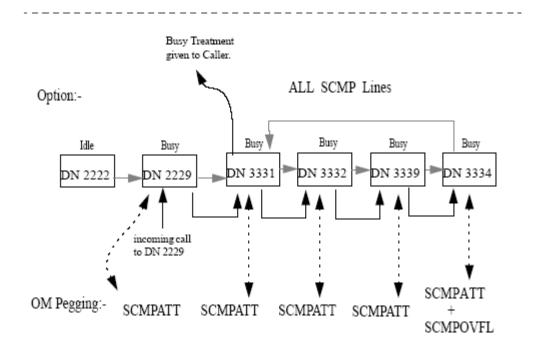
Combination of Linear and Circular

In the combination of linear and circular SCMP group, the last member in a linear list is also one of the members in a circular list. For this combination, when the hunt proceed to the circular list, it has the same characteristics as Circular.

OM Pegging in Combination SCMP Group



Idle Station found during combination series completion



Idle Station NOT found during combination series completion

Registers

The following table lists the registers associated with OM group SCMP and what they measure. For a description of a register, click on the register name.

Registers for OM group SCMP

Register name	Measures
SCMPOVFL	SCMP overflow
SCMPOVFL	Attempts that terminate a call on a BUSY SCMP line
SCMPOVFL	When BUSY SCMP locates IDLE Target Line to answer the BUSY call with its IDLE target line

SCMPOVFL

Register type

Peg

Description

SCMP overflow OM Register increments whenever the switch exhausts SCMP list without finding an IDLE TARGET DN.

SCMP list exhaust condition can be verified as follows:

- Linear SCMP Groups: If the Callp encounters the BUSY TARGET DN for LAST SCMP line in the group.
- Circular and Combination of linear and circular: If the Callp locates the original TARGET DN in the SCMP_LIST (contains all the SCMP line DNs for that group for the particular call attempt) before finding any idle TARGET DN.

If SCMP list overflows, call directs depends upon the last Target DNs options (as if the call is terminated without SCMP option).

In linear SCMP list, whenever the last SCMP line call has reached a TARGET DN of non-line entity such as HUNT groups, UCD or ACD the SCMP call forwarding is considered as OVERFLOW.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCMPATT

Register type

Peg

Description

Register SCMPATT counts attempts that terminate a call on a BUSY SCMP line, and triggers the SCMP option on that line.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCMPANSR

Register type

Peg

Description

Register SCMPANSR increases when BUSY SCMP locates IDLE Target Line to answer the BUSY call with its IDLE target line.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCPOTS

Description

OM group Speed Calling in the POTS Environment (SCPOTS) counts attempts and failures to use Speed Calling. The system uses SCPOTS to determine how often a subscriber uses Speed Calling and if hardware and software resources are correctly provisioned. The subscriber can program speed call numbers through the telephone, or through entries in table SCALLTAB.

SCPOTS tracks requests for off-board service updates or changes. With the Off-board Service Control feature, off-board service updates peg certain registers when subscribers do one of the following from an off-board application:

- query the status and/or programmed information of corresponding subscribed-to services
- generate a request to activate, deactivate or change the services

For more information about the Off-board Service Control feature, refer to Advanced Intelligent Network Essentials Service Implementation Guide, 297-5161-021, and the Advanced Intelligent Network Essentials Service Enablers, 297-5161-022.

The Off-board Service Control feature applies only to DMS.

The following table lists the key and info fields associated with OM group SCPOTS.

Key field	Info field
Short list tuple-sc1_tuple. Long list tuple-sc2_tuple.	None

Related functional groups

All DMS offices with the POTS Speed Calling feature are associated with OM group SCPOTS.

Registers

The following table lists the registers associated with OM group SCPOTS and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SCPOTS

Register name	Measures
SCPAATT	Attempt to program speed call cell
SCPADENY	Failure to program or erase speed call cell, invalid speed call cell number
<u>SCPAOVFL</u>	Failure to program speed call cell-lack of software resources
SCPFATT	Attempt to use speed call cell
SCPFDENY	Failure of speed call attempt, empty cell

SCPAATT

Register type

Peg

Description

SCPAATT counts attempts to add or delete a speed call cell. An attempt to add a speed call cell consists of:

- dialing the activation code for either SC1 or SC2
- dialing a cell number
- dialing a complete correct directory number (DN)

An attempt to delete a speed call cell consists of dialing the activation code and a cell number.

For DMS only: SCPAATT is pegged when the Speed Call Update message successfully adds or changes a speed call DN (off-board service update).

Associated registers

None

Extension registers

Associated logs

None

SCPADENY

Register type

Peg

Description

SCPADENY counts attempts to program or erase a speed call cell that fail because the cell code is out of range.

For DMS only: SCPADENY is pegged when the Speed Call Update (off-board service update) message fails to program or erase a speed call cell because the speed call cell number is invalid.

Associated registers

None

Extension registers

None

Associated logs

LINE138

SCPAOVFL

Register type

Peg

Description

SCPAOVFL counts attempts to program a speed call cell that fails because of a lack of HEAP memory in reserve for speed calling. This failure occurs when the system attempts to program a cell with a directory number that is greater than 8 digits. If a lack of reserved store for speed calling occurs in table HEAPTAB, SCPAOVFL increases. The MAXSTORE field of entry GENDIG in table HEAPTAB controls the store reserved for speed calling.

For DMS only: SCPAOVFL is pegged when the Speed Call Update (off-board service update) message fails to program the speed call cell because of insufficient software resources.

Associated registers

None

Extension registers

Associated logs

EXT106, LINE138

SCPFATT

Register type

Peg

Description

SCPFATT counts attempts to use a speed calling cell when the system dials a correct 1-digit cell number for SC1. The register also counts attempts to use a speed calling cell when the system dials a correct 2-digit cell number for SC2.

Associated registers

None

Extension registers

None

Associated logs

None

SCPFDENY

Register type

Peg

Description

SCPFDENY counts attempts to use speed calling that fail because the speed call cell is empty.

Associated registers

None

Extension registers

None

Associated logs

LINE138

SCRJ

Description

OM group Selective Call Rejection (SCRJ) provides information on the Selective Call Rejection (SCRJ) feature. The subscriber can obtain this feature alone or as part of the universal access group of features.

The peg registers count:

- common access attempts, activations, deactivations, and denials
- requests for off-board service updates or changes. With the Off-board Service Control feature, off-board service updates peg certain registers when subscribers do one of the following from an off-board application:
 - query the status and/or programmed information of corresponding subscribed-to services
 - generate a request to activate, deactivate or change the services

For more information about the Off-board Service Control feature, refer to Advanced Intelligent Network Essentials Service Implementation Guide, 297-5161-021, and the Advanced Intelligent Network Essentials Service Enablers, 297-5161-022.

The Off-board Service Control feature applies only to DMS.

- attempts to enter the screening list editing function for the SCRJ feature
- attempts to enter the screening list editing function for the SCRJ feature that fail because
 - the system does not assign or activate the feature in the office
 - the system fails
 - there is a lack of hardware or software resources
- successful activations and deactivations of the SCRJ feature
- calls that attempt to screen when the SCRJ feature is active
- calls not screened because either the calling directory number or the screening list is not available
- calls that are rejected by selective call rejection screening

Usage register <u>SCRJEUSG</u> records if a line uses the selective call rejection screening list editing facility.

The following table lists the key and info fields associated with OM group SCRJ.

Key field	Info field
None	None

Related functional groups

All DMS offices with the Selective Call Rejection (SCR) feature are associated with OM group SCRJ.

Registers

The following table lists the registers associated with OM group SCRJ and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SCRJ

Register name	Measures
SCRJACT	SCRJ activation
<u>SCRJAUNV</u>	SCRJ activation universal
SCRJDACT	SCRJ deactivation
SCRJDENY	SCRJ universal access denial
SCRJDUNV	SCRJ deactivation universal
SCRJEATT	SCRJ editing attempts
SCRJEDEN	SCRJ editing denied
SCRJEOVF	SCRJ editing overflow
SCRJEUSG	SCRJ editing usage
SCRJSAT	SCRJ screening attempt
SCRJSBLK	SCRJ screening blocked
SCRJSDEN	SCRJ screening denial
SCRJSRJT	SCRJ call screening rejected
SCRJUNIV	SCRJ universal access attempts

SCRJACT

Register type

Peg

Description

SCRJACT counts successful attempts to activate the Selective Call Rejection (SCRJ) feature by subscribers.

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For DMS only: Similar to operations performed by service access code controlled activation, SCRJACT is pegged for each occurrence of an off-board service update activation request.

Associated registers

None

Extension registers

None

Associated logs

None

SCRJAUNV

Register type

Peg

Description

SCRJAUNV counts successful attempts to activate the Selective Call Rejection (SCRJ) feature by a common user.

Associated registers

None

Extension registers

None

Associated logs

None

SCRJDACT

Register type

Peg

Description

SCRJDACT counts successful attempts to deactivate the Selective Call Rejection (SCRJ) feature by subscribers.

For DMS only: Similar to the operations performed by service access code controlled activation, SCRJDACT is pegged for each occurrence of an off-board service update deactivation request.

Associated registers

None

Extension registers

None

Associated logs

None

SCRJDENY

Register type

Peg

Description

SCRJDENY increases when a universal subscriber attempts to update SCRJ programmed data using an edit session, and the attempt is denied because the DENY option is in effect.

For DMS only: SCRJDENY is pegged for each of the following off-board service update request attempts:

- The DOR option is present on the SCRJ subscriber line.
- The SCRJ is enabled office wide, and the DENY SCRJ option is present on the subscriber line.

Associated registers

SCRJEDEN

Extension registers

None

Associated logs

None

SCRJDUNV

Register type

Peg

Description

SCRJDUNV counts successful attempts to deactivate the Selective Call Rejection (SCRJ) feature by a common user.

Associated registers

None

Extension registers

None

Associated logs

None

SCRJEATT

Register type

Peg

Description

SCRJEATT counts attempts to invoke a selective call rejection screening list editing session.

For DMS only: The register is pegged each time a subscriber uses an edit session to update SCRJ programmed data. Similar to the operations performed in a service access code controlled edit session, SCRJEATT is pegged for off-board service update requests to do the following:

- add or delete a DN to a subscriber SCRJ list
- delete all DNs in a subscriber SCRJ list
- delete all anonymous or private entries in a subscriber SCRJ list

Associated registers

None

Extension registers

None

Associated logs

None

SCRJEDEN

Register type

Peg

Description

SCRJEDEN counts attempts to invoke a selective call rejection screening list editing session that fail for the following reasons:

 the Selective Call Rejection (SCRJ) feature is not assigned to the line, or is not activated in the office the system denies a common attempt because the DENYSCRJ option is on the line

The system routes the call to feature not allowed (FNAL) treatment.

For DMS only: The register is pegged when a subscriber attempts to update SCRJ programmed data using an edit session, and the attempt is denied. SCRJEDEN is pegged when the following is true for a given SCRJ off-board service update request:

- SLE is not enabled in table CUSTSTN.
- SCRJ is not enabled in table RESOFC.

Associated registers

None

Extension registers

None

Associated logs

LINE138

SCRJEOVF

Register type

Peg

Description

SCRJEOVF counts attempts to invoke a selective call rejection screening list editing session that fail for the following reasons:

- system failure
- lack of hardware or software resources

When SCRJEOVF increases because of not enough hardware resources, the system routes the call to no service circuits (NOSC) treatment. When SCRJEOVF increases because of lack of software resources, the system routes the call to no software resources (NOSR) treatment.

Associated registers

None

Extension registers

None

Associated logs

LINE138

SCRJEUSG

Register type

Usage

Scan rate

10 seconds

Description

SCRJEUSG records if a line uses the selective call rejection screening list editing facility.

Associated registers

None

Extension registers

None

Associated logs

None

SCRJSAT

Register type

Peg

Description

SCRJSAT counts calls that terminate on a line on which the SCRJ feature is active.

Associated registers

None

Extension registers

SCRJSAT2

Associated logs

None

SCRJSBLK

Register type

Peg

Description

SCRJSBLK counts selective call rejection attempts that the system blocks because the screening list is not available. The call continues as if the SCFJ feature screened the call.

Associated registers

None

Extension registers

None

Associated logs

None

SCRJSDEN

Register type

Peg

Description

SCRJSDEN counts calls that the SCRJ feature does not screen because the incoming directory number is not available. The call continues as if the system feature screened the call.

Associated registers

None

Extension registers

None

Associated logs

None

SCRJSRJT

Register type

Peg

Description

SCRJSRJT counts calls that the SCRJ feature screens and rejects. The system routes the call to selective call rejection (SCRJ) treatment.

Associated registers

TRMTFR_TTFRSCRJ, which counts calls that receive the SCRJ treatment because the SCRJ feature screens and rejects the call

Validation formula

SCRJ SCRJSRJT = TRMTFR TTFRSCRJ

Extension registers

Associated logs

LINE138

SCRJUNIV

Register type

Peg

Description

SCRJUNIV increases when a universal user attempts to access the Selective Call Rejection (SCRJ) feature.

Associated registers

SCRJEATT

Extension registers

None

Associated logs

SDS

Description

Special Delivery Service (SDS) The OM group SDS records information that relates to the operation of the Access to Messaging and Enhanced Busy Call Return (EBCR) features.

The OM group SDS does not provide tuples for each office. The following table lists the key and info fields associated with OM group SDS.

Key field	Info field
none	none

Related functional groups

The following are associated functional groups for OM group SDS:

- RES Advanced Custom Calling, RES00002
- RES Non-display Services, RES00005

Registers

The following table lists the registers associated with OM group SDS and what they measure. For a description of a register, click on the register name.

Registers for OM group SDS

Register name	Measures
ABANDON	SDS Abandoned
ACBOFFER	ACB Offering
ACBACTIV	ACB Activation
ACTIVATE	SDS Activated
ACTIVAT2	SDS Activated 2
ANNCFAIL	SDS Announcement Failure
BSYACTIV	SDS Busy Case Activation
BSYCOND	BUSY Condition

Registers for OM group SDS

Register name	Measures
RNGCOND	Ringing Condition
RNGCOND2	Ringing Condition 2
BSYOFFER	SDS Busy Offer of Service
RNAOFFER	SDS Ringing No-Answer Offer of Service
RNAACTIV	SDS Ringing No-Answer Activation
SOFTFAIL	SDS Software Failure
UTRSHORT	SDS Universal Tone Receiver Shortage
NOCLIDCN	SDS No Calling Line Identifier And Charge Number Available
ROUTFAIL	SDS Routing Failure to VMS

ABANDON

Register type

Peg

Description

SDS Abandoned (ABANDON)

Register ABANDON counts the number of times that a caller hangs up during a system announcement. The announcement offers one of the following:

- Access to Messaging service only
- Enhanced Busy Call Return (EBCR) service only
- the option of Access to Messaging or EBCR service
- help

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ACBOFFER

Register type

Peg

Description

ACB Offering (ACBOFFER)

Register ACBOFFER measures the number of calls on which the system offers EBCR service.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ACBACTIV

Register type

Peg

Description

ACB Activation (ACBACTIV)

Register ACBACTIV measures EBCR service attempts to activate ACB after the caller accepts ACB service.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ACTIVATE

Register type

Peg

Description

SDS Activated (ACTIVATE)

Register ACTIVATE measures the number of calls that pass one or more service-specific screenings. These calls can be ringing/no-answer or busy calls. If the system offers an option of EBCR service or Access to Messaging service, the system performs two service-specific screenings. If the system offers one service, the system performs the relevant service-specific screening.

Register ACTIVATE increases by one if

- both service-screenings pass when the system offers a option of Access to Messaging or EBCR service on the busy condition (field BUSYMODE = MSGACB)
- one service-screening fails while the other passes

Associated registers

ACTIVAT2

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ACTIVAT2

Register type

Peg

Description

SDS Activated 2 (ACTIVAT2)

Register ACTIVAT2 increases by one when

- conditions required to increase register ACTIVATE are met
- register ACTIVATE reaches the upperbound (ACTIVATE returns to 0)

When ACTIVAT2 increases, <u>ACTIVATE</u> increases until <u>ACTIVATE</u> reaches the upperbound again.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ANNCFAIL

Register type

Peg

Description

SDS Announcement Failure (ANNCFAIL)

Register ANNCFAIL measures the times that the system fails to play an announcement that offers one of the following:

- access to Automatic Call Back (ACB) service or Enhanced Busy Call Return, and Access to Messaging service
- Access to Messaging service only
- Enhanced Busy Call Return (EBCR) service only
- the option of Access to Messaging or EBCR service
- help

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates log SDS600 when register ANNCFAIL increases.

BSYACTIV

Register type

Peg

Description

SDS Busy Case Activation (BSYACTIV)

Register BSYACTIV measures the number of times which callers accept Access to Messaging service on busy calls.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

BSYCOND

Register type

Peg

Description

BUSY Condition (BSYCOND)

Register BSYCOND measures the number of busy calls that pass one or more service-specified screenings. If the system offers the option of EBCR service or Access to Messaging service, the system performs two service-specified screenings. If the system offers one service, the system performs only the relevant service-specified screening.

Register BSYCOND increases by one if

- both service-screenings pass when the system offers the option of Access to Messaging or EBCR service on the busy condition. Field BUSYMODE = MSGACB.
- one service-specific screening fails while the other passes

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RNGCOND

Register type

Peg

Description

Ringing Condition (RNGCOND)

Register RNGCOND measures the number of ringing/no-answer calls that pass service-specified screening for Access to Messaging service. Ringing/no-answer calls that pass service-specified screening for Access to Messaging service cause the RNA timer to start. This register measures the number of times that the RNA timer starts.

Associated registers

RNGCOND2

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RNGCOND2

Register type

Peg

Description

Ringing Condition 2 (RNGCOND2)

Register RNGCOND2 increases by one when

- conditions required to increase register RNGCOND are met
- register RNGCOND reaches the upperbound. Register RNGCOND returns to 0.

After RNGCOND2 increases, RNGCOND increases until RNGCOND reaches the upperbound again.

Associated registers

RNGCOND

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

BSYOFFER

Register type

Peg

Description

SDS Busy Offer of Service (BSYOFFER)

Register BSYOFFER measures the number of busy calls on which the system offers Access to Messaging service.

Note: When the system offers both Access to Messaging and EBCR service to the caller, registers BSYOFFER and ACBOFFER increase.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RNAOFFER

Register type

Peg

Description

SDS Ringing No-Answer Offer of Service (RNAOFFER)

Register RNAOFFER measures the number of ringing/no-answer calls on which the system offers Access to Messaging.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RNAACTIV

Register type

Peg

Description

SDS Ringing No-Answer Activation (RNAACTIV)

Register RNAACTIV measures the number of times that callers accept the Access to Messaging service for ringing/no-answer calls.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SOFTFAIL

Register type

Peg

Description

SDS Software Failure (SOFTFAIL)

Register SOFTFAIL measures the number of times that the system does not offer one of the following services. The system does not offer these services because not enough software resources are present:

- Access to Messaging only
- EBCR service only
- the option of Access to Messaging or EBCR service

Fields BUSYMODE and RNAMODE specify these offers of service.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates log SDS600 when register SOFTFAIL increases.

UTRSHORT

Register type

Pea

Description

SDS Universal Tone Receiver Shortage (UTRSHORT)

Register UTRSHORT measures the number of times that the system attempts to offer a service to a specified subscriber. This subscriber resides on a peripheral that does not have provisioned universal tone receivers (UTR). The system attempts to offer one of the following services:

- Access to Messaging only
- EBCR service only
- the option of Access to Messaging or EBCR service

Fields BSYMODE and RNAMODE specify these offers of service. Register UTRSHORT does not increase when the subscriber resides on a line module (LM) peripheral. This register does not increase when a UTR channel overflows.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates log SDS600 when register UTRSHORT increases.

NOCLIDCN

Register type

Peg

Description

SDS No Calling Line Identifier And Charge Number Available (NOCLIDCN)

The system does not use register NOCLIDCN.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ROUTFAIL

Register type

Peg

Description

SDS Routing Failure to VMS (ROUTFAIL)

When a subscriber to the Access to Messaging feature presses the service acceptance key, the system routes the call. The system routes the call to the VMS. The VMS is one of four SDS messaging routing DNs specified in table SDSINFO or SDSCUST. Register ROUTFAIL increases when the system fails to route a call to an SDS messaging routing DN and the originating switch sets a treatment.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates log SDS601 when register ROUTFAIL increases.

SEIUTRAN

Description

SCAI Link EIU Transport (SEIUTRAN)

The OM group SEIUTRAN determines if the system selects the correct bandwidth for a given SCAI link. The OM group SEIUTRAN counts the messages received on the link and the messages that the system cannot process.

The following table lists the key and info fields associated with OM group SEIUTRAN.

Key field	Info field
Linkset	none

One tuple is provided for each linkset.

The key field identifies the SCAI linkset, which is a different character string with a maximum length of 16 characters. Table SCAICOMS for X.25 and TCP/IP SCAI transport defines the SCAI linkset.

For the CompuCALL Enhancements Transport feature, a tuple is created in the OM group. This event occurs when a linkset is added to table SCAICOMS whose link selector (in field LINKSEL) is TCP or X.25. If an existing linkset is removed from table SCAICOMS, no OMs are reported for that linkset.

Related functional groups

The functional group ICM Call Manager Interface associates with OM group SEIUTRAN:

Registers

The following table lists the registers associated with OM group SEIUTRAN and what they measure. For a description of a register, click on the register name.

Registers for OM group SEIUTRAN

Register name	Measures
SEIUMSGI	Total Incoming Messages
SEIUMSGO	Total Outgoing Messages

Registers for OM group SEIUTRAN

Register name	Measures
SEIUQINC	Incoming Queue Attempts Failed
SEIUQOUG	Outgoing Queue Attempts Failed

SEIUMSGI

Register type

Peg

Description

Register Total Incoming Messages (SEIUMSGI)

Register SEIUMSGI counts incoming messages that the system receives using a TCP connection.

Associated registers

SEIUMSGO

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SEIUMSGO

Register type

Peg

Description

Register Total Outgoing Messages (SEIUMSGO)

Register SEIUMSGO counts outgoing SCAI messages that the system sends over a TCP connection for a linkset.

Associated registers

<u>SEIUMSGI</u>

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SEIUQINC

Register type

Peg

Description

Register Incoming Queue Attempts Failed (SEIUQINC)

Register SEIUQINC counts SCAI messages that fail to queue in the incoming message queue.

Associated registers

SEIUQOUG

Extension registers

There are no extension registers.

Associated logs

The system generates SCAI311 when SEIUQINC increases. Log SCAI311 indicates a problem with messages that queue on the work queue.

SEIUQOUG

Register type

Peg

Description

Register Outgoing Queue Attempts Failed (SEIUQOUG)

Register SEIUQOUG increases when an outgoing message fails to queue on the application outgoing work queue because the queue is full.

Associated registers

SEIUQINC

Extension registers

There are no extension registers.

Associated logs

The system generates SCAI311 when SEIUQOUG increases. Log SCAI311 indicates a problem with messages that queue on the work queue.

SERVACT

Description

The Service Activation (SERVACT) tracks the number of services on ISUP FGD and ISUP IMT trunks. The call processing software for the UCS DMS-250 switch pegs this OM group when the service is activated regardless of whether a call completes or not.

The SERVACT OM group pegs activation of the following services:

- Announcements
- Mechanized Calling Card Services (MCCS)
- Reorigination
- RLT (ISUP and PRI)
- Route Advance
- Subscriber Dialing Plans

This feature does not support AXXESS ISUP trunks.

Extension register (names ending with 2) increment once each time the regular register overflows. When an overflow occurs, the regular register is reset to 0. To calculate the total for each type of register, multiply the extension register value by 65535, then add the value of the regular register.

The following table lists the key and info fields associated with OM group SERVACT:

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group SERVACT.

Registers

The following table lists the registers associated with OM group SERVACT and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SERVACT

Register name	Measures
SERVANNC	Service Announcement
<u>SRVMCCS</u>	Service MCCS
SRVRA	Service Route Advance
SRVRLT	Service Release Link Trunk
SRVREORG	Service Reorigination
SRVSBDP	Service Subscriber Dialing Plan

SERVANNC

Register type

Peg

Description

SERVANNC counts the number of times an ISUP FGD or ISUP IMT originator connects to a voice prompt, branding announcement, or treatment announcement.

Associated registers

None

Extension registers

SRVANNC2

Associated logs

None

SRVMCCS

Register type

Peg

Description

SRVMCCS counts the number of times a call is identified as a MCCS call and the originating trunk is an ISUP FGD or ISUP IMT.

Associated registers

None

Extension registers

SRVMCCS2

Associated logs

None

SRVRA

Register type

Peg

Description

SRVRA counts the number of times route advance is invoked for calls originating on ISUP FGD or ISUP IMT trunks.

Associated registers

None

Extension registers

SRVRA2

Associated logs

None

SRVRLT

Register type

Peg

Description

SRVRLT counts the number of times RLT bridging service for third-party interaction or ESP-initiated call back is activated and the originating trunk of call 1 or the terminating trunk of call 2 is an ISUP FGD or ISUP IMT trunk. For RLT Redirect and Transfer activation, this register is pegged when the originating trunk is an ISUP FGD or ISUP IMT trunk. This register is also pegged for PRI RLT calls.

Associated registers

None

Extension registers

SRVRLT2

Associated logs

SRVREORG

Register type

Peg

Description

SRVREORG counts the number of times Reorigination is activated on an ISUP FGD or ISUP IMT originating trunk.

Associated registers

None

Extension registers

SRVREOR2

Associated logs

None

SRVSBDP

Register type

Peg

Description

SRVSBDP counts the number of times a call requires subscriber dialed digits on an ISUP FGD or ISUP IMT originating trunk.

Associated registers

None

Extension registers

SRVSBDP2

Associated logs

ServerCpuAndMemory

Description

The "ServerCpuAndMemory" OM group captures the CPU Occupancy and Memory Usage statistics the Server.

The Server Monitor computes the average CPU Occupancy of the Server over a 10 second interval using information received from SNMP queries.

The Server Monitor queries the Server for RAM usage information every 60 seconds. The RAM Utilization value is calculated as the 'used' RAM expressed as a percentage of the 'total' RAM.

For a Windows-based Server, the average CPU Occupancy is calculated over a 1minute interval. Finer granularity is not currently supported on a Windows-platform.

The Server OM groups capture performance information concerning the hardware performance of the individual server platforms on which the MCS software is running. These OMs are not viewable in the OM Browser. The raw data is collected and stored for each monitored server and will be available for north bound transport to an OSS.

The following table lists the key and info fields associated with OM group ServerCpuAndMemory.

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group ServerCpuAndMemory.

Registers

The following table lists the registers associated with OM group ServerCpuAndMemory and what they measure. For a description of a register, click on the register name.

Registers for OM group ServerCpuAndMemory

Register name	Measures
minCpuOccupancyValue	minimum CPU occupancy value
medianCpuOccupancyValue	median CPU occupancy value
maxCpuOccupancyValue	maximum CPU occupancy value
totalRam	total RAM
minRamUtilizationValue	minimum RAM utilization value
medianRamUtilizationValue	median RAM utilization value
maxRamUtilizationValue	maximum RAM utilization value
totalSwap	total swap space
minSwapUtilizationValue	minimum swap utilization value
medianSwapUtilizationValue	median swap utilization value
maxSwapUtilizationValue	maximum swap utilization value

minCpuOccupancyValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the minimum sampled value of the CPU Occupancy.

Associated registers

medianCpuOccupancyValue, maxCpuOccupancyValue

Extension registers

Associated logs

None

medianCpuOccupancyValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the median sampled value of the CPU Occupancy.

Associated registers

minCpuOccupancyValue, maxCpuOccupancyValue

Extension registers

None

Associated logs

None

maxCpuOccupancyValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the maximum sampled value of the CPU Occupancy.

Associated registers

minCpuOccupancyValue, medianCpuOccupancyValue

Extension registers

None

Associated logs

None

totalRam

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the latest sampled value obtained for the total RAM on the server.

Associated registers

None

Extension registers

None

Associated logs

None

minRamUtilizationValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the minimum sampled value of the RAM utilization.

Associated registers

medianRamUtilizationValue, maxRamUtilizationValue

Extension registers

None

Associated logs

None

medianRamUtilizationValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the median sampled value of the RAM utilization.

Associated registers

minRamUtilizationValue, maxRamUtilizationValue

Extension registers

None

Associated logs

None

maxRamUtilizationValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the maximum sampled value of the RAM utilization.

Associated registers

minRamUtilizationValue, medianRamUtilizationValue

Extension registers

None

Associated logs

None

totalSwap

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the latest sampled value obtained for the total Swap Space on the server.

Associated registers

None

Extension registers

Associated logs

None

minSwapUtilizationValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the minimum sampled value of the Swap space utilization.

Associated registers

medianSwapUtilizationValue, maxSwapUtilizationValue

Extension registers

None

Associated logs

None

medianSwapUtilizationValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the median sampled value of the Swap space utilization.

Associated registers

minSwapUtilizationValue, maxSwapUtilizationValue

Extension registers

None

Associated logs

None

maxSwapUtilizationValue

Register type

Usage

Scan rate

Average CPU Occupancy is calculated over a 1minute interval.

Description

In a given OM collection period, this register tracks the maximum sampled value of the Swap space utilization.

Associated registers

minSwapUtilizationValue, medianSwapUtilizationValue

Extension registers

None

Associated logs

None

Thresholding and Alarms

The Server Monitor generates the OLC 401 alarm when the CPU Occupancy of the monitored Server equals or exceeds the configured threshold. The Server Monitor provides 3 configurable alarm severity levels: Minor, Major and Critical. Each level is associated with a corresponding CPU Occupancy threshold.

The Server Monitor generates the OLC 402 alarm when the RAM Utilization of the monitored Server equals or exceeds the configured threshold. Similar to the CPU Occupancy, the Server Monitor provides 3 configurable alarm severity levels: Minor, Major and Critical that may be associated with a corresponding RAM Utilization threshold.

ServerInterface

Description

The ServerInterface OM group captures bandwidth utilization information and other statistics for each configured physical interface of the Server.

The Server Monitor queries the Server for interface statistics every 10 seconds. The interface utilization value is calculated as the utilized bandwidth over a 10 second interval expressed as a percentage of the 'total' bandwidth for the interface.

The Server OM groups capture performance information concerning the hardware performance of the individual server platforms on which the MCS software is running. These OMs are not viewable in the OM Browser. The raw data is collected and stored for each monitored server and will be available for north bound transport to an OSS.

The following table lists the key and info fields associated with OM group ServerInterface.

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group ServerInterface.

Registers

The following table lists the registers associated with OM group ServerInterface and what they measure. For a description of a register, click on the register name.

Registers for OM group ServerInterface

Register name	Measures
inOctets	ingress octets
<u>outOctets</u>	outgress octets
<u>inErrorPkts</u>	ingress error packets
<u>outErrorPkts</u>	outgress error packets

Registers for OM group ServerInterface

Register name	Measures
<u>inDiscardPkts</u>	ingress discard packets
<u>outDiscardPkts</u>	outgress discard packets
minInterfaceUtilizationValue	minimum interface utilization value
<u>medianInterfaceUtilizationValue</u>	median interface utilization value
<u>maxInterfaceUtilizationValue</u>	maximum interface utilization value

inOctets

Register type

Peg

Description

In a given OM collection period, this counter tracks the number of octets received on the interface.

Associated registers

outOctets

Extension registers

None

Associated logs

None

outOctets

Register type

Peg

Description

In a given OM collection period, this counter tracks the number of octets transmitted out of the interface.

Associated registers

inOctets

Extension registers

Associated logs

None

inErrorPkts

Register type

Peg

Description

In a given OM collection period, this counter tracks the number of inbound packets that contained errors that prevented them from being delivered to a higher-layer protocol.

Associated registers

outErrorPkts

Extension registers

None

Associated logs

None

outErrorPkts

Register type

Peg

Description

In a given OM collection period, this counter tracks the number of outbound packets that could not be transmitted because of errors.

Associated registers

inErrorPkts

Extension registers

None

Associated logs

None

inDiscardPkts

Register type

Peg

Description

In a given OM collection period, this counter tracks the number of inbound packets that have been discarded even though no errors had been detected to prevent their delivery to a higher-layer protocol.

Associated registers

outDiscardPkts

Extension registers

None

Associated logs

None

outDiscardPkts

Register type

Peg

Description

In a given OM collection period, this counter tracks the number of outbound packets that have been discarded even though no errors had been detected to prevent their transmission.

Associated registers

inDiscardPkts

Extension registers

None

Associated logs

None

minInterfaceUtilizationValue

Register type

Usage

Scan rate

The Server Monitor queries the Server for interface statistics every 10 seconds. The interface utilization value is calculated as the utilized bandwidth over a 10 second interval expressed as a percentage of the 'total' bandwidth for the interface.

Description

In a given OM collection period, this register tracks the minimum sampled value of the interface utilization for the physical interface.

Associated registers

medianInterfaceUtilizationValue, maxInterfaceUtilizationValue

Extension registers

Associated logs

None

medianInterfaceUtilizationValue

Register type

Usage

Scan rate

The Server Monitor queries the Server for interface statistics every 10 seconds. The interface utilization value is calculated as the utilized bandwidth over a 10 second interval expressed as a percentage of the 'total' bandwidth for the interface.

Description

In a given OM collection period, this register tracks the median sampled value of the interface utilization for the physical interface.

Associated registers

minInterfaceUtilizationValue, maxInterfaceUtilizationValue

Extension registers

None

Associated logs

None

maxInterfaceUtilizationValue

Register type

Usage

Scan rate

The Server Monitor queries the Server for interface statistics every 10 seconds. The interface utilization value is calculated as the utilized bandwidth over a 10 second interval expressed as a percentage of the 'total' bandwidth for the interface.

Description

In a given OM collection period, this register tracks the maximum sampled value of the interface utilization for the physical interface.

Associated registers

minInterfaceUtilizationValue, medianInterfaceUtilizationValue

Extension registers

Associated logs

None

Thresholding and Alarms

The Server Monitor generates the SRVR 404 alarm when the interface utilization for a physical interface on the monitored Server equals or exceeds the configured threshold.

The Server Monitor provides 3 configurable alarm severity levels: Minor, Major and Critical. Each level is associated with a corresponding utilization threshold.

ServerPartition

Description

The "ServerPartition" OM Group captures bandwidth utilization information and other statistics for each partition of the Server.

The Server Monitor queries the Server for partition usage information every 60 seconds. The partition utilization value is calculated as the 'used' disk space expressed as a percentage of the 'total' disk space for the partition.

The Server OM groups capture performance information concerning the hardware performance of the individual server platforms on which the MCS software is running. These OMs are not viewable in the OM Browser. The raw data is collected and stored for each monitored server and will be available for north bound transport to an OSS.

The following table lists the key and info fields associated with OM group ServerPartition.

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group ServerPartition.

Registers

The following table lists the registers associated with OM group ServerPartition and what they measure. For a description of a register, click on the register name.

Registers for OM group ServerPartition

Register name	Measures
totalBytes	total Bytes
minPartitionUtilizationValue	minimum partition utilization value

Registers for OM group ServerPartition

Register name	Measures
medianPartitionUtilizationValue	median partition utilization value
maxPartitionUtilizationValue	maximum partition utilization value

totalBytes

Register type

Usage

Scan rate

The Server Monitor queries the Server for partition usage information every 60 seconds.

Description

In a given OM collection period, this register displays the latest sampled value of the partition size in bytes.

Associated registers

None

Extension registers

None

Associated logs

None

minPartitionUtilizationValue

Register type

Usage

Scan rate

The Server Monitor queries the Server for partition usage information every 60 seconds.

Description

In a given OM collection period, this register tracks the minimum sampled value of the partition utilization for the server partition.

Associated registers

medianPartitionUtilizationValue, maxPartitionUtilizationValue

Extension registers

None

Associated logs

None

medianPartitionUtilizationValue

Register type

Usage

Scan rate

The Server Monitor queries the Server for partition usage information every 60 seconds.

Description

In a given OM collection period, this register tracks the median sampled value of the partition utilization for the server partition.

Associated registers

minPartitionUtilizationValue, maxPartitionUtilizationValue

Extension registers

None

Associated logs

None

maxPartitionUtilizationValue

Register type

Usage

Scan rate

The Server Monitor queries the Server for partition usage information every 60 seconds.

Description

In a given OM collection period, this register tracks the maximum sampled value of the partition utilization for the server partition.

Associated registers

minPartitionUtilizationValue, medianPartitionUtilizationValue

Extension registers

Associated logs

None

Thresholding and Alarms

The Server Monitor generates the SRVR 403 alarm when the disk space utilization for a partition on the monitored Server equals or exceeds the configured threshold.

The Server Monitor provides 3 configurable alarm severity levels: Minor, Major and Critical. Each level is associated with a corresponding utilization threshold.

ServerProcessorLoad

Description

The "ServerProcessorLoad" OM Group captures the average processor load for each processor of the Server.

The Server OM Groups capture performance information concerning the hardware performance of the individual server platforms on which the MCS software is running. These OMs are not viewable in the OM Browser. The raw data is collected and stored for each monitored server and will be available for north bound transport to an OSS.

The following table lists the key and info fields associated with OM group ServerProcessorLoad.

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group ServerProcessorLoad.

Registers

The following table lists the registers associated with OM group ServerProcessorLoad and what they measure. For a description of a register, click on the register name.

Registers for OM group ServerProcessorLoad

Register name	Measures
minLoadValue	minimum load value
medianLoadValue	median load value
<u>maxLoadValue</u>	maximum load value

minLoadValue

Register type

Usage

Scan rate

Description

In a given OM collection period, this register tracks the minimum sampled value of the load on the processor.

Associated registers

medianLoadValue, maxLoadValue

Extension registers

None

Associated logs

None

medianLoadValue

Register type

Usage

Scan rate

Description

In a given OM collection period, this register tracks the median sampled value of the load on the processor.

Associated registers

maxLoadValue, minLoadValue

Extension registers

None

Associated logs

None

maxLoadValue

Register type

Usage

Scan rate

Description

In a given OM collection period, this register tracks the maximum sampled value of the load on the processor.

Associated registers

medianLoadValue, minLoadValue

Extension registers

None

Associated logs None

ServerProcessStatistics

Description

The ServerProcessStatistics OM Group captures I/O activity related information for the database instance.

The Database Monitor OM groups capture performance information concerning the Oracle database. These OMs are not viewable in the OM Browser. The raw data is collected and stored for each database and will be available for north bound transport to an OSS.

The following table lists the key and info fields associated with OM group ServerProcessStatistics.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group ServerProcessStatistics:

Database

Registers

The following table lists the registers associated with OM group ServerProcessStatistics and what they measure. For a description of a register, click on the register name.

Registers for OM group ServerProcessStatistics

Register name	Measures
<u>logicalReads</u>	logical reads
<u>diskReads</u>	disk reads
<u>logicalWrites</u>	logical writes
<u>diskWrites</u>	disk writes
<u>pageReads</u>	page reads
<u>pageWrites</u>	page writes
finishedTransactions	finished transactions

logicalReads

Register type

Peg

Description

In a given OM collection period, this register tracks the number of logical reads of database files performed. Logical reads include both memory as well as disk reads.

This information is obtained from the SNMP RDBMS MIB variable "rdbmsSrvInfoLogicalReads."

Associated registers

None

Extension registers

None

Associated logs

None

diskReads

Register type

Peg

Description

In a given OM collection period, this register tracks the number of disk (i.e. reads incurring disk I/O) reads of database files performed.

This information is obtained from the SNMP RDBMS MIB variable "rdbmsSrvInfoDiskReads."

Associated registers

None

Extension registers

None

Associated logs

None

logicalWrites

Register type

Peg

Description

In a given OM collection period, this register tracks the number of logical writes of database files performed. Logical writes track the number of times a file has been marked "dirty" in need of a write to disk.

This information is obtained from the SNMP RDBMS MIB variable "rdbmsSrvInfoLogicalWrites."

Associated registers

None

Extension registers

None

Associated logs

None

diskWrites

Register type

Peg

Description

In a given OM collection period, this register tracks the number of physical writes of database files performed.

This information is obtained from the SNMP RDBMS MIB variable "rdbmsSrvInfoLogicalWrites."

Associated registers

None

Extension registers

None

Associated logs

None

pageReads

Register type

Peg

Description

In a given OM collection period, this register tracks the number of pages in database files that have been read.

This information is obtained from the SNMP RDBMS MIB variable "rdbmsSrvInfoPageReads."

Associated registers

None

Extension registers

None

Associated logs

None

pageWrites

Register type

Peg

Description

In a given OM collection period, this register tracks the number of pages in database files that have been written.

This information is obtained from the SNMP RDBMS MIB variable "rdbmsSrvInfoPageWrites."

Associated registers

None

Extension registers

None

Associated logs

None

finishedTransactions

Register type

Peg

Description

In a given OM collection period, this register tracks the number of transactions that have been completed (completed or aborted.)

This information is obtained from the SNMP RDBMS MIB variable "rdbmsSrvInfoFinishedTransactions."

Associated registers

Extension registers

None

Associated logs None

ServicePackage

Description

The Service Package OM group tracks down service denials due to service package constraints.

The following table lists the key and info fields associated with OM group ServicePackage.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group ServicePackage:

Session Manager

Registers

The following table lists the registers associated with OM group ServicePackage and what they measure. For a description of a register, click on the register name.

Registers for OM group ServicePackage

Register name	Measures
audioConfDeny	audio conference deny
audioConfLimitDeny	audio conference limit deny
voiceMailAccessDeny	voice mail access deny
voiceMailRolloverDeny	voice mail rollover deny
subscribeLimitExceed	subscribe limit exceed
subscribeDeny	subscribe deny

audioConfDeny Register type Peg

Description

Tracks number of Audio Conferencing requests denied because service request was not within service package constraints. Reason: Audio Conferencing not allowed.

Associated registers

None

Extension registers

None

Associated logs

None

audioConfLimitDeny

Register type

Peg

Description

Tracks number of Audio Conferencing requests denied because service request was not within service package constraints. Reason: Audio Conference port limit capacity exceeded.

Associated registers

None

Extension registers

None

Associated logs

None

voiceMailAccessDeny

Register type

Peg

Description

Tracks number of Direct Voice Mail calls rejected because service request was not within service package constraints.

Associated registers

None

Extension registers

Associated logs

None

voiceMailRolloverDeny

Register type

Peg

Description

Tracks number of rejected Rollover to Voice Mail calls because service request was not within service package constraints.

Associated registers

None

Extension registers

None

Associated logs

None

subscribeLimitExceed

Register type

Peg

Description

This register is not used at present.

Associated registers

None

Extension registers

None

Associated logs

None

subscribeDeny

Register type

Peg

Description

This register is not used at present.

Associated registers

Extension registers

None

Associated logs None

Session

Description

This OM group tracks counters for IP Telephony transactions processed by the Session Manager.

The following table lists the key and info fields associated with OM group Session.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group Session:

Session Manager

Registers

The following table lists the registers associated with OM group Session and what they measure. For a description of a register, click on the register name.

Registers for OM group Session

Register name	Measures
<u>origAttempt</u>	origination attempts
<u>termination</u>	terminations
<u>sessionAbandon</u>	session abandons
sessionError	session errors

origAttempt

Register type

Peg

Description

Tracks number of origination attempts.

Associated registers

Extension registers

None

Associated logs

None

termination

Register type

Peg

Description

Tracks number of connections that have been disconnected.

Associated registers

None

Extension registers

None

Associated logs

None

sessionAbandon

Register type

Peg

Description

Tracks number of abandoned connection attempts. For example: timeout, declined calls.

Associated registers

None

Extension registers

None

Associated logs

None

sessionError

Register type

Peg

Description

Tracks number of abandoned connection attempts and for which the connection was lost with the terminating device.

Associated registers

None

Extension registersNone

Associated logs

SETRAF

Description

Service evaluation traffic data (SETRAF)

The OM group SETRAF counts dial line service evaluation and incoming trunk service evaluation calls.

Dial line service evaluation (DLSE) evaluates equal access carrier and non-equal access carrier calls. These calls originate from lines and use the North American numbering plan.

Incoming trunk service evaluation (ITSE) evaluates equal access carrier calls. The equal access carrier calls come from an interLATA carrier point of presence through an access tandem to an end office.

The traffic data is sent to the service evaluation system (No. 2 SES) on the OM transfer interval. The No. 2 SES evaluates call completion and produces statistics on call disposition. Call completion and condition information can cause maintenance on facilities with bad performance records. The call completion and condition information can also help detect some false use of network resources.

Note: The equal access (EA) specific registers of OM group SETRAF are not increased by EA GSF software.

The OM group SETRAF provides two tuples. One tuple is for dial line service

evaluation calls, and one tuple is for incoming trunk service evaluation calls. The following table lists the key and info fields associated with OM group SETRAF.

Key field	Info field
SEITYPE_TYPE_ID identifies the type of calls that are evaluated. Valid entries are DLSE and ITSE.	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SETRAF and what they measure. For a description of a register, click on the register name.

Registers for OM group SETRAF

Register name	Measures
SEEACC	Service evaluation equal access carrier call
SEEACCE	Service evaluation equal access carrier calls evaluated
SENEACC	Service evaluation non-equal access carrier calls
SENEACCE	Service evaluation non-equal access carrier calls evaluated
SETOT	Service evaluation total

SEEACC

Register type

Peg

Description

Service evaluation equal access carrier call (SEEACC)

Register SEEACC counts the dial line service evaluation (DLSE) equal access carrier calls that the No.2 service evaluation system (SES) can evaluate. Dial line service evaluation uses this data.

The DLSE candidates are a subset of calls that originate from lines and use the standard North American numbering plan. These calls can be interLATA or intraLATA. Dial service evaluation calls can originate on separate, party, coin or Meridian Digital Centrex (MDC) lines.

The following call types are not selected for DLSE:

- calls from one MDC line to another MDC line that use less than 7 digits
- tie lines
- MDC attendant calls
- partial dial calls
- dialing irregularities

- data calls
- international calls
- revertive party calls
- calls routed directly to a TOPS position
- mobile telephone calls
- calls that have a custom calling feature active.

Register SEEACC counts incoming trunk service evaluation (ITSE) equal access carrier calls that the No. 2 service evaluation system (SES) can evaluate. Incoming trunk service evaluation uses this data.

Incoming calls from an interLATA carrier point of presence through an access tandem to an end office are ITSE candidates. Feature group C and feature group D calls are ITSE candidates. In a combined 100 and 200 office, calls that terminate on a line are also ITSE candidates.

The following calls are not ITSE candidates:

- calls that the system routes directly to a TOPS position
- calls that come in with no digits
- · calls that already have a custom calling feature active

Associated registers

There are no associated registers.

Extension registers

SEEACC2

Associated logs

There are no associated logs.

SEEACCE

Register type

Peg

Description

Service evaluation equal access carrier calls evaluated (SEEACCE)

Register SEEACCE counts the dial line service evaluation equal access carrier calls that the No. 2 service evaluation system (SES) evaluates. Dial line service evaluation uses this data.

Register SEEACCE counts incoming trunk service evaluation equal access carrier calls that the No. 2 service evaluation system evaluates. Incoming trunk service evaluation uses this data.

Associated registers

Register <u>SEEACC</u> counts the dial line service evaluation (DLSE) equal access carrier calls that the No. 2 service evaluation system can evaluate. Dial line service evaluation uses this data.

Register <u>SEEACC</u> also counts incoming trunk service evaluation equal access carrier calls that the No. 2 service evaluation system can evaluate. Incoming trunk service evaluation uses this data.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SENEACC

Register type

Peg

Description

Service evaluation non-equal access carrier calls (SENEACC)

Register SENEACC counts the dial line service evaluation (DLSE) non-equal access carrier calls that the No. 2 service evaluation system (SES) can evaluate. Dial line service evaluation uses this data.

The DLSE candidates are a subset of calls that originate from lines and use the standard North American numbering plan. These calls are interLATA or intraLATA. Dial service evaluation calls can originate on separate, party, coin, or Meridian Digital Centrex (MDC) lines.

The following call types are not selected for DLSE:

- calls from one MDC line to another MDC line that use less than 7 digits
- tie lines
- MDC attendant calls
- partial dial calls, dialing irregularities, and calls that have a custom calling feature active
- data calls, mobile telephone calls, and international calls

- revertive party calls
- calls the system routes directly to a TOPS position Register SENEACC is not used for incoming trunk service evaluation, and is always zero.

Register SENEACCE is not used for incoming trunk service evaluation, and is always zero.

Associated registers

Register <u>SENEACC</u> counts the dial line service evaluation (DLSE) non-equal access carrier calls that the No. 2 service evaluation system can evaluate.

Extension registers

SENEACC2

Associated logs

There are no associated logs.

SENEACCE

Register type

Peg

Description

Service evaluation non-equal access carrier calls evaluated (SENEACCE)

Register SENEACCE counts the dial line service evaluation non-equal access carrier calls that the No. 2 service evaluation system (SES) evaluates. Dial line service evaluation uses this data.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SETOT

Register type

Peg

Description

Service evaluation total (SETOT)

Register SETOT counts line originations on the switch to evaluate dial line service.

This data is copied from registers NORIG and NORIG2 in OM group OFZ after the transfer from active to holding class. The SETOT and SETOT2 active registers are always zero. After the OM transfer, the holding class contains the current values of NORIG and NORIG2.

To evaluate trunk service, SETOT counts trunk originations on the switch. This data is copied from registers NIN and NIN2 in OM group OFZ after the transfer from active to holding class. The SETOT and SETOT2 active registers are always zero. After the OM transfer, the holding class contains the current values of NIN and NIN2.

Associated registers

Register OFZ_NORIG counts originating calls.

Register OFZ_NIN counts incoming calls.

Extension registers

SETOT2

Associated logs

There are no associated logs.

SIMRING

Description

OM group RES Simultaneous Ringing User Interface (SIMRING) measures the number of:

- subscriber attempts to activate and deactivate the Simultaneous Ringing (SIMRING) feature
- requests for off-board service updates or changes. With the Off-board Service Control feature, off-board service updates peg certain registers when subscribers do one of the following from an off-board application:
 - query the status and/or programmed information of corresponding subscribed-to services
 - generate a request to activate, deactivate or change the services

For more information about the Off-board Service Control feature, refer to Advanced Intelligent Network Essentials Service Implementation Guide, 297-5161-021, and the Advanced Intelligent Network Essentials Service Enablers, 297-5161-022.

The Off-board Service Control feature applies only to DMS.

- SIMRING list editing acceptances and failures
- failed attempts to establish a call between the SIMRING group pilot directory number (PDN) and non-pilot member DNs (NPMDN)

The following table lists the key and info fields associated with OM group SIMRING.

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group SIMRING.

Registers

The following table lists the registers associated with OM group SIMRING and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SIMRING

Register name	Measures
SIMRACT	SIMRING activation
SIMRDACT	SIMRING deactivation
SIMREATT	SIMRING editing attempts
SIMREDEN	SIMRING editing denied attempts
SIMREOVF	SIMRING editing overflow
SIMRFAIL	SIMRING call failure
SIMRINV	SIMRING invalid NPMDN entered

SIMRACT

Register type

Peg

Description

SIMRACT counts subscriber attempts to activate the SIMRING feature. This register increments at the end of the editing session when the SIMRING state

- is inactive when the subscriber enters the editing session.
- changes to active when the subscriber exits the editing session.

For DMS only: SIMRACT counts the number of times a subscriber activates SIMRING service. Similar to the operations performed in a service access code controlled edit session, the register is pegged for each occurrence of an off-board service update activation request.

Associated registers

None

Extension registers

Associated logs None

SIMRDACT

Register type

Peg

Description

SIMRDACT counts subscriber attempts to deactivate the SIMRING feature. This register increments at the end of the editing session when the SIMRING state

- is active when the subscriber enters the editing session.
- changes to inactive when the subscriber exits the editing session.

For DMS only: SIMRDACT counts the number of times a subscriber deactivates SIMRING service. Similar to the operations performed in a service access code controlled edit session, the register is pegged for each occurrence of an off-board service update activation request.

Associated registers

None

Extension registers

None

Associated logs

None

SIMREATT

Register type

Peg

Description

SIMREATT counts subscriber attempts to start the SIMRING user interface.

For DMS only: SIMREATT is pegged each time a subscriber uses an edit session to update SIMRING programmed data. Similar to the operations performed in a service access code controlled edit session, SIMREATT is pegged for each off-board service update request to do the following:

- add a DN to a subscriber SIMRING list
- delete a DN from a subscriber SIMRING list

Associated registers

Extension registers

None

Associated logs

None

SIMREDEN

Register type

Peg

Description

SIMREDEN counts subscriber attempts to start SIMRING list editing sessions that fail because:

- the line does not have the SIMRING feature assigned.
- the SLE tuple does not exist, or the SLE tuple exists but the customer group does not have SLE enabled.

The call routes to the feature not allowed (FNAL) treatment.

For DMS only: SIMREDEN is pegged when a subscriber attempts to update SIMRING programmed data using an edit session, and the attempt is denied. SIMREDEN is pegged when the following is true for a given SIMRING off-board service update request:

- SLE is not enabled in table CUSTSTN.
- SCF is not enabled in table RESOFC.

Associated registers

None

Extension registers

None

Associated logs

None

SIMREOVF

Register type

Peg

Description

SIMREOVF counts attempts to start SIMRING list editing sessions that fail because

• SIMRING cannot start digit collection while collecting the user input (adding a new NPMDN through the user interface).

- SIMRING cannot play announcements (at any point during the user interface session).
- System failures occur or not enough resources are available (at any point during the user interface session).
- The number of Screening List Editing (SLE) sessions exceeds the allowed limit (SLE_MAX_PROGRAMMERS in table OFCENG) while starting a new session.

If SIMREOVF increments because of the lack of hardware resources, the call routes to no service circuits (NOSC) treatment. If SIMREOVF increments because of the lack of software resources, the call routes to no software resources (NOSR) treatment.

Associated registers

None

Extension registers

None

Associated logs

None

SIMRFAIL

Register type

Peg

Description

SIMRFAIL counts attempts to establish PDN-to-NPMDN call legs that fail because not enough clone virtual identifiers (CVID) are available.

Associated registers

None

Extension registers

None

Associated logs

None

SIMRINV

Register type

Peg

Description

SIMRINV counts attempts to add an invalid NPMDN (for example, an intraswitch POTS DN) during an editing session.

None

Extension registers

None

Associated logs

SIP_Delay_Report

Description

The SIP_Delay_Report OM group provides information about processing time for SIP transactions on a network element. Unless otherwise noted in the SIP_Delay_Report Row Descriptions below, transaction processing time is the time that elapses between the receipt of a SIP request message and the sending of the response to that request message. The SIP_Delay_Report OM group is a set of rows and columns, where each row is a transaction type and the columns are registers that form a histogram of discrete time values.

The following table lists the rows associated with OM group SIP Delay Report.

Row name	Description
ACK	This row provides a set of delay peg-registers for processing delay for ACKs in transactions. The delay values for ACKs are measured as the time taken between sending a 200 response back to the originator of a request message and the originator's responding with an ACK. If the final response to an INVITE is non-200, no delay statistics for the ACK are captured in the report (the ACK is effectively ignored for purposes of delay).
INFO	This row provides a set of delay peg registers for processing delay For INFO transactions.
INVITE	This row provides a set of delay peg-registers for processing delay for INVITE transactions. Delay values for INVITE transactions are measured as the time taken until a 18x or final response is sent back to the originator to the INVITE transaction (whichever comes first).
MESSAGE	This row provides a set of delay peg-registers for processing delay for MESSAGE transactions.
NOTIFY	This row provides a set of delay peg-registers for processing delay for NOTIFY transactions.
OPTIONS	This row provides a set of delay peg-registers for processing delay for OPTIONS transactions.

Row name	Description
PUBLISH	This row provides a set of delay peg-registers for processing delay for PUBLISH transactions.
REFER	This row provides a set of delay peg-registers for processing delay for REFER transactions.
REGISTER	This row provides a set of delay peg-registers for processing delay for REGISTER transactions.
SUBSCRIBE	This row provides a set of delay peg-registers for processing delay for SUBSCRIBE transactions.
UPDATE	This row provides a set of delay peg-registers for processing delay for UPDATE transactions.
[Totals]	This row is the totals of the columns of all of the above rows.

Related functional groups

The following functional groups are related to OM group SIP_Delay_Report:

Session Manager ... all NEs

Registers

The registers in each of the rows in SIP_Delay_Report represent discrete time values. Each register is a count of the number of transactions whose processing time took at least that amount of time but less than the amount of time represented by the next register in ascending order.

The following table lists the registers associated with OM group SIP_Delay_Report and what they measure. For a description of a register, click on the register name.

Registers for OM group SIP_Delay_Report

Register name	Measures
_25ms	transaction delay of 25 milliseconds
_50ms	transaction delay of 50 milliseconds
_100ms	transaction delay of 100 milliseconds

Registers for OM group SIP_Delay_Report

Register name	Measures
_125ms	transaction delay of 125 milliseconds
_150ms	transaction delay of 150 milliseconds
<u>175ms</u>	transaction delay of 175 milliseconds
_200ms	transaction delay of 200 milliseconds
_250ms	transaction delay of 250 milliseconds
<u>300ms</u>	transaction delay of 300 milliseconds
<u>350ms</u>	transaction delay of 350 milliseconds
<u>400ms</u>	transaction delay of 400 milliseconds
<u>450ms</u>	transaction delay of 450 milliseconds
<u>500ms</u>	transaction delay of 500 milliseconds
<u>550ms</u>	transaction delay of 550 milliseconds
_600ms	transaction delay of 600 milliseconds
_650ms	transaction delay of 650 milliseconds
_700ms	transaction delay of 700 milliseconds
_750ms	transaction delay of 750 milliseconds
_800ms	transaction delay of 800 milliseconds
_850ms	transaction delay of 850 milliseconds
_900ms	transaction delay of 900 milliseconds
_950ms	transaction delay of 950 milliseconds
_1000ms	transaction delay of 1000 milliseconds
_1250ms	transaction delay of 1250 milliseconds
_1500ms	transaction delay of 1500 milliseconds
_1750ms	transaction delay of 1750 milliseconds

Registers for OM group SIP_Delay_Report

Register name	Measures
_2000ms	transaction delay of 2000 milliseconds
_3000ms	transaction delay of 3000 milliseconds
_4000ms	transaction delay of 4000 milliseconds
_8000ms	transaction delay of 8000 milliseconds
_16000ms	transaction delay of 16000 milliseconds
_32000ms	transaction delay of 32000 milliseconds

_25ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in 25 milliseconds or less.

Associated registers

None

Extension registers

None

Associated logs

None

50ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 25 milliseconds but less than or equal to 50 milliseconds.

Associated registers

None

Extension registers

Associated logs

None

100ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 50 milliseconds but less than or equal to 100 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

125ms

Register type

Peg or Usage

Description

The number of transactions of the specified type which have completed in more than 100 milliseconds but less than or equal to 125 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

150ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 125 milliseconds but less than or equal to 150 milliseconds.

None

Extension registers

None

Associated logs

None

175ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 150 milliseconds but less than or equal to 175 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

200ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 175 milliseconds but less than or equal to 200 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

_250ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 200 milliseconds but less than or equal to 250 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_300ms

Register type

Peg or Usage

Description

The number of transactions of the specified type which have completed in more than 250 milliseconds but less than or equal to 300 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_350ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 300 milliseconds but less than or equal to 350 milliseconds.

None

Extension registers

None

Associated logs

None

400ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 350 milliseconds but less than or equal to 400 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

450ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 400 milliseconds but less than or equal to 450 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

_500ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 450 milliseconds but less than or equal to 500 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_550ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 500 milliseconds but less than or equal to 550 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_600ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 550 milliseconds but less than or equal to 600 milliseconds.

None

Extension registers

None

Associated logs

None

650ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 600 milliseconds but less than or equal to 650 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

700ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 650 milliseconds but less than or equal to 700 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

_750ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 700 milliseconds but less than or equal to 750 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_800ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 750 milliseconds but less than or equal to 800 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_850ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 800 milliseconds but less than or equal to 850 milliseconds.

None

Extension registers

None

Associated logs

None

900ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 850 milliseconds but less than or equal to 900 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

950ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 900 milliseconds but less than or equal to 950 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

_1000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 950 milliseconds but less than or equal to 1000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_1250ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1000 milliseconds but less than or equal to 1250 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_1500ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1250 milliseconds but less than or equal to 1500 milliseconds.

None

Extension registers

None

Associated logs

None

1750ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1500 milliseconds but less than or equal to 1750 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

2000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1750 milliseconds but less than or equal to 2000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

_3000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 2000 milliseconds but less than or equal to 3000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_4000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 3000 milliseconds but less than or equal to 4000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_8000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 4000 milliseconds but less than or equal to 8000 milliseconds.

None

Extension registers

None

Associated logs

None

16000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 8000 milliseconds but less than or equal to 16000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

32000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 16000.

Associated registers

None

Extension registers

None

Associated logs

SIP_Inbound_Response_Report

Description

The purpose of the SIP_Inbound_Response_Report OM group is to provide counts of various responses messages received by a network element in response to outgoing SIP request messages. The SIP_Inbound_Response_Report OM group consists of a set of rows with each row containing and identical set of peg-registers. Each row corresponds to an outgoing SIP request message and each register (column) corresponds to a SIP response type of an incoming response. Additional SIP Response message details can be found in RFC-3261.

The following table lists the rows associated with OM group SIP Inbound Response Report.

Row name	Description
INFO	This row provides a set of peg-registers for the different response types for INFO transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing INFO transactions.
INVITE	This row provides a set of peg-registers for the different response types for INVITE transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing INVITE transactions.
MESSAGE	This row provides a set of peg-registers for the different response types for MESSAGE transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing MESSAGE transactions.
NOTIFY	This row provides a set of peg-registers for the different response types for NOTIFY transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing NOTIFY transactions.

Row name	Description
OPTIONS	This row provides a set of peg-registers for the different response types for OPTIONS transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing OPTIONS transactions.
PUBLISH	This row provides a set of peg-registers for the different response types for PUBLISH transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing PUBLISH transactions.
REFER	This row provides a set of peg-registers for the different response types for REFER transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing REFER transactions.
REGISTER	This row provides a set of peg-registers for the different response types for REGISTER transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing REGISTER transactions.
SUBSCRIBE	This row provides a set of peg-registers for the different response types for SUBSCRIBE transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing SUBSCRIBE transactions.
UPDATE	This row provides a set of peg-registers for the different response types for UPDATE transactions. Each peg-register counts the number of responses of the specified type that have been received in response to outgoing UPDATE transactions.
[Totals]	This row is a set of totals of the other rows.

Related functional groups

The following functional groups are related to OM group SIP_Inbound_Response_Report:

Session Manager ... all NEs

Registers

Each of the registers a in SIP_Inbound_Response_Report row counts the SIP response messages of the indicated type which have been received in response to outgoing SIP messages corresponding to the row type. For example, the _302 register in the INVITE row is a count of the number of 302 responses messages received in response to outgoing INVITE messages in the current Office Transfer Period.

The following table lists the registers associated with OM group SIP_Inbound_Response_Report and what they measure. For a description of a register, click on the register name.

Registers for OM group SIP_Inbound_Response_Report

Register name	Measures
_25ms	responses in 25 milliseconds
_50ms	responses in 50 milliseconds
_100ms	responses in 100 milliseconds
_125ms	responses in 125 milliseconds
_150ms	responses in 150 milliseconds
_175ms	responses in 175 milliseconds
_200ms	responses in 200 milliseconds
_250ms	responses in 250 milliseconds
_300ms	responses in 300 milliseconds
_350ms	responses in 350 milliseconds
_400ms	responses in 400 milliseconds
_450ms	responses in 450 milliseconds
_500ms	responses in 500 milliseconds
_550ms	responses in 550 milliseconds

Registers for OM group SIP_Inbound_Response_Report

Register name	Measures
_600ms	responses in 600 milliseconds
_650ms	responses in 650 milliseconds
_700ms	responses in 700 milliseconds
_750ms	responses in 750 milliseconds
_800ms	responses in 800 milliseconds
_850ms	responses in 850 milliseconds
<u>900ms</u>	responses in 900 milliseconds
_950ms	responses in 950 milliseconds
_1000ms	responses in 1000 milliseconds
_1250ms	responses in 1250 milliseconds
_1500ms	responses in 1500 milliseconds
_1750ms	responses in 1750 milliseconds
_2000ms	responses in 2000 milliseconds
_3000ms	responses in 3000 milliseconds
_4000ms	responses in 4000 milliseconds
_8000ms	responses in 8000 milliseconds
_16000ms	responses in 16000 milliseconds
<u>32000ms</u>	responses in 32000 milliseconds

_25ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in 25 milliseconds or less.

None

Extension registers

None

Associated logs

None

50ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 25 milliseconds but less than or equal to 50 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

100ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 50 milliseconds but less than or equal to 100 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

125ms

Register type

Peg or Usage

Description

The number of transactions of the specified type which have completed in more than 100 milliseconds but less than or equal to 125 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_150ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 125 milliseconds but less than or equal to 150 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_175ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 150 milliseconds but less than or equal to 175 milliseconds.

Associated registers

None

Extension registers

Associated logs

None

200ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 175 milliseconds but less than or equal to 200 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

250ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 200 milliseconds but less than or equal to 250 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

300ms

Register type

Peg or Usage

Description

The number of transactions of the specified type which have completed in more than 250 milliseconds but less than or equal to 300 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

350ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 300 milliseconds but less than or equal to 350 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

400ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 350 milliseconds but less than or equal to 400 milliseconds.

Associated registers

None

Extension registers

Associated logs

None

450ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 400 milliseconds but less than or equal to 450 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_500ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 450 milliseconds but less than or equal to 500 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

550ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 500 milliseconds but less than or equal to 550 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

600ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 550 milliseconds but less than or equal to 600 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

650ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 600 milliseconds but less than or equal to 650 milliseconds.

Associated registers

None

Extension registers

Associated logs

None

_700ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 650 milliseconds but less than or equal to 700 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_750ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 700 milliseconds but less than or equal to 750 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

800ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 750 milliseconds but less than or equal to 800 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

850ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 800 milliseconds but less than or equal to 850 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_900ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 850 milliseconds but less than or equal to 900 milliseconds.

_950ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 900 milliseconds but less than or equal to 950 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

1000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 950 milliseconds but less than or equal to 1000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_1250ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1000 milliseconds but less than or equal to 1250 milliseconds.

Associated registers

None

Extension registers

Associated logs

None

_1500ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1250 milliseconds but less than or equal to 1500 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_1750ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1500 milliseconds but less than or equal to 1750 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

2000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 1750 milliseconds but less than or equal to 2000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

3000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 2000 milliseconds but less than or equal to 3000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

4000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 3000 milliseconds but less than or equal to 4000 milliseconds.

Associated registers

None

Extension registers

Associated logs

None

8000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 4000 milliseconds but less than or equal to 8000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_16000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 8000 milliseconds but less than or equal to 16000 milliseconds.

Associated registers

None

Extension registers

None

Associated logs

None

_32000ms

Register type

Peg

Description

The number of transactions of the specified type which have completed in more than 16000.

None

Extension registersNone

Associated logs

SIP_Outbound_Response_Report

Description

The SIP_Outbound_Response_Report OM group consists of a set of rows with each row containing and identical set of peg-registers. Each row corresponds to an incoming SIP request message and each register (column) corresponds to a SIP response type of an outgoing response. The registers count the number of SIP responses of the corresponding type that have been sent in response to incoming SIP request messages for the corresponding row type in the current Office Transfer Period. Additional SIP Response message details can be found in RFC-3261.

The following table lists the rows associated with OM group SIP_Outbound_Response_Report.

Row name	Description
INFO	This row provides a set of peg-registers for the different response types for INFO transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming INFO transactions.
INVITE	This row provides a set of peg-registers for the different response types for INVITE transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming INVITE transactions.
MESSAGE	This row provides a set of peg-registers for the different response types for MESSAGE transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming MESSAGE transactions.
NOTIFY	This row provides a set of peg-registers for the different response types for NOTIFY transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming NOTIFY transactions.

Row name	Description
OPTIONS	This row provides a set of peg-registers for the different response types for OPTIONS transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming OPTIONS transactions.
PUBLISH	This row provides a set of peg-registers for the different response types for PUBLISH transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming PUBLISH transactions.
REFER	This row provides a set of peg-registers for the different response types for REFER transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming REFER transactions.
REGISTER	This row provides a set of peg-registers for the different response types for REGISTER transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming REGISTER transactions.
SUBSCRIBE	This row provides a set of peg-registers for the different response types for SUBSCRIBE transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming SUBSCRIBE transactions.
UPDATE	This row provides a set of peg-registers for the different response types for UPDATE transactions. Each peg-register counts the number of responses of the specified type that have been sent in response to incoming UPDATE transactions.
[Totals]	This row is a set of totals of the other rows.

Related functional groups

The following functional groups are related to OM group SIP_Outbound_Response_Report:

Session Manager ... all NEs

Registers

Each of the registers a in SIP_Outbound_Response_Report row counts the SIP response messages of the indicated type which have been sent in response to incoming SIP messages corresponding to the row type. For example, the _302 register in the INVITE row is a count of the number of 302 responses messages sent in response to incoming INVITE messages in the current Office Transfer Period.

The following table lists the registers associated with OM group SIP_Outbound_Response_Report and what they measure. For a description of a register, click on the register name.

Registers for OM group SIP_Inbound_Response_Report

Register name	Measures
_200	number of 200 response messages sent
_202	number of 202 response messages sent
_300	number of 300 response messages sent
_301	number of 301 response messages sent
_302	number of 302 response messages sent
_303	number of 303 response messages sent
_304	number of 304 response messages sent
_305	number of 305 response messages sent
_400	number of 400 response messages sent
_401	number of 401 response messages sent
_402	number of 402 response messages sent
_403	number of 403 response messages sent
_404	number of 404 response messages sent
<u>405</u>	number of 405 response messages sent

Registers for OM group SIP_Inbound_Response_Report

Register name	Measures
406	number of 406 response messages sent
_407	number of 407 response messages sent
408	number of 408 response messages sent
409	number of 409 response messages sent
_410	number of 410 response messages sent
411	number of 411 response messages sent
412	number of 412 response messages sent
413	number of 413 response messages sent
414	number of 414 response messages sent
<u>415</u>	number of 415 response messages sent
420	number of 420 response messages sent
_423	number of 423 response messages sent
480	number of 480 response messages sent
<u>481</u>	number of 481 response messages sent
482	number of 482 response messages sent
483	number of 483 response messages sent
484	number of 484 response messages sent
<u>485</u>	number of 485 response messages sent
486	number of 486 response messages sent
_487	number of 487 response messages sent
_488	number of 488 response messages sent
_489	number of 489 response messages sent
491	number of 491 response messages sent

Registers for OM group SIP_Inbound_Response_Report

Register name	Measures
_500	number of 500 response messages sent
_501	number of 501 response messages sent
_502	number of 502 response messages sent
_503	number of 503 response messages sent
_504	number of 504 response messages sent
_505	number of 505 response messages sent
_600	number of 600 response messages sent
_603	number of 603 response messages sent
_604	number of 604 response messages sent
_606	number of 606 response messages sent
<u>Unknown2xx</u>	number of unknown 2xx response messages sent
<u>Unknown3xx</u>	number of unknown 3xx response messages sent
<u>Unknown4xx</u>	number of unknown 4xx response messages sent
<u>Unknown5xx</u>	number of unknown 5xx response messages sent
<u>Unknown6xx</u>	number of unknown 6xx response messages sent
<u>Total</u>	total number of response messages sent

_200

Register type

Peg

Description

This register provides a count of the number of "200 OK" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

202

Register type

Peg

Description

This register provides a count of the number of "202 Accepted" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

300

Register type

Peg

Description

This register provides a count of the number of "300 Multiple Choices" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

301

Register type

Peg or Usage

This register provides a count of the number of "301 Moved Permanently" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

302

Register type

Peg

Description

This register provides a count of the number of "302 Moved Temporarily" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

303

Register type

Peg

Description

This register provides a count of the number of "303 See Other" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

_304

Register type

Peg

Description

This register provides a count of the number of "304 Warning" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

_305

Register type

Peg

Description

This register provides a count of the number of "305 Use Proxy" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

400

Register type

Peg or Usage

Description

This register provides a count of the number of "400 Bad Request" responses sent in the current Office Transfer Period.

Associated registers

Extension registers

None

Associated logs

None

401

Register type

Peg

Description

This register provides a count of the number of "401Unauthorized" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

402

Register type

Peg

Description

This register provides a count of the number of "402 Payment Required" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

403

Register type

Peg

This register provides a count of the number of "403 Forbidden" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

404

Register type

Peg

Description

This register provides a count of the number of "404 Not Found" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

405

Register type

Peg

Description

This register provides a count of the number of "405 Method Not Allowed" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

406

Register type

Peg

Description

This register provides a count of the number of "406 Not Acceptable" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

407

Register type

Peg

Description

This register provides a count of the number of "407 Proxy Authentication Required" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

408

Register type

Peg

Description

This register provides a count of the number of "408 Request Timeout" responses sent in the current Office Transfer Period.

Associated registers

Extension registers

None

Associated logs

None

409

Register type

Peg

Description

This register provides a count of the number of "409 Conflict" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

410

Register type

Peg

Description

This register provides a count of the number of "410 Gone" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

411

Register type

Peg

This register provides a count of the number of "411 Length Required" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

412

Register type

Peg

Description

This register provides a count of the number of "412 Conditional Request Failed" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

413

Register type

Peg

Description

This register provides a count of the number of "413 Request Entity Too Large" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

_414

Register type

Peg

Description

This register provides a count of the number of "414 Request-URI Too Long" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

415

Register type

Peg

Description

This register provides a count of the number of "415 Unsupported Media Type" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

420

Register type

Peg

Description

This register provides a count of the number of "420 Bad Extension" responses sent in the current Office Transfer Period.

Associated registers

Extension registers

None

Associated logs

None

423

Register type

Peg

Description

This register provides a count of the number of "423 Interval Too Brief" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

480

Register type

Peg

Description

This register provides a count of the number of "480 Temporarily Unavailable" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

481

Register type

Peg

This register provides a count of the number of "481 Call Or Transaction Does Not Exist" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

482

Register type

Peg

Description

This register provides a count of the number of "482 Loop Detected" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

483

Register type

Peg

Description

This register provides a count of the number of "483 Too Many Hops" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

484

Register type

Peg

Description

This register provides a count of the number of "484 Address Incomplete" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

485

Register type

Peg

Description

This register provides a count of the number of "485 Ambiguous" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

486

Register type

Peg

Description

This register provides a count of the number of "486 Busy Here" responses sent in the current Office Transfer Period.

Associated registers

Extension registers

None

Associated logs

None

487

Register type

Peg

Description

This register provides a count of the number of "487 Request Terminated" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

_488

Register type

Peg

Description

This register provides a count of the number of "488 Not Acceptable Here" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

489

Register type

Peg

This register provides a count of the number of "489 Bad Event" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

_491

Register type

Peg

Description

This register provides a count of the number of "491 Request Pending" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

500

Register type

Peg

Description

This register provides a count of the number of "500 Server Internal Error" responses sent in the current Office Transfer Period. Note that this register is a call failure indication, and it has configurable thresholds for minor, major, and critical alarms.

Associated registers

None

Extension registers

Associated logs

None

501

Register type

Peg

Description

This register provides a count of the number of "501 Not Implemented" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

_502

Register type

Peg

Description

This register provides a count of the number of "502 Bad Gateway" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

_503

Register type

Peg

Description

This register provides a count of the number of "503 Service Unavailable" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

504

Register type

Peg

Description

This register provides a count of the number of "504 Server Timeout" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

505

Register type

Peg

Description

This register provides a count of the number of "505 Version Not Supported" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

600

Register type

Peg

This register provides a count of the number of "600 Busy Everywhere" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

603

Register type

Peg

Description

This register provides a count of the number of "603 Decline" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

604

Register type

Peg

Description

This register provides a count of the number of "604 Does Not Exist Anywhere" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

606

Register type

Peg

Description

This register provides a count of the number of "606 Not Acceptable" responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

Unknown2xx

Register type

Peg

Description

This register provides a count of the number of unrecognized 200-series responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

Unknown3xx

Register type

Peg

Description

This register provides a count of the number of unrecognized 300-series responses sent in the current Office Transfer Period.

Associated registers

Extension registers

None

Associated logs

None

Unknown4xx

Register type

Peg

Description

This register provides a count of the number of unrecognized 400-series responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

Unknown5xx

Register type

Peg

Description

This register provides a count of the number of unrecognized 500-series responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

Unknown6xx

Register type

Peg

421

Description

This register provides a count of the number of unrecognized 600-series responses sent in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

Total

Register type

Peg

Description

This register provides a count of the totals of all other registers in the row.

Associated registers

None

Extension registers

None

Associated logs

None

Thresholding and Alarms

There is a set of configurable thresholds for "500 Server Internal Error" responses. There are 3 configurable thresholds for each SIP transaction request type (row), representing minor, major, and critical alarms. The thresholds are configured via the Configuration Parameters entry for a network element in the management GUI. Each threshold indicates a percentage of total responses which are 500 responses. Threshold checking and alarm generation or clearing is performed at the end of each Office Transfer Period. If, when the threshold check is performed, the percentage of 500 responses reaches or exceeds one of the thresholds, an alarm of the corresponding type and severity will be raised. If an alarm was previously raised and the percentage of 500 responses falls below all configured thresholds when the threshold check is performed, the alarm will be retired automatically.

SIP_Transaction_Report

Description

The SIP_Transaction_Report OM group consists of a set of rows with each row containing and identical set of peg-registers. Each row corresponds to an incoming or outgoing SIP transaction. There are two registers (columns) indicating the direction of transaction and a register indicating the current number of transactions which are currently active.

The following table lists the rows associated with OM group SIP_Transaction_Report.

Row name	Description
ACK	This row provides a set of registers indicating the number of inbound, outbound, and currently active ACK transactions.
BYE	This row provides a set of registers indicating the number of inbound, outbound, and currently active BYE transactions.
CANCEL	This row provides a set of registers indicating the number of inbound, outbound, and currently active CANCEL transactions.
INFO	This row provides a set of registers indicating the number of inbound, outbound, and currently active INFO transactions.
INVITE	This row provides a set of registers indicating the number of inbound, outbound, and currently active INVITE transactions.
MESSAGE	This row provides a set of registers indicating the number of inbound, outbound, and currently active MESSAGE transactions.
NOTIFY	This row provides a set of registers indicating the number of inbound, outbound, and currently active NOTIFY transactions.
OPTIONS	This row provides a set of registers indicating the number of inbound, outbound, and currently active OPTIONS transactions.

Row name	Description
PRACK	This row provides a set of registers indicating the number of inbound, outbound, and currently active PRACK transactions.
PUBLISH	This row provides a set of registers indicating the number of inbound, outbound, and currently active PUBLISH transactions.
REFER	This row provides a set of registers indicating the number of inbound, outbound, and currently active REFER transactions.
REGISTER	This row provides a set of registers indicating the number of inbound, outbound, and currently active REGISTER transactions.
SUBSCRIBE	This row provides a set of registers indicating the number of inbound, outbound, and currently active SUBSCRIBE transactions.
UPDATE	This row provides a set of registers indicating the number of inbound, outbound, and currently active UPDATE transactions.
[Totals]	This row is a set of totals of the other rows.

Related functional groups

The following functional groups are related to OM group SIP_Transaction_Report:

• Session Manager ... all NEs

Registers

The following table lists the registers associated with OM group SIP_Transaction_Report and what they measure. For a description of a register, click on the register name.

Registers for OM group SIP_Transaction_Report

Register name	Measures
Inbound	inbound messages
Outbound	outbound messages
Active	active

Inbound

Register type

Peg

Description

This register provides a count of the number of SIP transactions of the corresponding row type which have been initiated by incoming message in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

Outbound

Register type

Peg

Description

This register provides a count of the number of SIP transactions of the corresponding row type which have been initiated by outbound message in the current Office Transfer Period.

Associated registers

None

Extension registers

None

Associated logs

None

Active

Register type

Usage

Scan period

Description

This register provides a count of the currently active transactions of the corresponding row type. Each time a transaction is initiated by an

incoming or outgoing message, this counter is incremented. Each time the transaction is concluded by the sending or receiving of a response message, this counter is decremented.

Associated registers

None

Extension registers

None

Associated logs

SIPGW_CALLP

Description

OM group SIPGW_CALLP provides registers for recording incoming and outgoing call processing events related to the SIP Gateway application.

The following table lists the key and info fields associated with OM group SIPGW_CALLP.

Key field	Info field
None	None

Related functional groups

All registers in OM group SIPGW_CALLP are associated with dynamically allocated tuple, based on assigned tuple key numbers and tuple key names. Tuple key names are related to SIP link names and associated with SIP trunk IDs found in Core table SIPLINK.

A tuple with a key number of 2049 and a key name of SIPLINK_UNKNOWN is always available to collect register peg counts that cannot be associated with a specific SIPLINK.

Registers

The following table lists the registers associated with OM group SIPGW_CALLP and what they measure.

Registers for OM group SIPGW_CALLP

Register name	Measures
IC CALL ATTEMPTS	Total number of incoming call attempts
OG CALL ATTEMPTS	Total number of outgoing call attempts
CALLS ABANDONED	Total number of calls abandoned
CALLS ANSWERED	Total number of calls answered
CALLS REJECTED	Total number of calls rejected
CALLS REDIRECTED	Total number of calls redirected

Registers for OM group SIPGW_CALLP

Register name	Measures
IC CALL ATTEMPTS	Total number of incoming SIP call attempts
OVRLD CALLS REJECTED	Total number of calls rejected due to overload conditions

IC_CALL_ATTEMPTS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of incoming SIP call attempts.

Associated registers

None

Extension register

None

Associated logs

None

OG CALL ATTEMPTS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of outgoing SIP call attempts.

Associated registers

None

Extension register

None

Associated logs

None

CALLS ABANDONED

Register type

Peg type, double precision, up to 4 294 967 296 counts

This register counts the total number of SIP calls abandoned.

Associated registers

None

Extension register

None

Associated logs

None

CALLS ANSWERED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of SIP calls answered.

Associated registers

None

Extension register

None

Associated logs

None

CALLS REJECTED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of SIP calls rejected.

Associated registers

None

Extension register

None

Associated logs

SIPC310

CALLS REDIRECTED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of SIP calls redirected.

Associated registers

None

Extension register

None

Associated logs

None

IC CALL ATTEMPTS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of incoming SIP call attempts.

Associated registers

None

Extension register

None

Associated logs

None

OVRLD_CALLS_REJECTED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of SIP calls rejected due to overload conditions.

Associated registers

None

Extension register

Associated logs None

SIPGW_MISC

Description

OM group SIPGW_MISC provides registers for recording miscellaneous call events, including calls using different transport types, SIP messaging failures and SDP (session description protocol) compatibility for the SIP Gateway application.

The following table lists the key and info fields associated with OM group SIPGW_MISC.

Key field	Info field
None	None

Related functional groups

All registers in OM group SIPGW_MISC are associated with dynamically allocated tuple, based on assigned tuple key numbers and tuple key names. Tuple key names are related to SIP link names and associated with SIP trunk IDs found in table SIPLINK.

A tuple with a key number of 2049 and a key name of SIPLINK_UNKNOWN is always available to collect register peg counts that cannot be associated with a specific SIPLINK.

Registers

The following table lists the registers associated with OM group SIPGW_MISC and what they measure.

Registers for OM group SIPGW_MISC

Register name	Measures
TCP_CALLS	Total number of TCP Calls
UDP_CALLS	Total number of UDP calls
SIP_MSG_SEND_FAILURES	Total number of SIP Msg Send Failures, note that this value is inaccurate
INCOMING_SDP_INCOMPATIBLE	Total number of incompatible SDPs received from remote SIP servers
OUTGOING_SDP_INCOMPATIBLE	Total number of incompatible SDPs received from local gateways.

TCP_CALLS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of TCP Calls.

Associated registers

None

Extension register

None

Associated logs

None

UDP CALLS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of UDP calls.

Associated registers

None

Extension register

None

Associated logs

None

SIP_MSG_SEND_FAILURES

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of SIP Msg Send Failures. This register is displayed but is not accurate.

Associated registers

None

Extension register

Associated logs

None

INCOMING_SDP_INCOMPATIBLE

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of incompatible SDPs (session description protocols) received from remote SIP servers.

Associated registers

None

Extension register

None

Associated logs

None

OUTGOING_SDP_INCOMPATIBLE

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of incompatible SDPs received from local gateways.

Associated registers

None

Extension register

None

Associated logs

SIPGW_SERVICES

Description

OM group SIPGW_SERVICES provides registers for recording incoming and outgoing call device subscription and referral events related to the SIP Gateway application.

The following table lists the key and info fields associated with OM group SIPGW_SERVICES.

Key field	Info field
None	None

Related functional groups

All registers in OM group SIPGW_SERVICES are associated with dynamically allocated tuple, based on assigned tuple key numbers and tuple key names. Tuple key names are related to SIP link names and associated with SIP trunk IDs found in table SIPLINK.

A tuple with a key number of 2049 and a key name of SIPLINK_UNKNOWN is always available to collect register peg counts that cannot be associated with a specific SIPLINK.

Registers

The following table lists the registers associated with OM group SIPGW_SERVICES and what they measure.

Registers for OM group SIPGW_SERVICES

Register name	Measures
REFER ATTEMPTS	Total number of refer attempts
REFER SUCCESS	Total number of successful refers
IC DTMF SUBSCRIBES	Total number of incoming DTMF subscribes
OG DTMF SUBSCRIBES	Total number of outgoing DTMF subscribes
IC DTMF NOTIFYS	Total number of incoming DTMF notifies
OG DTMF NOTIFYS	Total number of outgoing DTMF notifies
IC FAX SUBSCRIBES	Total number of incoming fax subscribes

Registers for OM group SIPGW_SERVICES

Register name	Measures
OG FAX SUBSCRIBES	Total number of outgoing fax subscribes
IC FAX NOTIFYS	Total number of incoming fax notifies
OG FAX NOTIFYS	Total number of outgoing fax notifies

REFER ATTEMPTS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of refer attempts.

Associated registers

None

Extension register

None

Associated logs

None

REFER SUCCESS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of successful refers.

Associated registers

None

Extension register

None

Associated logs

None

IC_DTMF_SUBSCRIBES

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of incoming DTMF subscribes.

Associated registers

None

Extension register

None

Associated logs

None

OG DTMF SUBSCRIBES

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of outgoing DTMF subscribes.

Associated registers

None

Extension register

None

Associated logs

None

IC_DTMF_NOTIFYS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of incoming DTMF notifies.

Associated registers

None

Extension register

None

Associated logs

OG_DTMF_NOTIFYS

Register type

Peg type, double precision, up to 4 294 967296 counts

437

Description

This register counts the total number of outgoing DTMF notifies.

Associated registers

None

Extension register

None

Associated logs

None

IC FAX_SUBSCRIBES

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of incoming fax subscribes.

Associated registers

None

Extension register

None

Associated logs

None

OG FAX SUBSCRIBES

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of outgoing fax subscribes.

Associated registers

None

Extension register

Associated logs

None

IC_FAX_NOTIFYS

Register type

Peg type, double precision, up to 4 294 967 296 counts

438

Description

This register counts the total number of incoming fax notifies.

Associated registers

None

Extension register

None

Associated logs

None

OG_FAX_NOTIFYS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of outgoing fax notifies.

Associated registers

None

Extension register

None

Associated logs

SIPGW_TLS

Description

OM group SIPGW_TLS provides registers for recording TLS (transport layer security) call processing security events, including various connection counts and authentication records related to the SIP Gateway application.

The following table lists the key and info fields associated with OM group SIPGW_TLS.

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group SIPGW_TLS.

This OM group is made up of a single OM tuple with a key number of 0.

Registers

The following table lists the registers associated with OM group SIPGW_TLS and what they measure.

Registers for OM group SIPGW_TLS

Register name	Measures
TLS CALLS	Number of calls carried over TLS connections
TLS CONNECTION REQUESTS	Number of new TLS connection requests
TLS CONNECTION REQUESTS PA	<u>ASSED</u>
	Number of TLS connection requests passed
TLS CONNECTION REQUESTS D	ROPPED
	Number of TLS connection requests dropped (throttled)
TLS CONNECTION REQUESTS FA	AILED
	Number of TLS connection requests failed

Registers for OM group SIPGW_TLS

Register name	Measures
TLS HANDSHAKE AUTHENTICATE	<u>D</u>
	Number of certificates authenticated
TLS HANDSHAKE AUTHENTICATION	ON FAILED
	Number of certificates that have failed authentication
TLS CONNECTION CLOSE	Number of TLS connections closed
TLS CONNECTION DROPPED	Number of TLS connections dropped
TLS EXTERNAL SESSION CACHE	<u>HIT</u>
	Number of external session cache hits during TLS connection setup.
TLS EXTERNAL SESSION CACHE	MISS
	Number of external session cache misses during TLS connection setup.
TLS EXTERNAL SESSION CACHE	EXPIRED
	Number of external session cache entries expired during TLS connection setup.
TLS EXTERNAL SESSION REMOV	ED FULL
	Number of external session cache remove requests due to cache being full.

TLS_CALLS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the total number of calls carried over TLS enabled connections.

Associated registers

Extension register

None

Associated logs

None

TLS_CONNECTION_REQUESTS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of TLS connection requests.

Associated registers

None

Extension register

None

Associated logs

None

TLS CONNECTION REQUESTS PASSED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of TLS connection requests passed.

Associated registers

None

Extension register

None

Associated logs

None

TLS_CONNECTION_REQUESTS_DROPPED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of TLS connection requests dropped due to throttling.

Associated registers

None

Extension register

None

Associated logs

SIPS300, SIPS600

TLS_CONNECTION_REQUESTS_FAILED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of TLS connection requests failed.

Associated registers

None

Extension register

None

Associated logs

SIPS301, SIPS601

TLS HANDSHAKE AUTHENTICATED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of certificates authenticated.

Associated registers

None

Extension register

None

Associated logs

None

TLS_HANDSHAKE_AUTHENTICATION_FAILED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of certificates that have failed authentication.

Associated registers

None

Extension register

None

Associated logs

SIPS301, SIPS601

TLS_CONNECTION_CLOSE

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of TLS connections closed.

Associated registers

None

Extension register

None

Associated logs

None

TLS_CONNECTION_DROPPED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of TLS connections dropped.

Associated registers

None

Extension register

None

Associated logs

TLS_EXTERNAL_SESSION_CACHE_HIT

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of external session cache hits during TLS connection setup.

Associated registers

None

Extension register

None

Associated logs

None

TLS_EXTERNAL_SESSION_CACHE_MISS

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of external session cache misses during TLS connection setup.

Associated registers

None

Extension register

None

Associated logs

None

TLS_EXTERNAL_SESSION_CACHE_EXPIRED

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of external session cache entries expired during TLS connection setup.

Associated registers

Extension register

None

Associated logs

None

TLS_EXTERNAL_SESSION_REMOVED_FULL

Register type

Peg type, double precision, up to 4 294 967 296 counts

Description

This register counts the number of external session cache remove requests due to cache being full.

Associated registers

None

Extension register

None

Associated logs

SIPReport

Description

This OM group is used to assess traffic in terms of number of SIP messages initiated and received for each SIP message type. The counters do not include Response sip Messages such as: 48X or 200 OK.

The following table lists the key and info fields associated with OM group SIPReport.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group SIPReport:

- Session Manager
- Provisioning Manager
- IPCM

Registers

The following table lists the registers associated with OM group SIPReport and what they measure. For a description of a register, click on the register name.

Registers for OM group SIPReport

Register name	Measures
initiated	initiated
initiatedRXmit	initiated retransmissions
received	received
receivedRXmit	received retransmissions

initiated

Register type

Peg

Description

Counter for the number of SIP messages initiated by the given Component.

Associated registers

None

Extension registers

None

Associated logs

None

initiatedRXmit

Register type

Peg

Description

Counter for retransmissions of SIP messages initiated by the given Component.

Associated registers

None

Extension registers

None

Associated logs

None

received

Register type

Peg

Description

Counter for the number of SIP messages received by the given Component.

Associated registers

None

Extension registers

None

Associated logs

receivedRXmit

Register type

Peg

Description

Counter for retransmissions for SIP messages received by the given Component.

Associated registers

None

Extension registers

None

Associated logs

449

SIPTransaction

Description

This OM Group tracks reports the number of transactions processed by the given component (Session Manager, Prov. Manager, IPCM) during the OM reporting period.

The following table lists the key and info fields associated with OM group SIPTransaction.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group SIPTransaction:

- Session Manager
- Provisioning Manager
- IPCM

Registers

The following table lists the registers associated with OM group SIPTransaction and what they measure. For a description of a register, click on the register name.

Registers for OM group SIPTransaction

Register name	Measures
active	active
total	total

active

Register type

Peg

Description

Counter indicating the number of active SIP transactions

Associated registers

Extension registers

None

Associated logs

None

total

Register type

Peg

Description

Counter indicating the total completed SIP transactions processed

Associated registers

None

Extension registers

None

Associated logs

SITE

Description

OM group SITE provides information about traffic-related counts and dial-tone speed recording (DTSR). The operating company uses DTSR to measure the ability of the switch to return a dial-tone within three seconds.

The DTSR test sends commands on two separate line concentrating module (LCM)-based remotes at each site every 4 seconds. These two commands cause LCM-based remote sites to send messages to central control (CC). These messages appear to originate from a dial pulse and a Digitone line in the sequence given. For each call, the central processor uses the processing code to find the following paths:

- through the originating LCM-based remote
- to an available dual-tone multi frequency (DTMF) receiver

The CC sends LCM-based remote a message indicating that setup is complete. The LCM-based remote returns a message that indicates more than 3 seconds elapse before the dial-tone passes to the target line. If the CC does not receive this message by the next test run, the CC increases the delay count register. The CC also increases the delay count register when a message shows a delay of more than 3 seconds.

The system cancels DTSR if a switch experiences receiver queue overflow on Digitone receivers. The system disables DTSR during degradation conditions if office parameter DTSR_AUTO_DEACTIVATION_ENABLE in table OFCENG equals TRUE. If this parameter equals FALSE, the system does not disable DTSR during degradation conditions.

DPTESTC, DPDELAY, DTTESTC, and DTDELAY apply to offices with remote line modules (RLM) only. All other registers apply to offices with remote lines on new peripherals that connect by the line group controller (LGC) or subscriber module remote (SMR).

The following table lists the key and info fields associated with OM group SITE.

Key field	Info field
SITE_INDEX	SITE_MODULE_COUNT
SITE_INDEX is the site index and external identifier. The range of this field is 1 to 255. The system automatically assigns a value when you enter a tuple in table SITE.	SITE_MODULE_COUNT is the number of peripheral modules assigned the SITE name.

Note: The system deactivates DTSR under degraded conditions if parameter DTSR_AUTO_DEACTIVATION_ENABLE in table OFCENG equals TRUE.

Related functional groups

There are no functional groups associated with OM group SITE.

Registers

OM group SITE contains registers for RLMs and remote peripheral modules (RPM). The following table lists the registers by type, including extension registers.

RLM and RPM registers in OM group SITE (Sheet 1 of 2)

Registers for RLMs	Registers for RPMs
INTRASIT	INTRASIT
INTERSIT	INTERSIT
RORIGOUT	RORIGOUT
INRTERM	INRTERM
DPTESTC	LMDP_T
DPDELAY	LMDP_D
DTTESTC	LMDT_T
DTDELAY	LMDT_D
	LCMDP_T

RLM and RPM registers in OM group SITE (Sheet 2 of 2)

Registers for RLMs	Registers for RPMs
	LCMDP_T2
	LCMDP_D
	LCMDP_D2
	LCMDT_T
	LCMDT_T2
	LCMDT_D
	LCMDT_D2
	LCMKS_T
	LCMKS_T2
	LCMKS_D
	LCMKS_D2
	RCTDP_T
	RCTDP_T2
	RCTDP_D
	RCTDP_D2
	RCTDT_T
	RCTDT_T2
	RCTDT_D
	RCTDT_D2
	DLMKS_T
	DLMKS_T2
	DLMKS_D
	DLMKS_D2

The following table lists the registers associated with OM group SITE and what they measure. For a description of a register, click on the register name.

Note: OM group SITE contains one tuple for each site up to a maximum of 255 tuples. The HOST index is zero (0), but does not have a tuple in this OM group.

Registers for OM group SITE (Sheet 1 of 2)

Register name	Measures
DLMKS D	Digital line module key driven set delay
DLMKS T	Digital line module key driven set total
DPDELAY	Dial pulse delay
<u>DPTESTC</u>	Dial pulse test calls
DTDELAY	Digitone delay
DTTESTC	Digitone test calls
INRTERM	Incoming routed to terminating
INTERSIT	Intersite
INTRASIT	Intrasite
LCMDP D	Line concentrating module dial pulse delay
LCMDP T	Line concentrating module dial pulse total
LCMDT D	Line concentrating module digitone delay
LCMDT T	Line concentrating module digitone total
LCMKS D	Line concentrating module key-driven delay
LCMKS T	Line concentrating module key-driven set total
LMDP D	Line module dial pulse delay
LMDP T	Line module dial pulse test
LMDT D	Line module digitone delay
LMDT T	Line module digitone total

Registers for OM group SITE (Sheet 2 of 2)

Register name	Measures
RCTDP D	Remote concentrating terminal dial pulse delay
RCTDP T	Remote concentrating terminal dial pulse total
RCTDT D	Remote concentrating terminal digitone delay
RCTDT T	Remote concentrating terminal digitone total
RORIGOUT	Remote originating to outgoing

DLMKS_D

Register type

Peg

Description

DLMKS_D counts calls for which dial-tone delays exceed 3 seconds for key-driven set lines on digital line modules. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

DLMKS_D2

Associated logs

None

DLMKS_T

Register type

Peg

Description

DLMKS_T counts test calls on key-driven set lines on digital line modules. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

DLMKS T2

Associated logs

None

DPDELAY

Register type

Peg

Description

DPDELAY counts DTSR test calls on dial pulse lines that have one of the following conditions:

- a dial tone delay that exceeds 3 seconds
- a previous DTSR test that is still in progress on the remote line module (RLM)

The system initiates a test on an RLM at each site every 4 seconds. A high count in this register indicates either high switch use, trouble on the RLM, or a blocked channel.

Associated registers

None

Extension registers

None

Associated logs

None

DPTESTC

Register type

Peg

Description

DPTESTC counts DTSR test calls that are on dial pulse lines. The register increases after the system determines the test result.

Associated registers

None

Extension registers

None

Associated logs

DTDELAY

Register type

Peg

Description

DTDELAY counts DTSR test calls on Digitone lines that experience one of the following conditions:

- a dial tone delay that exceeds 3 seconds
- a DTMF receiver queue overflow
- a previous DTSR test still in progress on the RLM

The system initiates a test on an RLM at each site every 4 seconds. A high count in the register indicates either high switch use, trouble on the RLM, a blocked channel, or not enough available DTMF receivers.

Associated registers

None

Extension registers

None

Associated logs

None

DTTESTC

Register type

Peg

Description

DTTESTC counts DTSR test calls that are on Digitone lines. The register increases after the system determines the test result.

Associated registers

None

Extension registers

None

Associated logs

None

INRTERM

Register type

Peg

Description

INRTERM counts incoming calls that the system first routes to a line at a remote site.

Associated registers

OFZ_NIN, OFZ_INTRM, TRK_INCATOT. These registers count incoming calls.

Extension registers

None

Associated logs

None

INTERSIT

Register type

Peg

Description

INTERSIT counts calls that the system routes to a line at another site. These calls originate at the following locations:

- a remote line module (RLM)
- a remote line concentrating module (RLCM)
- a remote switching center (RSC)
- a remote concentrating terminal (RCT)

INTERSIT increases:

- before the system makes an attempt to set up network connections between the two lines
- before the originating office determines if the called line is busy or unavailable

Associated registers

OFZ_NORIG, OFZ_ORIGTRM, and LMD_NORIGATT. These registers count calls that originate on an RLM.

Extension registers

None

Associated logs

INTRASIT

Register type

Peg

Description

INTRASIT counts calls that originate on an RLM, RLCM, RSC, or RCT. The system routes to another line at the same remote site. INTRASIT increases:

- before the system makes an attempt to set up network connections between the two lines
- before the originating office determines if the called line is busy or unavailable

Associated registers

OFZ_NORIG, OFZ_ORIGTRM, LMD_NORIGATT, LMD_REVERT. These registers count calls that originate on an RLM.

Extension registers

None

Associated logs

None

LCMDP D

Register type

Peg

Description

LCMDP_D counts calls that experience dial-tone delays that exceed 3 seconds for dial pulse lines on LCM-based remote sites. The system updates this register every 15 minutes before the OM transfer process. A high count in this register indicates either high switch use, trouble on LCM-based remote sites, or a blocked channel.

Associated registers

None

Extension registers

LCMDP_D2

Associated logs

LCMDP_T

Register type

Peg

Description

LCMDP_T counts calls on dial pulse lines on LCM-based remotes. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

LCMDP T2

Associated logs

None

LCMDT_D

Register type

Peg

Description

LCMDT_D counts calls for Digitone lines on LCM-based remotes that experience either a dial tone delay that exceeds 3 seconds or a DTMF receiver queue overflow.

The system updates this register every 15 minutes before the OM transfer process. A high count in this register indicates either high switch use, trouble on LCM-based remotes, a blocked channel, or not enough DTMF receivers.

Associated registers

None

Extension registers

LCMDT_D2

Associated logs

None

LCMDT_T

Register type

Peg

Description

LCMDT_T counts calls for Digitone lines on LCM-based remotes. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

LCMDT_T2

Associated logs

None

LCMKS D

Register type

Peg

Description

LCMKS_D counts calls for key-driven set lines (for example, business sets and data units) on LCM-based remote sites that experience a dial-tone delay that exceeds 3 seconds.

The system updates this register every 15 minutes before the OM transfer process. A high count in this register indicates either high switch use, trouble on the LCM-based remote, or a blocked channel.

Associated registers

None

Extension registers

LCMKS D2

Associated logs

None

LCMKS T

Register type

Peg

Description

LCMKS_T counts test calls on key-driven set lines on LCM-based remotes. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

LCMKS T2

Associated logs

None

LMDP D

Register type

Peg

Description

LMDP_D counts DTSR test calls for dial pulse lines on the remote line module (RLM) that experience one of the following conditions:

- a dial tone delay that exceeds 3 seconds
- a previous DTSR test is still in progress on the RLM

The system initiates a test on an RLM at the site every 4 seconds. A high number of delayed calls indicates either high switch use, trouble on the RLM, or a blocked channel.

Associated registers

None

Extension registers

None

Associated logs

None

LMDP T

Register type

Peg

Description

LMDP_T counts DTSR test calls on RLM dial pulse lines. This register increases after the test result.

Associated registers

None

Extension registers

Associated logs

None

LMDT D

Register type

Peg

Description

LMDT_D counts DTSR test calls for Digitone lines on RLMs that experience one of the following conditions:

- a dial tone delay that exceeds 3 seconds
- a DTMF receiver queue overflow
- a previous DTSR test still in progress on the RLM

The system initiates a test on an RLM at the site every 4 seconds. A high number of delayed calls indicates either high switch use, trouble on the RLM, or a blocked channel.

Associated registers

None

Extension registers

None

Associated logs

None

LMDT_T

Register type

Peg

Description

LMDT_T counts DTSR test calls for Digitone lines on the RLM. This register increases after the system determines the test result.

Associated registers

None

Extension registers

None

Associated logs

RCTDP D

Register type

Peg

Description

RCTDP_D counts calls for dial pulse lines on RCTs that experience a dial tone delay that exceeds 3 seconds. A high count in this register indicates either high switch use, trouble on the RCT, or a blocked channel.

Associated registers

None

Extension registers

RCTDP_D2

Associated logs

None

RCTDP T

Register type

Peg

Description

RCTDP_T counts calls on dial pulse lines on RCTs. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RCTDP_T2

Associated logs

None

RCTDT_D

Register type

Peg

Description

RCTDT_D counts calls for Digitone lines on RCT that experience a dial tone delay that exceeds 3 seconds or a DTMF receiver queue overflow. A high count in this register indicates either high switch use, trouble on the RCT, a blocked channel, or not enough available receivers.

Associated registers

None

Extension registers

RCTDT D2

Associated logs

None

RCTDT T

Register type

Peg

Description

RCTDT_T and RCTDT_T2 count calls on Digitone lines on RCTs. The system updates this register every 15 minutes before the OM transfer.

Associated registers

None

Extension registers

RCTDT_T2

Associated logs

None

RORIGOUT

Register type

Peg

Description

RORIGOUT counts calls that originate on an RLM, RLCM, RSC, or RCT that the system routes to a trunk.

Associated registers

OFZ_NORIG, OFZ_ORIGOUT, LMD_NORIGATT, TRK_NATTMPT. These registers count calls that originate on an RLM for the specified line module and trunk group.

Extension registers

None

Associated logs

SITE2

Description

OM group SITE2 provides information about traffic-related counts and dial-tone speed recording (DTSR). This information is available for offices with lines connected to the following site types:

- remote concentrator SLC-96 (RCS)
- remote carrier urban (RCU)
- remote digital terminal (RDT)

For each site, separate registers keep statistics for the Digitone, dial pulse, and key set line types.

OM group DTSR provides information on the ability of the switch to return a dial tone within 3 seconds. The system disables DTSR if a switch detects queue overflows on dual tone multi frequency (DTMF) receivers. The system disables DTSR during degraded conditions if office parameter DTSR_AUTO_DEACTIVATION_ENABLE in table OFCENG equals TRUE. If this parameter equals FALSE, the system does not disable DTSR during degraded conditions.

The following table lists the key and info fields associated with OM group SITE2.

Key field	Info field
SITE_INDEX	SITE_MODULE_COUNT
SITE_INDEX is the site index and external identifier. The range of this field is 1 to 255. The system automatically assigns a value when you enter a tuple in table SITE.	SITE_MODULE_COUNT is the number of peripheral modules assigned the SITE name.

Note: The system deactivates DTSR under degraded conditions if parameter DTSR_AUTO_DEACTIVATION_ENABLE in table OFCENG equals TRUE.

Related functional groups

The subscriber module DMS 1 urban (SMU) functional group is associated with OM group SITE2.

Registers

The following table lists the registers associated with OM group SITE2 and what they measure. For a description of a register, click on the register name.

Note: OM group SITE2 has a maximum of 255 tuples.

Registers for OM group SITE2

Register name	Measures
RCSDP D	RCS dial pulse delay
RCSDP T	RCS dial pulse total
RCSDT D	RCS digitone delay
RCSDT T	RCS digitone total
RCUDP D	RCU dial pulse delay
RCUDP T	RCU dial pulse total
RCUDT D	RCU digitone delay
RCUDT T	RCU digitone total
RCUKS D	RCU key set delays
RCUKS T	RCU key set total
RDTDP D	RDT dial pulse delay
RDTDP T	RDT dial pulse total
RDTDT D	RDT digitone delay
RDTDT T	RDT digitone total
RDTKS D	RDT key set delay
RDTKS T	RDT key set total

RCSDP_D Register type Peg

Description

RCSDP_D counts test calls on RCS lines for a dial tone delay greater than 3 seconds. A high number of delayed calls means either high switch use, trouble on the RCS, or a blocked channel.

Associated registers

None

Extension registers

RCSDP_D2

Associated logs

None

RCSDP T

Register type

Peg

Description

RCSDP_T counts test calls on RCS lines. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RCSDP_T2

Associated logs

None

RCSDT_D

Register type

Peg

Description

RCSDT_D counts test calls on RCS Digitone lines that have one of the following conditions:

- a dial tone delay exceeds 3 seconds
- DTMF receiver queue overflow
- DTMF receivers are not available

Associated registers

Extension registers

RCSDT D2

Associated logs

None

RCSDT_T

Register type

Peg

Description

RCSDT_T counts test calls on RCS Digitone lines. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RCSDT_T2

Associated logs

None

RCUDP D

Register type

Peg

Description

RCUDP_D counts test calls on RCU dial pulse lines for dial tone delay greater than 3 seconds. A high number of delayed calls means either high switch use, trouble on the RCU, or a blocked channel.

Associated registers

None

Extension registers

RCUDP_D2

Associated logs

None

RCUDP_T

Register type

Peg

Description

RCUDP_T counts test calls on RCU dial pulse lines. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RCUDP_T2

Associated logs

None

RCUDT D

Register type

Peg

Description

RCUDT_D counts test calls on RCU Digitone lines that have one of the following conditions:

- a dial tone delay that exceeds 3 seconds
- a DTMF receiver queue overflow

A high number of delayed calls means either high switch use, trouble on the RCU, channel congestion, or not enough available receivers.

Associated registers

None

Extension registers

RCUDT_D2

Associated logs

None

RCUDT T

Register type

Peg

Description

RCUDT_T counts test calls on RCU Digitone lines. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RCUDT_T2

Associated logs

None

RCUKS D

Register type

Peg

Description

RCUKS_D counts dial tones that exceed 3 seconds on Meridian business set (MBS) lines that are attached to an RCU. A high number of delayed calls means either high switch use, trouble on the RCU, or a blocked channel.

Associated registers

None

Extension registers

RCUKS_D2

Associated logs

None

RCUKS T

Register type

Peg

Description

RCUKS_T counts the dial tones that the system applies to MBS lines attached to an RCU. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RCUKS_T2

Associated logs

None

RDTDP D

Register type

Peg

Description

RDTDP_D counts calls that the system samples on RDT dial pulse lines when dial tone delay exceeds 3 seconds.

Associated registers

None

Extension registers

RDTDP_D2

Associated logs

None

RDTDP T

Register type

Peg

Description

RDTDP_T counts calls that the system samples on RDT dial pulse lines. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RDTDP_T2

Associated logs

None

RDTDT D

Register type

Peg

Description

RDTDT_D counts calls that the system samples on RDT Digitone lines when the dial tone delay exceeds 3 seconds.

Associated registers

None

Extension registers

RDTDT D2

Associated logs

None

RDTDT T

Register type

Peg

Description

RDTDT_T counts calls that the system samples on RDT Digitone lines. The system updates this register every 15 minutes before the OM transfer process.

Associated registers

None

Extension registers

RDTDT_T2

Associated logs

None

RDTKS D

Register type

Peg

Description

RDTKS_D counts calls that the system samples on RDT key set signaling when the dial tone delay exceeds 3 seconds.

Associated registers

None

Extension registers

RDTKS_D2

Associated logs

None

RDTKS_T

Register type

Peg

Description

RDTKS_T counts calls that the system samples on RDT key set signaling. The system updates this register every 15 minutes before the OM transfer process.

Associated registers None

Extension registers RDTKS_T2

Associated logs None

SITE3

Description

OM group Traffic and Dial Tone Speed Recording, Remote Sites 3 (SITE3) provides statistics for dial tone speed recording (DTSR) on intelligent peripheral equipment (IPE) for analog and digital lines. SITE3 contains 12 registers that count

- the number of calls sampled on IDE dial pulse (DP) lines
- the number of calls sampled on IPE DP lines when the dial tone delay is more than 3 seconds
- the number of calls sampled on IPE digitone (DT) lines
- the number of calls sampled on IPE DT lines when the dial tone delay is more than 3 seconds
- the number of calls sampled on IPE key set (KS) lines
- the number of calls sampled on IPE KS lines when the dial tone delay is more than 3 seconds

The following table lists the key and info fields associated with OM group SITE3:

Key field	Info field
SITE_INDEX	SITE_MODULE_COUNT

Related functional groups

The following functional groups are associated with OM group SITE3:

- DMS-100
- Meridian SL-100
- Meridian Digital Centrex

Registers

The following table lists the registers associated with OM group SITE3 and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SITE3

Register name	Measures
IPEDP T	Intelligent Peripheral Equipment Dial Pulse total
IPEDP D	IPE DP delay
IPEDT T	IPE Digitone (DT) total
IPEDT D	IPE DT delay
<u>IPEKS T</u>	IPE Key Set (KS) total
IPEKS D	IPE KS delay

IPEDP_T

Register type

Peg

Description

IPEDT_T counts the number of DTSR calls sampled on IPE DT lines.

Associated registers

None

Extension registers

IPEDP_T2

Associated logs

None

IPEDP D

Register type

Peg

Description

IPEDT_D counts the number of DTSR calls sampled on IPE DT lines for which the dial-tone delay is more than 3 seconds.

Associated registers

None

Extension registers

IPEDP D2

Associated logs

None

IPEDT_T

Register type

Peg

Description

IPEDT_T counts the number of DTSR calls sampled on IPE DT lines.

Associated registers

None

Extension registers

IPEDT_T2

Associated logs

None

IPEDT D

Register type

Peg

Description

IPEDT_D counts the number of DTSR calls sampled on IPE DT lines for which the dial-tone delay is more than 3 seconds.

Associated registers

None

Extension registers

IPEDT_D2

Associated logs

None

IPEKS T

Register type

Peg

Description

IPEKS_T counts the number of DTSR calls sampled on IPE KS lines.

Associated registers

None

Extension registers

IPEKS_T2

Associated logs

None

IPEKS_D

Register type

Peg

Description

IPEKS_D counts the number of DTSR calls sampled on IPE KS lines for which the dial-tone delay is more than 3 seconds.

Associated registers

None

Extension registers

IPEKS_D2

Associated logs

None

SLLCOM

Description

Site line load control (SLLCOM)

The OM group SLLCOM contains a count register. This register counts originations that the system denies on non-essential lines when site line load control (SLLC) is activated. The OM group SLLCOM also contains a usage register that records if SLLC is in effect. The system collects these operational measurements at the site. The system transmits these operational measurements in one data message to the central control every 15 minutes.

The OM group SLLCOM provides one tuple for each site that has lines attached to it. The maximum number of tuples is the maximum number of line modules (LM) in an office. The maximum number of LM for NT40 is 256, and the maximum number of LMs for SuperNode is 1024.

The following table lists the key and info fields associated with OM group SLLCOM.

Key field	Info field
identifies the type of line	SLLC_OM_INFO

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SLLCOM and what they measure. For a description of a register, click on the register name.

Registers for OM group SLLCOM

Register name	Measures
SLLCOGD	Site line load control originations denied
SLLCOTG	Site line load control usage

SLLCOGD

Register type

Peg

Description

Site line load control originations denied (SLLCOGD)

Register SLLCOGD counts originations that the system denies for non-essential lines when the system activates SLLC for a site.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLLCOTG

Register type

Usage

Description

Site line load control usage (SLLCOTG)

Register SLLCOTG is a usage register. The scan rate is 100 s. Register SLLCOTG records if SLLC is in effect for a site.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLLNK

Description

SL-100 link

SL-100 link (SLLNK) provides information about the status of the outgoing datalink and the number of messages it can handle.

OM group SLLNK provides one tuple for each key and one tuple for each office. The following table lists the key and info fields associated with OM group SLLNK.

Key field	Info field
Two info fields constitute a unique tuple and act as a key.	SLLNK_OM_INFO_TYPE consists of field 1 - pool name, and field 2 - transfer type.

Field 1 includes an 8-character vector for the pool name, stored internally as an index. The vector is created by the command DEVCON in the CI increment level LNKUTIL for 1X67 links and by datafilling a 1X89 entry in table SLLNKDEV for 1X89 links.

Field 2 includes the transfer type, stored internally as a string range. The transfer type is created by the command DEVSTART or POOLSTART in the CI increment level LNKUTIL for 1X67 links. For 1X89 links, this field is created by datafilling a 1X89 entry in table SLLNKDEV. The XFER value datafilled in table SLLNKDEV is the transfer type for 1X89 link.

Related functional groups

The Automatic Call Distribution (ACD) functional group is associated with OM group SLLNK.

Registers

The following table lists the registers associated with OM group SLLNK and what they measure. For a description of a register, click on the register name.

Registers for OM group SLLNK

Register name	Measures
SLLNKOK	SL-100 link okay
SLLNKOVF	SL-100 link overflow
SLLNKQU	SL-100 link queued

SLLNKOK

Register type

Peg

Description

SL-100 link okay

SL-100 link okay (SLLNKOK) counts messages that are enqueued successfully for transfer to the downstream processor.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLLNKOVF

Register type

Peg

Description

SL-100 link overflow

SL-100 link overflow (SLLNKOVF) counts messages that are discarded or overwritten because of an attempt to enqueue on a full queue.

A full queue contains the a maximum number of messages waiting to be processed. Discarded or overwritten messages cannot be retrieved.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

SLNK106 is generated if some remote operation (RO) failed to be enqueued for a datalink device in the last two minutes because of to a full queue. New messages are discarded or overwrite old messages.

SLLNKQU

Register type

Peg

Description

SL-100 link queued

SL-100 link queued (SLLNKQU) is a usage register. The scan rate is slow: 100 seconds. SLLNKQU records whether there are messages in the queue waiting to be processed.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLLNKINC

Description

SL-100 incoming link (SLLNKINC)

Register SLLNKINC provides information on the status of the incoming data link and the number of messages it can handle.

The OM group SLLNKINC provides one tuple for each key and one tuple for each office. There is no key field. The pool name constitutes a different tuple and acts as a key. The following table lists the key and info fields associated with OM group SLLNKINC.

Key field	Info field
none	SLLNKINC_OM_INFO_TYPE is the pool name, an eight-character vector stored as an index. The command DEVSTART or POOLSTART in the CI increment level NT1X89 in table SLLNKDEV creates an info field for NT1X89.

Related functional groups

The Automatic Call Distribution (ACD) functional group associates with OM group SLLNKINC.

Registers

The following table lists the registers associated with OM group SLLNKINC and what they measure. For a description of a register, click on the register name.

Registers for OM group SLLNKINC

Register name	Measures
SLLNKBAD	SL-100 incoming link bad
SLLNKIOF	SL-100 incoming link okay overflow
SLLNKIOK	SL-100 incoming link okay

Registers for OM group SLLNKINC

Register name	Measures
SLLNKIOV	SL-100 incoming link overflow
SLLNKIQU	SL-100 incoming link queued

SLLNKBAD

Register type

Peg

Description

SL-100 incoming link bad (SLLNKBAD)

Register SLLNKBAD counts messages that are not correct that the system receives from the data link.

The operating company can use this register to identify data links that have input problems. Not necessary, garbled, or deleted characters are examples of input problems.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLLNKIOF

Register type

Peg

Description

SL-100 incoming link okay overflow (SLLNKIOF)

Register SLLNKIOF counts messages from the data link that the system places in a queue. This register increases when register SLLNKIOK overflows.

Associated registers

Register <u>SLLNKIOK</u> counts messages from the data link that the system places in a queue.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLLNKIOK

Register type

Peg

Description

SL-100 incoming link okay (SLLNKIOK)

Register SLLNKIOK counts messages from the data link that the system places in a queue.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLLNKIOV

Register type

Peg

Description

SL-100 incoming link overflow (SLLNKIOV)

Register SLLNKIOV counts messages that the system discards or overwrites when the messages attempt to use an incoming queue that is full.

A full queue is a queue that has the maximum number of messages waiting to be processed.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SLNK106 if a remote operation (RO) fails to queue for a data link device in the last 2 min because a queue is full. The system discards new messages or overwrites old messages.

SLLNKIQU

Register type

Peg

Description

SL-100 incoming link queued (SLLNKIQU)

Register SLLNKIQU is a usage register. The scan rate is 100 s. Register SLLNKIQU records if there are messages in the queue waiting to be processed.

This register does not increase for NT1X89 links.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLM

Description

System load module (SLM)

The OM group SLM:

- counts faults in the system load modules
- records if the primary system load module (SLM) is manual or system busy

For reliability, a DMS-SuperNode switch is equipped with two SLMs (zero and one). The system designates the SLM last used to reload the switch as the primary SLM.

The operating company uses the data that the SLM registers provide to monitor the performance of the system load modules.

One count register counts faults that cause the system to make SLM (zero or one) system busy.

Two usage registers record if the primary SLM is system busy, C-side busy, or manual busy.

OM group SLM provides one tuple for each office. The following table lists the key and info fields associated with OM group SLM.

Key field	Info field
SYSTEM_LOAD_MODULE the value of the key field is always 0.	none

Related functional groups

The OM group CM monitors activity switches and records fault interrupts and resource outages.

Registers

The following table lists the registers associated with OM group SLM and what they measure. For a description of a register, click on the register name.

Registers for OM group SLM

Register name	Measures
SLMFLT	System load module fault
SLMMBSU	System load module manual busy usage
SLMRXFLT	System load module REX test fault
SLMRXSBU	System load module REX system busy usage
SLMSBSU	System load module system busy usage

SLMFLT

Register type

Peg

Description

System load module fault (SLMFLT)

Register SLMFLT counts faults that cause the system to make SLM (zero or one) system busy.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SLM403 when the system makes an SLM system busy because of a fault condition.

The system generates SLM404 when the system places an SLM in the in-service trouble state.

SLMMBSU

Register type

Peg

Description

System load module manual busy usage (SLMMBSU)

Register SLMMBSU is a usage register. The scan rate is 100 s. Register SLMMBSU records if the primary SLM is manual busy.

Associated registers

Register <u>SLMSBSU</u> records if the primary SLM is system busy or C-side busy.

Extension registers

There are no extension registers.

Associated logs

The system generates SLM401 when the system places an SLM in the offline state.

The system generates SLM402 when the system makes the SLM manual busy.

The system generates SLM403 when the system makes an SLM system busy because of a fault condition.

SLMRXFLT

Register type

Peg

Description

System load module REX test fault (SLMRXFLT)

During a REX test SLM goes CBSY until the system completes the test and SLM returns to SBSY and later to INSV. During this period, the system reroutes OM counts to one of two SLM REX test OM registers. This action prevents counts from the REX test being interpreted with the OM data from in-service switch counts.

Register SLMRXFLT counts faults during a REX test that cause the system to make SLM (zero or one) system busy.

Associated registers

SLMRXFLT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLMRXSBU

Register type

Peg

Description

System load module REX system busy usage (SLMRXSBU)

Register SLMRXSBU is a usage register. The scan rate is 100 s. SLMRXSBU records if the primary system load module is system busy or C-side busy.

During a REX test SLM goes CBSY until the system completes the test and SLM returns to SBSY and later to INSV. During this period, the system reroutes OM counts to one of two SLM REX test OM registers. This action prevents counts from the REX test being interpreted with the OM data from in-service switch counts.

Associated registers

SLMRXFLT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLMSBSU

Register type

Peg

Description

System load module system busy usage (SLMSBSU)

Register SLMSBSU is a usage register. The scan rate is 100 s. Register SLMSBSU records if the primary system load module is system busy or C-side busy.

Associated registers

Register <u>SLMMBSU</u> records if the primary system load module is manual busy.

Register CM_PMCNDBSY increases when the system makes the P-side message controller (PMC) system busy.

Register CM_PMCLKBSY increases when the system makes the P-side message ports system busy.

Extension registers

There are no extension registers.

Associated logs

The system generates SLM401 when the system places a system load module in the off-line state.

The system generates SLM402 when the system makes the system load module manual busy.

The system generates SLM403 when the system makes a system load module system busy because of a fault condition.

SLQ

Description

Single Line Queue (SLQ)

The OM group SLQ provides the ability to measure the performance of SLQ groups for each customer group.

The following table lists the key and info fields associated with OM group SLQ.

Key field	Info field
The customer group name	An 8-character vector for the SLQ customer group

Related functional groups

There are no related functional groups.

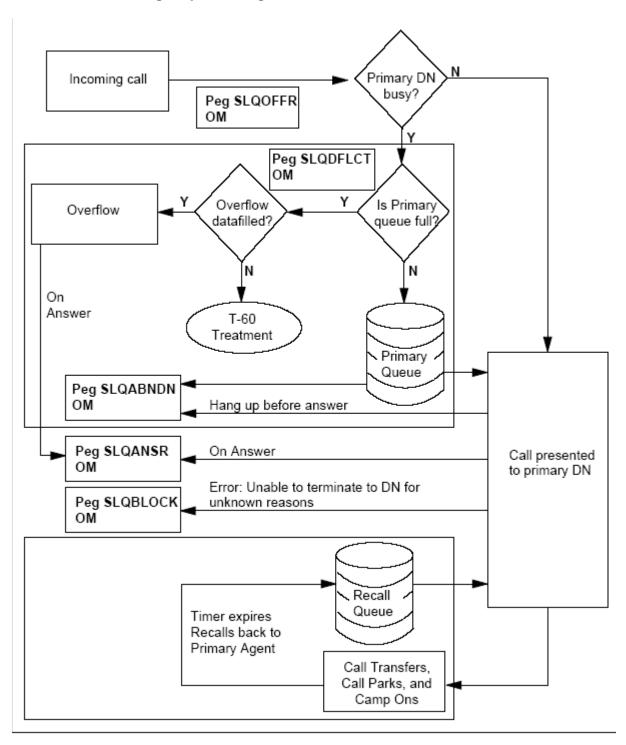
Registers

The following table lists the registers associated with OM group SLQ and what they measure. For a description of a register, click on the register name.

Registers for OM group SLQ

Register name	Measures
SLQOFFR	SLQ Offered
SLQANSR	SLQ Answered
SLQDFLCT	SLQ Deflected
SLQABNDN	SLQ Abandoned
SLQBLOCK	SLQ Block

OM group SLQ registers



SLQOFFR

Register type

Peg

Description

Register SLQ Offered

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLQANSR

Register type

Peg

Description

Register SLQ Answered

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLQDFLCT

Register type

Peg

Description

Register SLQ Deflected

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLQABNDN

Register type

Peg

Description

Register SLQ Abandoned

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLQBLOCK

Register type

Peg

Description

Register SLQ Block

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLVPOPT

Description

Single line variety package option (SLVPOPT)

Register SLVPOPT monitors the use of the single line variety package (SLVP) line option. The SLVP option is a set of services provided for residential enhanced services (RES) lines.

A line with the SLVP option has the following services:

- SLVP intercom
- SLVP transfer
- SLVP hold

The SLVP intercom allows the subscriber to dial an access code that rings all extensions. The access code rings all extensions after the originator places the receiver back on-hook. When an extension goes off-hook, the originator of the SLVP intercom can go off-hook and talk.

The SLVP transfer allows the subscriber to:

- flash the hook-switch during a non-SLVP call
- dial an access code
- ring all extensions after the originator places the receiver back on-hook

The system connects any extension that goes off-hook to the transferred call.

The SLVP hold allows the subscriber to:

- flash the hook-switch during a non-SLVP call
- dial an access code, and place the call on hold

The system reconnects the call when any extension goes off-hook after the originator places the receiver back on-hook.

The OM group SLVPOPT provides one tuple for office. The following table lists the key and info fields associated with OM group SLVPOPT.

Key field	Info field
none	none

Office parameter SLVP_RCHD_TIMER specifies the timing values for the SLVP option. The office parameter contains two fields: INTER_RING_DELAY and MAX_RING_DURATION. The field INTER_RING_DELAY specifies the time between reminder rings when a subscriber places a call on hold. The field MAX_RING_DURATION specifies the maximum time that a call can remain on hold. It The field MAX_RING_DURATION also specifies the maximum time a line can ring during SLVP transfer and SLVP intercom.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SLVPOPT and what they measure. For a description of a register, click on the register name.

Registers for OM group SLVPOPT

Register name	Measures
SLVPHOLD	Single line variety package hold
SLVPINT	Single line variety package intercom
SLVPTRAN	Single line variety package transfer

SLVPHOLD

Register type

Peg

Description

Single line variety package hold (SLVPHOLD)

Register SLVPHOLD counts attempts to use the single line variety package (SLVP) hold feature. Each time a correct user enters the SLVP hold access code, register SLVPHOLD increases.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLVPINT

Register type

Peg

Description

Single line variety package intercom (SLVPINT)

Register SLVPINT counts attempts to use the single line variety package (SLVP) intercom feature. Register SLVPINT increases each time a correct user enters the SLVP intercom access code.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SLVPTRAN

Register type

Peg

Description

Single line variety package transfer (SLVPTRAN)

Register SLVPTRAN counts attempts to use the single line variety package (SLVP) transfer feature. Register SLVPTRAN increases when a correct user enters the SLVP transfer access code.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SMCOM

Description

Software maintenance critical application operational measurements (SMCOM)

The OM group monitors the frequency of the following software maintenance actions with to the critical applications of the software.:

- state changes from in service to in-service trouble
- state changes to manual busy
- state changes to system busy
- manual or system initiated level 0 restart
- manual or system initiated level 1 restart
- manual or system initiated level 2 restart
- manual or system initiated level 3 restart
- manual or system initiated level 4 restart

In BASE07, critical applications for software maintenance actions include:

- Call Processing Base
- Feature Processing Environment
- trunk Call Processing

All registers in SMCOM are peg registers.

The OM group SMCOM provides one register per event type state changes and restart. The following table lists the key and info fields associated with OM group SMCOM.

Key field	Info field
none	none

Related functional groups

BASE

Registers

The following table lists the registers associated with OM group SMCOM and what they measure. For a description of a register, click on the register name.

Registers for OM group SMCOM

Register name	Measures
<u>SMCISTB</u>	Software maintenance critical software component in-service trouble
SMCMANB	Software maintenance critical software component manual busy
SMCSYSB	Software maintenance critical software component system busy
SMCM0	Software maintenance critical software component manual reinitialization level 0
SMCS0	Software maintenance critical software component system restart level 0
SMCM1	Software maintenance critical software component manual restart level 1
SMCS1	Software maintenance critical software component system restart level 1
SMCM2	Software maintenance critical software component manual restart level 2
SMCS2	Software maintenance critical software component system restart level 2
SMCM3	Software maintenance critical software component manual restart level 3
SMCS3	Software maintenance critical software component system restart level 3
SMCM4	Software maintenance critical software component manual restart level 4
SMCS4	Software maintenance critical software component system restart level 4

SMCISTB

Register type

Peg

Description

Software maintenance critical software component in-service trouble (SMCISTB)

Register SMCISTB counts the number of times a critical software component changes state from in service to in-service trouble. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

SMCMANB

Register type

Peg

Description

Software maintenance critical software component manual busy (SMCMANB)

Register SMCMANB counts the number of times a critical software component changes state to manual busy. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system registers SRC530 when a software maintenance client changes state.

SMCSYSB

Register type

Peg

Description

Software maintenance critical software component system busy (SMCSYSB)

Register SMCSYSB counts the number of times a critical software component changes state to system busy. The component registers with software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

SMCMO

Register type

Peg

Description

Software maintenance critical software component manual reinitialization level 0 (SMCM0)

Register SMCM0 counts the number of times a critical software component has a manually-initiated level 0 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SMCS0

Register type

Peg

Description

Software maintenance critical software component system restart level 0 (SMCS0)

Register SMCS0 counts the number of times a critical software component has a system-initiated level 0 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when the system starts a software maintenance client again

SMCM1

Register type

Peg

Description

Software maintenance critical software component manual restart level 1 (SMCM1)

Register SMCM1 counts the number of times a critical software component has a manually initiated level 1 restart. This component registers to software.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when the system restarts a software maintenance client.

SMCS1

Register type

Peg

Software maintenance critical software component system restart level 1 (SMCS1)

Register SMCS1 counts the number of times a critical software component that the system registers with software maintenance has a system-initiated level 1 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when the system starts a software maintenance client again.

SMCM₂

Register type

Peg

Description

Software maintenance critical software component manual restart level 2 (SMCM2)

Register SMCM2 counts the number of times a critical software component has a manually initiated level 2 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when the system starts a software maintenance client again.

SMCS2

Register type

Software maintenance critical software component system restart level 2 (SMCS2)

Register SMCS2 counts the number of times that a critical software component that the system registers with software maintenance has a system-initiated level 2 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generate SRC400 when the system starts a software maintenance client again.

SMCM3

Register type

Peg

Description

Software maintenance critical software component manual restart level 3 (SMCM3)

Register SMCM3 counts the number of times a critical software component has a manually-initiated level 3 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates Log SRC400 when a software maintenance client restarts.

SMCS3

Register type

Software maintenance critical software component system restart level 3 (SMCS3)

Register SMCS3 counts the number of times a critical software component has a system-initiated level 3 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates Log SRC400 when a software maintenance client restarts.

SMCM4

Register type

Peg

Description

Software maintenance critical software component manual restart level 4 (SMCM4)

Register SMCM4 counts the number of times a critical software component has a manually-initiated level 4 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates Log SRC400 when a software maintenance client restarts.

SMCS4

Register type

Software maintenance critical software component system restart level 4 (SMCS4)

Register SMCS4 counts the number of times a critical software component has a system-initiated level 4 restart. This component registers to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client starts again.

SME

Description

Signaling management environment (SME)

The OM group SME provides information on the allocation of software resources for use by the signaling management environment (SME).

Six registers count:

- requests for an SME control/data block
- requests for an SME control/data block that are successful
- the peak number of SME control/data blocks in simultaneous use
- requests for an SME control/data block that are not successful because there are no blocks available

The OM group SME provides two tuples: one tuple for control blocks; one tuple for data blocks. The following table lists the key and info fields associated with OM group SME.

Key field	Info field
SMEOM_TUPLE_KEY is SMECB for control blocks and SMEDB for data blocks.	SME_OM_INFO contains two values: the number of control data blocks allocated for use, and the maximum number of blocks in use at a given time.

Office parameter NUM_SME_CONTROL_BLOCKS in table OFCENG specifies the number of SME control blocks allocated for use.

Office parameter NUM_SME_DATA_BLOCKS in table OFCENG specifies the number of SME data blocks the system allocates for use.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SME and what they measure. For a description of a register, click on the register name.

Registers for OM group SME

Register name	Measures
<u>SMEATTS</u>	Signaling management environment block allocation attempts
SMEOVFL	Signaling management environment block overflow
SMEPEAK	Signaling management environment block peak simultaneous usage
SMESEIZ	Signaling management environment block seizures

SMEATTS

Register type

Peg

Description

Signaling management environment block allocation attempts (SMEATTS)

Register SMEATTS counts requests for a signaling management environment (SME) control blocks for tuple SMECB. Register SMEATTS counts requests for SME data blocks for tuple SMEDB.

Associated registers

There are no associated registers.

Extension registers

SMEATTS2

Associated logs

There are no associated logs.

SMEOVFL

Register type

Signaling management environment block overflow (SMEOVFL)

Register SMEOVFL counts requests for a signaling management environment (SME) control block that is not successful. The request is not successful because no control blocks are available. Register SMEOVFL counts these requests for tuple SMECB.

Register SMEOVFL counts requests for a SME data block that is not successful. The request was not successful because no data blocks are available. Register SMEOVFL counts these requests for tuple SMEDB.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SME106 when an attempt to get an SME control block that is not used is not successful.

SMEPEAK

Register type

Peg

Description

Signaling management environment block peak simultaneous usage (SMEPEAK)

Register SMEPEAK records the peak number of signaling management environment (SME) control blocks in simultaneous use from the last transfer period. Register SMEPEAK records this information for tuple SMECB. This register increases when the number of control blocks in use increases to a value greater than the number now stored in SMEPEAK. The value of SMEPEAK placed in the holding register is the peak number of the preceding transfer period.

Register SMEPEAK records the peak number of SME data blocks in simultaneous use from the last transfer period. Register SMEPEAK records this information for tuple SMEDB. This register increases when the number of data blocks in use increases to a value greater than the number now in SMEPEAK. The value of SMEPEAK in the holding register is the peak number of the preceding transfer period.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SMESEIZ

Register type

Peg

Description

Signaling management environment block seizures (SMESEIZ)

Register SMESEIZ counts successful requests for a signaling management environment (SME) control block. Register SMESEIZ counts these requests for tuple SMECB.

Register SMESEIZ counts successful requests for an SME data block. Register SMESEIZ counts these requests for tuple SMEDB.

Associated registers

There are no associated registers.

Extension registers

SMESEIZ2

Associated logs

There are no associated logs.

SMGENOM

Description

Software maintenance general operational measurements (SMGENOM)

The OM group SMGENOM monitors the number of times the system disables the software maintenance automatic fault recovery. The OM group SMGENOM monitors this number for all software applications.

After BASE06, the affected software maintenance applications includes Call Processing Base, Feature Queue, and Trunk Call Processing.

The following table lists the key and info fields associated with OM group SMGENOM.

Key field	Info field
none	none

Related functional groups

BASE

Registers

The following table lists the registers associated with OM group SMGENOM and what they measure. For a description of a register, click on the register name.

Registers for OM group SMGENOM

Register name	Measures
<u>SMAPPDIS</u>	Software maintenance application disabled

SMAPPDIS

Register type

Peg

Description

Software maintenance application disabled (SMAPPDIS)

Register SMAPPDIS counts the number of times a service disables automatic fault recovery. This service is registered to software maintenance

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC662 when the system enables or disables a software maintenance client for automatic fault recovery.

SMNCOM

Description

Software maintenance not critical application operational measurements (SMNCOM)

The OM group SMNCOM monitors the number of times the following software maintenance actions occur for the applications of the software that are not critical:

- state change from in service to in-service trouble
- state change to manual busy
- state change to system busy
- manual or system initiated level 0 reinitialization
- manual or system initiated level 1 reinitialization
- manual or system initiated level 2 reinitialization
- manual or system initiated level 3 reinitialization
- manual or system initiated level 4 reinitialization

In BASE07, there are no applications that are not critical for software maintenance actions.

All registers in SMNCOM are peg registers.

The OM group SMNCOM provides one register for each event type (state change or restart). The following table lists the key and info fields associated with OM group SMNCOM.

Key field	Info field
none	none

Related functional groups

BASE

Registers

The following table lists the registers associated with OM group SMNCOM and what they measure. For a description of a register, click on the register name.

Registers for OM group SMNCOM

Register name	Measures
<u>SMNCISTB</u>	Software maintenance not critical software component in service trouble
SMNCMANB	Software maintenance not critical software component manual busy
<u>SMNCSYSB</u>	Software maintenance not critical software component system busy
SMNCS0	Software maintenance not critical software component manual restart level 0
SMNCM1	Software maintenance not critical software component manual restart level 1
SMNCS1	Software maintenance not critical software component system restart level 1
SMNCM2	Software maintenance not critical software component manual restart level 2
SMNCS2	Software maintenance not critical software component system restart level 2
SMNCM3	Software maintenance not critical software component manual restart level 3
SMNCS3	Register software maintenance not critical software component system restart level 3
SMNCM4	Software maintenance not critical software component manual restart level 4
SMNCS4	Software maintenance not critical software component system restart level 4

SMNCISTB

Register type

Register software maintenance not critical software component in service trouble (SMNCISTB)

Register SMNCISTB counts the number of times a software component that is not critical changes state from in service to in-service trouble. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

SMNCMANB

Register type

Peg

Description

Software maintenance not critical software component manual busy (SMNCMANB)

Register SMNCMANB counts the number of times a software component that is not critical changes state to manual busy. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

SMNCSYSB

Register type

Software maintenance not critical software component system busy (SMNCSYSB)

Register SMNCSYSB counts the number of times a not critical software component changes state to system busy. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

SMNCM0

Register type

Peg

Description

Software maintenance not critical software component manual restart level 0 (SMNCM0)

Register SMNCM0 counts the number of times a not critical software component has a manually-initiated level 0 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCS0

Register type

Software maintenance not critical software component system restart level 0 (SMNCS0)

Register SMNCS0 counts the number of times a not critical software component has a system-initiated level 0 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCM1

Register type

Peg

Description

Software maintenance not critical software component manual restart level 1 (SMNCM1)

Register SMNCM1 counts the number of times a not critical software component has a manually-initiated level 1 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client is reinitialized.

SMNCS1

Register type

Software maintenance not critical software component system restart level 1 (SMNCS1)

Register SMNCS1 counts the number of times a not critical software component has a system-initiated level 1 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCM2

Register type

Peg

Description

Software maintenance not critical software component manual restart level 2 (SMNCM2)

Register SMNCM2 counts the number of times a not critical software component has a manually initiated level 2 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCS2

Register type

Software maintenance not critical software component system restart level 2 (SMNCS2)

Register SMNCS2 counts the number of times a not critical software component has a system-initiated level 2 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCM3

Register type

Peg

Description

Software maintenance not critical software component manual restart level 3 (SMNCM3)

Register SMNCM3 counts the number of times a not critical software component has a manually initiated level 3 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCS3

Register type

Register software maintenance not critical software component system restart level 3 (SMNCS3)

Register SMNCS3 counts the number of times a not critical software component is subjected to a system-initiated level 3 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCM4

Register type

Peg

Description

Software maintenance not critical software component manual restart level 4 (SMCM4)

Register SMNCM4 counts the number of times a not critical software component has a manually initiated level 4 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMNCS4

Register type

Software maintenance not critical software component system restart level 4 (SMNCS4)

Register SMNCS4 counts the number of times a not critical software component has a system-initiated level 4 restart. This software component is registered to software maintenance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

SMSTOPS

Description

OM group Short Message Service - TOPS (SMSTOPS) records application-level events for the Traffic Operator Position System (TOPS) short message service (SMS). SMSTOPS records SMS events previously recorded in OM group IS41TOPS, which is deleted in SN07. For details, refer to the section for OM group IS41TOPS.

The following table lists the key and info fields associated with OM group SMSTOPS. The group provides one tuple for each wireless network type.

Key field	Info field
IS41, GSM	None

Related functional groups

There are no functional groups associated with OM group SMSTOPS.

Registers

The following table lists the registers associated with OM group SMSTOPS and what they measure. For a description of a register, click on the register name.

Registers for OM group SMSTOPS

Register name	Measures
SMSSENT	SMS sent
SMSSUCC	SMS success
SMSFAIL	SMS failure
<u>SMSTIME</u>	SMS time-out
<u>SMSNETWK</u>	SMS network failure
<u>SMSTERM</u>	SMS terminal (cell phone) failure
SMSRADIO	SMS radio interface failure
<u>SMSMISC</u>	SMS miscellaneous failure

Every SMS attempt pegs SMSSENT plus one of the other SMSTOPS registers. If an acknowledgement arrives after the specified time period, SMSSUCC and SMSTIME are pegged.

The value of SMSSENT should be close to the value of SMSSUCC. Period boundaries cause minor differences in the values. Major differences between the values indicate failures either at the TOPS, in the SS7 network, or at the message center.

SMSSENT

Register type

Peg

Description

SMSSENT increments when the TOPS sends an SMS to a message center.

Associated registers

None

Extension registers

SMSSENT2

Associated logs

None

SMSSUCC

Register type

Peg

Description

SMSSUCC increments when the TOPS receives a successful acknowledgement from a message center after an SMS attempt.

Associated registers

None

Extension registers

SMSSUCC2

Associated logs

None

SMSFAIL

Register type

SMSFAIL increments when the TOPS receives a negative acknowledgement from the message center after an SMS attempt.

Associated registers

None

Extension registers

SMSFAIL2

Associated logs

TOPS131, TCAP100

SMSTIME

Register type

Peg

Description

SMS increments when the TOPS does not receive acknowledgement from a message center after an SMS attempt in a specific time period. The time period is datafilled in parameter SMS_TIMEOUT in table TOPSPARM.

Associated registers

None

Extension registers

SMSTIME2

Associated logs

TOPS131

SMSNETWK

Register type

Peg

Description

SMSNETWK increments when the TOPS receives a negative acknowledgement from a message center indicating that the message could not be delivered because of a network failure.

Associated registers

None

Extension registers

None

TOPS131

SMSTERM

Register type

Peg

Description

SMSTERM increments when the TOPS receives a negative acknowledgement from the message center indicating that the message could not be delivered because of a terminal (cell phone) failure.

Associated registers

None

Extension registers

None

Associated logs

TOPS131

SMSRADIO

Register type

Peg

Description

SMSRADIO increments when the TOPS receives a negative acknowledgement from the message center indicating that the message could not be delivered because of a radio interface failure.

Associated registers

None

Extension registers

None

Associated logs

TOPS131

SMSMISC

Register type

SMSMISC increments when the TOPS receives a negative acknowledgement from the message center indicating that the message could not be delivered because of a failure other than a network, terminal, or radio interface failure.

Associated registers

None

Extension registersNone

Associated logs TOPS131

SOTS

Description

Supplementary office traffic summary (SOTS)

The OM group SOTS counts calls the system routes to generalized no-circuit treatment (GNCT). These registers provide information on outgoing and terminating network performance.

The system routes a call to GNCT when all trunks on a route list are busy.

Eleven registers in SOTS give the cause of the GNCT for outgoing trunks or two-way trunks for outgoing calls. The register names correspond to an entry in the no-circuit-class field NCCLS of table TRKGRP.

Registers SOUTNWT, SOUTMFL, SOUTRMFL, SOUTOSF, and SOUTROSF provide information on outgoing network module performance.

Registers STRMNWT, STRMNWT2, STRMMFK, STRMBLK, STRMRBLK, and STRMGSGL provide information on terminating network module performance.

The OM group SOTS provides one tuple per office. Each tuple consists of 25 registers. The following table lists the key and info fields associated with OM group SOTS.

Key field	Info field
none	none

The office parameter OFFICETYPE in table OFCSTD determines the type of office. The value of OFFICETYPE controls the output of the supplementary office traffic summary group (SOTS). The correct entries for OFFICETYPE are as follows:

- OFF200
- OFF100
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBITOPS

The system generates all registers in offices where OFFICETYPE is OFF100, OFFCOMB, OFFCOMBLWW, or OFFCOMBITOPS.

The system generates the following registers in offices where OFFICETYPE is OFF200:

- SOTSNCBN
- <u>SOTSNCID</u>
- <u>SOTSNCIM</u>
- SOTSNCIT
- SOTSNCLT
- SOTSNCOF
- SOTSNCON
- <u>SOTSNCOT</u>
- <u>SOTSNCRT</u>
- <u>SOTSNCTC</u>
- SOTSNOSC
- <u>SOTSPSGM</u>
- <u>SOTSPDLM</u>
- SOUTNWT
- SOUTNWT2
- SOUTMFL
- SOUTRMFL
- SOUTOSF
- SOUTROSE

Related functional groups

The following functional groups associated with the OM group SOTS:

- OFF100 Local
- OFF200 Toll
- OFFCOMB Combined Local/Toll

Registers

The following table lists the registers associated with OM group SOTS and what they measure. For a description of a register, click on the register name.

Registers for OM group SOTS

Register name	Measures
SOTSNCBN	No circuit business network trunks
SOTSNCID	No circuit inward dial trunks
SOTSNCIM	No circuit intermachine trunk
SOTSNCIT	No circuit intertoll trunks
SOTSNCLT	No circuit local tandem trunks
SOTSNCOF	No circuit offnet trunk
SOTSNCON	No circuit onnet trunk
SOTSNCOT	No circuit other trunk
SOTSNCRT	No circuit
SOTSNCTC	No circuit toll-completing trunks
SOTSNOSC	No service circuit
SOTSPDLM	Machine-dialed partial dials
SOTSPSGM	Machine-dialed permanent signal
SOUTMFL	Outgoing first-trial matchfails
SOTSNCOT	Outgoing first-trial seize failures
SOUTNWT	Outgoing network attempts
SOUTOSE	Outgoing first-trial seize failures
SOUTRMFL	Outgoing retrial matchfails
SOUTROSE	Outgoing retrial seize failures
STRMBLK	Terminating blocks (speech links)

Registers for OM group SOTS

Register name	Measures
STRMGSGL	Terminating ground start line glare
STRMMFL	Terminating match failure
STRMNWT	Terminating network attempts
STRMRBLK	Terminating retry blocks (speech links)

SOTSNCBN

Register type

Peg

Description

No circuit business network trunks (SOTSNCBN) Register SOTSNCBN counts calls the system routes to GNCT treatment because no Meridian Digital Centrex (MDC) trunk is available.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- SOTSNCIT
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to a treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call a treatment because a trunk is call-processing busy.

SOTSNCID

Register type

Peg

Description

No circuit inward dial trunks (SOTSNCID)

Register SOTSNCID counts calls that the system routes to GNCT because no direct inward dial or dial trunk is available.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- <u>SOTSNCIT</u>
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to a treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call to a treatment because a trunk is call-processing busy.

SOTSNCIM

Register type

Peg

Description

No circuit intermachine trunk (SOTSNCIM)

Register SOTSNCIM counts calls the system routes to GNCT because no intermachine trunk is available.

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- <u>SOTSNCIT</u>
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because the line is call-processing busy.

The system generates TRK138 when the system routes a call to treatment because the trunk is call-processing busy.

SOTSNCIT

Register type

Peg

Description

No circuit intertoll trunks (SOTSNCIT)

Register SOTSNCIT counts calls that the system routes to GNCT because no intertoll trunk is available.

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- <u>SOTSNCIT</u>
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOTSNCLT

Register type

Peg

Description

No circuit local tandem trunks (SOTSNCLT)

Register SOTSNCLT counts calls that the system routes to GNCT because no local tandem trunk is available.

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- <u>SOTSNCIT</u>
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOTSNCOF

Register type

Peg

Description

No circuit offnet trunk (SOTSNCOF)

Register SOTSNCOF counts calls that the system routes to GNCT because no circuit offnet access or direct outward dial trunk is available.

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- SOTSNCIT
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOTSNCON

Register type

Peg

Description

No circuit onnet trunk (SOTSNCON)

Register SOTSNCON counts calls that the system routes to GNCT because no dedicated access or mobile telephone exchange trunk is available.

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- SOTSNCIT
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

There are no extension registers.

Associated logs

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOTSNCOT

Register type

Peg

Description

No circuit other trunk (SOTSNCOT)

Register SOTSNCOT counts calls that the system routes to GNCT because one of the following types of trunk is not available:

- · test line trunk
- test desk trunk
- maintenance trunk

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- SOTSNCIT
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT

- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

Extension registers

There are no extension registers.

Associated logs

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOTSNCRT

Register type

Peg

Description

No circuit (SOTSNCRT)

Register SOTSNCRT counts calls that the system routes to GNCT because one of the following types of trunk is not available:

- 0+/0- tandem to TOPS
- outgoing to AMR5 or centralized automatic message accounting (CAMA)
- outgoing local
- recording completing outgoing
- TOPS outgoing

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID

- SOTSNCIM
- SOTSNCIT
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

There are no extension registers.

Associated logs

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because a line is call-processing busy.

The TRK138 generates when the system routes a call to treatment because a trunk is call-processing busy.

SOTSNCTC

Register type

Peg

Description

No circuit toll-completing trunks (SOTSNCTC)

Register SOTSNCTC counts calls that the system routes to GNCT because no toll-completing trunk is available.

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID

- SOTSNCIM
- SOTSNCIT
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- SOTSNCRT
- SOTSNOSC

There are no extension registers.

Associated logs

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The LINE138 generates when the system routes a call to treatment because a line is call-processing busy.

The TRK138 generates when the system routes a call to treatment because a trunk is call-processing busy.

SOTSNOSC

Register type

Peg

Description

No service circuit (SOTSNOSC)

Register SOTSNOSC counts calls that the system routes to GNCT because an automatic number announcement or intercept trunk is not available.

Associated registers

Registers TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT is the sum of the following SOTS subclass registers:

- SOTSNCBN
- SOTSNCID
- SOTSNCIM
- SOTSNCIT
- SOTSNCLT
- SOTSNCON
- SOTSNCOF
- SOTSNCOT
- SOTSNCTC
- <u>SOTSNCRT</u>
- SOTSNOSC

Extension registers

There are no extension registers.

Associated logs

The system generates ATB100 when the system routes a call again. The system routes a call again because the system addresses the call to a trunk that is not available.

The system generates LINE138 when the system routes a call to treatment because a line is call-processing busy.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOTSPDLM

Register type

Peg

Description

Machine-dialed partial dials (SOTSPDLM)

Register SOTSPDLM counts machine-dialed calls that the system routes to partial dial timeout treatment.

Associated registers

Registers TRMTCM_TCMPDIL counts calls that the system routes to partial dial timeout treatment.

There are no extension registers.

Associated logs

The system generates TRK114 when the system cannot determine call destination during dial pulse reception for an incoming call.

The system generates TRK116 when the system cannot determine call destination during multifrequency reception for an incoming call.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOTSPSGM

Register type

Peg

Description

Machine-dialed permanent signal (SOTSPSGM)

Register SOTSPSGM counts machine-dialed calls that the system routes to permanent signal timeout treatment.

Associated registers

Registers TRMTCM_TCMPSIG counts calls that the system routes to permanent signal timeout treatment.

Extension registers

There are no extension registers.

Associated logs

The system generates TRK115 when dial pulse reception for an incoming call encounters trouble. A TRK115 also generates when the system cannot determine the call destination.

The system generates TRK117 when multifrequency reception for an incoming call over a trunk encounters trouble. The system also generates a TRK117 when the system cannot determine the call destination.

The system generates TRK138 when the system routes a call to treatment because a trunk is call-processing busy.

SOUTMFL

Register type

Peg

Description

Outgoing first-trial matchfails (SOUTMFL)

Register SOUTMFL increases for each failed first attempt to find a network path. The path is from a line or trunk to a selected outgoing or test trunk. The system routes the call to another trunk if one is available. If the routing list is exhausted before the system finds another trunk, the system routes the call to GNCT.

Register SOUTMFL does not count the failed attempts to connect to special tone or announcement trunks. If the system allows only one attempt to find a network connection, SOTS_SOUTRMFL increases instead of SOTS_SOUTMFL.

Associated registers

Register TRK_OUTMTCHF counts failed attempts to get a network path from an incoming trunk or an originating line to a selected trunk. The system only counts the failure if the failure occurred because of network blockage for TRK_OUTMTCHF.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SOUTNWT

Register type

Peg

Description

Outgoing network attempts (SOUTNWT)

Register SOUTNWT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk. The attempt may involve a connection that uses a conference circuit or digital echo suppressor. If that occurs, only one attempt is counted, although two or more network paths must be set up.

SOUTMFL counts first trial failures. Another outgoing trunk then routes the call. If the system allows only one attempt at a network connection, and a failure occurs, the register SOUTRMFL increases. If the call is a second-trial failure, SOUTRMFL counts the failure to get a path. The call is then routed to network blockage heavy traffic (NBLH) treatment.

Associated registers

Registers SOUTMFL counts the number of first-trial match failures to find a network path. The is path is from a line or trunk to a selected outgoing or test trunk.

Registers SOUTRMFL counts the number of second-trial match failures to find a network path. The path is from a line or trunk to a selected outgoing or test trunk.

Extension registers

SOUTNWT2

Associated logs

There are no associated logs.

SOUTOSF

Register type

Peg

Description

Outgoing first-trial seize failures (SOUTOSF)

Register SOUTOSF counts first-trial seize failures that occur after an outgoing trunk has been selected and the necessary network paths acquired. The register then routes the call to another outgoing trunk.

If a seize failure occurs where one seize fail is allowed, SOUTROSF increases instead of SOUTOSF

Associated registers

Registers TRK_OUTFAIL counts outgoing call attempts that fail to seize an outgoing trunk in the trunk group. In order for TRK_OUTFAIL to count, the failure must be the result of four problems:

- seizure failures
- signaling problems
- loss of accuracy
- outgoing failures

Extension registers

There are no extension registers.

Associated logs

The system generates TRK113 when call processing of a trunk-to-trunk call encounters trouble.

The system generates TRK121 when the DMS does not receive an acknowledgement wink from the far-end equipment. This wink indicates that it is ready to receive digits.

The system generates TRK162 when outpulsing of either a trunk-to-trunk or line-to-trunk call encounters trouble. These two calls use dual-tone multi-frequency (DTMF) signaling.

SOUTRMFL

Register type

Peg

Description

Outgoing retrial matchfails (SOUTRMFL)

The register increases SOUTRMFL for each failure of a second attempt to find a network path. The failure is from a line or trunk to a selected outgoing or test trunk. The number of connection failures accumulates over all groups in the routing chain. The result is that the two failures do not involve the same group.

If only one attempt to find a network connection is allowed, SOUTRMFL increases instead of SOUTMFL.

Register SOUTRMFL is a last network attempt failure. As a result of being last, register SOUTRMFL counts the number of calls that are unable to get a network connection.

Associated registers

Registers TRK_OUTMTCHF counts failed attempts to find a network path from an incoming trunk, or an originating line to a selected trunk. The failure must occur as the result of network blockage for TRK_OUTMTCHF to count.

Extension registers

There are no extension registers.

Associated logs

The system generates NET130 when the system cannot find a network path.

SOUTROSF

Register type

Peg

Description

Outgoing retrial seize failures (SOUTROSF)

Register SOUTROSF increases for each failed second attempt to seize an outgoing trunk. If this occurs in a plain ordinary telephone service (POTS) environment, the system routes the call to start signal timeout (SSTO) treatment. In an equal access environment, the system routes the call to signal timeout Bell operating company (STOB). The system also routes the call to signal timeout inter LATA carrier/international carrier (STOC) treatment. One of the following can cause the failure:

- a reversed trunk
- failure to receive a known start-dial
- not planned stop-dial
- timeout before getting expected stop-dial

Register SOUTROSF does not count a call if it entered supervision.

If the system allows only one attempt to seize an outgoing trunk, SOUTROSF increases instead of SOUTOSF.

Associated registers

Register TRK_OUTFAIL counts failed attempts to seize an outgoing trunk in the trunk group. Failed attempts can occur for the following four reasons:

- seizure failures
- signaling problems
- loss of accuracy
- outgoing failures

Extension registers

There are no extension registers.

Associated logs

The system generates TRK113 when call processing of a trunk-to-trunk call encounters trouble.

The system TRK121 generates when the DMS does not receive an acknowledgement wink from the far-end equipment. The wink indicates that it is ready to receive digits.

The system generates TRK162 when the following occurs:

 Transmission of a trunk-to-trunk or line-to-trunk call that uses dual-tone multifrequency signaling (DTMF) encounters trouble.

STRMBLK

Register type

Peg

Description

Terminating blocks (speech links) (STRMBLK)

Register STRMBLK counts failed attempts to find a voice path from the network to a terminating line. Register STRMBLK increases only if the failure occurs because all the line module (LM) channels to the network are busy. Register STRMBLK also increases if the network cannot link with an idle channel from the line that serves the terminating line.

Associated registers

Register <u>STRMRBLK</u> counts failed attempts to find a voice path from the network to a terminating line. The system routes the attempts to network blockage normal traffic (NBLN) treatment.

Extension registers

There are no extension registers.

Associated logs

The system generates NET130 when the switching system cannot find a network path.

STRMGSGL

Register type

Peg

Description

Terminating ground start line glare (STRMGSGL)

Register <u>STRMGSGL</u> counts failed attempts to terminate to a ground start line. The failures occur because of a glare condition.

A glare condition (also known as a double seizure) occurs when the system seizes both ends of a two-way trunk at the same time.

Associated registers

There are no associated registers.

There are no extension registers.

Associated logs

The system generates LINE113 when an attempt to apply ringing to a line has trouble.

STRMMFL

Register type

Peg

Description

Terminating match failure (STRMMFL)

Register <u>STRMMFL</u> counts failed attempts to find a voice path to a terminating line that fails because a network connection is not available. If the attempt is the last attempt to make a network connection, the system routes the call to network blockage heavy traffic (NBLH) treatment.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates NET130 when the system cannot find a network path.

STRMNWT

Register type

Peg

Description

Terminating network attempts (STRMNWT)

Register STRMNWT counts failed attempts to find a voice path to a terminating line. The complete path consists of the following elements:

- a segment through the network
- a channel on the link between the line module and the network
- a matching channel on the line shelf

Associated registers

There are no associated registers.

STRMNWT2

Associated logs

There are no associated logs.

STRMRBLK

Register type

Peg

Description

Terminating retry blocks (speech links) (STRMRBLK)

Register <u>STRMRBLK</u> counts failed attempts to find a voice path from the network to a terminating line. The system routes attempts to network blockage normal traffic (NBLN) treatment.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates NET130 when the system cannot find a network path.

SPC

Description

Semipermanent connections (SPC)

The OM group SPC provides information about the performance and accuracy of semipermanent connections (SPC) for the international base. The system establishes these connections at the start for computer data links but the connections can also handle speech links. An SPC audit runs every 10 min to monitor the state of the connections. An SPC audit can also activate or deactivate the connections.

This OM group counts successful and not successful SPC connection and disconnection events.

The OM group SPC provides one tuple for each semipermanent connection (maximum 1200). The following table lists the key and info fields associated with OM group SPC.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SPC and what they measure. For a description of a register, click on the register name.

Registers for OM group SPC

Register name	Measures
SPCNAUAT	Semipermanent connection by audit attempt
<u>SPCNAUSU</u>	Semipermanent connection by audit successful
SPCNTCAT	Semipermanent connection by table control attempt
SPCNTCSU	Semipermanent connection by table control successful

Registers for OM group SPC

Register name	Measures
SPDISCAU	The SPC disconnect by audit
SPDISCTC	The SPC disconnect by table control

SPCNAUAT

Register type

Peg

Description

Semipermanent connection by audit attempt (SPCNAUAT)

Register SPCNAUAT counts the times the SPC audit attempts to establish an SPC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There is no direct association with logs. The system generates SPC100 log for a successful connection. The system generates SPC102 log when the connection attempt fails.

SPCNAUSU

Register type

Peg

Description

Semipermanent connection by audit successful (SPCNAUSU)

Register SPCNAUSU counts the times the SPC audit establishes an SPC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SPC100 when register <u>SPCNAUSU</u> increases to report the activation of an SPC.

SPCNTCAT

Register type

Peg

Description

Semipermanent connection by table control attempt (SPCNTCAT)

Register SPCNTCAT counts the times the administration attempts to use table control to establish an SPC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There is no direct association with logs. The system generates SPC100 for a successful connection. The system generates SPC102 log when the connection attempt fails.

SPCNTCSU

Register type

Peg

Description

Semipermanent connection by table control successful (SPCNTCSU)

Register SPCNTCSU counts the times the administration uses table control to establish an SPC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SPC100 when register SPCNTCSU increases to report the successful activation of an SPC.

SPDISCAU

Register type

Peg

Description

The SPC disconnect by audit (SPDISCAU)

Register SPDISCAU counts the times the SPC audit deactivates an SPC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPDISCTC

Register type

Peg

Description

The SPC disconnect by table control (SPDISCTC)

Register SPCNTCSU counts the times the administration uses table control to deactivate an SPC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates SPC101 when register <u>SPDISCAU</u> increases to report an SPC that gives ADMIN DISCONNECT as the reason for deactivation.

SPEEDCAL

Description

Speed calling short and long lists (SPEEDCAL)

The OM group SPEEDCAL is a Meridian Digital Centrex feature. The OM group SPEEDCAL permits a subscriber to use abbreviated dialing to place calls to a designated list of numbers. Speed calling short list uses a one-digit calling code instead of the complete number. Speed calling long list uses a two-digit calling code instead of the complete number.

The OM group SPEEDCAL provides information on speed call short and long feature activity. Register SCSATT counts attempts to use the speed call short list feature to dial a number. Register SCLATT counts attempts to use the speed call short list feature to dial a number. Register SCSFAIL increases for failed attempts to activate speed call short list. Register SCSFAIL increases for failed attempts to activate speed call short list. Register SCLFAIL increases for failed attempts to activate speed call long list. After the attempt fails, the system routes the call to negative acknowledgement treatment. Register TRMT3_NACK increases.

The following table lists the key and info fields associated with OM group SPEEDCAL.

Key field	Info field
IBNG_INDEX. The tuple number of SPEEDCAL serves as the key in the OMSHOW command. The maximum number of key fields is 4096.	Field CUSTNAME in table CUSTENG defines customer group OMIBNGINFO.

Table CUSTENG lists the values for the engineering parameters and options for each customer group.

Related functional groups

The following functional groups are associated with OM group SPEEDCAL:

- Meridian Digital Centrex
- Meridian SL-100

Registers

The following table lists the registers associated with OM group SPEEDCAL and what they measure. For a description of a register, click on the register name.

Registers for OM group SPEEDCAL

Register name	Measures
SCLATT	Speed call long list attempts
SCLFAIL	Speed call long list failures
SCSATT	Speed call short attempts
SCSFAIL	Speed call short list failures

SCLATT

Register type

Peg

Description

Speed call long list attempts (SCLATT)

Register SCLATT counts attempts to use the speed call long list feature.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The automatic message accounting buffer (AMAB) generates AMAB150 to test or monitor the generation of station message detail records (SMDR). The references for AMAB150 register SCLATT to SMDRs.

SCLFAIL

Register type

Peg

Description

Speed call long list failures (SCLFAIL)

Register SCLFAIL counts attempts to use the speed call long list feature that fail because of data store corruption. Register TRMT3_NACKincreases when the system routes the call to negative acknowledgement treatment.

Associated registers

Registers TRMT3_NACK increase each time the system routes a call to negative acknowledgement (NACK) treatment.

Extension registers

There are no extension registers.

Associated logs

The system generates LINE138 when the system routes a call to treatment after the call was processing busy. LINE138 normally follows LINE102 and LINE trouble reports.

SCSATT

Register type

Peg

Description

Speed call short attempts (SCSATT)

Register SCSATT counts attempts to use the speed call short list feature.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The automatic message accounting buffer (AMAB) generates AMAB 150 to test or monitor the generation of station message detail records (SMDR). The references for AMAB150 register SCSATT to SMDRs.

SCSFAIL

Register type

Peg

Description

Speed call short list failures (SCSFAIL)

Register SCSFAIL counts attempts to use the speed call short list feature that fail because of data store damage. Register TRMT3_NACK increases when the system routes the call to negative acknowledgement treatment.

Associated registers

Registers TRMT3_NACK increases when the system routes a call to negative acknowledgement (NACK) treatment.

Extension registers

There are no extension registers.

Associated logs

The system generates LINE138 when the system routes a call to treatment after the call was call processing busy. Log LINE138 normally follows LINE102 and LINE trouble reports.

SPMACT

Description

OM group SPM Activity Counting (SPMACT) provides information about CEM processor occupancy. It also provides information about origination and termination counts that display real-time in the CEM processor. This OM group is provided for all types of DMS offices.

The following table lists the key and info fields associated with OM group SPMACT.

Key field	Info field
nil_type_id	SOTS_NODE_INFO_TYPE

Related functional groups

There are no functional groups associated with OM group SPMACT.

Registers

The following table lists the registers associated with OM group SPMACT and what they measure. For a description of a register, click on the register name.

Registers for OM group SPMACT (Sheet 1 of 2)

Register name	Measures
AVGCEMAP	CEM average application class occupancy (AVGCEMAP)
AVGCEMBK	CEM average background class occupancy (AVGCEMBK)
AVGCEMSY	CEM average system class occupancy (AVGCEMSY)
AVGORIG	Average originations (AVGORIG)
AVGTERM	Average terminations (AVGTERM)
CAPINDEX	Capacity Index (CAPINDEX)
СЕМАРРНІ	CEM application occupancy high watermark (CEMAPPHI)

Registers for OM group SPMACT (Sheet 2 of 2)

Register name	Measures
CEMBAKHI	CEM background class high watermark (CEMBAKHI)
CEMSYSHI	CEM system class occupancy high watermark (CEMSYSHI)
<u>NUMREPTS</u>	Number of reports (NUMREPTS)
<u>ORIGHI</u>	Originations high watermark (ORIGHI)
<u>TERMHI</u>	Terminations high watermark (TERMHI)
TOTLORIG	Total originations (TOTLORIG)
TOTLTERM	Total terminations (TOTLTERM)

AVGCEMAP

Register type

Peg

Description

AVGCEMAP displays the average application class occupancy of the CEMs per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

AVGCEMBK

Register type

Peg

Description

AVGCEMBK displays the average background class occupancy of the CEMs per time interval.

Associated registers

None

Associated logs

None

AVGCEMSY

Register type

Peg

Description

AVGCEMSY displays the average system class occupancy of the CEMs per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

AVGORIG

Register type

Peg

Description

AVGORIG displays the average number of originations per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

AVGTERM

Register type

Peg

Description

AVGTERM displays the average number of terminations per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

CAPINDEX

Register type

Index. CAPINDEX is not a typical peg or usage register.

Description

CAPINDEX indicates the capacity level that is running on the SPM. Possible values are 0, 1, or 2. These values correspond to regular, enhanced, and premium capacities.

Associated registers

None

Extension registers

None

Associated logs

None

CEMAPPHI

Register type

Peg

Description

CEMAPPHI displays the largest value of samples taken during the collection interval.

Associated registers

None

Extension registers

Associated logs

None

CEMBAKHI

Register type

Peg

Description

CEMBAKHI displays the largest value of samples taken during the collection interval.

Associated registers

None

Extension registers

None

Associated logs

None

CEMSYSHI

Register type

Peg

Description

CEMSYSHI displays the largest value of samples taken during the collection interval.

Associated registers

None

Extension registers

None

Associated logs

None

NUMREPTS

Register type

Peg

Description

NUMREPTS counts the number of reports received.

Associated registers

None

Associated logs

None

ORIGHI

Register type

Peg

Description

ORIGHI displays the largest value of samples taken during the collection interval.

Associated registers

None

Extension registers

None

Associated logs

None

TERMHI

Register type

Peg

Description

TERMHI displays the largest value of samples taken during the collection interval.

Associated registers

None

Extension registers

None

Associated logs

None

TOTLORIG

Register type

Peg

Description

TOTLORIG is a summary of the total originations data collected during the time interval.

Associated registers

None

Extension registers

None

Associated logs

None

TOTLTERM

Register type

Peg

Description

TOTLTERM is a summary of the total terminations data collected during the time interval.

Associated registers

None

Extension registers

None

Associated logs

SPMOVLD

Description

OM group Spectrum Overload Statistics (SPMOVLD) measures peak traffic levels of the NTLX82BA CEM card that are in excess of the SPM engineering limit. CEM enhanced processing increases card performance to approximately twice that of an NTLX82AA card. Premium processing increases performance by approximately three times.

The following components control the number of calls handled by an SPM-based node:

- System overload control (SOC) subsystem
- SPM flow control system

All system overload control component registers start with an 'S'; all other registers apply to the flow control system.

The CAPINDEX register in the SPMACT OM group provides the SPM node capacity level which is used for determining overload conditions.

The following table lists the key and info fields associated with the SPMOVLD OM group.

Key field	Info field
spm_no	SOTS_NODE_INFO_TYPE
Range: (0 to 85)	

Peg and usage counts accumulate on the SPM node and upload to the OM group using the Spectrum OM Transfer System (SOTS).

Related functional groups

There are no functional groups associated with OM group SPMOVLD.

Registers

The following table lists the SPMOLVD OM group registers.

Registers for the SPMOLVD OM group

Register name	Measures
OVLDNUM	Overload number
OVLDPNUM	Overload pending number
OVLDUSG	Overload usage
OVLDPUSG	Overload pending usage
CLSDLYD	Calls delayed
CLSDND	Calls denied
CLSPTQ	Calls per terminal queue
CLSABDN	Calls abandoned
CLSMSC	Calls miscellaneous
SOVLDNUM	SOC Overload number
SOVLDUSG	SOC overload usage
SCLSDLYD	SOC calls delayed
SCLSDND	SOC calls denied
SCLSABDN	SOC calls abandoned
SNUMORIG	SOC number of originations
<u>SMSGLOST</u>	SOC messages lost
SMSGPTQ	SOC message PTQ
SHDROVFL	SOC header overflow

OVLDNUM

Register type

Peg

Description

OVLDNUM counts the number of times the node entered overload due to the flow control component.

Associated registers

None

Extension registers

None

Associated logs

SPM399

OVLDPNUM

Register type

Peg

Description

OVLDPNUM counts the number of times the node entered 'overload pending' due to the flow control component

Associated registers

None

Extension registers

None

Associated logs

SPM399

OVLDUSG

Register type

Usage

Scan rate

Not applicable

Description

OVLDUSG measures the number of seconds the node was in overload due to the flow control component.

Associated registers

None

Extension registers

None

Associated logs

None

OVLDPUSG

Register type

Usage

Scan rate

Not applicable

Description

OVLDPUSG measures the number of seconds the node was in 'overload pending' due to the flow control component.

Associated registers

None

Extension registers

None

Associated logs

None

CLSDLYD

Register type

Peg

Description

CLSDLYD counts the number of calls delayed by the node due to the flow control component.

Associated registers

None

Extension registers

None

Associated logs

CLSDND

Register type

Peg

Description

CLSDND counts the number of calls that were denied caused by too many calls in the flow control component.

Associated registers

None

Extension registers

None

Associated logs

None

CLSPTQ

Register type

Peg

Description

CLSPTQ counts the number of calls denied caused by too many messages on a per terminal queue in the flow control component.

Associated registers

None

Extension registers

None

Associated logs

None

CLSABDN

Register type

Peg

Description

CLSABDN counts the number of calls that were abandoned by the node in the flow control component.

Associated registers

None

Associated logs

None

CLSMSC

Register type

Peg

Description

CLSMSC counts the number of calls lost to miscellaneous resource failures in the flow control component.

Associated registers

None

Extension registers

None

Associated logs

None

SOVLDNUM

Register type

Peg

Description

SOVLDNUM counts the number of times the node entered overload (the CEM is in a beyond capacity state).

Associated registers

None

Extension registers

None

Associated logs

SOVLDUSG

Register type

Peg

Description

SOVLDUSG counts the number of messages that were processed by the system overload component while the CEM was in a beyond capacity state.

Associated registers

None

Extension registers

None

Associated logs

None

SCLSDLYD

Register type

Peg

Description

SCLSDLYD counts the number of calls delayed by the system overload component.

Associated registers

None

Extension registers

None

Associated logs

None

SCLSDND

Register type

Peg

Description

SCLSDND counts the number of calls that were lost for any reason. The register includes origination messages counted in registers SMSGPTQ and SHDROVFL.

Associated registers

None

Associated logs

None

SCLSABDN

Register type

Peg

Description

SCLSABDN counts the number of calls that were abandoned due to the system overload component.

Associated registers

None

Extension registers

None

Associated logs

None

SNUMORIG

Register type

Peg

Description

SNUMORIG counts the number of originations passing through the system overload component whether or not they were delayed.

Associated registers

None

Extension registers

None

Associated logs

SMSGLOST

Register type

Peg

Description

SMSGLOST the number of messages that were of messages lost because of system overload control limits. The register includes messages counted in registers SMSGPTQ and SHDROVFL.

Associated registers

None

Extension registers

None

Associated logs

None

SMSGPTQ

Register type

Peg

Description

SMSGPTQ counts the number of messages of any type that were lost due to PTQ overflow.

Associated registers

None

Extension registers

None

Associated logs

None

SHDROVFL

Register type

Peg

Description

SHDROVFL counts the number of messages of any type that were lost due to system overload control header array overflow.

Associated registers

None

Associated logs None

SPMUSAGE

Description

OM group SPM Universal Activity Gauging Element (SPMUSAGE) provides information on call processing events that occur in the SPM. This OM group is provided for all types of DMS offices.

The following table lists the key and info fields associated with OM group SPMUSAGE.

Key field	Info field
nil_type_id	SOTS_NODE_INFO_TYPE

Related functional groups

There are no functional groups associated with OM group SPMUSAGE.

Registers

The following table lists the registers associated with OM group SPMUSAGE and what they measure. For a description of a register, click on the register name.

Registers for SPMUSAGE

Register name	Measures
ABDN	Call processing (Callp) abandon messages (ABDN)
CONF	Callp confusion messages (CONF)
EXIT	Callp exit messages (EXIT)
NETFND	Callp network integrity found (NETFND)
NETINTG	Callp integrity lost (NETINTG)
NETNFND	Callp network integrity found (NETFND)
NETPAR	Callp parity errors (NETPAR)
<u>NUMREPTS</u>	Number of Reports (NUMREPTS)

Registers for SPMUSAGE

Register name	Measures
RELCAL	Callp release call messages (RELCAL)
TXFAIL	Callp deny messages (TXFAIL)

ABDN

Register type

Peg

Description

ABDN counts the average number of Callp abandon messages per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

CONF

Register type

Peg

Description

CONF counts the average number of Callp confusion messages per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

EXIT

Register type

Peg

Description

EXIT counts the average number of Callp exit messages per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

NETNFND

Register type

Peg

Description

NETFND counts the average Callp network integrity found per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

NETINTG

Register type

Peg

Description

NETINTG counts the average Callp network integrity lost per time interval.

Associated registers

None

Extension registers

None

Associated logs

NETFND

Register type

Peg

Description

NETFND counts the average Callp network integrity found per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

NETPAR

Register type

Peg

Description

NETPAR counts the average number of Callp parity errors per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

NUMREPTS

Register type

Peg

Description

NUMREPTS counts the number of reports that are received.

Associated registers

None

Extension registers

Associated logs

None

RELCAL

Register type

Peg

Description

RELCAL counts the average number of Callp release call messages per time interval.

Associated registers

None

Extension registers

None

Associated logs

None

TXFAIL

Register type

Peg

Description

TXFAIL counts the average number of Callp deny messages per time interval.

Associated registers

None

Extension registers

None

Associated logs

SPPIN

Description

Station programmable PIN (SPPIN)

The OM group SPPIN monitors the use of the Station Programmable PIN (SPP) feature. The SPP contains six registers that count:

- the subscribers that use the SPP feature to correctly change their personal identification number (PIN)
- the times subscribers that use SPP at the same time exceed the SPP_MAX_PROGRAMMERS office parameter in table OFCENG
- the times a PIN and directory number do not match
- the times a new PIN entry fails verification
- the times an SPP subscriber retries an SPP process
- the times the caller exceeds the retry count during SPP. The system generates a log again.

The OM group SPPIN provides one tuple for each office. The following table lists the key and info fields associated with OM group SPPIN.

Key field	Info field
none	none

Tables IBNXLA, CUSTSTN, ANNS and DRMUSERS enable this feature.

Related functional groups

The OM group SPPIN associates with the Meridian Digital Centrex functional group.

Registers

The following table lists the registers associated with OM group SPPIN and what they measure. For a description of a register, click on the register name.

Registers for OM group SPPIN

Register name	Measures
SPPSUCC	Station programmable PIN (SPP) success
SPPPROG	Station programmable PIN (SPP) program
SPPNOMAT	Station programmable PIN (SPP) no match
SPPNOVER	Station programmable PIN (SPP) no verify
SPPRETRY	Station programmable PIN (SPP) retry (SPPRETRY)
SPPLIMEX	Station programmable PIN (SPP) limit exceeded

SPPSUCC

Register type

Peg

Description

Station programmable PIN (SPP) success (SPPSUCC)

Register SPPSUCC counts the subscribers that use the SPP feature to correctly change their PIN.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPPPROG

Register type

Peg

Description

Station programmable PIN (SPP) program (SPPPROG)

Register SPPPROG increases each time the number of subscribers that use SPP at the same time exceed the office parameter SPP_MAX_PROGRAMMERS. Office parameter SPP_MAX_PROGRAMMERS appears in table OFCENG.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPPNOMAT

Register type

Peg

Description

Station programmable PIN (SPP) no match (SPPNOMAT)

Register SPPNOMAT counts the number of times a PIN and a directory number do not match.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPPNOVER

Register type

Peg

Description

Station programmable PIN (SPP) no verify (SPPNOVER)

Register SPPNOVER counts the times the system does not validate a new PIN entry. A new PIN entry fails if the entry is not within the 2 to 10 digit limit.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPPRETRY

Register type

Peg

Description

Station programmable PIN (SPP) retry (SPPRETRY)

Register SPPRETRY counts the times an SPP subscriber tries an SPP process again. The SPP process includes current PIN and directory number entry, new PIN entry or re-entered new PIN.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPPLIMEX

Register type

Peg

Description

Station programmable PIN (SPP) limit exceeded (SPPLIMEX)

Register SPPLIMEX counts the times the caller exceeds the retry count limit during the SPP process. The retry count designates only the number of repeats.

The count does not include the following:

- first entry of any SPP part
- current PIN entry
- new PIN entry
- new PIN entered again

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates IBN136.

SPRING

Description

OM group Subscriber Programmable Ringing (SPRING) for Call Forwarding Don't Answer (CFDA) on residential (RES) lines measures:

- the number of attempts to dial the access code to invoke the SPRING feature
- the number of attempts to dial the SPRING directory number (DN) to remotely invoke the SPRING feature
- the number of times the user dials the access code and invokes the SPRING feature
- the number of times the user dials the SPRING DN and invokes the SPRING feature
- the number of times that SPRING access is denied to end users because of not enough resources
- the number of requests for off-board service updates or changes.
 With the Off-board Service Control feature, off-board service updates peg certain registers when subscribers do one of the following from an off-board application:
 - query the status and/or programmed information of corresponding subscribed-to services
 - generate a request to activate, deactivate or change the services

For more information about the Off-board Service Control feature, refer to Advanced Intelligent Network Essentials Service Implementation Guide, 297-5161-021, and the Advanced Intelligent Network Essentials Service Enablers, 297-5161-022.

The Off-board Service Control feature applies only to DMS.

The following table lists the key and info fields associated with OM group SPRING.

Key field	Info field
None	None

Related functional groups

The RES functional group is associated with the OM group SPRING.

Registers

The following table lists the registers associated with OM group SPRING and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group SPRING

Register name	Measures
RCTRLLA	Ring control local activation
RCTRLRA	Ring control remote activation
RCTRLSLA	Ring control successful local activation
RCTRLSRA	Ring control successful remote activation
<u>RCTRLFA</u>	Ring control failed activation

RCTRLLA

Register type

Peg

Description

RCTRLLA increases every time an end user dials the SPRING access code.

For DMS only: RCTRLLA is pegged if a CFDVT update request is received (off-board service update request).

Associated registers

None

Extension registers

None

Associated logs

RCTRLRA

Register type

Peg

Description

This register increases every time an end user dials the SPRING remote access DN.

Associated registers

None

Extension registers

None

Associated logs

None

RCTRLSLA

Register type

Peg

Description

RCTRLSLA increases every time an end user dials the SPRING access code and causes local activation of the SPRING feature. Successful SPRING activation does not mean that the ring count changes. For example, an end-user can enter invalid data and cause SPRING to abort the session. The ring count does not change, but a successful SPRING activation occurs.

For DMS only: RCTRLSLA is pegged when a subscriber is given access to update the CFDVT data (off-board service update). The register is pegged regardless of whether the data is successfully altered.

Associated registers

None

Extension registers

None

Associated logs

RCTRLSRA

Register type

Peg

Description

RCTRLSRA increases every time an end user dials the SPRING remote access DN and remotely activates SPRING. Successful SPRING activation does not imply that the ring count changed. For example, a subscriber can enter invalid data and cause SPRING to abort the session. The ring count does not change, but a successful SPRING activation occurs.

Associated registers

None

Extension registers

None

Associated logs

None

RCTRLFA

Register type

Peg

Description

RCTRLFA increases when the system denies an end user local or remote access to the SPRING feature because resources are not available.

For DMS only: RCTRLFA is pegged when a subscriber off-board service update request to access the SPRING feature is denied because resources are unavailable.

Associated registers

None

Extension registers

None

Associated logs

SRA

Description

Suppressed Ringing Access (SRA)

The Suppressed Ringing Access (SRA) OM group monitors SRA events and the usage of the SRA feature when the USRA feature is active and SRA is available on an office-wide basis. It also provides the data necessary to engineer the SRA and USRA features in the office.

The following table lists the key and info fields associated with OM group SRA.

Key field	Info field
SRA_OM_TYPE	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SPA and what they measure. For a description of a register, click on the register name.

Registers for OM group SRA

Register name	Measures
SRAATT	SRA Call Attempts
SRASECU	SRA Security Screening Failures
SRALOPT	SRA Line Option Disabled Attempts
SRABUSY	SRA Call Attempts to Busy Lines
<u>SRATOH</u>	SRA Off-hook Timer Expirations
<u>SRAINTR</u>	SRA Call Interruptions
SRADISC	SRA Call Disconnections
SRATCAL	SRA Call Timer Expirations

Registers for OM group SRA

Register name	Measures
SRAUSE	SRA Feature Usage
SRATERM	Successful SRA Terminations

SRAATT

Register type

Peg

Description

SRA Call Attempts

Register SRAATT increments for each SRA call attempt. Each call attempt is equivalent to an SRA feature activation.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRASECU

Register type

Peg

Description

SRA Security Screening Failures

Register SRASECU increments each time SRA security screening detects a security failure.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRALOPT

Register type

Peg

Description

SRA Line Option Disabled Attempts

Register SRALOPT increments when an SRA call attempts to terminate on a line that has the DENYSRA line option.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRABUSY

Register type

Peg

Description

SRA Call Attempts to Busy Lines

Register SRABUSY increments for each SRA call attempt to a busy line.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRATOH

Register type

Peg

Description

SRA Off-hook Timer Expirations

Register SRATOH increments each time the off-hook timer expires during the setup of an SRA call. The value of the off-hook timer is entered in the OHTIME field of the SRA_TIMERS office parameter in table OFCENG. The OHTIME field can have a value in the range of 1 through 99 seconds.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRAINTR

Register type

Peg

Description

SRA Call Interruptions

Register SRAINTR increments each time an SRA call is interrupted by an incoming call.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRADISC

Register type

Peg

Description

SRA Call Disconnections

Register SRADISC increments for each normal disconnect of an SRA call.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRATCAL

Register type

Peg

Description

SRA Call Timer Expirations

Register SRATCAL increments each time the call timer (TCALL) expires during an SRA call. The value of the call timer is entered in table DNROUTE. The call timer can have a value in the range of 1 through 999 seconds. When an SRA call is established, the call timer starts. When the call timer reaches zero, the SRA call is dropped and this register is pegged.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRAUSE

Register type

Peg

Description

SRA Feature Usage

Register SRAUSE increments once for each completed 30-second interval of SRA calls (from CPE off-hook to disconnect). The register calculates the 30-second intervals based on a cumulative total of the duration of all of the SRA calls made by an SRA service provider.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRATERM

Register type

Peg

Description

Successful SRA Terminations

Register SRATERM increments once for each successful SRA call termination.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRAOM

Description

Suppressed Ringing Access Operational Measurement (SRAOM) group

The SRAOM group allows the monitoring of SRA events and the usage of the SRA feature. It also provides the necessary data to engineer the SRA feature in the office.

The following table lists the key and info fields associated with OM group SRAOM.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group SRAOM and what they measure. For a description of a register, click on the register name.

Registers for OM group SRAOM

Register name	Measures
SRA ATT	SRA Call Attempts
SRA SECU	SRA Security Screening Failures
SRA LOPT	SRA Line Options Disabled Attempts
SRA BUSY	SRA Call Attempts to Busy Lines
SRA TOH	SRA Off-hook Timer Expirations
SRA INTR	SRA Call Interruptions
SRA DISC	SRA Call Disconnections
SRA TCAL	SRA Call Timer Expirations
SRA USE	SRA Register Feature Usage

SRA ATT

Register type

Peg

Description

SRA Call Attempts

Register SRA_ATT increments for each SRA call attempt. Each call attempt is equivalent to an SRA feature activation.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA_SECU

Register type

Peg

Description

SRA Security Screening Failures

Register SRA_SECU increments each time SRA security screening detects a security failure.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA_LOPT

Register type

Peg

Description

SRA Line Options Disabled Attempts

Register SRA_LOPT increments when an SRA call attempts to terminate on an SRA-compatible line, which does not have the SRA line option.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA BUSY

Register type

Peg

Description

SRA Call Attempts to Busy Lines

Register SRA_BUSY increments for each SRA call attempt to a busy line.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA_TOH

Register type

Peg

Description

SRA Off-hook Timer Expirations

Register SRA_TOH increments each time the off-hook timer expires during the setup of an SRA call. The value of the off-hook timer is entered in the OHTIME field of the SRA_TIMERS office parameter in table OFCENG. The OHTIME field can have a value in the range of 1 through 99 seconds.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA_INTR

Register type

Peg

Description

SRA Call Interruptions

Register SRA_INTR increments each time an SRA call is interrupted by an incoming call.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA_DISC

Register type

Peg

Description

SRA Call Disconnections

Register SRA_DISC increments for each normal disconnect of an SRA call.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA_TCAL

Register type

Peg

Description

SRA Call Timer Expirations

Register SRA_TCAL increments each time the call timer (TCALL) expires during an SRA call. The value of the call timer is entered in table DNROUTE. The call timer can have a value in the range of 1 through 999 seconds. When an SRA call is established, the call timer starts. When the call timer reaches zero, the SRA call is dropped and this register is pegged.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SRA_USE

Register type

Peg

Description

SRA Register Feature Usage

Register SRA_USE increments once for each completed 30-second interval of SRA calls (from CPE off-hook to disconnect). The register calculates the 30-second intervals based on a cumulative total of the duration of all of the SRA calls made by an SRA service provider.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

StdRecordStream

Description

This OM Group contains OM counters to monitor the performance of standard record streams for each network element instance. Each particular stream and particular system (log, om and accounting) would contain a particular OM row.

The following table lists the key and info fields associated with OM group StdRecordStream.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group StdRecordStream:

All MCS network elements

Registers

The following table lists the registers associated with OM group StdRecordStream and what they measure. For a description of a register, click on the register name.

Registers for OM group StdRecordStream

Register name	Measures
recordSent	records sent
acksReceived	acknowledgements received
nacksReceived	negative-acknowledgements received

recordSent

Register type

Peg

Description

CounterIt records the number of OAM record sent to the element manager

Associated registers

None

Extension registers

None

Associated logs

None

acksReceived

Register type

Peg

Description

It records the number of acknowledgement received from the element manager that indicate the transfer of record is succeed.

Associated registers

None

Extension registers

None

Associated logs

None

nacksReceived

Register type

Peg

Description

It records the number of acknowledgement received from the element manager that indicate the transfer of record is failed.

Associated registers

None

Extension registers

None

Associated logs

STN

Description

Special tones (STN)

The OM group STN provides information about special tones broadcast from trunk cards in the maintenance trunk modules. The following tones are included:

- receiver off-hook (ROH) tone
- call waiting (CWT) tone
- expensive route warning (ERWT) tone
- off-hook queuing (OHQT) tone
- IBN busy verification (BVTONE) tone
- executive busy verification (EBOT) tone
- preset-conference normal notification (PCNOR) tone
- distinctive call waiting (DISTCWT) tone

Distinctive call waiting tone is available only when NTX435AA is present.

The OM group STN provides one tuple for each special tone. The following table lists the key and info fields associated with OM group STN.

Key field	Info field
Consists of a tone external identifier, assigned in table STN	none

Parameter DIST_CWT_TONE in table OFCVAR specifies the distinctive call waiting tone. Parameter CWT_TONE_LENGTH in table OFCVAR specifies the call waiting tone length.

Related functional groups

The OM group STN associates with the functional group IBN Integrated Business Network.

Registers

The following table lists the registers associated with OM group STN and what they measure. For a description of a register, click on the register name.

Registers for OM group STN

Register name	Measures
<u>STNATTS</u>	Special tone attempts
STNMBU	Special tone manual busy
STNMTCHF	Special tone match failures
STNOVFL	Special tone overflow
STNSBU	Special tone system busy
STNTRU	Special tone true usage

STNATTS

Register type

Peg

Description

Special tone attempts (STNATTS)

Register STNATTS counts attempts to connect an idle special tone circuit to a line or trunk.

The system makes a maximum of two attempts for any call. If the system cannot correct receiver off-hook (ROH) tone, the system routes the call forward. If the system cannot connect call waiting tone (CWT), the call proceeds as if the system sent the tone. The calling party hears ringing until the called party disconnects and the new call completes. Because of failure to get CWT tone, the called party has no notice of a call waiting.

Associated registers

There are no associated registers.

Extension registers

STNATTS2

Associated logs

There are no associated logs.

STNMBU

Register type

Usage

Description

Special tone manual busy (STNMBU) is a usage register. The scan rate is 100 s. Register STNMBU records if the circuits are manual busy.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

STNMTCHF

Register type

Peg

Description

Special tone match failures (STNMTCHF)

Register STNMTCHF counts attempts to connect an idle special tone circuit to a line or trunk that fails. The value in this register is the total of first and second trial network match failures.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates NET130 because of a system request when the system cannot find a network path.

STNOVFL

Register type

Peg

Description

Special tone overflow (STNOVFL)

Register STNOVFL counts attempts to connect an idle special tone circuit to a line or trunk that overflows. The line or trunk overflows because no circuits are available.

A circuit is available if less than the maximum number of connections to that circuit are in effect at that time. The circuit is also available when the circuit is in one of the following states:

- idle
- initialize
- call processing busy

Table STN specifies the maximum number of connections to the circuit at one time.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates LINE138 and TRK138 when the system routes a call to treatment after the call was call processing busy.

STNSBU

Register type

Usage

Description

Special tone system busy (STNSBU)

Register STNSBU is a usage register. The scan rate is 100 s. Register STNSBU records if circuits are system busy.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates TRK106 when dial pulse reception on a line has trouble.

STNTRU

Register type

Usage

Description

Special tone true usage (STNRU)

Register STNTRU is a usage register. The scan rate is 100 s. Register STNTRU records if calls connect to a special tone.

Associated registers

There are no associated registers.

Extension registers

STNTRU2

Associated logs

There are no associated logs.

STORE

Description

Data and program store (STORE)

The OM group STORE provides information on the use of:

- data store
- program store
- the amount of memory available in a NT40 CC or DMS SuperNode
- the amount of spare memory on a DMS SuperNode

Separate registers provide information in megabytes and kilobytes for

- data store used and available
- program store used and available
- total available memory
- total addressable memory available to the SOS store allocator
- spare memory for SuperNode

Registers in this group represent supply and values. The system must not include STORE in an accumulating class in table OMACC.

The OM group STORE allows the operating company to track and administer memory use.

Changes are normal but the user should observe registers for patterns in memory use.

The OM group STORE provides one tuple for each NT40 or DMS SuperNode. The following table lists the key and info fields associated with OM group STORE.

Key field	Info field
none	none

Related functional groups

The associated functional groups for OM group STORE are:

- NT40
- DMS SuperNode
- SOS STORE ALLOCATOR

Registers

The following table lists the registers associated with OM group STORE and what they measure. For a description of a register, click on the register name.

Registers for OM group STORE

Register name	Measures
DSAVAILK	Data store available in kilobytes
DSAVAILM	Data store available in megabytes
DSUSEDK	Data store used in kilobytes
DSUSEDM	Data store used in megabytes
FREEKB	Free memory in kilobytes
FREEMB	Free memory in megabytes
PSAVAILK	Program store available in kilobytes
<u>PSAVAILM</u>	Program store available in megabytes
<u>PSUSEDK</u>	Program store used in kilobytes
<u>PSUSEDM</u>	Program store used in megabytes
<u>SPAREKB</u>	Spare memory in kilobytes
SPAREMB	Spare memory in megabytes
TOTALKB	Total memory in kilobytes
TOTALMB	Total memory in megabytes

DSAVAILK

Register type

Peg

Description

Data store available in kilobytes (DSAVAILK)

The value in DSAVAILK represents the kilobytes of memory available for data store. The memory available for a large memory extension block equals the sum of register DSAVAILK and register DSAVAILM. A memory extension block can add a large number of entries. This register does not include small, fragmented blocks of memory.

The user must view DSAVAILK with <u>DSAVAILM</u>. These registers determine the memory available for data store. The values of <u>DSAVAILM</u> plus DSAVAILK can be lower than the values the CCMNT command gives. The CCMNT gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. The values can be different because CMMNT and CMNT only include large blocks of memory.

Changes are normal and the user must observe these registers for patterns in memory use.

Registers DSAVAILK and <u>DSAVAILM</u> reflect current provisioning. The system must not include these registers in an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Data store available in kilobytes = $\frac{DSAVAILK}{DSAVAILM} \times 1024$

Registers <u>FREEMB</u> + <u>FREEKB</u> = <u>DSAVAILM</u> + <u>DSAVAILK</u> + <u>PSAVAILM</u> + <u>PSAVAILK</u>

Values for <u>FREEMB</u> + <u>FREEKB</u> must not drop below 192 kilobytes (3 vast areas). The value of 192 kilobytes is the minimum free memory required for proper DMS operation.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DSAVAILM

Register type

Peg

Description

Data store available in megabytes (DSAVAILM)

The value in DSAVAILM represents the number of megabytes of memory available for data store. This value also represents the number of kilobytes available in <u>DSAVAILK</u> for data store.

The amount of memory available for a large memory extension block equals the sum of register <u>DSAVAILK</u> and register <u>DSAVAILM</u>. A large memory block can add a large amount of entries. Register <u>DSAVAILM</u> does not include small, fragmented blocks of memory.

The user must view DSAVAILM with <u>DSAVAILK</u>. These registers determine the memory available for data store. The values of DSAVAILM plus <u>DSAVAILK</u> can be lower than the values that the CCMNT command gives. The CCMNT command gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. This is because registers DSAVAILM an <u>DSAVAILK</u> only include large blocks of memory.

Changes are normal and the user should observe these registers for patterns in memory use.

Registers <u>DSAVAILK</u> and DSAVAILM reflect current provisioning only. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Errors that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Data store available in megabytes = DSAVAILM + (DSAVAILK ³ 1024)

Registers <u>FREEMB</u> + <u>FREEKB</u> = DSAVAILM + <u>DSAVAILK</u> + <u>PSAVAILM</u> + <u>PSAVAILK</u>

Values for FREEMB + FREEKB must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DSUSEDK

Register type

Peg

Description

Data store used in kilobytes (DSUSEDK)

The value in DSUSEDK represents the kilobytes of memory in use and the megabytes available in DSUSEDM for data store. The amount of memory available equals the sum of registers DSUSEDK and DSUSEDM. The system allocates or reserves this memory for special use. Registers DSUSEDK and DSUSEDM include all types of data store and fluctuate depending on activities such as log-on sessions.

Changes are normal and the user should observe this register for patterns in memory use.

The user must view <u>DSUSEDM</u> with DSUSEDK to determine the memory available for data store.

Register DSUSEDK and <u>DSUSEDM</u> reflect only current supply. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Data store used in kilobytes = DSUSEDK + (<u>DSUSEDM</u> x 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DSUSEDM

Register type

Peg

Description

Data store used in megabytes (DSUSEDM)

The value in DSUSEDM represents the number of megabytes available and the kilobytes of memory available in DSUSEDK for data store. Allocated memory and memory reserved for special use equals the sum of DSUSEDK and DSUSEDK and

DSUSEDM include all types of data store. The registers change depending on activities like log-on sessions.

Changes are normal and the user can observe these registers for patterns in memory use.

The user must view DSUSEDM with <u>DSUSEDK</u> to determine the total amount of memory available for data store.

Register <u>DSUSEDK</u> and DSUSEDM reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Data store used in megabytes = DSUSEDM + (<u>DSUSEDK</u> ³ 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

FREEKB

Register type

Peg

Description

Free memory in kilobytes (FREEKB)

The value in FREEKB represents the kilobytes of memory available in vast areas. The value in FREEKB also represents the megabytes available in FREEMB for use as program store and data store. Vast areas equal 64 kilobytes. The total amount of memory available in vast areas for program store and data store equals the sum of FREEKB and FREEMB.

Changes are normal and the user must observe these registers for patterns of memory use.

The user must view FREEKB with <u>FREEMB</u> to determine the memory available in vast areas. The memory available is for program store and data store.

Registers FREEKB and <u>FREEMB</u> reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The

values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Free memory in kilobytes = FREEKB + (FREEMB x 1024)

<u>FREEMB</u> + FREEKB = <u>DSAVAILM</u> + <u>DSAVAILK</u> + <u>PSAVAILM</u> + <u>PSAVAILK</u>

Values for FREEMB + FREEKB cannot not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

FREEMB

Register type

Peg

Description

Free memory in megabytes (FREEMB)

The value in FREEMB represents the megabytes of memory available in vast areas. The value in FREEMB also represents the kilobytes available in FREEKB for use as program store and data store. Vast areas equal 64 kilobytes. The memory available in vast areas for program store and data store equals the sum of FREEKB and FREEKB and FREEKB.

Changes are normal and the user should observe these registers for patterns of memory use.

The user must view FREEMB with <u>FREEKB</u> to determine the total amount of memory available in vast areas. The memory available is for program store and data store.

Registers <u>FREEKB</u> and FREEMB reflect current provisioning. These registers must not be included in an accumulating class in table OMACC. The values in the table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Free memory in megabytes = FREEMB + (FREEKB 3 1024)

Registers FREEMB + <u>FREEKB</u> = <u>DSAVAILM</u> + <u>DSAVAILK</u> + <u>PSAVAILM</u> + <u>PSAVAILK</u>

Values for FREEMB + <u>FREEKB</u> must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

PSAVAILK

Register type

Peg

Description

Program store available in kilobytes (PSAVAILK)

The value in PSAVAILK represents the kilobytes of memory available for a large memory extension. The value in PSAVAILK also represents the megabytes available in PSAVAILM for a large memory extension. The system requires large memory extensions to load new feature packages. The memory available for large memory extensions for program store equals the sum of PSAVAILK and PSAVAILM. Registers PSAVAILK and PSAVAILM do not include small, fragmented blocks of memory.

The user must view PSAVAILK with <u>PSAVAILM</u> to determine the amount of memory available for program store. Values of <u>PSAVAILM</u> plus PSAVAILK can be lower than the values that the CCMNT command gives. The CMMNT command gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. This is because registers <u>PSAVAILM</u> and PSAVAILK only include large blocks of memory. Differences in the value of program store available occur when the user loads or unloads modules, or applies patches.

Register PSAVAILK and <u>PSAVAILM</u> reflect current provisioning. These registers must not be included in an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Program store available in kilobytes = PSAVAILK + (<u>PSAVAILM</u> x 1024)

Registers <u>FREEMB</u> + <u>FREEKB</u> = <u>DSAVAILM</u> + <u>DSAVAILK</u> + <u>PSAVAILM</u> + PSAVAILK

Values for <u>FREEMB</u> + <u>FREEKB</u> must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

PSAVAILM

Register type

Peg

Description

Program store available in megabytes (PSAVAILM)

The value in PSAVAILM represents the megabytes of memory available for a large memory extension. The value in PSAVAILM also represents the kilobytes available in <u>PSAVAILK</u> for a large memory extension. The system requires large memory extensions to load new feature packages. The total amount of memory available for large memory extensions for program store equals the total of PSAVAILK and PSAVAILM. Registers <u>PSAVAILK</u> and PSAVAILM do not include small, fragmented blocks of memory.

The user must view PSAVAILM with <u>PSAVAILK</u> to determine the amount of memory available for program store. Values of PSAVAILM plus <u>PSAVAILK</u> can be lower than the values that the CCMNT command gives. The CCMNT command gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. This is because registers PSAVAILM and <u>PSAVAILK</u> only include large blocks of memory. Differences in the value of available program store occur when the user loads or unloads modules or applies patches.

Registers <u>PSAVAILK</u> and PSAVAILM reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that

are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Program store available in megabytes = PSAVAILM + (PSAVAILK ³ 1024)

Registers <u>FREEKB</u> + <u>FREEMB</u> = <u>DSAVAILM</u> + <u>DSAVAILK</u> + PSAVAILM + <u>PSAVAILK</u>

Values for FREEMB + <u>FREEKB</u> must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

PSUSEDK

Register type

Peg

Description

Program store used in kilobytes (PSUSEDK)

The value in PSUSEDK represents the kilobytes of memory available. The value in PSUSEDK also represents the megabytes available in PSUSEDM for program store. The amount of memory available for program store equals the sum of PSUSEDK and PSUSEDM. Registers PSUSEDK and PSUSEDM include all types of program store and fluctuate depending on activities. Differences in the value of available program use occur when the user loads or unloads modules or applies patches.

The user must view <u>PSUSEDM</u> with PSUSEDK to determine the total amount of memory available for program store.

Registers PSUSEDK and <u>PSUSEDM</u> reflect current provisioning only. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Program store used in kilobytes = PSUSEDK + (PSUSEDM x 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

PSUSEDM

Register type

Peg

Description

Program store used in megabytes (PSUSEDM)

The value in PSUSEDM represents the megabytes of memory available. The value in PSUSEDM also represents the kilobytes available in <u>PSUSEDK</u> for program store. The amount of memory available for program store equals the sum of registers <u>PSUSEDK</u> and PSUSEDM. Registers <u>PSUSEDK</u> and PSUSEDM include all types of program store and fluctuate depending on activities. Differences in the value of available program use occur when the user loads or unloads modules or applies patches.

The user should view <u>PSUSEDK</u> with PSUSEDM to determine the amount of memory available for program store.

Registers <u>PSUSEDK</u> and PSUSEDM reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Program store used in megabytes = PSUSEDM + (PSUSEDK ³ 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPAREKB

Register type

Peg

Description

Spare memory in kilobytes (SPAREKB)

The value in SPAREKB represents the memory in kilobytes and megabytes in <u>SPAREMB</u> available in additional memory cards on a SuperNode. The store allocator does not access the additional memory cards. The system can use the additional memory cards during a shortage.

The register is set to zero for an NT40.

The user must view SPAREKB with <u>SPAREMB</u> to determine the total amount of memory available for data store.

Register SPAREKB and <u>SPAREMB</u> reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Spare memory in kilobytes = SPAREKB + (SPAREMB x 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SPAREMB

Register type

Peg

Description

Spare memory in megabytes (SPAREMB)

The value in SPAREMB represents the memory in megabytes and kilobytes in <u>SPAREKB</u> available in additional memory cards on a SuperNode. The store allocator does not access the additional memory cards. The system can use the additional memory cards during a shortage.

The register is set to zero for an NT40.

The user must view SPAREMB with <u>SPAREKB</u> to determine the memory available for data store. Register SPAREMB and <u>SPAREKB</u> reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Spare memory in megabytes = SPAREMB + (SPAREKB 3 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TOTALKB

Register type

Peg

Description

Total memory in kilobytes (TOTALKB)

The value in TOTALKB represents the kilobytes of addressable physical memory available to the SOS store allocator. The value in TOTALKB also represents the number of megabytes available in TOTALMB. The addressable memory available to the SOS store allocator equals the sum of TOTALKB and TOTALMB. The total does not include spare memory.

The user must view TOTALKB with <u>TOTALMB</u> to determine the total amount of addressable memory available to the SOS store allocator.

Registers TOTALKB and <u>TOTALMB</u> reflect current provisioning only. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Total addressable physical memory available to SOS store allocator in kilobytes = TOTALKB + (TOTALMB x 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TOTALMB

Register type

Peg

Description

Total memory in megabytes (TOTALMB)

The value in TOTALMB represents the megabytes of addressable memory available to the SOS store allocator. The value in TOTALMB also represents the number of kilobytes available in TOTALKB. The addressable memory available to the SOS store allocator equals the sum of TOTALKB and TOTALMB. The total does not include spare memory.

The user must view TOTALMB with <u>TOTALKB</u> to determine the addressable physical memory available to the SOS store allocator.

Registers TOTALMB and <u>TOTALKB</u> reflect current supply. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Associated registers

Total addressable physical memory available to SOS store allocator in megabytes = TOTALMB + (TOTALKB ³ 1024)

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SVCT

Description

Service circuits (SVCT)

The OM group SVCT provides information on service circuits. Five peg registers count:

- seized service circuits
- attempts to place calls on a wait queue
- calls on a wait queue
- calls that cannot be placed on a wait queue
- calls that are abandoned while on a wait queue

The usage registers record the number of service circuits that are:

- busy servicing calls
- system busy
- manual busy

The data that the SVCT supplies are used to monitor the data supply. The data are also used to determine if there are enough circuits to meet the demand.

The Feature Processing Environment (FPE) does not support queuing of calls when the following conditions apply:

- a call is a feature call
- FPE implements the feature
- all SVDTMF sender parts are busy

If the system uses SVDTMF (digitone outpulsing circuits), the call is not put in a wait queue until an SVDTMF is available. In this condition, register SVCOVFL in OM group SVCT increases, but registers SVCQOCC, SVCQOVFL, SVCQABAN do not increase.

The OM group SVCT provides one tuple for each key The following table lists the key and info fields associated with OM group SVCT.

Key field	Info field
COMMON_LANGUAGE_NAME is the CLLI used to define the service circuit type in table SVRCKT. The three possible values are:	SVCT_INFO is the number of service circuits of a specific type that are available for servicing calls.
SVDTMF (Digitone outpulsing circuit)	
SVMFC (R2 inter-register signaling circuit)	
SVOBSV (service observing circuit)	

The system goes to Table SVRCKT for each service circuit that the SVCT monitors.

Related functional groups

The associated functional groups for OM group SVCT are:

- DMS-100 Local
- DMS International
- DMS-250
- DMS-300
- DMS-MTX

Registers

The following table lists the registers associated with OM group SVCT and what they measure. For a description of a register, click on the register name.

Registers for OM group SVCT

Register name	Measures
SVCMBU	Service circuit manual busy usage
SVCOVFL	Service circuit overflow
SVCQABAN	Service circuit queue abandon

Registers for OM group SVCT

Register name	Measures
SVCQOCC	Service circuit queue occupancy
SVCQOVFL	Service circuit queue overflow
<u>SVCSBU</u>	Service circuit system busy usage
<u>SVCSZRS</u>	Service circuit seizures
<u>SVCTRU</u>	Service circuit traffic usage

SVCMBU

Register type

Usage

Description

Service circuit manual busy usage (SVCMBU).

Register SVCMBU is a usage register. The scan rate is 10 s. Register SVCMBU records if service circuits are manually busy.

Associated registers

Register **SVCSBU** records if service circuits are system busy.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SVCOVFL

Register type

Peg

Description

Service circuit overflow (SVCOVFL)

Register SVCOVFL counts attempts to place calls on a service circuit wait queue. The system places calls on a service circuit wait queue when all service circuits are in use.

Associated registers

Register SVCQOCC counts calls that the system places on the service circuit wait queue.

Registers SVCT_SVCQOCC = SVCT_SVCOVFL - SVCT_SVCQOVFL.

Register <u>SVCQOVFL</u> counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Register <u>SVCQABAN</u> increases when the originator of a call goes on hook before a circuit becomes available. The system places the call on a service circuit wait queue.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SVCQABAN

Register type

Peg

Description

Service circuit queue abandon (SVCQABAN)

Register SVCQABAN increases when the originator of a call goes on hook before a circuit becomes available. The system places the call on a service circuit wait queue.

Associated registers

Register <u>SVCOVFL</u> counts attempts to place calls on a service circuit wait queue.

Register <u>SVCQOCC</u> counts calls that the system places on the service circuit wait queue.

Register <u>SVCQOVFL</u> counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Registers SVCT_SVCQOCC = SBCT_SVCOVFL - SVCT_SVCQOVFL

Extension registers

There are no extension registers.

Associated logs

The system generates LINE108 when the system cannot determine problems during the reception of Digitone signals that are incoming on a line.

The system generates TRK182 when the system cannot determine the call destination on an incoming trunk call. The system cannot determine the call because problems are present during Digitone reception.

SVCQOCC

Register type

Peg

Description

Service circuit queue occupancy (SVCQOCC)

Register SVCQOCC counts calls that the system places on the service circuit wait queue.

Associated registers

Register SVCOVFL counts attempts to place calls on a service circuit wait queue.

Registers <u>SVCQOVFL</u> counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Register <u>SVCQABAN</u> increases when the originator of a call goes on hook before a circuit becomes available. The system placed the call on a service circuit wait queue.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SVCQOVFL

Register type

Peg

Description

Service circuit queue overflow (SVCQOVFL)

Register SVCQOVFL counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Associated registers

Register <u>SVCOVFL</u> counts attempts to place calls on a service circuit wait queue.

Register <u>SVCQOCC</u> counts calls that the system places on the service circuit wait queue. SVCT_SVCQOCC = SVCT_SVCOVFL - SVCT_SVCQOVFL.

Register <u>SVCQABAN</u> increases when the originator of a call goes on hook before a circuit becomes available. The system places the call on a service circuit wait queue.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SVCSBU

Register type

Usage

Description

Service circuit system busy usage (SVCSBU)

Register SVCSBU is a usage register. The scan rate is 10 s. Register SVCSBU records if service circuits are system busy, or in the INI state.

Associated registers

Register **SVCMBU** records if service circuits are manually busy.

Extension registers

There are no extension registers.

Associated logs

The system generates TRK106 when trunk equipment fails a diagnostic test.

SVCSZRS

Register type

Peg

Description

Service circuit seizures (SVCSZRS) Register SVCSZRS increases when the system seizes a service circuit for use by a call.

Associated registers

There are no associated registers.

Extension registers

SVCSZ2

Associated logs

There are no associated logs.

SVCTRU

Register type

Usage

Description

Service circuit traffic usage (SVCTRU)

Register SVCTRU is a usage register. The scan rate is 10 s. Register SVCTRU circuits service calls.

Associated registers

There are no associated registers.

Extension registers

SVCTRU2

Associated logs

There are no associated logs.

SyncSystem

Description

The SyncSystem OM group tracks the processing of synchronization checkpoints between two synchronization peers. One peer is the checkpoint sender containing information to be checkpointed. The other is the checkpoint receiver requesting that information in order to be able to replicate the relevant state of the sender. Each peer group is collectively known as a "Sync System", Examples of a sync system include:

- The two network element instances in a fault tolerant pair. The checkpoint sender is the active instance and the checkpoint receiver is the synchronizing/hotStandby instance. The checkpoints contain call information.
- A network element instance and the fault processing manager (SM or FPM) to which the instance's alarms are sent. The checkpoint sender is the network element instance, and the checkpoint receiver the fault processing manager. The checkpoints contain alarm information.

Each sync system has two rows, one corresponding to the sender and the other to the receiver, only one of which is used at a given point in time depending on the role of the network element (i.e. sender or receiver) in the sync system. The rows follow this naming convention:

- "<SyncSystemName>:send" for the sender row. For example "FaultTolerance:send".
- "<SyncSystemName>:recv" for the sender row. For example "FaultTolerance:recv".

The following table lists the key and info fields associated with OM group SyncSystem.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group SyncSystem:

All MCS network elements

Registers

The following table lists the registers associated with OM group SyncSystem and what they measure. For a description of a register, click on the register name.

Registers for OM group SyncSystem

Register name	Measures
checkpointGenerators	checkpoint generators
<u>checkpointsSent</u>	checkpoints sent
receiverLag	receiver lag
processedLag	processed lag

checkpointGenerators

Register type

Usage

Scan rate

Description

Number of entities capable of generating checkpoints.

checkpointsSent

Register type

Peg

Description

Number of checkpoints sent.

receiverLag

Register type

Usage

Scan rate

Description

Measure of how far behind the checkpoint receiver is receiving checkpoints relative to how quickly the checkpoint sender is sending them.

processedLag

Register type

Usage

Scan rate

Description

Measure of how far behind the checkpoint receiver is processing checkpoints relative to how quickly it's receiving them.

SYSPERF

Description

System performance (SYSPERF)

The OM group SYSPERF measures the performance of lines and trunks.

Four registers count the following:

- incoming call attempts that fail because of inpulsing failure
- established calls cut off caused by to loss of speech path accuracy through the switch
- calls that fail to terminate on a line
- originating call attempts that fail because of dialing irregularities

Three usage registers record if trunks in the peripheral are busy or carrier failed. The registers also record if lines are in the module busy, manual busy, seized, interruption, system busy, and deloaded states.

The OM group SYSPERF provides one tuple for each office. The following table lists the key and info fields associated with OM group SYSPERF.

Key field	Info field
none	none

The office parameter OFFICETYPE in table OFCSTD specifies the type of office. The value of OFFICETYPE controls the output of the system performance group SYSPERF.

The correct entries for OFFICETYPE are

- OFF100 (Local)
- OFF100G (Global)
- OFFCOMB (Combined local/toll)
- OFFCOMBLWW (Combined local/toll with wireless)
- OFFCOMBTOPS (Combined local/toll with TOPS)
- OFF200 (Toll)
- OFF200TOPS (Toll with TOPS)
- OFF200300 (Combined Gateway/toll)

- OFF300 (Gateway)
- OFF250 (DMS250)
- OFF250IBN (DMS250/SL-100)
- OFF100OESD (Austrian local)
- OFF200OESD (Austrian toll)
- OFFCOMBOESD (Austrian combined local/toll)

The following registers are output in offices where OFFICETYPE is: OFF100, OFF100G, OFFCOMB, OFFCOMBLWW, OFFCOMBTOPS, OFF100SCP, OFF250IBN, OFF100OESD, or OFFCOMBOESD. The registers appear at the MAP terminal as follows:

- TKPCBU
- TKBADDG
- CINTEGFL
- LINPMBU
- LINCCTBU
- TRMLNFL
- LINBADDG

The following registers are output in offices where OFFICETYPE is: OFF200, OFF200TOPS, OFF200300, OFF300, OFF250, or OFF200OEDS. The registers appear at the MAP terminal as follows:

- TKPCBU
- TKBADDG
- CINTEGFL

Related functional groups

The following associated functional groups are for OM group SYSPERF:

- OFF100 Local
- OFF100G Global
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with TOPS
- OFF200 Toll
- OFF200 TOPS Toll with TOPS

- OFF200 300 Combined Gateway/toll
- OFF300 Gateway
- OFF250 DMS250
- OFF250IBN DMS250/SL-100
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll

Registers

The following table lists the registers associated with OM group SYSPERF and what they measure. For a description of a register, click on the register name.

Registers for OM group SYSPERF

Register name	Measures
CINTEGFL	Integrity failure
LINBADDG	Line dialing irregularities
LINCCTBU	Line circuit busy usage
<u>LINPMBU</u>	Line peripheral manual busy usage
TKBADDG	Signaling irregularities
<u>TKPCBU</u>	Trunk peripheral or carrier busy usage
TRMLNFL	Terminating line failures

CINTEGFL

Register type

Peg

Description

Integrity failure (CINTEGFL)

Register CINTEGFL counts established calls that are cut off. The calls are cut off because of loss of speech path accuracy through the switch.

Established calls include:

- calls that ring or await an answer
- calls connected to announcements, special tones, conference circuits, test lines, and operator positions

The system must observe the loss of accuracy at the following: a line, a trunk, a conference port, or a operator position. As a result, some cut off calls that use attendant consoles cannot be counted.

Register CINTEGFL is output for all correct office types.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates LINE104 when the system encounters trouble during call processing. If the trouble interrupts a call in progress, the DMS routes the call to a treatment. The system generates log LINE138 and identifies the treatment applied to the line.

The system generates TRK113 when the system encounters trouble during processing of a trunk-to-trunk call.

The system generates TOPS102 when a message arrives that is not expected. This arrival forces the TOPS position to become system busy.

LINBADDG

Register type

Peg

Description

Line dialing irregularities (LINBADDG)

Register LINBADDG counts originating calls that fail because of dialing irregularities like the following:

- additional pulse
- mutilated digits
- noise
- garbled messages from key sets

The system routes calls to reorder treatment.

Register LINBADDG is output for office types OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates LINE105 when the system encounters a problem during call processing. When trouble interrupts a call in progress, DMS routes the call to a treatment and generates LINE138. Log LINE138 identifies the treatment applied to the line.

The system generates LINE106 when the system cannot determine the call destination during dial pulse reception on a line. When trouble interrupts a call in progress, the DMS routes the call to a treatment, and generates LINE138. Log LINE138 identifies the treatment applied to the line.

LINCCTBU

Register type

Peg

Description

Line circuit busy usage (LINCCTBU)

Register LINCCTBU records if lines are manually busy, seized, cut off, system busy, or deloaded.

Lines can be busied in preparation for work on peripheral module drawers, and on individual line cards. For this reason, LINCCTBU is not completely a measure of line circuit performance.

Register LINCCTBU is output for office types: OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Associated registers

Registers OFZ_LMNBPC counts lines made manually busy.

The average duration of lines in the manually busy state =

SYSPERF_LINCCTBU

OFZ_LNMBPC

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

LINPMBU

Register type

Usage

Description

Line peripheral manual busy usage (LINPMBU)

Register LINPMBU is a usage register. The scan rate is 100 s. Register LINPMBU records if lines are in the line module busy (LMB) state. The lines are not available to originate or terminate calls. The lines are not available because a serving peripheral module is manually busy, system busy, or C-side busy.

Register LINPMBU is output for office types OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TKBADDG

Register type

Peg

Description

Signaling irregularities (TKBADDG)

Register TKBADDG counts incoming calls that fail because of signaling irregularities like additional pulse, mutilated digits, or noise. The system routes the calls to reorder treatment.

Register TKBADDG increases for automatic number identification (ANI) inpulsing failures.

Register TKBADDG is output for all correct office types.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

The system generates TRK114 when the system cannot determine the call destination during dial pulse (DP) reception. The system determines the call destination for an incoming call over a trunk.

The system generates TRK116 when the system cannot determine the call destination during multi-frequency (MF) reception. The system determines the call destination for an incoming call over a trunk.

The system generates TRK118 when the system encounters trouble during ANI spill for an incoming call over a trunk. The system cannot determine the call origination address.

The system generates TRK182 when the system encounters trouble during digitone reception for an incoming call over a trunk. The system cannot determine the call destination.

TKPCBU

Register type

Peg

Description

Trunk peripheral or carrier busy usage (TKPCBU)

Register TKPCBU is a usage register. The scan rate is 100 s. Register TKPCBU records if a trunk in the peripheral is in the made busy or carrier failed states.

Register TKPCBU is output for all correct office types.

Associated registers

Register TRK_SBU records the number of trunks in one of the following states:

- remote busy
- peripheral module busy

640

- system busy
- carrier fail
- deloaded

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TRMLNFL

Register type

Peg

Description

Terminating line failures (TRMLNFL)

Register TRMLNFL counts calls that fail to terminate on a line. The calls fail to terminate because the line is line module busy, manual busy, seized, cut off, system busy, or deloaded.

The system routes calls that increase TRMLNFL to system failure or busy treatment, unless the calls are hunt group members.

Register TRMLNFL is output for office types OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Associated registers

Register LINPMBU records the number of lines in the line module busy (LMB) state.

Register LINCCTBU records if the line is manually busy, seized, cut off, system busy, or deloaded.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TC7WRLSS

Description

OM group Traffic Operator Position System (TOPS) - Common Channel Signaling System 7 - Wireless (TC7WRLSS) measures transport-level events such as types of TCAP messages sent and received, and SS7 errors on TOPS wireless calls. The group measures events for:

- Short Message Service (SMS)
- Wireless Intelligent Network (WIN)
- Interim Standard 41 (IS-41)
- global system for mobile communications (GSM)

These events were previously recorded in OM group IS41TOPS, which is deleted in SN07. For details, refer to the section for OM group IS41TOPS.

The following table lists the key and info fields associated with OM group TC7WRLSS. The group provides one tuple for each combination of wireless network type and TOPS wireless application.

Key field	Info field
SMS_IS41, SMS_GSM WIN_IS41, WIN_GSM	None

Related functional groups

There are no functional groups associated with OM group TC7WRLSS.

Registers

The following table lists the registers associated with OM group TC7WRLSS and what they measure. For a description of a register, click on the register name.

Registers for OM group TC7WRLSS (Sheet 1 of 2)

Register name	Measures
<u>ABORTR</u>	Abort received
<u>ABORTS</u>	Abort sent
GTTFAIL	Global title translation failure

Registers for OM group TC7WRLSS (Sheet 2 of 2)

Register name	Measures
INVOKER	INVOKE received
INVOKES	INVOKE sent
MBFULL	Mailbox full
<u>NOTRIDS</u>	No transaction identifiers
REJECTR	REJECT received
<u>REJECTS</u>	REJECT sent
RETERRR	RETURN ERROR received
RETERRS	RETURN ERROR sent
RETRESR	RETURN RESULT received
<u>RETRESS</u>	RETURN RESULT sent
RTFMISCE	SCCP routing failure: miscellaneous error
RTFNETCG	SCCP routing failure: network congestion
RTFNETFL	SCCP routing failure: network failure
RTFNOXLA	SCCP routing failure: no translation of this nature
RTFNOXLS	SCCP routing failure: no translation for this specific address
RTFSUBCG	SCCP routing failure: subsystem congestion
RTFSUBFL	SCCP routing failure: subsystem failure
RTFUNEQ	SCCP routing failure: unequipped user

For SMS TOPS calls:

- <u>INVOKES</u> pegs when TOPS sends a short message into the SS7 network.
- <u>RETRESR</u> pegs when TOPS receives a positive or negative acknowledgement from the message center (MC). Registers in OM

group SMSTOPS count SMS failures. For more information about specific TOPS SMS events, refer to <u>SMSTOPS</u>.

 Registers <u>GTTFAIL</u> and <u>NOTRIDS</u> are pegged when SMS messages are not being sent because of failure at TOPS. Route failure (RTF) registers are pegged when failures occur in the SS7 network before the SMS arrives at the MC.

For WIN TOPS calls:

- A successful call pegs only <u>INVOKES</u>, <u>INVOKER</u>, and <u>RETRESS</u>.
- GTTFAIL and NOTRIDS are pegged when WIN TOPS messages are being sent because of failure at TOPS. RTF registers are pegged when failures occur in the SS7 network before the TOPS message arrives at the MSC.

ABORTR

Register type

Peg

Description

ABORTR increments when TOPS receives a TCAP ABORT.

Associated registers

None

Extension registers

None

Associated logs

TCAP100, TOPS131

ABORTS

Register type

Peg

Description

ABORTS increments when TOPS sends a TCAP ABORT.

Associated registers

None

Extension registers

None

Associated logs

TCAP100

GTTFAIL

Register type

Peg

Description

GTTFAIL increments when TOPS cannot look up GTT information for a destination number. GTT information is datafilled in tables C7GTTYPE and C7GTT. When TOPS cannot obtain the information, it cannot send the SMS into the network. The operator or automated node receives a failure indication. A TOPS131 log is generated containing the destination number that caused the failure. Table C7GTT must be updated to include the destination number.

Associated registers

None

Extension registers

None

Associated logs

TOPS131 containing the destination number that caused the failure.

INVOKER

Register type

Peg

Description

INVOKER increments when TOPS receives a TCAP INVOKE.

Associated registers

None

Extension registers

INVOKER2

Associated logs

None

INVOKES

Register type

Peg

Description

INVOKES increments when TOPS sends a TCAP INVOKE.

Associated registers

None

Extension registers

INVOKES2

Associated logs

None

MBFULL

Register type

Peg

Description

MBFULL increments when a TOPS IS-41 or GSM TCAP message arrives at the TOPS service control point (SCP) interrupt handler but cannot be sent to the TOPS SCP because of a heavy switch load. This indicates that TOPS is receiving more IS-41 or GSM traffic than it can handle. On wireless directory assistance (DA) calls, the incoming message is ignored and routes to treatment in the MSC.

Note: It is not anticipated that TOPS IS-41 or GSM messaging will ever be high enough to peg MBFULL. If the register is pegged, contact Nortel Networks to increase the number of internal mailboxes available to the TOPS is-41 SCP application.

Associated registers

None

Extension registers

None

Associated logs

None. Log generation when the mailbox is full would further degrade switch performance.

NOTRIDS

Register type

Peg

Description

NOTRIDS increments when TOPS attempts to send an IS-41 or GSM TCAP message but cannot because no transaction identifiers (TRIDS)

are available. Each TCAP operation requires a TRID to process a response. The switch automatically allocates TRIDS.

Note: The switch automatically allocates TRIDS. If NOTRIDS is pegged, contact Nortel Networks.

Associated registers

None

Extension registers

None

Associated logs

TOPS131

REJECTR

Register type

Peg

Description

REJECTR increments when TOPS receives a TCAP REJECT from the MSC or MC, which indicates that a problem with the TCAP message sent by TOPS. Contact Nortel Networks.

Associated registers

None

Extension registers

None

Associated logs

TCAP100

REJECTS

Register type

Peg

Description

REJECTS increments when TOPS sends a TCAP REJECT to the MSC, which indicates a problem with the TCAP message sent by the MSC. Contact the MSC vendor.

Associated registers

None

Extension registers

None

Associated logs

TCAP100

RETERRR

Register type

Peg

Description

RETERRR increments when TOPS receives a TCAP RETURN ERROR from the MSC, which could indicate a problem on the MSC or TOPS switches. Logs at both switches should be investigated.

Associated registers

None

Extension registers

None

Associated logs

TCAP100

RETERRS

Register type

Peg

Description

RETERRS increments when TOPS sends a TCAP RETURN ERROR to the MSC, which could indicate a problem on the MSC or TOPS switches. Logs at both switches should be investigated.

Associated registers

None

Extension registers

None

Associated logs

TCAP100

RETRESR

Register type

Peg

Description

RETRESR increments when TOPS receives a TCAP RETURN RESULT from the MC.

Associated registers

None

Extension registers

RETRESR2

Associated logs

None

RETRESS

Register type

Peg

Description

RETRESS increments when TOPS sends a TCAP RETURN RESULT to the MSC.

Associated registers

None

Extension registers

RETRESS2

Associated logs

None

RTFMISCE

Register type

Peg

Description

RTFMISCE increments when the TOPS IS-41 SCP process receives a UDTS message containing a diagnostic value other than the diagnostic values provided by <a href="https://receives.ncbi.nlm.ncbi.n

Associated registers

None

Extension registers

None

Associated logs

TCAP101 containing the incoming unitdata service (UDTS) message

RTFNETCG

Register type

Peg

Description

RTFNETCG increments when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic that indicates network congestion.

Associated registers

None

Extension registers

None

Associated logs

TCAP101 containing the incoming UDTS message

RTFNETFL

Register type

Peg

Description

RTFNETFL increments when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic that indicates network failure.

Associated registers

None

Extension registers

None

Associated logs

TCAP101 containing the incoming UDTS message

RTFNOXLA

Register type

Peg

Description

RTFNOXLA increments when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic that indicates *no translation of such nature*.

Associated registers

None

Extension registers

None

Associated logs

TCAP101 containing the incoming UDTS message

RTFNOXLS

Register type

Peg

Description

RTFNOXLS increments when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic that indicates *no translation for this specific address*.

Associated registers

None

Extension registers

None

Associated logs

TCAP101 containing the incoming UDTS message

RTFSUBCG

Register type

Peg

Description

RTFSUBCG increments when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic that indicates subsystem congestion.

Associated registers

None

Extension registers

Associated logs

TCAP101 containing the incoming UDTS message

RTFSUBFL

Register type

Peg

Description

RTFSUBFL increments when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic that indicates subsystem failure.

Associated registers

None

Extension registers

None

Associated logs

TCAP101 containing the incoming UDTS message

RTFUNEQ

Register type

Peg

Description

RTFUNEQ increments when the TOPS IS-41 or GSM SCP process receives a UDTS message containing a diagnostic that indicates unequipped user.

Associated registers

None

Extension registers

None

Associated logs

TCAP101 containing the incoming UDTS message

TCAPERRS

Description

OM group Transaction Capabilities Application Part Error Counts (TCAPERRS) counts protocol errors the system detects by the transaction capabilities application part (TCAP) for each subsystem.

The TCAP provides a common protocol to format messages, content rules, and exchange procedures across the Common Channel Signaling 7 (CCS7) network. Application processes like the Enhanced 800 Service (E800), which performs operations on remote network nodes, use TCAP.

The TCAP messages are constructed with data elements. Each data element consists of three parts: identifier, length of contents, and content. The TCAP message identifier identifies the TCAP message. The TCAP message identifier contains the information that identifies the transaction. The transaction is the transaction part of the TCAP message. In ANSI, the TCAP message identifier is the package type identifier. In ITV, the TCAP message identifier is the message type identifier.

The TCAP message consists of three layers. The transaction layer associates the message with a unique transaction. The dialogue layer facilitates the dialogue information exchange. The component layer consists of minimum of one TCAP component. There are four types of TCAP components, as follows:

- invoke components initiate an operation on a remote node
- result components report the successful completion of an invoked operation
- error components report attempts to perform an invoked operation, that are not successful
- reject components reject the transaction

Two types of errors can occur within the component portion: message format errors and state change errors. Format errors include data values that are not recognized, and data that is not correct or missing. Format errors can also include data that is not reflected. State change errors include messages that do not conform to normal state changes. When the system detects a format error or state change error, TCAP rejects the message. The system sends a reject component to the message originator.

The OM group TCAPERRS registers are grouped into the following allocations and components:

- The transaction allocation registers are TCTPEUPT, TCTPEITP, TCTPESTP, and TCTPEUTI.
- The communication allocation registers are TCDPEUID, TCDPEBDP, TCDPEMDP, and TCDPEIDP.
- The component portion registers are TCCPEUCT, TCCPEICP, and TCCPESCP.
- The invoke component registers are TCICEDII, TCICEUOC, TCICEUXP, and TCICEUCI.
- The return result component registers are TCRCEUCI, TCRCEXRR, and TCRCEUXP.
- The return error component registers are TCECEUCI, TCECEXEC, TCECEUPC, TCECEXPC, and TCECEIP.

The following table lists the key and info fields associated with OM group TCAPERRS.

Key field	Info field
(C7_SUBSYSTEM_NAME) for each tuple is the subsystem name: one of TUP, ISDNUP, OAM, E800, ACCS, N00, TCN, BNS, SCPE800, SCPACCS, SCPBNS, AUTHSS, ACCTSS, CMS-Canada only, PVN, NETRAG, CLASS, INTERWRK, MAPMSC, MAPLR, NMS, DOC, LEC, MAPMTX, GF0-GF9, GFNTEST, HLRMTX, VLRMTX, MSCMTX, NCS800, NCS900, and NCSCC.	None

Related functional groups

The following functional groups are associated with OM group TCAPERRS:

- Automatic Calling Card Service (ACCS)
- Common Calling Signaling 7 (CCS7)
- Enhanced 800 Service (E800)

Registers

The following table lists the registers associated with OM group TCAPERRS and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TCAPERRS (Sheet 1 of 2)

Register name	Measures
TCCPEICP	TCAP component portion error wrong component portion
TCCPESCP	TCAP component portion error badly structured component portion
TCCPEUCT	System card TCAP component portion error unrecognized component type
TCDPEBDP	TCAP communication allocations error: bad dialogue portions
TCDPEIDP	TCAP communication allocation error: inconsistent dialogue portions
TCDPEMPD	TCAP communication allocation error: dialogue portions with missing mandatory parts
TCDPEUID	TCAP dialogue portion error: bad dialogue portion identifiers
TCECEIP	TCAP return error component error incorrect parameter
TCECEUCI	TCAP return error component error unrecognized correlation identification
TCECEUPC	TCAP return error component error unrecognized problem code
TCECEXEC	TCAP return error component error unexpected return error component
TCECEXPC	TCAP return error component error not planned problem code
TCICEDII	TCAP invoke component error duplicate invoke identification

Registers for OM group TCAPERRS (Sheet 2 of 2)

Register name	Measures
TCICEUCI	TCAP invoke component error unrecognized correlation identification
TCICEUOC	TCAP invoke component error unrecognized operation code
TCICEUXP	TCAP invoke component error not defined or not planned parameter
TCRCEUCI	TCAP return result component error unrecognized correlation identification
TCRCEUXP	TCAP return result component error not defined or not planned parameter
TCRCEXRR	TCAP return result component error unexpected return result
TCTPEITP	TCAP transaction portion error incorrect transaction portion
TCTPESTP	TCAP transaction portion error incorrectly structured transaction portion
TCTPEUPT	TCAP transaction portion error unrecognized package type
TCTPEUTI	TCAP transaction allocation error unrecognized transaction identification

TCCPEICP

Register type

Peg

Description

TCCPEICP counts received components that contain an identifier that is not correct.

Associated registers

None

Extension registers

None

Associated logs

None

TCCPESCP

Register type

Peg

Description

TCCPESCP counts components that the system receives that contain a dangerous coding problem, for example a length that is not correct.

Associated registers

None

Extension registers

None

Associated logs

TCCPEUCT

Register type

Peg

Description

TCCPEUCT counts messages that the system receives that contain a wrong component type.

Associated registers

None

Extension registers

None

Associated logs

None

TCDPEBDP

Register type

Peg

Description

TCDPEBDP counts incoming messages that contain bad dialogue portions.

Associated registers

None

Extension registers

None

Associated logs

TCDPEIDP

Register type

Peg

Description

TCDPEIDP counts incoming messages that contain dialogue portions that are not consistent.

Associated registers

None

Extension registers

None

Associated logs

None

TCDPEMPD

Register type

Peg

Description

TCDPEMPD counts incoming messages that contain dialogue portions that are missing required information.

Associated registers

None

Extension registers

None

Associated logs

TCDPEUID

Register type

Peg

Description

TCDPEUID counts incoming TCAP messages that contain bad dialogue portion IDs.

Associated registers

None

Extension registers

None

Associated logs

None

TCECEIP

Register type

Peg

Description

TCECEIP counts return error components that contain a parameter that is not correct.

Associated registers

None

Extension registers

None

Associated logs

TCECEUCI

Register type

Peg

Description

TCECEUCI counts return error components that contain a correlation identification that does not reflect an operation in progress.

Associated registers

None

Extension registers

None

Associated logs

None

TCECEUPC

Register type

Peg

Description

TCECEUPC counts return error components that contain a problem code that is not correct.

Associated registers

None

Extension registers

None

Associated logs

TCECEXEC

Register type

Peg

Description

TCECEXEC counts return error components that do not report failure of the invoked operation.

Associated registers

None

Extension registers

None

Associated logs

None

TCECEXPC

Register type

Peg

Description

TCECEXPC counts return error components that contain a problem code that is not applicable to the invoked operation.

Associated registers

None

Extension registers

None

Associated logs

TCICEDII

Register type

Peg

Description

TCICEDII counts invoke components that contain an invoke identification that the system assigns to another operation in progress.

Associated registers

None

Extension registers

None

Associated logs

None

TCICEUCI

Register type

Peg

Description

TCICEUCI counts invoke components that contain a correlation identification that does not reflect an operation in progress.

Associated registers

None

Extension registers

None

Associated logs

TCICEUOC

Register type

Peg

Description

TCICEUOC counts invoke components that contain an operation code that is not correct.

Associated registers

None

Extension registers

None

Associated logs

None

TCICEUXP

Register type

Peg

Description

TCICEUXP counts invoke components that contain a parameter that is not correct.

Associated registers

None

Extension registers

None

Associated logs

TCRCEUCI

Register type

Usage

Description

TCRCEUCI counts return result components that contain a correlation identification that does not indicate an operation in progress.

Associated registers

None

Extension registers

None

Associated logs

None

TCRCEUXP

Register type

Peg

Description

TCRCEUXP counts return result components that contain a parameter that is not correct.

Associated registers

None

Extension registers

None

Associated logs

TCRCEXRR

Register type

Peg

Description

TCRCEXRR counts return result components that occur in response to invoked operations that did not require a return result component.

Associated registers

None

Extension registers

None

Associated logs

None

TCTPEITP

Register type

Peg

Description

TCTPEITP counts received messages that contain an identifier that is not correct in the transaction portion.

Associated registers

None

Extension registers

None

Associated logs

TCTPESTP

Register type

Peg

Description

TCTPESTP counts received messages that have an encoding problem in the transaction portion, for example, a length that is not correct.

Associated registers

None

Extension registers

None

Associated logs

None

TCTPEUPT

Register type

Peg

Description

TCTPEUPT counts received messages that contain package types that are not correct.

Associated registers

None

Extension registers

None

Associated logs

TCTPEUTI

Register type

Peg

Description

TCTPEUTI counts received messages that contain a transaction identification that is not correct.

Associated registers

None

Extension registers

None

Associated logs

TCAPUSAG

Description

OM group Transaction Capabilities Application Part Usage Measurements (TCAPUSAG) records the use of the transaction capabilities application part (TCAP) for each subsystem. Examples of transaction capabilities are: messages, transactions and components.

The TCAP provides a common protocol for message formats, content rules, and exchange procedures across the Common Channel Signaling 7 (CCS7) network. Application processes like the Enhanced 800 Service (E800), which performs operations on remote network nodes, use the TCAP.

The TCAP messages are constructed with data elements. Each data element consists of three parts: identifier, length of contents, and content. The TCAP message identifier is the package type identifier. The package type identifier identifies the TCAP message and contains the information that identifies the transaction. The transaction is the transaction part of the TCAP message.

The TCAP message contents field can have up to three data elements:

- transaction identification, which is needed to associate the message with a unique transaction
- dialogue portions which the system uses to facilitate dialogue information exchange
- data element, which contains a minimum of one component

The component portion of a message consists of a sequence of a minimum of one TCAP component. There are four TCAP components:

- invoke components initiate an operation on a remote node
- result components report the successful completion of an invoked operation
- error components report attempts to invoke operations, that are not successful
- reject components reject the transaction

The following table lists the key and info fields associated with OM group TCAPUSAG.

Key field	Info field
(C7_SUBSYSTEM_NAME) for each tuple is the subsystem name: one of TUP, ISDNUP, OAM, E800, ACCS, N00, TCN, BNS, SCPE800, SCPACCS, SCPBNS, AUTHSS, ACCTSS, CMS-Canada only, PVN, NETRAG, CLASS, INTERWRK, MAPMSC, MAPLR, NMS, DOC, LEC, MAPMTX, GF0-GF9, GFNTEST, HLRMTX, VLRMTX, MSCMTX, NCS800, NCS900, and NCSCC.	None

Related functional groups

The following functional groups are associated with OM group TCAPUSAG:

- Automatic Calling Card Service (ACCS)
- Common Calling Signaling 7 (CCS7)
- Enhanced 800 Service (E800)

Registers

The following table lists the registers associated with OM group TCAPUSAG and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TCAPUSAG (Sheet 1 of 2)

Register name	Measures
TCABORT	Total number of TCAP messages sent or received with package type Abort
TCCNPERM	Total number of TCAP messages sent or received with package type Conversation Without Permission
TCCWPERM	Total number of TCAP messages sent or received with package type Conversation With Permission
TCDPUSE	Total number of TCAP messages sent or received that contain a dialogue position

Registers for OM group TCAPUSAG (Sheet 2 of 2)

Register name	Measures
TCFORCED	Total number of forced transmission terminations
TCINVKL	Total number of components sent or received of type Invoke Last
TCINVKNL	Total number of components sent or received of type Invoke Not Last
TCMSGIN	Total TCAP messages terminating at this node
TCMSGOUT	Total TCAP messages originating on this node
TCNORMAL	Total number of transactions terminated normally
TCQNPERM	Total number of TCAP message sent or received with package type Query Without Permission
TCQWPERM	Total number of TCAP messages sent or received with package type Query With Permission
TCREJECT	Total number of components sent or received of type Reject
TCRESPNS	Total number of TCAP messages sent or received with package type Response
TCRSLTL	Total number of components sent or received of type Return Result Last
TCRSLTNL	Total number of components sent or received of type Return Result Not Last
TCRTERR	Total number of components sent or received of type Return Error
<u>TCTRANS</u>	Total number of TCAP transactions
TCUNIDIR	Total number of TCAP messages sent or received with package type one directional

TCABORT

Register type

Peg

Description

TCABORT counts the TCAP messages sent or received that contain the package type Abort.

Associated registers

None

Extension registers

TCABORT2

Associated logs

None

TCCNPERM

Register type

Peg

Description

TCCNPERM counts the TCAP messages that the system sends or receives that contain the package type Conversation Without Permission. A message with this package type continues a transaction. The message informs the receiving node that the node cannot end the transaction normally. Each message contains one TCAP package. Conversation packages always associate with a transaction.

Associated registers

None

Extension registers

TCCNPER2

Associated logs

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TCCWPERM

Register type

Peg

Description

TCCWPERM counts TCAP messages that the system sends or receives that contain package type Conversation With Permission. A message with this package type continues a transaction. The message informs the receiving node that the node may end the transaction normally. Each message contains one TCAP package. Conversation packages always associate with a transaction.

Associated registers

None

Extension registers

TCCWPER2

Associated logs

None

TCDPUSE

Register type

Peg

Description

TCDPUSE counts incoming and outgoing TCAP messages that contain a dialogue portion.

Associated registers

None

Extension registers

TCDPUSE2

Associated logs

TCFORCED

Register type

Peg

Description

TCFORCED counts forced transmission terminations. A forced termination means that the remote node sent a response package without permission. A forced termination can also mean that the local application cancelled a transaction without permission.

Associated registers

None

Extension registers

None

Associated logs

None

TCINVKL

Register type

Peg

Description

TCINVKL counts Invoke Last components that the system sends or receives. An Invoke component initiates an operation on a remote node. Invoke Last indicates that additional replies do not follow. There can be several components in each package.

Associated registers

None

Extension registers

TCINVKL2

Associated logs

TCINVKNL

Register type

Peg

Description

TCINVKNL counts Invoke Not Last components that the system sends or receives. An Invoke component initiates an operation on a remote node. An Invoke Not Last component indicates that additional replies follow. There can be several components in each package.

Associated registers

None

Extension registers

TCINVKN2

Associated logs

None

TCMSGIN

Register type

Peg

Description

TCMSGIN counts the transactions that terminate at the remote network. The system can terminate a transaction without receiving a message. Not all received messages associate with a transaction.

Associated registers

None

Extension registers

TCMSGIN2

Associated logs

TCMSGOUT

Register type

Peg

Description

TCMSGOUT counts TCAP messages. Each transaction consists of a minimum of one message that the system sends to a remote network node. Not all sent messages associate with a transaction.

Associated registers

None

Extension registers

TCMGSOU2

Associated logs

None

TCNORMAL

Register type

Peg

Description

TCNORMAL counts transactions that terminate normally. A normal termination means that the remote node had permission to terminate and sent a response package. A normal termination also means the local application had permission and terminated the transaction.

Associated registers

None

Extension registers

None

Associated logs

TCQNPERM

Register type

Peg

Description

TCQNPERM counts TCAP messages that the system sends or receives, that have the package type Query Without Permission. This package type initiates a transaction and informs the destination node that the node may not terminate the transaction normally. Each message has one TCAP package. Outgoing query packages associate with a transaction. Incoming packages do not associate with a transaction.

Associated registers

None

Extension registers

None

Associated logs

None

TCQWPERM

Register type

Peg

Description

TCQWPERM counts TCAP messages that the system sends or receives, that have package type Query With Permission. This package type initiates a transaction and informs the destination node that the node can end the transaction normally. Each message contains one TCAP package. Outgoing query packages associate with a transaction. Incoming query packages do not associate with a transaction.

Associated registers

None

Extension registers

TCQWPER2

Associated logs

TCREJECT

Register type

Peg

Description

TCREJECT counts Reject components that the system sends or receives. The system sends the Reject component in reply to a message or component that contains a protocol error. There can be several components in each package.

Associated registers

None

Extension registers

TCREJEC2

Associated logs

None

TCRESPNS

Register type

Peg

Description

TCRESPNS counts TCAP messages that the system sends or receives that contain the package type Response. This package type ends the transaction normally. Each message contains one TCAP package. Response packages always associate with a transaction.

Associated registers

None

Extension registers

TCRESPN2

Associated logs

TCRSLTL

Register type

Peg

Description

TCRSLTL counts Return Result Last components that the system sends or receives. The system sends a Return Result component in reply to an Invoke component whose operation is completed. Return Result Last indicates that no additional result components follow.

Associated registers

None

Extension registers

TCRSLTL2

Associated logs

None

TCRSLTNL

Register type

Peg

Description

TCRSLTNL counts Return Result Not Last components that the system sends or receives. The system sends a result component in reply to an Invoke component whose operations complete. Return Result Not Last indicates that no additional replies follow.

Associated registers

None

Extension registers

TCRSLTN2

Associated logs

TCRTERR

Register type

Peg

Description

TCRTERR counts components of type Return Error that the system sends or receives. The system sends an error component in reply to an Invoke component that has an operation that failed. There can be several components in each package.

Associated registers

None

Extension registers

TCRTERR2

Associated logs

None

TCTRANS

Register type

Peg

Description

TCTRANS counts transactions that all applications initiate on this remote network node using the TCAP.

Associated registers

None

Extension registers

None

Associated logs

TCUNIDIR

Register type

Usage

Description

TCUNIDIR counts TCAP messages that the system sends or receives that contain a one directional package type. A message with a one directional package type flows in one direction only. Each message has one TCAP.

Associated registers

None

Extension registers

TCUNIDI2

Associated logs

TCW

Description

Talking Call Waiting

The TCW OM group provides information on the use of the TCW functionality. This group contains registers to measure specific occurrences during a TCW session, either in normal or error conditions.

The following table lists the key and info fields associated with OM group TCW.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TCW and what they measure. For a description of a register, click on the register name.

Registers for OM group TCW

Register name	Measures
TCWABN	Register Talking Call Waiting Abandon
TCWATT	Register Talking Call Waiting Attempts
TCWCON	Register Talking Call Waiting Connection
TCWDNERR	Register Talking Call Waiting Directory Number Error
TCWFLSH	Register Talking Call Waiting Flash
TCWT1	Register Talking Call Waiting Timer 1
TCWT2	Register Talking Call Waiting Timer 2

TCWABN

Register type

Peg

Description

Register Talking Call Waiting Abandon (TCWABDN)

The TCW service increments this register when the calling party hangs up after the TCW feature starts and before the TCW subscriber's terminating office receives the REL message from the SNs switching office.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TCWATT

Register type

Peg

Description

Register Talking Call Waiting Attempts (TCWATT)

The TCW service is a register which counts the activation attempts of the TCW feature. This register is incremented when an incoming call terminates on a TCW subscriber busy on a regular two party call and the TCW feature is activated.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TCWCON

Register type

Peg

Description

Register Talking Call Waiting Connection (TCWCON)

The TCW service increments this register when the TCW service connects a TCW subscriber to the Service Node (SN) to hear the alerting tone and audible name announcement.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TCWDNERR

Register type

Peg

Description

Register Talking Call Waiting Directory Number Error (TCWDNERR)

The TCW service increments this register when it is unable to complete a call to the SN DN due to an invalid DN, a treatment, or an unsupported agent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TCWFLSH

Register type

Peg

Description

Register Talking Call Waiting Flash (TCWFLSH)

The TCW service increments this register when TCW has been invoked on the call and the TCW subscriber performs a switch-hook flash.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TCWT1

Register type

Peg

Description

Register Talking Call Waiting Timer 1 (TCWT1)

The TCW service increments this register when the T1 timer expires.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TCWT2

Register type

Peg

Description

Register Talking Call Waiting Timer 2 (TCWT2)

The TCW service increments this register when the T2 timer expires.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TDCPROT

Description

TMS data channel X.25 Protocol (TDCPROT)

The OM group TDCPROT contains information about the X.25 protocol on the TOPS LTCI peripheral module (TMS) data channels in the D-channel handler.

The OM group TDCPROT contains 23 registers that count:

- initialization calls for a channel
- messages the system sends or receives with buffers too long for layer 1
- layer 1 messages the system transmits
- buffers that pass through the transmitter
- layer 1 messages with errors in transmission
- layer 1 messages the system receives
- buffers that pass through the receiver
- messages the system receives with frame check sequence errors
- messages the system partially receives and aborts
- the times the host cannot keep up with the chip receiver because not enough receive buffers are present
- layer 1 messages with errors in reception
- execution of the link set-up sequence
- link disconnect information frames the system sends and receives
- timeouts that occur before a remote responds
- information frames the system sends and receives
- information frames the system transmits again because the frames were not received correctly
- frame rejects information frames the system receives
- frame rejects information frames the system sends
- seconds that pass when the system tries to enable the link
- kbytes of data the system sends and receives
- timeouts that occur before a remote responds to a data packet

The system keeps counts in the TOPS LTCI peripheral module (TMS) and transfers the counts to the central control (CC). The system transfers counts before the system transfers active registers to holding registers. The active count is zero most of the time and increases before the transfer to holding registers.

The information contained in the registers of OM group TDCPROT is used to determine the following:

- if a link is down
- if a link makes noise
- the amount of traffic on a link
- potential protocol errors

Register TDCPROT provides one tuple for each key. The following table lists the key and info fields associated with OM group TDCPROT.

Key field	Info field
TDCPROT_OMTYPE consists of the TMS number, the DCH number within the TMS, and the channel type number of the DCH.	TDCPROT_OMINFO consists of the peripheral type, the peripheral number, the ISDN service group number, and the TMS data channel type.

The value output for a channel type in the OM registers is the total count of all channels of that channel type. For example, for directory help (DA) channels, the system totals counts for DA channels 1 and 3. The total outputs as one tuple.

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TDCPROT and what they measure. For a description of a register, click on the register name.

Registers for OM group TDCPROT

Register name	Measures
L1BFOV	Buffer overflow
L1INIT	Initialization calls

Registers for OM group TDCPROT

Register name	Measures
L1RXABRT	Messages aborted
L1RXBF	Buffers through receiver
L1RXCRC	Frame check sequence error
L1RXERR	Layer 1 reception errors
L1RXGOOD	Layer 1 messages successfully received
L1RXOVRN	Receiver overflow
L1TXBF	Buffers through transmitter
L1TXERR	Layer 1 transmission errors
L1TXGOOD	Layer 1 successful transmissions
L2DISC	Link disconnects
L2FRMRRX	Local protocol violations (FRMR received)
L2FRMRTX	Local protocol violations (FRMR sent)
L2RTXI	Information frames retransmitted
L2RXIFR	Information frames received
L2SECSTP	Seconds enabling the link
L2SETUP	Link setup sequence executions
L2T1TIME	T1 timeouts
L2TXIFR	Information frames sent
L3DRECV	Data received
L3DSENT	Data sent
L3PKTIME	Timeouts

L1BFOV

Register type Peg

Description

Buffer overflow (L1BFOV)

Register L1BFOV counts messages the system sends or receives with buffers too long for layer 1.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1INIT

Register type

Peg

Description

Initialization calls

Register L1INIT counts initialization calls for a channel.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1RXABRT

Register type

Peg

Description

Messages aborted (L1RXABRT)

Register L1RXABRT counts messages that the system partially receives and aborts.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1RXBF

Register type

Peg

Description

Buffers through receiver (LRXBF)

Register L1RXBF increases one time for every 100 buffers that pass through the receiver.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1RXCRC

Register type

Peg

Description

Frame check sequence error (L1RXCRC)

Register L1RXCRC counts messages the system receives with frame check sequence errors.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1RXERR

Register type

Peg

Description

Layer 1 reception errors (L1RXERR) Register L1RXERR counts layer 1 messages that have errors in reception.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1RXGOOD

Register type

Peg

Description

Layer 1 messages successfully received (L1RXGOOD)

Register L1RXGOOD increases one time for every 100 layer 1 messages the system receives.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1RXOVRN

Register type

Peg

Description

Receiver overflow (L1RXOVRN)

Register L1RXOVRN counts the times the host cannot keep up with the chip receiver because not enough receive buffers are present.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1TXBF

Register type

Peg

Description

Buffers through transmitter (L1TXBF)

Register L1TXBF increases one time for every 100 buffers that pass through the transmitter.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1TXERR

Register type

Peg

Description

Layer 1 transmission errors (L2TXERR)

Register L1TXERR counts layer 1 messages that have errors in transmission.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L1TXGOOD

Register type

Peg

Description

Layer 1 successful transmissions (L1TXGOOD) Register L1TXGOOD increases one time for every 100 layer 1 messages the system transmits.

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Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2DISC

Register type

Peg

Description

Link disconnects (L2DISC)

Register L2DISC counts link disconnect information frames the system sends and receives.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2FRMRRX

Register type

Peg

Description

Local protocol violations (FRMR received) (L2FRMRRX)

Register L2FRMRRX counts frame reject (FRMR) information frames the system receives because of a protocol problem.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2FRMRTX

Register type

Peg

Description

Local protocol violations (FRMR sent) (L2FRMRTX)

Register L2FRMRTX counts frame reject (FRMR) information frames the system sends because of a protocol problem.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2RTXI

Register type

Peg

Description

Information frames retransmitted (L2RTXI)

Register L2RTXI counts information frames the system transmits again because the frames were not received correctly.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2RXIFR

Register type

Peg

Description

Information frames received (L2RXIFR)

Register L2RXIFR increases one time for every 10 information frames the system receives by layer 2. The system routes the information frames to layer 3.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2SECSTP

Register type

Peg

Description

Seconds enabling the link

Register L2SECSTP counts seconds that pass when the system attempts to enable the link.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2SETUP

Register type

Peg

Description

Link setup sequence executions (L2SETUP)

Register L2SETUP counts the times the system executes the link setup sequence.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2T1TIME

Register type

Peg

Description

T1 timeouts (L2T1TIME)

Register L2T1TIME counts timeouts that occur before a remote responds.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L2TXIFR

Register type

Peg

Description

Information frames sent (L2TXIFR)

Register L2TXIFR increases one time for every 10 information frames layer 3 sends to layer 2.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L3DRECV

Register type

Peg

Description

Data received (L3DRECV)

Register L3DRECV counts kbytes of data layer 3 receives from layer 2.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L3DSENT

Register type

Peg

Description

Data sent (L3DSENT)

Register L3DSENT counts kbytes of data layer 2 sends to layer 3.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

L3PKTIME

Register type

Peg

Description

Timeouts (L3PKTIME)

Register L3PKTIME counts timeouts that occur before a remote responds to a data packet.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TDCROUT

Description

TMS data channel router (TDCROUT)

The OMgroup TDCROUT provides information on calls the system routes on the TOPS LTCI peripheral module (TMS) data channels. The data channels are in the D-channel handler (DCH) and the ISDN signaling processor (ISP).

The OM group TDCROUT contains 14 registers that count:

- messages the system sends to a TOPS subtending node (TSN) from another subtending node or from an ISP
- messages the system receives from a TOPS subtending node
- messages a TSN sends to an ISP
- messages the system receives from an ISP
- messages the system discards from the D-channel handler because the destination link is not in-service or connected
- messages that wait to transmit
- average delay between messages that enter and leave the D-channel handler
- call processing messages the ISP sends to a TSN
- call processing messages the ISDN signaling processor receives from a TSN
- maintenance messages the ISP sends to a TSN
- maintenance messages the ISP receives from a TSN
- average messages size (including header) in an ISP
- average message size (including header) on the TOPS LTCI peripheral module data channel
- messages the system discards in an ISP

The system keeps register counts in the TMS and transfers the counts to the central control (CC). The transfer to central control takes place before the transfer of active registers to holding registers. The active count is normally zero and increases before the transfer to holding registers.

The OM group TDCROUT provides one tuple for each key. The following table lists the key and info fields associated with OM group TDCROUT.

Key field	Info field
TDCROUT_OMTYPE consists of the TMS number, the DCH number within the TMS, and the channel type number on the DCH.	TDCROUT_OMINFO consists of the peripheral type, the peripheral number, the ISDN service group number, and the TDC channel type.

The information contained in the registers of OM group TDCROUT can be used to determine the following:

- the amount of call processing and maintenance traffic through the TMS
- the percentage of traffic in a TMS that is call processing, or in maintenance
- the amount of traffic through different types of TSN
- total number of call processing messages and maintenance messages to the central control (CC) from different types of TSN
- total number of call processing messages and maintenance messages from the CC to different types of TSN
- the percentage of database traffic through a DCH

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TRCROUT and what they measure. For a description of a register, click on the register name.

Registers for OM group TDCROUT

Register name	Measures
DAVGDBM	Average delay
DAVGMS	Average message size on channel
DAVGQS	Message waiting

Registers for OM group TDCROUT

Register name	Measures
DMDISC	Messages discarded in DCH
DMISPRX	Messages received from ISDN signaling processor
DMISPTX	Messages to ISDN signaling processor
DMRECV	Messages received
DMSENT	Messages sent
IAVGMSG	Average message size in ISP
ICPRECV	Call processing messages received
ICPSENT	Call processing messages sent
IMDISC	Messages discarded in ISP
IMTRECV	Maintenance messages received
IMTSENT	Maintenance messages sent

DAVGDBM

Register type

Usage

Description

Average delay (DAVGDBM)

Register DAVGDBM records the average delay between messages that enter and leave the D-channel handler.

This register is not active and returns a value of zero to the central control.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DAVGMS

Register type

Peg

Description

Average message size on channel (DAVGMS)

Register DAVGMS records the average message size (including header) in bytes on the TMS data channel.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DAVGQS

Register type

Peg

Description

Message waiting (DAVGQS)

Register DAVGQS counts messages that wait for the system to transmit the messages.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DMDISC

Register type

Peg

Description

Messages discarded in DCH (DMDISC)

Register DMDISC counts messages the system discards from the D-channel handler because:

- the destination link is not in service
- the destination link is not connected

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DMISPRX

Register type

Peg

Description

Messages received from ISDN signaling processor (DMISPRX)

Register DMISPRX counts messages the system receives from an ISP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DMISPTX

Register type

Peg

Description

Messages to ISDN signaling processor (DMISPTX)

Register DMISPTX counts messages a TSN sends to an ISP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DMRECV

Register type

Peg

Description

Messages received (DMRECV)

Register DMRECV counts messages the ISP receives from a TSN.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DMSENT

Register type

Peg

Description

Messages sent (DMSENT)

Register DMSENT counts messages the system sends to a TSN from another subtending node or from an ISP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IAVGMSG

Register type

Usage

Description

Average message size in ISP (IAVGMSG) Register IAVGMSG records the average message size (including header) in an ISP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ICPRECV

Register type

Peg

Description

Call processing messages received (ICPRECV)

Register ICPRECV counts call processing messages that an ISP receives from a TSN.

Associated registers

Register ICPSENT counts call processing messages an ISP sends to an TSN.

Total call processing traffic in TMS = ICPRECV = ICPSENT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ICPSENT

Register type

Peg

Description

Call processing messages sent (ICPSENT) Register ICPSENT counts call processing messages the ISP sends to a TSN.

Associated registers

Register ICPRECV counts call processing messages an ISP receives from a TSN.

Total call processing traffic in TMS = ICPSENT = ICPRECV

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IMDISC

Register type

Peg

Description

Messages discarded in ISP (IMDISC) Register IMDISC counts messages the system discards in the ISP for one of the following reasons:

- the message from the DCH is too long
- a route table problem is present
- a buffer is not available to send the message

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IMTRECV

Register type

Peg

Description

Maintenance messages received (IMTRECV)

Register IMTRECV counts maintenance messages the ISP receives from a TSN.

Associated registers

Register IMTSENT counts maintenance messages the ISP sends to a TSN.

Total maintenance traffic in TMS = IMTRECV = IMTSENT

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

IMTSENT

Register type

Peg

Description

Maintenance messages sent (IMTSENT)

Register IMTSENT counts maintenance message the ISP sends to a TSN.

Associated registers

Register IMTRECV counts maintenance messages the ISP receives from a TSN.

Total maintenance traffic in TMS = IMTSENT = IMTRECV

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TDGTHRU

Description

OM group TOPS Datagram Throughput (TDGTHRU) measures the number of messages in a specific size range that a TOPS application sent or received during the reporting period. The numbers in the register names indicate size ranges (buckets).

The registers provide information that is useful for estimating the resources that TOPS applications need for User Datagram Protocol (UDP) messaging. Depending on what resources are being studied, it may or may not be necessary to consider various headers that are added and stripped during message processing. Message sizes used to peg registers in this group include only the TOPS application payload part of the message.

The following table lists the key and info fields associated with OM group TDGTHRU. The group provides one tuple for each key value.

Key field	Info field
TOPS_DGRAM_IDX Specifies the TOPS application and data path to which peg counts in the tuple apply.	None

The key field specifies the TOPS application and data path to which peg counts in the tuple apply. The following table lists the fixed key values associated with the key field.

Fixed key values for TOPS_DGRAM_IDX

Value	Description
OA_EIU	OSSAIN application using Ethernet interface unit
OA_XAETHR	OSSAIN application using XA-Core Ethernet interface
POS_IPXPM	TOPS position application using IP-XPM
OC_IPXPM	Operator centralization application using IP-XPM

Related functional groups

There are no functional groups associated with OM group TDGTHRU.

Registers

The following table lists the registers associated with OM group TDGTHRU and what they measure. For a description of a register, click on the register name.

Registers for OM group TDGTHRU

Register name	Measures
SND48	Send 48 bytes
SND96	Send 96 bytes
SND160	Send 160 bytes
<u>SND224</u>	Send 224 bytes
<u>SND296</u>	Send 296 bytes
<u>SND368</u>	Send 368 bytes
<u>SND512</u>	Send 512 bytes
SNDLG	Send large
RCV48	Receive 48 bytes
RCV96	Receive 96 bytes
RCV160	Receive 160 bytes
RCV224	Receive 224 bytes
RCV296	Receive 296 bytes
RCV368	Receive 368 bytes
RCVLG	Receive large

SND48

Register type

Peg

Description

SND48 counts the number of messages of size <= 48 bytes sent from the core.

Associated registers

None

Extension registers

SND48X

Associated logs

None

SND96

Register type

Peg

Description

SND96 counts the number of messages of size > 48 bytes <= 96 bytes sent from the core.

Associated registers

None

Extension registers

SND96X

Associated logs

None

SND160

Register type

Peg

Description

SND160 counts the number of messages of size > 96 bytes <= 160 bytes sent from the core.

Associated registers

None

Extension registers

SND160X

Associated logs

SND224

Register type

Peg

Description

SND224 counts the number of messages of size > 160 bytes <= 224 bytes sent from the core.

Associated registers

None

Extension registers

SND224X

Associated logs

None

SND296

Register type

Peg

Description

SND296 counts the number of messages of size > 224 bytes <= 296 bytes sent from the core.

Associated registers

None

Extension registers

SND296X

Associated logs

None

SND368

Register type

Peg

Description

SND368 counts the number of messages of size > 296 bytes <= 368 bytes sent from the core.

Associated registers

Extension registers

SND368X

Associated logs

None

SND512

Register type

Peg

Description

SND512 counts the number of messages of size > 368 bytes <= 512 bytes sent from the core.

Associated registers

None

Extension registers

SND512X

Associated logs

None

SNDLG

Register type

Peg

Description

SNDLG counts the number of messages of size > 512 bytes sent from the core.

Associated registers

None

Extension registers

SNDLGX

Associated logs

None

RCV48

Register type

Peg

Description

RCV48 counts the number of messages of size <= 48 bytes received by the core.

Associated registers

None

Extension registers

RCV48X

Associated logs

None

RCV96

Register type

Peg

Description

RCV96 counts the number of messages of size > 48 bytes <= 96 bytes received by the core.

Associated registers

None

Extension registers

RCV96X

Associated logs

None

RCV160

Register type

Peg

Description

RCV160 counts the number of messages of size > 96 bytes <= 160 bytes received by the core.

Associated registers

None

Extension registers

RCV160X

Associated logs

RCV224

Register type

Peg

Description

RCV224 counts the number of messages of size > 160 bytes <= 224 bytes received by the core.

Associated registers

None

Extension registers

RCV224X

Associated logs

None

RCV296

Register type

Peg

Description

RCV296 counts the number of messages of size > 224 bytes <= 296 bytes received by the core.

Associated registers

None

Extension registers

RCV296X

Associated logs

None

RCV368

Register type

Peg

Description

RCV368 counts the number of messages of size > 296 bytes <= 368 bytes received by the core.

Associated registers

Extension registers

RCV368X

Associated logs

None

RCVLG

Register type

Peg

Description

RCVLG counts the number of messages of size > 368 bytes received by the core.

Associated registers

None

Extension registers

RCVLGX

Associated logs

TFREE533

Description

Toll-Free 533 (TFREE533) supports the Bellcore TR-NWT-000533 specifications for the switch.

The following table lists the key and info fields associated with OM group TFREE533:

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group TFREE533.

Registers

The following table lists the registers associated with OM group TFREE533 and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TFREE533 (Sheet 1 of 2)

Register name	Measures
N00CALL	N00 Call Queries
<u>NOMATCHT</u>	TOLLFREE Trigger Table accesses without a match
IGNOREDT	TOLLFREE Trigger Table trigger actions of IGNORE
BLOCKEDT	TOLLFREE Trigger Table trigger actions of BLOCK
LECROUTE	LEC Routing attempts
IXCROUTE	IXC Routing attempts
PLAYANN	Play Announcement Responses Received
NOTIFREQ	Request Notification Responses Received
VACTBLK	ACG Vacant Codes Blocked

Registers for OM group TFREE533 (Sheet 2 of 2)

Register name	Measures
<u>OOBBLK</u>	ACG Out Of Band Codes Blocked
SOVLDBLK	ACG SCP Overload Blocked
MASSBLK	ACG SCP Mass Calling Blocked
<u>SMSBLK</u>	ACG SMS Initiated Blocked
<u>VACTOVFL</u>	ACG 10-digit Vacant Code Control List Overflow
VAC6OVFL	ACG 6-digit Vacant Code Control List Overflow
<u>OOBOVFL</u>	ACG Out of Band Control List Overflow
MASSOVFL	ACG Mass Calling Control List Overflow
<u>SMSOVFL</u>	ACG SMS Initiated Control List Overflow
<u>SCPOVFL</u>	ACG SCP Overload Control List Overflow
<u>SPAREBLK</u>	Spare Block
SPAROVFL	Spare Overflow

N00CALL

Register type

Peg

Description

N00CALL is used to indicate the number of toll-free calls attempted.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

N00CALL2

Associated logs

None

NOMATCHT

Register type

Peg

Description

NOMATCHT is used to indicate the number of toll-free calls which access the TOLLFREE trigger table without locating a matching tuple.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

IGNOREDT

Register type

Peg

Description

The IGNOREDT is used to indicate the number of toll-free calls which access the TOLLFREE trigger table with an action of IGNORE.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

BLOCKEDT

Register type

Peg

Description

BLOCKEDT is used to indicate the number of toll-free calls which access the TOLLFREE trigger table with an action of BLOCK.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

LECROUTE

Register type

Peg

Description

LECROUTE is used to indicate the number of toll-free call routing responses that indicate LEC routing is used.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

LECROUT2

Associated logs

None

IXCROUTE

Register type

Peg

Description

IXCROUTE register is used to indicate the number of toll-free call routing responses that indicate IXC routing is used.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

IXCROUT2

Associated logs

None

PLAYANN

Register type

Peg

Description

PLAYANN is used to indicate the number of toll-free call Play Announcement responses that are received.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

NOTIFREQ

Register type

Peg

Description

NOTIFREQ is used to indicate the number of toll-free call requests for termination information components that are received.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

VACTBLK

Register type

Peg

Description

VACTBLK is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for vacant codes (control cause =#01).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

OOBBLK

Register type

Peg

Description

OOBBLK is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for nonpurchased NPAs (control cause =#02).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

SOVLDBLK

Register type

Peg

Description

SOVDLBLK is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for SCP overload controls (control cause = #03).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

MASSBLK

Register type

Peg

Description

MASSBLK is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for mass calling controls (control cause =#04).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

Associated logs

None

SMSBLK

Register type

Peg

Description

SMSBLK is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for SMS initiated controls (control cause=#05).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

VACTOVFL

Register type

Peg

Description

VACTOVFL is used to indicate the number of toll-free call attempts that are to be blocked due to ACG controls for 10-digit vacant codes, but cannot due to ACG control list overflow.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

VAC60VFL

Register type

Peg

Description

VAC6OVFL is used to indicate the number of toll-free attempts that are blocked due to ACG controls for 6-digit vacant codes, but cannot due to ACG control list overflow.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

OOBOVFL

Register type

Peg

Description

OOBOVFL is used to indicate the number of toll-free call attempts that are to be blocked due to ACG controls for nonpurchased NPAs, but cannot due to ACG control list overflow.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

MASSOVFL

Register type

Peg

Description

MASSOVFL is used to indicate the number of toll-free call attempts that are to be blocked due to ACG SMS initiated controls, but cannot due to ACG control list overflow.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

SMSOVFL

Register type

Peg

Description

SMSOVFL is used to indicate the number of toll-free call attempts that are to be blocked due to ACG SMS initiated controls, but cannot due to ACG control list overflow.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

SCPOVFL

Register type

Peg

Description

SCPOVFL is used to indicate the number of toll-free call attempts that are to be blocked due to ACG SCP overload controls, but cannot be blocked due to ACG control list overflow.

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Extension registers

None

Associated logs

None

SPAREBLK

Register type

Peg

Description

SPAREBLK counts the total number of query attempts blocked due to ACG spare value control.

Associated registers

None

Extension registers

None

Associated logs

VAMP301

SPAROVFL

Register type

Peg

Description

SPAROVFL counts the total number of messages containing a ACG spare control that overflow.

Associated registers

None

Extension registers

None

Associated logs VAMP305

TM

Description

Trunk modules (TM)

The OM group TM counts errors, faults, and maintenance state transitions for trunk modules, maintenance trunk modules, and remote service modules.

The OM group TM provides one tuple for each office. The following table lists the key and info fields associated with OM group TM.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TM and what they measure. For a description of a register, click on the register name.

Registers for OM group TM

Register name	Measures
TMCCTDG	Trunk module circuit diagnostics
TMCCTFL	Trunk module circuit failure
TMCCTOP	Trunk module circuit outside plant
TMERR	Trunk module errors
TMFLT	Trunk module faults
TMMBP	Trunk module manual busy change
TMMBTCO	Trunk module manual busy terminals cut-off
TMMBU	Trunk module manual busy
TMSBP	Trunk module system busy transitions

Registers for OM group TM

Register name	Measures
TMSBTCO	Trunk module system busy terminals cut off
TMCCTDG	Trunk module system busy

TMCCTDG

Register type

Peg

Description

Trunk module circuit diagnostics (TMCCTDG)

Register TMCCTDG increases when the system runs diagnostics on any trunk interface card or service circuit. The trunk module diagnostics perform the following activities:

- check that cards of the correct type are present
- operates the test relay
- operates and releases signal distribution points and analyses scan results
- checks transmission loss in loop around mode

Associated registers

Registers PM_PMCCTDG and PMTYP_PMTCCTDG increase when the system increases TMCCTDG.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMCCTFL

Register type

Peg

Description

Trunk module circuit failure (TMCCTFL)

Register TMCCTFL increases when diagnostics run on a trunk interface card or service circuit fail because of a card fault.

Associated registers

Register **TMCCTDG** increases when a diagnostic is run.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMCCTOP

Register type

Peg

Description

Trunk module circuit outside plant (TMCCTOP)

Register TMCCTOP increases when the signaling test at a switching office detects a fault on a trunk circuit. The system detects the fault between the switching office and a far-end office. Register TMCCTOP increases when an originating office does not receive a start-dial or wink signal from the far-end office. A start-dial or wink signal is sent in response to the off-hook that the originating office sent.

Associated registers

Registers PM_PMCCTOP and PMTYP_PMTCCTOP increase when the system increases TMCCTOP.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMERR

Register type

Peg

Description

Trunk module errors (TMERR)

TMERR counts errors and failures detected in an in-service trunk module.

The events that TMERR counts include

- software and hardware errors
- accuracy, audit, and processing failures
- controller message congestion

Associated registers

Registers PM_PMERR and PMTYP_PMTERR increase when the system increases TMERR.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMFLT

Register type

Peg

Description

Trunk module faults (TMFLT)

Register TMFLT counts errors that cause the trunk module to become system busy.

A manual or system-initiated recovery attempt initiates when the trunk modules become system busy.

Associated registers

Errors counted by TMFLT are also counted by TMERR.

Registers PM_PMFLT and PMTYP_PMTFLT increase when the system increases TMFLT.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMMBP

Register type

Peg

Description

Trunk module manual busy change (TMMBP)

Register TMMBP increases when the system makes the trunk module manual busy from an in-service or in-service-trouble state.

Associated registers

Registers PM_PMMBP and PMTYP_PMTMBP increase when the system increases TMMBP.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMMBTCO

Register type

Peg

Description

Trunk module manual busy terminals cut-off (TMMBTCO)

Register TMMBTCO counts subscriber calls (terminals) that are cut off when the system makes a trunk module manual busy. Calls must associate with lines or trunks in a call-processing-busy state or a call-processing-deload state. If calls do not associate, they are not counted by TMMCTCO.

Associated registers

Registers PM_PMMBTCO and PMTYP_PMTMBTCO increase when the system increases TMMBTCO.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMMBU

Register type

Usage

Description

Trunk module manual busy (TMMBU)

Register TMMBU is a usage register. The scan rate is 100 s. Register TMMBU records if trunk modules are manual busy.

Associated registers

Registers PM_PMMMBU and PMTYP_PMTMMBU increase when the system increases TMMBU.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMSBP

Register type

Peg

Description

Trunk module system busy transitions (TMSBP)

Register TMSBP increases when the system makes the trunk module system busy. The trunk module is made system busy from an in-service or an in-service-trouble state.

If the trunk module recovers from the C-side busy state before being made system busy, this register is not increased.

Associated registers

Registers PM_PMSBP and PMTYP_PMTSBP increases when the system increases TMSBP.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMSBTCO

Register type

Peg

Description

Trunk module system busy terminals cut off (TMSBTCO)

Register TMSBTCO counts subscriber calls (terminals) that are cut off. Calls are cut off when the system makes a trunk module C-side busy.

The trunk module is made C-side busy from an in-service or in-service-trouble state.

C-side busy is an intermediate state that occurs before the system makes the trunk module system busy.

Associated registers

Registers PM_PMSBTCO and PMTYP_PMTSBTCO increase when the system increases TMSBTCO.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMSBU

Register type

Usage

Description

Trunk module system busy (TMSBU) T

MSBU is a usage register. The scan rate is 100 s. TMSBU records if trunk modules are system busy.

The system makes a trunk module system busy if the trunk module

- fails an routine audit
- does not have available message paths
- sends more than 200 not requested trouble reports within an audit period

Associated registers

Registers PM_PMMSBU and PMTYP_PMTMSBU increases when the system increases TMSBU.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TME

Description

Terminal management environment (TME)

TME provides information on the use of the terminal management environment (TME).

TME contains five registers that count the following activities:

- attempts to initiate a TME session
- successful TME name updates
- not complete TME name updates
- successful TME feature updates
- not complete TME feature updates

The OM group TME provides one tuple for each office. The following table lists the key and info fields associated with OM group TME.

Key field	Info field
none	none

Related functional groups

The following functional groups associate with OM group TME:

- DMS-100 Remote Switching Center
- Display Electronic Business Set

Registers

The following table lists the registers associated with OM group TME and what they measure. For a description of a register, click on the register name.

Registers for OM group TME

Register name	Measures
FEATFAIL	Unsuccessful feature changes
FEATUPD	Successful feature change
NAMEFAIL	Unsuccessful name update

Registers for OM group TME

Register name	Measures
NAMEUPD	Successful name update
TMEKEY	Terminal management environment (TME) session initiation

FEATFAIL

Register type

Peg

Description

Unsuccessful feature changes (FEATFAIL)

Register FEATFAIL counts terminal management environment (TME) sessions that fail to add a feature to a key. FEATFAIL also counts TME sessions that fail to delete a feature from a key on a Meridian business set (MBS).

Associated registers

Register <u>FEATUPD</u> counts TME sessions that correctly add a feature to a key or delete a feature from a key on an MBS.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

FEATUPD

Register type

Peg

Description

Successful feature change (FEATUPD)

Register FEATUPD counts TME sessions that correctly add a feature to a key or delete a feature from a key on an MBS.

Associated registers

Registers <u>FEATFAIL</u> counts TME sessions that fail to add a feature to a key or delete a feature from a key on an MBS.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NAMEFAIL

Register type

Peg

Description

Unsuccessful name update (NAMEFAIL)

Register NAMEFAIL counts TME sessions that fail to update the name that associate with a line on an MBS.

Associated registers

Register <u>NAMEUPD</u> counts TME sessions that correctly update the name associated with a line on an MBS.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NAMEUPD

Register type

Peg

Description

Successful name update (NAMEUPD)

Register NAMEUPD counts TME sessions that correctly update the name that associates with a line on an MBS.

Associated registers

Register NAMEFAIL counts TME sessions that fail to update the name that associate with a line on an MBS.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TMEKEY

Register type

Peg

Description

Terminal management environment (TME) session initiation (TMEKEY)

Register TMEKEY counts attempts to initiate a TME session.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TONES

Description

OM group Tones (TONES) measures traffic for tone generators. The following table lists the key and info fields associated with OM group TONES.

Key field	Info field
CLLI is the common language location identifier for the tone generator.	None

The following table lists the standard CLLIs used for OM group TONES. The customer defines other CLLI.

Standard CLLIs for OM group TONES (Sheet 1 of 2)

CLLI	Description
BVTONE	Busy Verification Tone
CWT	Call Waiting Tone
DISTCWT	Distinctive Call Waiting Tone
EBOT	Executive Busy Override Warning Tone
ENHCWT1	Enhanced Call Waiting Tone for the First Secondary Directory Number
ENHCWT2	Enhanced Call Waiting Tone for the Second Secondary Directory
Number	Number
ERWT	Expensive Route Warning Tone
IEBOT	International Executive Busy Override Tone (UK Switches)
OHQT	Off Hook Queuing Tone
PCNOR	Preset Conference Normal Notification Tone
ROH	Receiver Off Hook

Standard CLLIs for OM group TONES (Sheet 2 of 2)

CLLI	Description
SVDTMF	Digitone Outpulsing Circuit
SVMFC R2	Interregister Signaling Circuit
SVOBSV	Service Observing Circuit

The following tables lists the tables that must be datafilled.

Tables to be datafilled for OM group TONES

Table name	Description
TONES	Tones defines tones the system generates at the line or trunk peripheral.
STN	Special Tone defines tones the system generates on cards on a TM or MTM.
SVRCKT	 Service Circuit defines: Digitone outpulsing R2 inter-register signaling service-observing circuits

Related functional groups

There are no functional groups associated with OM group TONES.

Registers

The following table lists the registers associated with OM group TONES and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TONES

Register name	Measures
TONENATT	Tone attempts
TONEOVFL	Tone overflow

TONENATT

Register type

Peg

Description

TONENATT counts calls the system routes to each tone generator. The register increases before the system determines if the call can connect to the tone. If the maximum permitted number of calls uses the tone, the call routes again to the next entry in the routing list.

Associated registers

The following registers are associated with TONES:

- OFZ_INTONE counts calls that originate on a trunk and first route to a tone.
- **OFZ_ORIGTONE** counts calls that originate on a line and first route to a tone.
- **OFZ_INTONE** and **OFZ_ORIGTONE** do not count calls that route to a tone after another location.

The following group of registers are also associated with TONES:

- **OTS_ORGTRMT** counts calls that originate on a line and connect to a tone or an announcement.
- OTS_INCTRMT counts calls that originate on a trunk and connect to a tone or an announcement.
- ANN_ANNATT counts attempts to connect to an announcement.

Validation formulas

The following formulas relate to TONENATT and its associated registers:

- Σ (TONES_TONENATT) OFZ_INTONE + OFZ_ORIGTONE TONES
- Σ (ANN_ANNATT) + (TONES_TONENATT) greater than and equal to (OTS_ORGTRM) + (OTS_INCTRMT)

Extension registers

TONENAT2

Associated logs

None

TONEOVFL

Register type

Peg

Description

TONEOVFL counts calls the system routes to a tone generator that do not connect because the maximum number of calls are already connected or the generator is maintenance busy. The register does not count calls that overflow because of network blockage.

Associated registers

None

Extension registers

None

Associated logs

LINE138, TRK138

TOPAAPPL

Description

TOPS AIN Application

This OM group measures AIN messaging statistics for TOPS applications which utilize the TOPS AIN0.1 TCAP messaging interface. Registers in this OM group are pegged only when AIN messages are sent or received for a particular TOPS application.

OM group TOPAAPPL provides one tuple per office. The following table lists the key and info fields associated with OM group TOPAAPPL.

Key field	Info field
TOPSAIN_APPL - In TOPS07, the current application used is TOPSLNP.	none

Related functional groups

Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPAAPPL.

Registers

The following table lists the registers associated with OM group TOPAAPPL and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPAAPPL

Register name	Measures
ANAROU	Analyze_Route messages received
APERRRCV	Application_Error received
APERRSNT	Application_Error sent
AUTOCGAP	Automatic Code Gapping message received
INFOANA	Info_Analyzed messages sent
MISCRCV	Message other than defined above was received

Registers for OM group TOPAAPPL

Register name	Measures
RPERRSNT	Register Report_Error sent
SCPTFULL	SCP ACG Table full
SMSTFULL	SMS ACG Table full
<u>SNTORES</u>	Send_To_Resource messages received

ANAROU

Register type

Peg

Description

Register Analyze_Route messages received (ANAROU)

Register ANAROU is pegged each time an Analyze_Route message is received.

Associated registers

There are no associated registers.

Extension registers

ANAROU2

Associated logs

There are no associated logs.

APERRRCV

Register type

Peg

Description

Register Application_Error received (APERRRCV)

Register APERRRCV is pegged each time an Application_Error message is received from the SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP100

APERRSNT

Register type

Peg

Description

Register Application_Error sent (APERRSNT)

Register APERRSNT is pegged each time an Application_Error message is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP100

AUTOCGAP

Register type

Peg

Description

Register Automatic Code Gapping message received (AUTOCGAP)

Register AUTOCGAP is pegged each time an ACG message is received from the SCP.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INFOANA

Register type

Peg

Description

Register Info_Analyzed messages sent (INFOANA)

Register INFOANA is pegged each time an Info_Analyzed message is sent.

Associated registers

There are no associated registers.

Extension registers

INFOANA2

Associated logs

There are no associated logs.

MISCRCV

Register type

Peg

Description

Register Message other than defined above was received (MISCRCV)

Register MISCRCV is pegged each time a message is received other than what is previously mentioned in this OM group. This includes Authorize_Termination, Continue, Disconnect, and Forward_Call.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP100

RPERRSNT

Register type

Peg

Description

Register Report Error sent (RPERRSNT)

Register RPERRSNT is pegged each time a Report_Error message is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SCPTFULL

Register type

Peg

Description

Register SCP ACG Table full (SCPTFULL)

An SCP originated ACG control could not be added because the SCP ACG control table was full.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SMSTFULL

Register type

Peg

Description

Register SMS ACG Table full (SMSTFULL)

An SMS originated ACG control could not be added because the SMS ACG control table was full.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SNTORES

Register type

Peg

Description

Register Send_To_Resource messages received (SNTORES)

Register SNTORES is pegged each time a Send_To_Resource message is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TOPASCCP

Description

TOPS AIN Signaling Connection Control Part

This OM group measures Signaling Connection Control Part (SCCP) statistics relating to TOPS applications which utilize the TOPS AIN0.1 TCAP messaging interface implemented by this activity.

Registers in this OMgroup are pegged only when a Unit Data Service (UDTS) message for a particular application is received. A UDTS message is received when a problem occurs while attempting to route a TCAP package.

OM group TOPASCCP provides one tuple per office. The following table lists the key and info fields associated with OM group TOPASCCP.

Key field	Info field
TOPSAIN_APPL - In TOPS07, the current application used is TOPSLNP.	none

Related functional groups

Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPASCCP.

Registers

The following table lists the registers associated with OM group TOPASCCP and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPASCCP

Register name	Measures
MISERROR	Miscellaneous Error
<u>NETWCNG</u>	Network Congestion
NETWFAIL	Network Failure
NOXLA	No Translation for any such address

Registers for OM group TOPASCCP

Register name	Measures
<u>NOXLS</u>	No Translation for this specific address
SUBSYSCG	Subsystem Congestion
SUBSYSFL	Subsystem Failure
UNEQUSR	Unequipped User

MISERROR

Register type

Peg

Description

Register Miscellaneous Error (MISERROR)

Register MISERROR is pegged each time a Unitdata Service message is received with a diagnostic other than the registers listed in this OM group.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

A TCAP101 log is generated when this register is pegged.

NETWCNG

Register type

Peg

Description

Register Network Congestion (NETWCNG)

Register NETWCNG is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of "Network Congestion."

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

NETWFAIL

Register type

Peg

Description

Register Network Failure (NETWFAIL)

Register NETWFAIL is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of "Network Failure."

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

NOXLA

Register type

Peg

Description

Register No Translation for any such address (NOXLA)

Register NOXLA is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of "No translation of such nature."

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

NOXLS

Register type

Peg

Description

Register No Translation for this specific address (NOXLS)

Register NOXLS is pegged each time a Unitdata Service Message for a particular application is received with a diagnostic of "No translation for this specific address."

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

SUBSYSCG

Register type

Peg

Description

Register Subsystem Congestion (SUBSYSCG)

Register SUBSYSCG is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of "Subsystem Congestion."

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

SUBSYSFL

Register type

Peg

Description

Register Subsystem Failure (SUBSYSFL)

Register SUBSYSFL is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of "Subsystem Failure."

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

UNEQUSR

Register type

Peg

Description

Register Unequipped User (UNEQUSR)

Register UNEQUSR is pegged each time a Unitdata Service message for a particular application is received with a diagnostic of "Unequipped User."

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP101

TOPATCAP

Description

TOPS AIN Transaction Capabilities Application Part

This OM group measures Transaction Capability Application Part statistics relating to TOPS applications which utilize the TOPS AIN0.1 TCAP messaging interface created by this activity.

OM group TOPATCAP provides one tuple per office. The following table lists the key and info fields associated with OM group TOPATCAP.

Key field	Info field
TOPSAIN_APPL - In TOPS07, the current application used is TOPSLNP.	none

Related functional groups

Functional group Operator Services Equal Access (OSEA0001) is associated with OM group TOPATCAP.

Registers

The following table lists the registers associated with OM group TOPATCAP and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPATCAP

Register name	Measures
ABTRCV	Abort pkg received
ABTSNT	Abort pkg sent
CONVRCV	Conversation With Permission pkg received
CONVSNT	Conversation With Permission pkg sent
INVLRCV	Invoke (last) comp Received
ABTRCV	Invoke (last) Component (COMP) sent
INVNRCV	Invoke (not last) comp received
INVNSNT	Invoke (not last) comp sent

Registers for OM group TOPATCAP

Register name	Measures
NOTRANID	No Transaction Id available
PKGTOUT	Package Time-out
QWPESNT	Query With Permission pkg sent
REJCRCV	Reject comp received
REJCSNT	Reject comp sent
RETERRCV	Return Error comp received
RETERSNT	Return Error comp sent
RSPRCV	Response pkg received
RSPSNT	Response pkg sent
RTNRRCV	Return Result (last) comp received
RTNRSNT	Return Result (last) comp sent
UNIDIRCV	Unidirectional pkg received
UNIDISNT	Unidirectional package (PKG) sent

ABTRCV

Register type

Peg

Description

Register Abort pkg received (ABTRCV)

Register ABTRCV is pegged each time an Abort package is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP100

ABTSNT

Register type

Peg

Description

Register Abort pkg sent (ABTSNT)

Register ABTSNT is pegged each time an Abort package is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONVRCV

Register type

Peg

Description

Register Conversation With Permission pkg received (CONVRCV)

Register CONVRCV is pegged each time a Conversation With Permission package is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONVSNT

Register type

Peg

Description

Register Conversation With Permission pkg sent (CONVSNT)

Register CONVSNT is pegged each time a Conversation With Permission package is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INVLRCV

Register type

Peg

Description

Register Invoke (last) comp Received (INVLCV)

Register INVLRCV is pegged each time an Invoke (last) component is received.

Associated registers

There are no associated registers.

Extension registers

INVLRCV2

Associated logs

There are no associated logs.

INVLSNT

Register type

Peg

Description

Register Invoke (last) Component (COMP) sent (INVLSNT)

Register INVLSNT is pegged each time an Invoke (last) component is sent.

Associated registers

There are no associated registers.

Extension registers

INVLSNT2

Associated logs

There are no associated logs.

INVNRCV

Register type

Peg

Description

Register Invoke (not last) comp received (INVNRCV)

Register INVNRCV is pegged each time an Invoke (not last) component is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INVNSNT

Register type

Peg

Description

Register Invoke (not last) comp sent (INVNSNT)

Register INVNSNT is pegged each time an Invoke (not last) component is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NOTRANID

Register type

Peg

Description

Register No Transaction Id available (NOTRANID)

Register NOTRANID is pegged each time there are no transaction ids available for use.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

PKGTOUT

Register type

Peg

Description

Register Package Time-out (PKGTOUT)

Register PKGTOUT is pegged each time a response to a query does not arrive within the allotted time-out period.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

QWPESNT

Register type

Peg

Description

Register Query With Permission pkg sent (QWPESNT)

Register QWPESNT is pegged each time a QueryWith Permission package is sent.

Associated registers

There are no associated registers.

Extension registers

QWPESNT2

Associated logs

There are no associated logs.

REJCRCV

Register type

Peg

Description

Register Reject comp received (REJCRCV)

Register REJCRCV is pegged each time a Reject component is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP100

REJCSNT

Register type

Peg

Description

Register Reject comp sent (REJCSNT)

Register REJCSNT is pegged each time a Reject component is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RETERRCV

Register type

Peg

Description

Register Return Error comp received (RETERRCV)

Register RETERRCV is pegged each time a Return Error component is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP100

RETERSNT

Register type

Peg

Description

Register Return Error comp sent (RETERSNT)

Register RETERSNT is pegged each time a Return Error component is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RSPRCV

Register type

Peg

Description

Register Response pkg received (RSPRCV)

Register RSPRCV is pegged each time a Response package is received.

Associated registers

There are no associated registers.

Extension registers

RSPRCV2

Associated logs

There are no associated logs.

RSPSNT

Register type

Peg

Description

Register Response pkg sent (RSPSNT)

Register RSPSNT is pegged each time a Response package is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RTNRRCV

Register type

Peg

Description

Register Return Result (last) comp received (RTNRRCV)

Register RTNRRCV is pegged each time a Return Result (last) component is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

RTNRSNT

Register type

Peg

Description

Register Return Result (last) comp sent (RTNRSNT)

Register RTNRSNT is pegged each time a Return Result (last) component is sent.

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Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

UNIDIRCV

Register type

Peg

Description

Register Unidirectional pkg received (UNIDIRCV)

Register UNIDIRCV is pegged each time a Unidirectional package is received.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log number: TCAP199

UNIDISNT

Register type

Peg

Description

Register Unidirectional package (PKG) sent (UNIDISNT)

Register UNIDISNT is pegged each time a Unidirectional package is sent.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logsThere are no associated logs.

TOPPACT1

Description

TOPS open position protocol action identifiers group 1 (TOPPACT1)

The OM group TOPPACT1 counts each type of open position protocol (OPP) action identifier (ActID) that the TOPS DMS receives. The registers increase only when the system receives a correct ActID. The OPP consists of ActIDs and data identifiers (DID) the system uses to communicate between the DMS and the operator positions. Most ActIDs ask the DMS to perform a function.

Because of the large number of ActIDs, one OM group cannot include them all. Therefore, TOPPACT2 and TOPPACT3 are a continuation of this group.

The OM group TOPPACT1 provides one tuple per office. The following table lists the key and info fields associated with OM group TOPPACT1.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TOPPACT1 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPACT1

Register name	Measures
AMASTTA	Automatic message accounting status
AUDITA	Audit ActID
CARNUMA	Carrier number ActID
CCARDA	Calling card ActID
CHGADJA	Charge adjust ActID

Registers for OM group TOPPACT1

Register name	Measures
CHGSTTA	Charge status ActID
CLSCHGA	Class charge ActID
DIRNUMA	Directory number ActID
DRATEA	Dial rate ActID
FORCCA	Foreign Calling Card ActID
<u>LPACTA</u>	Loop action ActID
MISCA	Miscellaneous ActID
<u>NETACTA</u>	Network action ActID
NFYA	Notify ActID
<u>OPRFBA</u>	Operator feedback ActID
<u>OPRNUMA</u>	Operator number ActID

AMASTTA

Register type

Peg

Description

Automatic message accounting status (AMASTTA)

Register AMASTTA counts each time the operator position sends an automatic message accounting (AMA) status ActID to the DMS. This ActID routes to the DMS when an operator requests a change in the AMA status of a call.

Associated registers

There are no associated registers.

Extension registers

AMASTTA2

Associated logs

There are no associated logs.

AUDITA

Register type

Peg

Description

Audit ActID (AUDITA)

Register AUDITA counts each time the operator position sends an Audit ActID to the DMS. This ActID goes to the DMS in response to an audit data identifier (DID) if the operator position functions.

Associated registers

AUDITA2

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CARNUMA

Register type

Peg

Description

Carrier number ActID (CARNUMA)

Register CARNUMA counts each time the operator position sends a Carrier Number ActID to the DMS. This ActID requests association of a carrier with an inter local access transport area (inter LATA) call.

Associated registers

There are no associated registers.

Extension registers

CARNUMA2

Associated logs

There are no associated logs.

CCARDA

Register type

Peg

Description

Calling card ActID (CCARDA)

Register CCARDA counts each time the operator position sends a Calling Card ActID to the DMS. This ActID routes to the DMS when a user enters a calling card number after the call arrives at the operator position.

Associated registers

There are no associated registers.

Extension registers

CCARDA2

Associated logs

There are no associated logs.

CHGADJA

Register type

Peg

Description

Charge adjust ActID (CHGADJA)

Register CHGADJA counts each time the operator position sends a Charge Adjust ActID to the DMS. This ActID routes to the DMS when an operator performs a charge adjust for a call.

Associated registers

There are no associated registers.

Extension registers

CHGADJA2

Associated logs

There are no associated logs.

CHGSTTA

Register type

Peg

Description

Charge status ActID (CHGSTTA)

Register CHGSTTA counts each time the operator position sends a Charge Status ActID to the DMS. This ActID routes to the DMS to change the charge status of a call.

Associated registers

There are no associated registers.

Extension registers

CHGSTTA

Associated logs

There are no associated logs.

CLSCHGA

Register type

Peg

Description

Class charge ActID (CLSCHGA)

Register CLSCHGA counts each time the operator position sends a Class Charge ActID to the DMS. This ActID routes to the DMS when the operator enters a class charge for the call.

Associated registers

There are no associated registers.

Extension registers

CLSCHGA2

Associated logs

There are no associated logs.

DIRNUMA

Register type

Peg

Description

Directory number ActID (DIRNUMA)

Register DIRNUMA counts each time the operator position sends a Directory Number ActID to the DMS. This ActID routes to the DMS to input a directory number for the call. The ActID also indicates any need for a connection to the directory number.

Associated registers

There are no associated registers.

Extension registers

DIRNUMA2

Associated logs

There are no associated logs.

DRATEA

Register type

Peg

Description

Dial rate ActID (DRATEA)

Register DRATEA counts each time the operator position sends a Dial Rate ActID to the DMS. This ActID routes to the DMS to request a change in the dial rate status of the call.

Associated registers

There are no associated registers.

Extension registers

DRATEA2

Associated logs

There are no associated logs.

FORCCA

Register type

Peg

Description

Foreign Calling Card ActID (FORCCA)

Register FORCCA counts each time the operator position sends a Foreign Calling Card ActID to the DMS. This ActID routes to the DMS when a foreign calling card is used to bill for a call.

Associated registers

There are no associated registers.

Extension registers

FORCCA2

Associated logs

There are no associated logs.

LPACTA

Register type

Peg

Description

Loop action ActID (LPACTA)

Register LPACTA counts each time the operator position sends a Loop Action ActID to the DMS. This ActID goes to the DMS to request a change in the status of a loop.

Associated registers

There are no associated registers.

Extension registers

LPACTA2

Associated logs

There are no associated logs.

MISCA

Register type

Peg

Description

Miscellaneous ActID (MISCA)

Register MISCA counts each time the operator position sends a Miscellaneous ActID to the DMS to perform the following miscellaneous actions:

- to display the current time
- to display call details
- to perform a special verification for a call

Associated registers

There are no associated registers.

Extension registers

MISCA2

Associated logs

There are no associated logs.

NETACTA

Register type

Peg

Description

Network action ActID (NETACTA)

Register NETACTA counts each time the operator position sends a Network Action ActID to the DMS. This ActID requests performance of an action on the network for a call.

Associated registers

There are no associated registers.

Extension registers

NETACTA2

Associated logs

There are no associated logs.

NFYA

Register type

Peg

Description

Notify ActID (NFYA)

Register NFYA counts each time the operator position sends a Notify ActID to the DMS. This ActID requests application of a notify to the call.

Associated registers

There are no associated registers.

Extension registers

NFYA2

Associated logs

There are no associated logs.

OPRFBA

Register type

Peg

Description

Operator feedback ActID (OPRFBA)

Register OPRFBA counts each time the operator position sends an Operator Feedback ActID to the DMS to request feedback statistics.

Associated registers

There are no associated registers.

Extension registers OPRFBA2

Associated logs

There are no associated logs.

OPRNUMA

Register type

Peg

Description

Operator number ActID (OPRNUMA)

Register OPRNUMA counts each time the operator position sends an Operator Number ActID to the DMS. This ActID requests actions like paging, monitoring or logging on.

Associated registers

There are no associated registers.

Extension registers OPRNUMA2

Associated logs

There are no associated logs.

TOPPACT2

Description

TOPS open position protocol action identifiers group 2

TOPPACT2 is a continuation of TOPPACT1. These OM groups count each type of open position protocol (OPP) action identifier (ActID) received by the TOPS DMS. The registers are only incremented when a valid ActID is received. OPP consists of ActIDs and data identifiers (DID) used to communicate between the DMS and the operator positions. Most ActIDs request a function be performed by the DMS.

OM group TOPPACT2 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPACT2.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TOPPACT2 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPACT2

Register name	Measures
CLGBLKA	Caller-ID Blocking ActID
OUTTRKA	Outtrunk ActID
OVRCOLA	Over Collect ActID
<u>PCBA</u>	Person Call-back ActID
POSNUMA	Position Number ActID
POSSTA	Position State ActID
PRTFRNA	Port Function ActID

Registers for OM group TOPPACT2

Register name	Measures
QUERYA	Query ActID
RATESTA	Rate Step ActID
SERVA	Service ActID
SPLNUMA	Special Number ActID
SRVLOGA	Service Logon ActID
SRVNUMA	Service Number ActID
TACA	Time and Charges ActID
TEXTA	Text ActID
TRBLCDA	Trouble Code ActID

CLGBLKA

Register type

Peg

Description

Caller-ID Blocking ActID

CLGBLKA counts each time the operator position sends a Caller-ID Blocking ActID to the DMS. This ActID is sent to the DMS when the operator requests a change in the blocking status of a call.

Associated registers

There are no associated registers.

Extension registers

CLGBLKA2

Associated logs

There are no associated logs.

OUTTRKA

Register type

Peg

Description

Outtrunk ActID

OUTTRKA counts each time the operator position sends an Outtrunk ActID to the DMS to request that an outtrunk event be performed for the call.

Associated registers

There are no associated registers.

Extension registers

OUTTRKA2

Associated logs

There are no associated logs.

OVRCOLA

Register type

Peg

Description

Over Collect ActID

OVRCOLA counts each time the operator position sends an Over Collect ActID to the DMS. This ActID is sent to the DMS when the operator records the amount collected for a coin call which was over and above the amount owed for the initial period.

Associated registers

There are no associated registers.

Extension registers

OVRCOLA2

Associated logs

There are no associated logs.

PCBA

Register type

Peg

Description

Person Call-back ActID

PCBA counts each time the operator position sends a Person Call-back ActID to the DMS. This ActID is sent to the DMS to request a change in the person call-back status of the call.

Associated registers

There are no associated registers.

Extension registers

PCBA2

Associated logs

There are no associated logs.

POSNUMA

Register type

Peg

Description

Position Number ActID

POSNUMA counts each time the operator position sends a Position Number ActID to the DMS. This ActID is sent to the DMS when a supervisor operator requests a change in the monitor or page status of an operator position.

Associated registers

There are no associated registers.

Extension registers

POSNUMA2

Associated logs

There are no associated logs.

POSSTA

Register type

Peg

Description

Position State ActID

POSSTA counts each time the operator position sends a Position State ActID to the DMS. This ActID is sent to request a change in the state of the position.

Associated registers

There are no associated registers.

Extension registers

POSSTA2

Associated logs

There are no associated logs.

PRTFRNA

Register type

Peg

Description

Port Function ActID

PRTFTNA counts each time the operator position sends a Port Function ActID to the DMS. This ActID is sent to the DMS to request a function be performed on a specific port.

Associated registers

There are no associated registers.

Extension registers

PRTFTNA2

Associated logs

There are no associated logs.

QUERYA

Register type

Peg

Description

Query ActID

QUERYA counts each time the operator position sends a Query ActID to the DMS. This ActID is sent to the DMS when a supervisor operator queries data concerning operators or positions in the operator's team.

Associated registers

There are no associated registers.

Extension registers

QUERYA2

Associated logs

There are no associated logs.

RATESTA

Register type

Peg

Description

Rate Step ActID

RATESTA counts each time the operator position sends a Rate Step ActID to the DMS. This ActID is sent to the DMS when the operator enters a rate step for a call.

Associated registers

There are no associated registers.

Extension registers

RATESTA2

Associated logs

There are no associated logs.

SERVA

Register type

Peg

Description

Service ActID

SERVA counts each time the operator position sends a Service ActID to the DMS. This ActID is sent to the DMS to initiate a service for a call.

Associated registers

There are no associated registers.

Extension registers

SERVA2

Associated logs

There are no associated logs.

SPLNUMA

Register type

Peg

Description

Special Number ActID

SPLNUMA counts each time the operator position sends a Special Number ActID to the DMS. This ActID is sent to the DMS when a request for calling card or third-number billing is made for a call.

Associated registers

There are no associated registers.

Extension registers

SPLNUMA2

Associated logs

There are no associated logs.

SRVLOGA

Register type

Peg

Description

Service Logon ActID

SRVLOGA counts each time the operator position sends a Service Logon ActID to the DMS. This ActID is sent to inform the DMS which services have been successfully logged into by the position.

Associated registers

There are no associated registers.

Extension registers

SRVLOGA2

Associated logs

There are no associated logs.

SRVNUMA

Register type

Peg

Description

Service Number ActID

SRVNUMA counts each time the operator position sends a Service Number ActID to the DMS. This ActID is sent to the DMS in order to access a service number such as the fire or police department.

Associated registers

There are no associated registers.

Extension registers

SRVNUMA2

Associated logs

There are no associated logs.

TACA

Register type

Peg

Description

Time and Charges ActID

TACA counts each time the operator position sends a Time and Charges ActID to the DMS. This ActID is sent to the DMS to mark a call as requiring time and charges quotation, or when the call has been recalled for the time and charges quotation.

Associated registers

There are no associated registers.

Extension registers

TACA2

Associated logs

There are no associated logs.

TEXTA

Register type

Peg

Description

Text ActID

TEXTA counts each time the operator position sends a Text ActID to the DMS. This ActID is sent to the DMS to associate text with an operator specified function.

Associated registers

There are no associated registers.

Extension registers

TEXTA2

Associated logs

There are no associated logs.

TRBLCDA

Register type

Peg

Description

Trouble Code ActID

TRBLCDA counts each time the operator position sends a Trouble Code ActID to the DMS. This ActID is sent to the DMS when an operator enters a trouble code for the current call.

Associated registers

There are no associated registers.

Extension registers

TRBLCDA2

Associated logs

There are no associated logs.

TOPPACT3

Description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Action Identifiers (ActIDs) Group 3 (TOPPACT3)

TOPPACT3 is a continuation of OM groups TOPPACT1 and TOPPACT2. These OM groups count each type of OPP ActID received by the TOPS Digital Multiplex System (DMS) switch. The registers are only incremented when a valid ActID is received.

Open Position Protocol consists of ActIDs and Data Identifiers (DIDs) that are used to communicate between the TOPS DMS switch and the OPP positions. Open Position Protocol positions send ActIDs to the TOPS DMS switch to update both call information and other information. Usually, the TOPS DMS switch is required to perform a function as a result of receiving the ActID.

OM group TOPPACT3 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPACT3.

Key field	Info field

Related functional groups

The following functional groups are associated with OM group TOPPACT3:

- ENSV0001
- EWSS0001
- ADVQ0001

Registers

The following table lists the registers associated with OM group TOPPACT3 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPACT3

Register name	Measures
ALTDATA	Alternate Date ActID
ALTTIMA	Alternate Time ActID
ATTOPRA	Attached Operator ActID
BCDBA	Booked Call Database ActID
DATAA	Data ActID
ESTDURA	Register Estimate Duration ActID
FIXDURA	Fixed Duration ActID
<u>FORASTA</u>	Foreign Assistance ActID
LNPREQA	LNP Request ActID
OTRIGRA	OSSAIN Trigger ActID
<u>PASTHRA</u>	Pass Through ActID
QUERYQA	Query Queue Status by Queue ActID
SVCPROA	Service Provider ActID
TKTNUMA	Ticket Number ActID

ALTDATA

Register type

Peg

Description

Register Alternate Date ActID

Register ALTDATA counts the number of times the Alternate Date ActID is received from OPP positions.

Associated registers

There are no associated registers.

Extension registers

ALTDATA2

Associated logs

There are no associated logs.

ALTTIMA

Register type

Peg

Description

Register Alternate Time ActID

Register ALTTIMA counts the number of times the Alternate Time ActID is received from OPP positions.

Associated registers

There are no associated registers.

Extension registers

ALTTIMA2

Associated logs

There are no associated logs.

ATTOPRA

Register type

Peg

Description

Attached Operator ActID

The OPP position sends an Attached Operator ActID to the TOPS DMS switch to request an action regarding the attachment of a second operator to a call. ATTOPRA is incremented each time the OPP position sends this ActID.

Note: Note: For test case(s), request general assistance, then Release Operator on an OPP position. Verify that this register is pegged.

Associated registers

There are no associated registers.

Extension registers

ATTOPRA2

Associated logs

There are no associated logs.

BCDBA

Register type

Peg

Description

Booked Call Database ActID

The OPP position sends a Booked Call Database ActID to the TOPS DMS switch to request interaction between the current call at the OPP position and the booked call database. BCDBA is incremented each time the OPP position sends this ActID.

Associated registers

There are no associated registers.

Extension registers

BCDBA2

Associated logs

There are no associated logs.

DATAA

Register type

Peg

Description

Data ActID

The OPP position sends a Data ActID to the TOPS DMS switch. This ActID contains custom automatic message accounting (AMA) or context block information. DATAA is incremented each time the OPP position sends this ActID.

Associated registers

There are no associated registers.

Extension registers

DATAA2

Associated logs

There are no associated logs.

ESTDURA

Register type

Peg

Description

Register Estimate Duration ActID

Register ESTDURA counts the number of times the Estimate Duration ActID is received from OPP positions.

Associated registers

There are no associated registers.

Extension registers

ESTDURA2

Associated logs

There are no associated logs.

FIXDURA

Register type

Peg

Description

Fixed Duration ActID

The OPP position sends a Fixed Duration ActID to the TOPS DMS switch to request a change in the fixed duration status of the call. FIXDURA is incremented each time the OPP position sends this ActID.

Associated registers

There are no associated registers.

Extension registers

FIXDURA2

Associated logs

There are no associated logs.

FORASTA

Register type

Peg

Description

Foreign Assistance ActID

The OPP position sends a Foreign Assistance ActID to the TOPS DMS switch when the operator requests that a foreign assistance number be associated with a call. FORASTA is incremented each time the OPP position sends this ActID.

Associated registers

There are no associated registers.

Extension registers

FORASTA2

Associated logs

There are no associated logs.

LNPREQA

Register type

Peg

Description

Register LNP Request ActID

Register LNPREQA counts the number of times the LNP Request ActID is received from OPP positions.

Associated registers

There are no associated registers.

Extension registers

LNPREQA2

Associated logs

There are no associated logs.

OTRIGRA

Register type

Peg

Description

OSSAIN Trigger ActID

The OPP position sends an OSSAIN Trigger ActID to the TOPS DMS switch to set OSSAIN trigger information for the call. OTRIGRA is incremented each time the OPP position sends this ActID.

Associated registers

There are no associated registers.

Extension registers

OTRIGRA2

Associated logs

There are no associated logs.

PASTHRA

Register type

Peg

Description

Register Pass

Through ActID Register PASTHRA counts the number of times the Pass Through ActID is received from OPP positions.

Associated registers

There are no associated registers.

Extension registers

PASTHRA2

Associated logs

There are no associated logs.

QUERYQA

Register type

Peg

Description

Query Queue Status by Queue ActID

The OPP position sends a Query Queue Status by Queue ActID to the TOPS DMS switch to query which call queues are causing a warning or alarm situation. QUERYQA is incremented each time the OPP position sends this ActID.

Associated registers

There are no associated registers.

Extension registers

QUERYQA2

Associated logs

There are no associated logs.

SVCPROA

Register type

Peg

Description

Service Provider ActID

The OPP position sends Service Provider ActID to the TOPS DMS switch. SVCPROA is incremented each time the OPP position sends the Service Provider ActID to the DMS switch.

Associated registers

There are no associated registers.

Extension registers

SVCPROA2

Associated logs

There are no associated logs.

TKTNUMA

Register type

Peg

Description

Ticket Number ActID

The OPP position sends a Ticket Number ActID to the TOPS DMS switch to request that the TOPS DMS switch clear, enter, or generate a ticket number for a call. TKTNUMA is incremented each time the OPP position sends this ActID.

Associated registers

There are no associated registers.

Extension registers

TKTNUMA2

Associated logs

There are no associated logs.

TOPPACT4

Description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Action Identifiers (ActIDs) Group 4 (TOPPACT4)

TOPPACT4 is a continuation of OM groups TOPPACT1, TOPPACT2, and TOPPACT3. These OM groups count each type of OPP ActID received by the TOPS Digital Multiplex System (DMS) switch. The registers are only incremented when a valid ActID is received.

Open Position Protocol consists of ActIDs and Data Identifiers (DIDs) that are used to communicate between the TOPS DMS switch and the OPP positions. Open Position Protocol positions send ActIDs to the TOPS DMS switch to update both call information and other information. Usually, the TOPS DMS switch is required to perform a function as a result of receiving the ActID.

OM group TOPPACT4 provides one tuple for each ActID included. The following table lists the key and info fields associated with OM group TOPPACT4.

Key field	Info field
0 switch-wide constant	none

Related functional groups

The following functional groups are associated with OM group TOPPACT4:

OSB00001

Registers

The following table lists the registers associated with OM group TOPPACT4 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPACT4

Register name	Measures
CT4QA	Call Type for Queueing ActID

CT4QA

Register type

Peg

Description

Call Type for Queueing ActID

Register CT4QA counts the number of times the CT4Q for the call is received from OPP positions.

Associated registers

There are no associated registers.

Extension registers

CT4QA2

Associated logs

There are no associated logs.

TOPPDID1

Description

TOPS open position protocol data identifiers group 1

TOPPDID1 counts each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS and the operator positions. DIDs are sent from the DMS to the operator position to update both call information and other information.

Because of the large number of DIDs, all could not be included in one OM group. Groups TOPPDID2 through to TOPPDID5 are a continuation of this group.

OM group TOPPDID1 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPDID1.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TOPPDID1 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPDID1

Register name	Measures
ACTQD	Active Queue DID
ACTSD	Automatic Coin Toll Service (ACTS) DID
AMASTTD	Automatic messaging accounting (AMA) Status DID
<u>AOPRIFD</u>	Ancillary Operator Information DID
ATTOPRD	Attached Operator DID

Registers for OM group TOPPDID1

Register name	Measures
AUDITD	Audit DID
AUTSRVD	Automated Services DID
BCMSGD	Broadcast Message DID
CARABD	Carrier Alternate Billing DID
CARINFD	Carrier Information DID
CARRATD	Carrier Rating DID
CCARDD	Calling Card DID
CDBQD	Calls Deflected by Queue DID
CHGADJD	Charge Adjust DID
CHGSD	Charges DID
CHGSTTD	Charge Status DID

ACTQD

Register type

Peg

Description

Active Queue DID

ACTQD is incremented each time the DMS sends the Active Queue DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

ACTQD2

Associated logs

There are no associated logs.

ACTSD

Register type

Peg

792

Description

Automatic Coin Toll Service (ACTS) DID

ACTSD is incremented each time the DMS sends the ACTS DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

ACTSD2

Associated logs

There are no associated logs.

AMASTTD

Register type

Peg

Description

Automatic messaging accounting (AMA) Status DID

AMASTTD is incremented each time the DMS sends the AMA Status DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

AMASTTD2

Associated logs

There are no associated logs.

AOPRIFD

Register type

Peg

Description

Ancillary Operator Information DID

AOPRIFD is incremented each time the DMS sends the Ancillary Operator Information DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

AOPRIFD2

Associated logs

There are no associated logs.

ATTOPRD

Register type

Peg

Description

Attached Operator DID

ATTOPRD is incremented each time the DMS switch sends the Attached Operator DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

ATTOPRD2

Associated logs

There are no associated logs.

AUDITD

Register type

Peg

Description

Audit DID

AUDITD is incremented each time the DMS sends the Audit DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

AUDITD2

Associated logs

There are no associated logs.

AUTSRVD

Register type

Peg

Description

Automated Services DID

AUTSRVD is incremented each time the DMS sends the Automated Services DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

AUTSRVD2

Associated logs

There are no associated logs.

BCMSGD

Register type

Peg

Description

Broadcast Message DID

BCMSGD is incremented each time the DMS sends the Broadcast Message DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

BCMSGD2

Associated logs

There are no associated logs.

CARABD

Register type

Peg

Description

Carrier Alternate Billing DID

CARABD is incremented each time the DMS sends the interlocal access and transport area (LATA) Carrier Alternate Billing DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CARABD2

Associated logs

There are no associated logs.

CARINFD

Register type

Peg

Description

Carrier Information DID

CARINFD is incremented each time the DMS sends the interlocal access and transport area (LATA) Carrier Information DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CARINFD2

Associated logs

There are no associated logs.

CARRATD

Register type

Peg

Description

Carrier Rating DID

CARRATD is incremented each time the DMS sends the interlocal access and transport area (LATA) Carrier Rating Status DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CARRATD2

Associated logs

There are no associated logs.

CCARDD

Register type

Peg

Description

Calling Card DID

CCARDD is incremented each time the DMS sends the Calling Card DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CCARDD2

Associated logs

There are no associated logs.

CDBQD

Register type

Peg

Description

Calls Deflected by Queue DID

CDBQD is incremented each time the DMS sends the Calls Deflected by Queue DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CDBQD2

Associated logs

There are no associated logs.

CHGADJD

Register type

Peg

Description

Charge Adjust DID

CHGADJD is incremented each time the DMS sends the Charge Adjust DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CHGADJD2

Associated logs

There are no associated logs.

CHGSD

Register type

Peg

Description

Charges DID

CHGSD is incremented each time the DMS sends the Charges DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CHGSD2

Associated logs

There are no associated logs.

CHGSTTD

Register type

Peg

Description

Charge Status DID

CHGSTTD is incremented each time the DMS sends the Charge Status DID to the operator position.

Associated registers

There are no associated registers.

Extension registers CHGSTTD2

Associated logs

There are no associated logs.

TOPPDID2

Description

TOPS open position protocol data identifiers group 2

TOPPDID2 is a continuation of TOPPDID1. These groups count each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS switch. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS switch and the operator positions. DIDs are sent from the DMS switch to the operator position to update both call information and other information.

OM group TOPPDID2 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPDID2.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TOPPDID2 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPDID2

Register name	Measures
CLSCHGD	Class Charge DID
CORIGD	Call Origination DID
CQUEDD	Call Queue DID
CSERVD	Call Service DID
CTRAFD	Controlled Traffic DID
CWAITD	Calls Waiting DID
CWBQD	Calls Waiting by Queue DID

Registers for OM group TOPPDID2

Register name	Measures
DIRNUMD	Directory Number DID
DRATED	Dial Rate DID
ELPTMID	Elapsed Time DID
FORCCD	Foreign Calling Card DID
HANDD	Handoff DID
LANGD	Language DID
LATAD	Local access and transport area (LATA) Restriction DID
LIDBRD	Line information data bases (LIDB) Response DID
LOGDEND	Logon Denied DID

CLSCHGD

Register type

Peg

Description

Class Charge DID

CLSCHGD is incremented each time the DMS switch sends the Class Charge DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CLSCHGD2

Associated logs

There are no associated logs.

CORIGD

Register type

Peg

Description

Call Origination DID CORIGD is incremented each time the DMS switch sends the Call Origination DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CORIGD2

Associated logs

There are no associated logs.

CQUEDD

Register type

Peg

Description

Call Queue DID

CQUEDD is incremented each time the DMS switch sends the Call Queue DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CQUEDD2

Associated logs

There are no associated logs.

CSERVD

Register type

Peg

Description

Call Service DID

CSERVD is incremented each time the DMS switch sends the Call Service DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CSERVD2

Associated logs

There are no associated logs.

CTRAFD

Register type

Peg

Description

Controlled Traffic DID

CTRAFD is incremented each time the DMS switch sends the Controlled Traffic DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CTRAFD2

Associated logs

There are no associated logs.

CWAITD

Register type

Peg

Description

Calls Waiting DID

CWAITD is incremented each time the DMS switch sends the Calls Waiting DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CWAITD2

Associated logs

There are no associated logs.

CWBQD

Register type

Peg

Description

Calls Waiting by Queue DID

CWBQD is incremented each time the DMS switch sends the CallsWaiting by Queue DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CWBQD2

Associated logs

There are no associated logs.

DIRNUMD

Register type

Peg

Description

Directory Number DID

DIRNUMD is incremented each time the DMS switch sends the Directory Number DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

DIRNUMD2

Associated logs

There are no associated logs.

DRATED

Register type

Peg

Description

Dial Rate DID

DRATED is incremented each time the DMS switch sends the Dial Rate DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

DRATED2

Associated logs

There are no associated logs.

ELPTMID

Register type

Peg

Description

Elapsed Time DID

ELPTIMD is incremented each time the DMS switch sends the Elapsed Time DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

ELPTIMD2

Associated logs

There are no associated logs.

FORCCD

Register type

Peg

Description

Foreign Calling Card DID

FORCCD is incremented each time the DMS switch sends the Foreign Calling Card DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

FORCCD2

Associated logs

There are no associated logs.

HANDD

Register type

Peg

Description

Handoff DID

HANDD is incremented each time the DMS switch sends the Handoff DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

HANDD2

Associated logs

There are no associated logs.

LANGD

Register type

Peg

Description

Language DID

LANGD is incremented each time the DMS switch sends the Language DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

LANGD2

Associated logs

There are no associated logs.

LATAD

Register type

Peg

Description

Local access and transport area (LATA) Restriction DID

LATAD is incremented each time the DMS switch sends the LATA Restriction DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

LATAD2

Associated logs

There are no associated logs.

LIDBRD

Register type

Peg

Description

Line information data bases (LIDB) Response DID

LIDBRD is incremented each time the DMS switch sends the LIDB Response DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

LIDBRD2

Associated logs

There are no associated logs.

LOGDEND

Register type

Peg

Description

Logon Denied DID

LOGDEND is incremented each time the DMS switch sends the Logon Denied DID to the operator position.

Associated registers

There are no associated registers.

Extension registers LOGDEND2

Associated logsThere are no associated logs.

TOPPDID3

Description

TOPS open position protocol data identifiers group 3

TOPPDID3 is a continuation of TOPPDID1. These groups count each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS and the operator positions. DIDs are sent from the DMS to the operator position to update both call information and other information.

OM group TOPPDID3 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPDID3.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TOPPDID3 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPDID3

Register name	Measures
CT4QD	Call Type for Queuing DID
LOGSUCD	Logon Success DID
LOOPSTD	Loop State DID
MOND	Monitor DID
NETACTD	Network Action DID
NOACTD	No Action DID
NFYD	Notify DID

Registers for OM group TOPPDID3

Register name	Measures
OIAD	Open Information Access DID
<u>OPRADMD</u>	Operator Administration DID
<u>OPRFBD</u>	Operator Feedback DID
<u>OPRMAND</u>	Operator Management DID
<u>OPRSSPD</u>	Operator Services Suspension DID
<u>PAGINGD</u>	Paging DID
PASSWDD	Password DID
PCBD	Person Call-back DID
PORTSTD	Port Status DID

CT4QD

Register type

Peg

Description

Call Type for Queuing DID

CT4QD is incremented each time the DMS sends the Call Type for Queuing DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

CT4QD

Associated logs

There are no associated logs.

LOGSUCD

Register type

Peg

Description

Logon Success DID

LOGSUCD is incremented each time the DMS sends the Logon Success DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

LOGSUCD2

Associated logs

There are no associated logs.

LOOPSTD

Register type

Peg

Description

Loop State DID

LOOPSTD is incremented each time the DMS sends the Loop State DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

LOOPSTD2

Associated logs

There are no associated logs.

MOND

Register type

Peg

Description

Monitor DID

MOND is incremented each time the DMS sends the Monitor DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

MOND2

Associated logs

There are no associated logs.

NETACTD

Register type

Peg

Description

Network Action DID

NETACTD is incremented each time the DMS sends the Network Action DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

NETACTD2

Associated logs

There are no associated logs.

NOACTD

Register type

Peg

Description

No Action DID

NOACTD is incremented each time the DMS sends the No Action DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

NOACTD2

Associated logs

There are no associated logs.

NFYD

Register type

Peg

Description

Notify DID

NFYD is incremented each time the DMS sends the Notify DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

NFYD2

Associated logs

There are no associated logs.

OIAD

Register type

Peg

Description

Open Information Access DID

OIAD is incremented each time the DMS sends the Open Information Access DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

OIAD2

Associated logs

There are no associated logs.

OPRADMD

Register type

Peg

Description

Operator Administration DID

OPRADMD is incremented each time the DMS sends the Operator Administration DID to the operator position.

Associated registers

There are no associated registers.

Extension registers OPRADMD2

Associated logs

There are no associated logs.

OPRFBD

Register type

Peg

Description

Operator Feedback DID

OPRFBD is incremented each time the DMS sends the Operator Feedback DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

OPRFBD2

Associated logs

There are no associated logs.

OPRMAND

Register type

Peg

Description

Operator Management DID

OPRMAND is incremented each time the DMS sends the Operator Management DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

OPRMAND2

Associated logs

There are no associated logs.

OPRSSPD

Register type

Peg

Description

Operator Services Suspension DID

OPRSSPD is incremented each time the DMS sends the Operator Services Suspension DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

OPRSSPD2

Associated logs

There are no associated logs.

PAGINGD

Register type

Peg

Description

Paging DID

PAGINGD is incremented each time the DMS sends the Paging DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

PAGINGD2

Associated logs

There are no associated logs.

PASSWDD

Register type

Peg

Description

Password DID

PASSWDD is incremented each time the DMS sends the Password DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

PASSWDD2

Associated logs

There are no associated logs.

PCBD

Register type

Peg

Description

Person Call-back DID

PCBD is incremented each time the DMS sends the Person Call-back DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

PCBD2

Associated logs

There are no associated logs.

PORTSTD

Register type

Peg

Description

Port Status DID

PORTSTD is incremented each time the DMS sends the Port Status DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

PORTSTD2

Associated logsThere are no associated logs.

TOPPDID4

Description

TOPS open position protocol data identifiers group 4

TOPPDID4 is a continuation of TOPPDID1. These groups count each type of open position protocol (OPP) data identifier (DID) sent from the TOPS DMS. The registers are only incremented when a valid DID is sent. OPP consists of ActIDs and DIDs used to communicate between the DMS and the operator positions. DIDs are sent from the DMS to the operator position to update both call information and other information.

OM group TOPPDID4 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPDID4.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TOPPDID4 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPDID4

Register name	Measures
POSDATD	Position Data DID
POSSTD	Position State DID
QUERYD	Query DID
RATESTD	Rate Step DID
SRVBLLD	Service Billing DID
SRVCIDD	Service Call Identification DID
SRVLOGD	Service Logon DID

Registers for OM group TOPPDID4

Register name	Measures
SRVOPTD	Service Options DID
SRVVRD	Service Voice Response DID
STACLSD	Station Class DID
SYSTIMD	System Time DID
TACD	Time and Charges DID
TEXTD	Text DID
TONED	Audible Tone DID
TRBLCDD	Trouble Code DID
TSTATD	Team Status DID

POSDATD

Register type

Peg

Description

Position Data DID

POSDATD is incremented each time the DMS sends the Position Data DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

POSDATD2

Associated logs

There are no associated logs.

POSSTD

Register type

Peg

Description

Position State DID

POSSTD is incremented each time the DMS sends the Position State DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

POSSTD2

Associated logs

There are no associated logs.

QUERYD

Register type

Peg

Description

Query DID

QUERYD is incremented each time the DMS sends the Query DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

QUERYD2

Associated logs

There are no associated logs.

RATESTD

Register type

Peg

Description

Rate Step DID

RATESTD is incremented each time the DMS sends the Rate Step DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

RATESTD2

Associated logs

There are no associated logs.

SRVBLLD

Register type

Peg

Description

Service Billing DID

SRVBLLD is incremented each time the DMS sends the Service Billing DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

SRVBLLD2

Associated logs

There are no associated logs.

SRVCIDD

Register type

Peg

Description

Service Call Identification DID

SRVCIDD is incremented each time the DMS sends the Service Call Identification DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

SRVCIDD2

Associated logs

There are no associated logs.

SRVLOGD

Register type

Peg

Description

Service Logon DID

SRVLOGD is incremented each time the DMS sends the Service Logon DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

SRVLOGD2

Associated logs

There are no associated logs.

SRVOPTD

Register type

Peg

Description

Service Options DID

SRVOPTD is incremented each time the DMS sends the Service Options DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

SRVOPTD2

Associated logs

There are no associated logs.

SRVVRD

Register type

Peg

Description

Service Voice Response DID

SRVVRD is incremented each time the DMS sends the Service Voice Response DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

SRVVRD2

Associated logs

There are no associated logs.

STACLSD

Register type

Peg

Description

Station Class DID

STACLSD is incremented each time the DMS sends the Station Class DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

STACLSD2

Associated logs

There are no associated logs.

SYSTIMD

Register type

Peg

Description

System Time DID

SYSTIMD is incremented each time the DMS sends the System Time DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

SYSTIMD2

Associated logs

There are no associated logs.

TACD

Register type

Peg

Description

Time and Charges DID

TACD is incremented each time the DMS sends the Time and Charges DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

TACD2

Associated logs

There are no associated logs.

TEXTD

Register type

Peg

Description

Text DID

TEXTD is incremented each time the DMS sends the Text DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

TEXTD2

Associated logs

There are no associated logs.

TONED

Register type

Peg

Description

Audible Tone DID

TONED is incremented each time the DMS sends the Audible Tone DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

TONED2

Associated logs

There are no associated logs.

TRBLCDD

Register type

Peg

Description

Trouble Code DID

TRBLCDD is incremented each time the DMS sends the Trouble Code DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

TRBLCDD2

Associated logs

There are no associated logs.

TSTATD

Register type

Peg

Description

Team Status DID

TSTATD is incremented each time the DMS sends the Team Status DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

TSTATD2

Associated logs

There are no associated logs.

TOPPDID5

Description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Data Identifiers (DID) Group 5 (TOPPDID5)

TOPPDID5 is a continuation of TOPPDID1. These groups contain registers that count each type of OPP DID sent from the TOPS DMS switch. The registers are only incremented when the TOPS DMS switch sends a valid DID. Open position protocol consists of Action Identifiers (ActID) and DIDs used to communicate between the TOPS DMS switch and the OPP positions. The TOPS DMS switch sends DIDs to the OPP positions to update both call information and other information.

OM group TOPPDID5 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPDID5.

Key field	Info field
none	none

Related functional groups

The following functional groups are associated with OM group TOPPDID5:

- ABS00001
- ENSV0001
- EWSS0001

Registers

The following table lists the registers associated with OM group TOPPDID5 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPDID5

Register name	Measures
ALTRTED	Alternate Route DID
CTRYNMD	Country Name DID
DATAD	Data DID

Registers for OM group TOPPDID5

Register name	Measures
<u>DBACTD</u>	Database Action DID
DBCLASD	Database Class DID
<u>DBNUMB</u>	Database Number DID
<u>DBQRYD</u>	Database Query DID
FIXDURD	Fixed Duration DID
FORASTD	Foreign Assistance DID
OINFOD	Operator Services System Advanced Intelligent Network (OSSAIN) Information DID
OLNSIND	Register OLNS Information DID
<u>OPRQPRD</u>	Operator Queue Profile DID
OTRIGRD	OSSAIN Trigger DID
POSINFD	Position Information DID
TKTNUMD	Ticket Number DID
XFROPRD	Transfer to Operator DID

ALTRTED

Register type

Peg

Description

Alternate Route DID

ALTRTED is incremented each time the TOPS DMS switch sends the Alternate Route DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

ALTRTED2

Associated logs

There are no associated logs.

CTRYNMD

Register type

Peg

Description

Country Name DID

CTRYNMD is incremented each time the TOPS DMS switch sends the Country Name DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

CTRYNMD2

Associated logs

There are no associated logs.

DATAD

Register type

Peg

Description

Data DID

DATAD is incremented each time the TOPS DMS switch sends the Data DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

DATAD2

Associated logs

There are no associated logs.

DBACTD

Register type

Peg

Description

Database Action DID

DBACTD is incremented each time the TOPS DMS switch sends the Database Action DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

DBACTD2

Associated logs

There are no associated logs.

DBCLASD

Register type

Peg

Description

Database Class DID

DBCLASD is incremented each time the TOPS DMS switch sends the Database Class DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

DBCLASD2

Associated logs

There are no associated logs.

DBNUMB

Register type

Peg

Description

Database Number DID

DBNUMD is incremented each time the TOPS DMS switch sends the Database Number DID to an OPP position. This event occurs when a call is retrieved from the booked call database using the serial number.

There are no associated registers.

Extension registers

DBNUMB2

Associated logs

There are no associated logs.

DBQRYD

Register type

Peg

Description

Database Query DID

DBQRYD is incremented each time the TOPS DMS switch sends the Database Query DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

DBQRYD2

Associated logs

There are no associated logs.

FIXDURD

Register type

Peg

Description

Fixed Duration DID

FIXDURD is incremented each time the TOPS DMS switch sends the Fixed Duration DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

FIXDURD2

Associated logs

FORASTD

Register type

Peg

Description

Foreign Assistance DID

FORASTD is incremented each time the TOPS DMS switch sends the Foreign Assistance DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

FORASTD2

Associated logs

There are no associated logs.

OINFOD

Register type

Peg

Description

Operator Services System Advanced Intelligent Network (OSSAIN) Information DID

OINFOD is incremented each time the TOPS DMS switch sends the OSSAIN Information DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

OINFOD2

Associated logs

There are no associated logs.

OLNSIND

Register type

Peg

Description

Register OLNS Information DID

OLNSIND is incremented each time the TOPS DMS switch sends the OLNS Information DID to an OPP position.

832

Associated registers

There are no associated registers.

Extension registers

OLNSIND2

Associated logs

There are no associated logs.

OPRQPRD

Register type

Peg

Description

Operator Queue Profile DID

OPRQPRD is incremented each time the TOPS DMS switch sends the Operator Queue Profile DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

OPRQPRD2

Associated logs

There are no associated logs.

OTRIGRD

Register type

Peg

Description

OSSAIN Trigger DID

OTRIGRD is incremented each time the TOPS DMS switch sends the OSSAIN Trigger DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

OTRIGRD2

Associated logs

There are no associated logs.

POSINFD

Register type

Peg

Description

Position Information DID

POSINFD is incremented each time the TOPS DMS switch sends the Position Information DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

POSINFD2

Associated logs

There are no associated logs.

TKTNUMD

Register type

Peg

Description

Ticket Number DID

TKTNUMD is incremented each time the TOPS DMS switch sends the Ticket Number DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

TKTNUMD2

Associated logs

There are no associated logs.

XFROPRD

Register type

Peg

Description

Transfer to Operator DID

XFROPRD is incremented each time the TOPS DMS switch sends the Transfer to Operator DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers XFROPRD2

Associated logs

TOPPDID6

Description

Traffic Operator Position System (TOPS) Open Position Protocol (OPP) Data Identifiers (DIDs) Group 6 (TOPPDID6)

TOPPDID6 is a continuation of OM groups TOPPDID1 through TOPPDID5. These groups contain registers that count each type of OPP DID sent from the TOPS DMS switch. The registers are only incremented when the TOPS DMS switch sends a valid DID.

Open Position Protocol consists of Action Identifiers (ActIDs) and DIDs used to communicate between the TOPS DMS switch and the OPP positions. The TOPS DMS switch sends DIDs to the OPP positions to update both call information and other information.

OM group TOPPDID6 provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPDID6.

Key field	Info field
none	none

Related functional groups

The following functional groups are associated with OM group TOPPDID6:

- ADVQ0001
- EWSS0001

Registers

The following table lists the registers associated with OM group TOPPDID6 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPDID6

Register name	Measures
ALTDATD	Alternate Date DID
ALTTIMD	Alternate Time DID
ARRTOND	Arrival Tone DID

Registers for OM group TOPPDID6

Register name	Measures
ESTCHGD	Estimate Charges DID
ESTDURD	Estimate Duration DID
GENDIGD	Generic Digits DID
INTNETD	Intelligent Network DID
LRNINFD	LRN Information DID
OPCCOND	Office Condition DID
PASTHRD	Pass Through DID
QSTATD	Queue Status DID
QSTATQD	Queue Status by Queue DID
SVCPROD	Service Provider DID
SYSSTDD	System Status DID

ALTDATD

Register type

Peg

Description

Register Alternate Date DID

Register ALTDATD counts the number of times the Alternate Date DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

ALTDATD2

Associated logs

There are no associated logs.

ALTTIMD

Register type

Peg

Description

Register Alternate Time DID

Register ALTTIMD counts the number of times the Alternate Time DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

ALTTIMD2

Associated logs

There are no associated logs.

ARRTOND

Register type

Peg

Description

Register Arrival Tone DID

Register ARRTOND counts the number of times the Arrival Tone DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

ARRTOND2

Associated logs

There are no associated logs.

ESTCHGD

Register type

Peg

Description

Register Estimate Charges DID

Register ESTCHGD counts the number of times the Estimate Charges DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

ESTCHGD2

Associated logs

There are no associated logs.

ESTDURD

Register type

Peg

Description

Register Estimate Duration DID

Register ESTDURD counts the number of times the Estimate Duration DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

ESTDURD2

Associated logs

There are no associated logs.

GENDIGD

Register type

Peg

Description

Generic Digits DID

GENDIGD is incremented each time the DMS sends the Generic Digits DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

GENDIGD2

Associated logs

INTNETD

Register type

Peg

Description

Intelligent Network DID

INTNETD is incremented each time the DMS sends the Intelligent Network DID to the operator position.

Associated registers

There are no associated registers.

Extension registers

INTNETD2

Associated logs

There are no associated logs.

LRNINFD

Register type

Peg

Description

Register LRN Information DID

Register LRNINFD counts the number of times the LRN Information DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

LRNINFD2

Associated logs

There are no associated logs.

OPCCOND

Register type

Peg

Description

Register Office Condition DID

OFCCOND tracks the number of times the TOPS DMS switch sends the Office Condition DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

OFCCOND2

Associated logs

There are no associated logs.

PASTHRD

Register type

Peg

Description

Register Pass Through DID

Register PASTHRD counts the number of times the Pass Through DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

PASTHRD2

Associated logs

There are no associated logs.

QSTATD

Register type

Peg

Description

Register Queue Status DID

QSTATD tracks the number of times the TOPS DMS switch sends the Queue Status DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

QSTATD2

Associated logs

There are no associated logs.

QSTATQD

Register type

Peg

Description

Register Queue Status by Queue DID

QSTATQD tracks the number of times the TOPS DMS switch sends the Queue Status by Queue DID to an OPP position.

Associated registers

There are no associated registers.

Extension registers

QSTATQD2

Associated logs

There are no associated logs.

SVCPROD

Register type

Peg

Description

Register Service Provider DID

Register SVCPROD counts the number of times the Service Provider DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers

SVCPROD2

Associated logs

There are no associated logs.

SYSSTDD

Register type

Peg

Description

Register System Status DID

Register SYSSTTD counts the number of times the System Status DID is sent to OPP positions.

Associated registers

There are no associated registers.

Extension registers SYSSTD2

Associated logs

TOPPMSG

Description

TOPS open position protocol message

TOPPMSG counts each open position protocol (OPP) message type sent or received by domestic TOPS. OPP is a flexible means of transferring information between the operator position and the TOPS DMS. Packets of information known as identifiers are classified into data identifiers (DID), which travel from TOPS to the operator position, and action identifiers, which travel from the operator position to TOPS.

OM group TOPPMSG provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPPMSG.

Key field	Info field
none	none

Related functional groups

There are no related functional groups.

Registers

The following table lists the registers associated with OM group TOPPMSG and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPPMSG

Register name	Measures
ACTRQST	Action Requests
CALLBEG	Call Begin message
CALLEND	Call End message
CALLRES	Call Resume message
CALLSUS	Call Suspend message
CALLUPD	Call Update message

Registers for OM group TOPPMSG

Register name	Measures
NCALLUPD	Non-call Update message
ACTRQST	

ACTRQST

Register type

Peg

Description

Action Requests

ACTRQST is incremented each time the DMS receives an Action Request message from an OPP position.

Associated registers

There are no associated registers.

Extension registers

ACTRQST2

Associated logs

There are no associated logs.

CALLBEG

Register type

Peg

Description

Call Begin message

CALLBEG is incremented each time the DMS sends a Call Begin message to the operator position. This message is sent when a call is originated.

Associated registers

There are no associated registers.

Extension registers

CALLBEG2

Associated logs

CALLEND

Register type

Peg

Description

Call End message

CALLEND is incremented each time the DMS sends a Call End message to the operator position. This message is sent when a call is terminated.

Associated registers

There are no associated registers.

Extension registers

CALLEND2

Associated logs

There are no associated logs.

CALLRES

Register type

Peg

Description

Call Resume message

CALLRES is incremented each time the DMS sends a Call Resume message to the operator position. This message is sent when a call is reaccessed after being on hold.

Associated registers

There are no associated registers.

Extension registers

CALLRES2

Associated logs

There are no associated logs.

CALLSUS

Register type

Peg

Description

Call Suspend message

CALLSUS is incremented each time the DMS sends a Call Suspend message to the operator position. This message is sent when a call is put on hold.

Associated registers

There are no associated registers.

Extension registers

CALLSUS2

Associated logs

There are no associated logs.

CALLUPD

Register type

Peg

Description

Call Update message

CALLUPD is incremented each time the DMS sends a Call Update message to the operator position. This message results in a screen update at the operator position displaying a change in call characteristics.

Associated registers

There are no associated registers.

Extension registers

CALLUPD2

Associated logs

There are no associated logs.

NCALLUPD

Register type

Peg

Description

Non-call Update message

NCALLUPD is incremented each time the DMS sends a Non-Call Update message to the operator position. This message results in a screen update at the operator position displaying a change in a characteristic that is not related to a call.

There are no associated registers.

Extension registers NCALLUP2

Associated logs

TOPQOCPS

Description

Traffic Operator Position System (TOPS) Queue Management System (QMS) Operator Centralization (OC) Position Seizures (TOPQOCPS)

OM group TOPQOCPS pegs QMS position seizure information for TOPS OC host and stand-alone offices. QMS position seizures do not occur in TOPS offices that function solely as OC remotes; hence OM TOPQOCPS is not pegged.

Note: Even though TOPQOCPS only pegs QMS position seizures in OC host and stand-alone offices, it appears in all TOPS offices.

A QMS position seizure occurs when a call is presented to a TOPS QMS operator as an initial call arrival, as a transfer, as a recall, or with QMS Customer Assistance Service Enhancements (CASE) as an assistance request.

Note: Call arrivals to service assistant (SA) and in-charge (IC) positions are not regarded as QMS position seizures.

A TOPS office can operate in three modes: stand-alone, OC host, and OC remote.

A TOPS office is operating in the stand-alone mode when it provides operators for calls originating in its own office. An office that provides operators for calls originating in other TOPS offices is operating in the OC host mode. The other TOPS offices that are utilizing operators from the OC host are operating in the OC remote mode.

Note 1: A single TOPS office can operate simultaneously, in all three modes.

Note 2: The stand-alone mode is not associated with OC; it is the normal operating mode of TOPS switches that do not use OC.

In an office that functions solely as a stand-alone, TOPQOCPS counts the number of QMS position seizures. These QMS position seizures are displayed separately for each QMS Force Management (FM) call class. The total number of QMS position seizures is also displayed.

In an office that functions solely as a OC host, TOPQOCPS counts the number of QMS position seizures for each OC remote for which the OC host is datafilled to provide operators. For OC remotes, the total number of QMS position seizures is displayed as well as a QMS position seizure breakdown by QMS FM call class.

A QMS FM call class is associated, by datafill, with each QMS position seizure.

Note: Tables OCOFC and OCGRP define the OC remote offices for which a OC host can provide operators.

For more information about OC datafill, please refer to the "Host/Remote Networking by Queue Type" section of the "Datafilling Advanced Queuing" section in the DMS-500 Translations Guide 297-2663-350.

Note: Table TQCLSNAM identifies the names of the QMSFM call classes, and table TQCLSDEF maps FM call types to call classes. The FM call type associated with a QMS position seizure is determined by datafill in tables TQFMNAMS and TQFMCT4Q, and optionally by datafill in tables TQFMCLAS, TQFMCLDT, and TQFMREST.

For more information about the datafill of QMS FM call types and classes, please refer to the "Host Queue Management System" section of the "Datafilling Advanced Queuing" section in the DMS-500 Translations Guide 297-2663-350.

Also, for more detailed information about FM, please refer to the Product Document Directory, 297-8991-001 and reference the appropriate FM Guide.

Note: Traffic Operator Position System Automatic Call Distribution (TOPSACD) is another queuing system, in which position seizures occur. This queuing system also provides FM call classes and FM call types.

OM group TOPQOCPS provides a maximum of 528 tuples per OC host. For a stand-alone, the maximum is 16 tuples.

The calculation for the maximum number of tuples is derived from the following formula:

[(1 + number of offices with the OFCTYPE field in table OCGRP datafilled as REMOTE) (1 + number of QMS FM call classes datafilled in table TQCLSNAM)]

Note: A maximum of 32 offices can be datafilled as remote in the OFCTYPE field of table OCGRP. A maximum of 15 QMS FM call

classes can be datafilled in table TQCLSNAM; hence, the maximum number of tuples is 528 [(1 + 32) (1 + 15)].

The following table lists the key and info fields associated with OM group TOPQOCPS.

Key field	Info field
none	TOPS_QOCPS_REGISTERINFO

The TOPS_QOCPS_REGISTERINFO field consists of the following information:

the name of the OC remote

Note: This field is blank for tuples that report QMS position seizures for calls originating in the office where the report is generated.

 the name of the QMSFM call class for which QMS position seizures are counted, or office total (OFCTOTAL) that displays a total count of QMS position seizures for the specified office.

The TOPQOCPS report is generated, at an office that functions solely as an OC host, for each of its OC remotes. For each office one tuple displays the total number of QMS position seizures, followed by tuples for the QMS position seizures for each QMS FM call class.

For an office that functions solely as a stand-alone, the TOPQOCPS report is generated, displaying one tuple for the total number of QMS position seizures, followed by tuples for the QMS position seizures for each QMS FM call class.

At offices that function solely as OC remotes, the TOPQOCPS report should show all registers with zero values.

There are no tuples for the default QMS FM call class UNDEFINED. This QMS FM call class is not datafilled in table TQCLSNAM, but QMS position seizures are assigned to it if they are not assigned to other QMSFM call classes through datafill. If information about the UNDEFINED QMS FM call class is required, it can be obtained by subtracting the QMS position seizures reported for the datafilled QMS FM call classes from those reported for the office total.

Related functional groups

Functional group Advanced Queuing (ADVQ0001) is associated with OM group TOPQOCPS.

Registers

The following table lists the registers associated with OM group TOPQOCPS and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPQOCPS

Register name	Measures
<u>PS</u>	Position Seizures (PS)

PS

Register type

Peg

Description

Register Position Seizures (PS)

Register PS is pegged each time a TOPS QMS operator receives a call as an initial call arrival, as a transfer, as a recall, or with QMS CASE, as an assistance request.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TOPS950

Description

Traffic operator position system 950

TOPS950 counts feature group B (FGB) calls to a particular carrier. TOPS access tandem (AT) switches route FGB 950 calls to FGB carriers, based on translation of the called digit streams.

852

OM group TOPS950 provides one tuple for each entry in table FGBCIC. The following table lists the key and info fields associated with OM group TOPS950.

Key field	Info field
IC_INC_CARRIER_NAME	none

Related functional groups

The TOPS call processing functional group is associated with OM group TOPS950.

Registers

The following table lists the registers associated with OM group TOPS950 and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPS950

Register name	Measures
FWDTOCAR	Forward to carrier

FWDTOCAR

Register type

Peg

Description

Forward to carrier

FWDTOCAR is incremented each time a 950 call is routed to a particular carrier that is datafilled in table FGBCIC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TOPSAICC

Description

TOPS automated intercept call completion

TOPSAICC monitors the use of the Automated Intercept Call Completion (AINTCC) feature. TOPSAICC contains six registers that count the following activities:

- the number of requests from the directory assistance system (DAS) for AINTCC that require an announcement
- the number of requests from the DAS for AINTCC that do not require an announcement
- the number of AINTCC calls that are completed using an announcement
- the number of AINTCC calls that do not require an announcement and are completed by the DMS switch
- the number of AINTCC calls for which the DAS requested a call completion with an announcement, but was denied by the DMS switch
- the number of AINTCC calls for which the DAS requested call completion without an announcement, but was denied by the DMS switch

TOPS offices with release NA006 and higher

OM group TOPSAICC provides a maximum of 32 tuples for each office. The following table lists the key and info fields associated with OM group TOPSAICC.

Key field	Info field
Database Instance [(TOPSVR1, TOPSVR2) (0-15)]	none

Note: The addition of Key field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

TOPS offices with a release below NA006

OM group TOPSAICC provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPSAICC.

Key field	Info field
none	none

Related functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSAICC.

Registers

The following table lists the registers associated with OM group TOPSAICC and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSAICC

Register name	Measures
CMPLTANN	Complete with announcement
CMPLTNIL	Complete without announcement
DENYANN	Deny with announcement
DENYNIL	Deny without announcement
REQSTANN	Request with announcement
REQSTNIL	Request without announcement

CMPLTANN

Register type

Peg

Description

Complete with announcement (CMPLTANN) CMPLTANN counts the number of AINTCC calls that are completed using an announcement.

Validation formula: <u>CMPLTANN</u> = <u>REQSTANN</u> - <u>DENYANN</u>

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CMPLTNIL

Register type

Peg

Description

Complete without announcement (CMPLTNIL)

CMPLTNIL counts the number of AINTCC calls that do not require an announcement and are completed by the DMS switch.

Associated registers

Validation formula: CMPLTNIL = REQSTNIL - DENYNIL

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DENYANN

Register type

Peg

Description

Deny with announcement (DENYANN)

DENYANN counts the number of AINTCC calls for which the DAS requested a call completion with an announcement but was denied by the DMS switch.

Validation formula: DENYANN = REQSTANN - CMPLTANN

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DENYNIL

Register type

Peg

Description

Deny without announcement (DENYNIL)

DENYNIL counts the number of AINTCC calls for which the DAS requested call completion without an announcement, but was denied by the DMS switch.

Associated registers

Validation formula: DENYNIL = REQSTNIL - CMPLTNIL

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

REQSTANN

Register type

Peg

Description

Request with announcement (REQSTANN)

REQSTANN counts the number of requests from the DAS for AINTCC that require an announcement.

There are no associated registers.

Extension registers

Validation formula: REQSTANN = <u>CMPLTANN</u> + <u>DENYANN</u>

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

There are no associated logs.

REQSTNIL

Register type

Peg

Description

Request without announcement (REQSTNIL)

REQSTNIL counts the number of requests from the DAS for AINTCC that do not require an announcement.

Associated registers

There are no associated registers.

Extension registers

Validation formula: REQSTNIL = CMPLTNIL + DENYNIL

Note: Any OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Associated logs

TOPSALT

Description

TOPS alternate host

TOPSALT measures the number of calls that are routed to an alternate host. TOPSALT contains five registers that count the following activities:

- the number of times a call is rerouted to the alternate host because of resource failure at the primary host
- the number of times a call is rerouted to the alternate host because of queue overflow at the primary host
- the number of times a call is rerouted to the alternate host when the primary host is unavailable because of datalink failure
- the number of times a call is rerouted to the alternate host when the primary host is unavailable because of voice link throttling
- the total number of times calls are rerouted to the alternate host because of primary host failure

OM group TOPSALT provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPSALT.

Key field	Info field
none	TOPS_QUEUEINDX_REGISTE RINFO

Related functional groups

The following functional groups are associated with OM group TOPSALT:

- DMS-100
- DMS-200

Registers

The following table lists the registers associated with OM group TOPSALT and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSALT

Register name	Measures
ALTDEF	ALT deflect
ALTDL	ALT datalink failure
ALTOFL	ALT overflow
ALTVL	ALT voice link
ALTTOT	ALT total

ALTDEF

Register type

Peg

Description

ALT deflect

ALTDEF counts the number of times a call is rerouted to the alternate host because of resource failure at the primary host.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ALTDL

Register type

Peg

Description

ALT datalink failure

ALTDL counts the number of times a call is rerouted to the alternate host when the primary host is unavailable because of datalink failure.

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ALTOFL

Register type

Peg

Description

ALT overflow

ALTOFL counts the number of times a call is rerouted to the alternate host because the primary host queue is overflowed.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ALTVL

Register type

Peg

Description

ALT voice link

ALTVL counts the number of times a call is rerouted to the alternate host when the primary host is unavailable because of voice link throttling.

Note: OC voice link throttling is not supported; therefore, this register is never pegged.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ALTTOT

Register type

Peg

Description

ALT total

ALTTOT counts the cumulative total of ALTVL, ALTDL, ALTOFL, and ALTDEF.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TOPSARU

Description

Traffic Operator Position System (TOPS) audio response unit (ARU) (TOPSARU)

TOPSARU provides information on directory assistance (DA) and intercept calls in a TOPS office that are routed to an internal or external audio response unit.

DA calls request directory information to complete the call. Intercept calls are intercepted because the subscriber dials an out-of-service number or a number that has recently been changed.

An ARU is connected with the subscriber in order to provide recorded listing information to directory assistance and intercept calls.

TOPS offices with release NA006 and higher

OM group TOPSARU provides a maximum of 32 tuples for each office. The following table lists the key and info fields associated with OM group TOPSARU.

Key field	Info field
Database Instance ([TOPSVR1, TOPSVR2][0-15])	none

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

TOPS offices with a release below NA006

OM group TOPSARU provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPSARU.

Key field	Info field
none	none

Related functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSARU.

Registers

The following table lists the registers associated with OM group TOPSARU and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSARU

Register name	Measures
DAARUAF	Directory assistance (DA) audio response unit (ARU) announcement failure
DAARUSUC	Directory assistance (DA) audio response unit (ARU) success
DAARUUN	Directory assistance (DA) audio response unit (ARU) unavailable
DATOARU	Directory assistance (DA) calls to audio response unit (ARU)
INARUSUC	Intercept audio response unit (ARU) success
INTARUAF	Intercept audio response unit (ARU) announcement failure
INTARUUN	Intercept audio response unit (ARU) unavailable
INTTOARU	Intercept calls released to audio response unit (ARU)
PRIMRY	Primary language
PRIMSEC	Primary and secondary language
SECNDRY	Secondary language
SECPRIM	Secondary and primary language

DAARUAF

Register type

Peg

Description

Directory assistance (DA) audio response unit (ARU) announcement failure (DAARUUF)

<u>DAARUAF</u> is incremented when a DA call released to an audio response unit announcement connects to an ARU channel that fails to provide the announcement.

Associated registers

<u>DAARUSUC</u> counts DA calls that are successfully provided with ARU announcement.

<u>DAARUUN</u> counts DA calls that cannot be released to an ARU because no ARUs are available.

<u>DATOARU</u> is incremented when an attempt is made to release a DA call to an ARU announcement.

Validation formula:

TOPSARU_<u>DAARUAF</u> = TOPSARU_<u>DATOARU</u> - (TOPSARU_<u>DAARUUN</u> + TOPSARU_<u>DAARUSUC</u>)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DAARUSUC

Register type

Peg

Description

Directory assistance (DA) audio response unit (ARU) success (DAARUSUC)

DAARUSUC is incremented when an ARU announcement is successfully presented during a TOPS DA call.

Associated registers

<u>DAARUAF</u> is incremented when a DA call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

<u>DAARUUN</u> counts DA calls that cannot be release to an ARU because no ARUs are available.

<u>DATOARU</u> is incremented when an attempt is made to released a directory assistance call to an ARU announcement.

Validation formula:

TOPSARU_<u>DAARUSUC</u> = TOPSARU_<u>DATOARU</u> - (TOPSARU_<u>DAARUUN</u> + TOPSARU_<u>DAARUAF</u>)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

DAARUSC2

Associated logs

There are no associated logs.

DAARUUN

Register type

Peg

Description

Directory assistance (DA) audio response unit (ARU) unavailable (DAARUUN)

DAARUUN is incremented when a DA call cannot be released to an ARU announcement because no ARUs are available.

Associated registers

<u>DAARUAF</u> is incremented when a DA call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

<u>DAARUSUC</u> counts DA calls that are successfully provided with an ARU announcement.

DATOARU is incremented when an attempt is made to release a DA call to an ARU announcement.

Validation formula:

```
TOPSARU <u>DAARUUN</u> = TOPSARU <u>DATOARU</u> - (TOPSARU <u>DAARUAF</u> + TOPSARU <u>DAARUSUC</u>)
```

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DATOARU

Register type

Peg

Description

Directory assistance (DA) calls to audio response unit (ARU) (DATOARU)

DATOARU is incremented when an attempt is made to release a DA call to an ARU announcement.

Associated registers

<u>DAARUAF</u> is incremented when a DA call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

<u>DAARUSUC</u> counts DA calls that are successfully provided with an ARU announcement.

<u>DAARUUN</u> counts DA calls that cannot be release to an ARU because no ARUs are available.

Validation formula:

TOPSARU <u>DATOARU</u> = TOPSARU <u>DAARUUN</u> + TOPSARU <u>DAARUSUC</u>

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

DATOARU2

Associated logs

There are no associated logs.

INARUSUC

Register type

Peg

Description

Intercept audio response unit (ARU) success (INARUSUC)

INARUSUC is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

Associated registers

INTARUAF is incremented when an intercept call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

<u>INTARUUN</u> counts intercept calls that cannot be released to an ARU because no ARUs are available.

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Validation formula:

TOPSARU_<u>INARUSUC</u> = TOPSARU_<u>INTTOARU</u> - (TOPSARU_<u>INTARUUN</u> + TOPSARU_<u>INTARUAF</u>)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

INARUSC2

Associated logs

There are no associated logs.

INTARUAF

Register type

Peg

Description

Intercept audio response unit (ARU) announcement failure (INTARUAF)

INTARUAF is incremented when an intercept call released to audio response unit (ARU) announcement connects to an ARU channel that fails to provide the announcement.

Associated registers

INARUSUC is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

INTARUUN counts intercept calls that cannot be released to an ARU because no ARUs are available.

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Validation formula:

TOPSARU_INTARUAF = TOPSARU_INTTOARU - (TOPSARU_INTARUUN + TOPSARU_INARUSUC)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INTARUUN

Register type

Peg

Description

Intercept audio response unit (ARU) unavailable (INTARUUN)

INTARUUN is incremented when an intercept call cannot be released to an ARU announcement because no ARUs are available.

Associated registers

<u>INARUSUC</u> is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

<u>INTARUAF</u> is incremented when an intercept call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Validation formula:

TOPSARU_<u>INTARUUN</u> = TOPSARU_<u>INTTOARU</u> - (TOPSARU-<u>INTARUAF</u> + TOPSARU_<u>INARUSUC</u>)

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INTTOARU

Register type

Peg

Description

Intercept calls released to audio response unit (ARU) (INTTOARU)

INTTOARU is incremented when an attempt is made to release an intercept call to an ARU announcement.

Associated registers

<u>INARUSUC</u> is incremented when an ARU announcement is successfully presented during a TOPS intercept call.

<u>INTARUAF</u> is incremented when an intercept call released to ARU announcement connects to an ARU channel that fails to provide the announcement.

INTARUUN counts intercept calls that cannot be release to an ARU because no ARUs are available.

Validation formula:

TOPSARU_INTTOARU = TOPSARU_IINTARUUN + TOPSARU_INTARUAF + TOPSARU_INARUSUC

Note: An OM validation formula may appear inaccurate when taken around the interval in which OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

There are some scenarios that will cause no registers to be pegged in this OM group. Example: A call is released to audio causing register TOPSARU_DATOARU to be pegged. Before the ARU sends the answer message, the originator goes onhook and takes the call down. Since no answer message was received, register TOPSARU_DAARUSUC would not be pegged. This results in TOPSARU_DATOARU being pegged without any succeeding registers being pegged. Please allow for this possibility when using the validation formula.

Extension registers

INTOARU2

Associated logs

There are no associated logs.

PRIMRY

Register type

Pea

Description

Primary language (PRIMRY)

PRIMRY is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's primary language.

Associated registers

There are no associated registers.

Extension registers

PRIMRY2

Associated logs

There are no associated logs.

PRIMSEC

Register type

Peg

Description

Primary and secondary language (PRIMSEC)

PRIMSEC is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's primary language, followed by an announcement in the office's secondary language.

Associated registers

There are no associated registers.

Extension registers

PRIMSEC2.

Associated logs

There are no associated logs.

SECNDRY

Register type

Peg

Description

Secondary language (SECNDRY)

SECNDRY is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's secondary language.

Associated registers

There are no associated registers.

Extension registers

SECNDRY2

Associated logs

There are no associated logs.

SECPRIM

Register type

Peg

Description

Secondary and primary language (SECPRIM)

SECPRIM is incremented when an attempt is made to release a DA or intercept call to an ARU announcement in the TOPS office's secondary language, followed by an announcement in the office's primary language.

Associated registers

There are no associated registers.

Extension registers

SECPRIM2

Associated logs

There are no associated logs.

TOPSBRND

Description

TOPS branding announcement

TOPSBRND provides information on the use of branding announcements on TOPS calls destined for an operator or automated operator system.

TOPSBRND contains four registers that count:

- successful attempts to play a branding announcement
- unsuccessful attempts to play a branding announcement
- calls that are abandoned while the branding announcement is playing

OM group TOPSBRND provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPSBRND.

Key field	Info field
TA for toll and assist calls	none
DA for directory assist calls	

Related functional groups

The following functional groups are associated with OM group TOPSBRND:

TOPSBRND is provided for DMS-200 TOPS offices.

Registers

The following table lists the registers associated with OM group TOPSBRND and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSBRND

Register name	Measures
BRNDABDN	Branding announcement abandons

Registers for OM group TOPSBRND

Register name	Measures
BRNDFAIL	Branding announcement failure
BRNDSUC	Branding successes

BRNDABDN

Register type

Peg

Description

Branding announcement abandons

BRNDABDN counts calls that are abandoned while the branding announcement is playing.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

BRNDFAIL

Register type

Peg

Description

Branding announcement failure

BRNDFAIL counts unsuccessful attempts to play a branding announcement.

A branding announcement may fail to play for any one of the following reasons:

- no digital recorded announcement machine (DRAM) circuit is available to play the branding announcement
- the indicated CLLI is not datafilled in table DRAMTRK
- the company's code is not datafilled in table BRANDANN

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

TOPS114 is generated when the company's code is not datafilled in table BRANDANN.

BRNDSUC

Register type

Peg

Description

Branding successes

BRNDSUC counts successful attempts to play a branding announcement. This register is incremented when a requested branding announcement plays to completion.

Associated registers

There are no associated registers.

Extension registers

BRNDSUC2

Associated logs

There are no associated logs.

TOPSCCAB

Description

Traffic Operator Position System (TOPS) directory assistance call completion (DACC) alternate billing (TOPSCCAB)

TOPSCCAB provides information on the method of billing used for automatic directory assistance call completion (ADACC).

TOPSCCAB contains ten registers that count the following types of calls:

- calls that select continue billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid
- calls that select continue billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was alternate billing method
- calls that select sent paid as the billing method for ADACC, when the directory-assisted portion of the call was not billable
- calls that select alternate billing as the ADACC billing method, when the directory-assisted portion of the call was not billable
- calls that select alternate billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid
- calls that select sent paid as the billing method for ADACC, when the billing for the directory-assisted portion of the call was alternate billing
- calls that select auto collect as the billing method for ADACC

TOPS offices with release NA006 and higher

O OM group TOPSCCAB provides a maximum of 32 tuples for each office. The following table lists the key and info fields associated with OM group TOPSCCAB.

Key field	Info field
Database Instance [(TOPSVR1, TOPSVR2) (0-15)]	none

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

TOPS offices with a release below NA006

OM group TOPSCCAB provides one tuple for each office. The following table lists the key and info fields associated with OM group TOPSCCAB.

Key field	Info field
none	none

Related functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSCCAB.

Registers

The following table lists the registers associated with OM group TOPSCCAB and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSCCAB

Register name	Measures
ALT2OPR	Alternate billing changed to operator billing
ALT2SNT	Alternate billing to sent paid
AUTOCOL	Auto collect
CONTALT	Continue alternate billing
CONTSNT	Continue sent paid
NCHG2ALT	No charge to alternate billing
NCHG2OPR	No charge changed to operator billing
NCHG2SNT	No charge to sent paid
SNT2ALT	Sent paid to alternate billing
SNT2OPR	Sent paid changed to operator billing

ALT2OPR

Register type

Peg

Description

Register alternate billing changed to operator billing (ALT2OPR)

Register ALT2OPR measures the number of times a subscriber whose DA call was billed using alternate billing selected operator billing for the call-completion billing method. The modification applies to IBM DA protocol as well as to standard DA protocol.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ALT2SNT

Register type

Peg

Description

Alternate billing to sent paid (ALT2SNT)

ALT2SNT counts calls that select sent paid as the billing method for ADACC, when the billing for the directory-assisted portion of the call was alternate billing.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AUTOCOL

Register type

Peg

Description

Auto collect (AUTOCOL)

AUTOCOL counts calls that select auto collect as the billing method for ADACC.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONTALT

Register type

Peg

Description

Continue alternate billing (CONTALT)

CONTALT counts calls that select continue billing as the billing method for ADACC, when the billing method for the directory-assisted portion of the call was alternate billing.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

CONTSNT

Register type

Peg

Description

Continue sent paid (CONTSNT)

CONTSNT counts calls that select continue billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NCHG2ALT

Register type

Peg

Description

No charge to alternate billing (NCHG2ALT)

NCHG2ALT counts calls that select alternate billing as the ADACC billing method, when the directory-assisted portion of the call was not billable.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NCHG2OPR

Register type

Peg

Description

Register no charge changed to operator billing (NCHG2OPR)

Register NCHG2OPR measures the number of times a subscriber whose DA call was free selected operator billing for the call-completion billing method. The modification applies to IBM DA protocol as well as standard DA protocol.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NCHG2SNT

Register type

Peg

Description

No charge to sent paid (NCHG2SNT)

NCHG2SNT counts calls that select sent paid as the billing method for ADACC, when the directory-assisted portion of the call was not billable.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SNT2ALT

Register type

Peg

Description

Sent paid to alternate billing (SNT2ALT)

SNT2ALT counts calls that select alternate billing as the billing method for ADACC, when the billing for the directory-assisted portion of the call was sent paid.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

SNT2OPR

Register type

Peg

Description

Register sent paid changed to operator billing (SNT2OPR)

Register SNT2OPR measures the number of times a subscriber whose DA call was billed station paid selected operator billing for the call-completion billing method. The modification applies to IBM DA protocol as well as to standard DA protocol.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TOPSDBA

Description

Traffic Operator Position System directory assistance (TOPSDA)

TOPSDA provides information on directory assistance (DA) and intercept calls that are handled by the Traffic Operator Position System (TOPS).

TOPS operators service DA calls by providing subscribers with directory information. The DA service includes handling intercept calls that occur when a subscriber dials an out-of-service number or a number that has recently been changed. Intercept calls are handled by both announcements and operators.

TOPSDA has 12 registers that count the following types of calls:

- DA calls and recalls
- intercept calls
- auto-intercept calls
- intercept Automatic Number Identification Fail (ANIF) calls
 intercept Operator Number Identification (ONI) calls
- intercept special recalls intercept regular recalls
- intercept cut-through calls

The data supplied by TOPSDA is used to monitor DA traffic.

TOPS offices with release NA006 and higher

OM group TOPSDBA provides a maximum of 32 tuples for each office. The following table lists the key and info fields associated with OM group OMGROUPNAME.

Key field	Info field
Database Instance ([TOPSVR1, TOPSVR2] ([0-15])	none

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

TOPS offices with a release below NA006

OM group TOPSDBA provides one tuple for each office. The following table lists the key and info fields associated with OM group OMGROUPNAME.

Key field	Info field
none	none

Related functional groups

Functional group Directory Assistance (OSDA0001) is associated with OM group TOPSDA.

Registers

The following table lists the registers associated with OM group OMGROUPNAME and what they measure. For a description of a register, click on the register name.

Registers for OM group OMGROUPNAME

Register name	Measures
ADASARUF	Automated Directory Assistance Service Plus (ADAS+) audio response unit (ARU) Failures
<u>ADASAUTO</u>	Automated Directory Assistance Service Plus (ADAS+) to Announcement Calls
ADASELG	Automated Directory Assistance Service Plus (ADAS+) Eligible calls
ADASMON	Automated Directory Assistance Service Plus (ADAS+) Monitored Calls
ADASOPR	Automated Directory Assistance Service Plus (ADAS+) to Operator Calls
DARCL	Directory assistance (DA) recall
<u>DASRLS</u>	Directory Assistance System (DAS) initiated release

ADASARUF

Register type

Peg

Description

Automated Directory Assistance Service Plus (ADAS+) audio response unit (ARU) Failures (ADASRUF)

Register ADASARUF is pegged if an ADAS+ port is blocked. This blockage occurs if several attempts are made from different pools for an ADAS+ ARU and none is available. Then ADASARUF is pegged.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log DAS107 is generated when an ARU failure occurs.

ADASAUTO

Register type

Peg

Description

Automated Directory Assistance Service Plus (ADAS+) to Announcement Calls (ADASAUTO)

Register ADASAUTO measures the number of ADAS+ eligible calls that are served by ADAS+ and sent directly to a listing announcement.

Associated registers

There are no associated registers.

Extension registers

ADASAUT2

Associated logs

There are no associated logs.

ADASELG

Register type

Peg

Description

Automated Directory Assistance Service Plus (ADAS+) Eligible calls (ADASELG)

Register ADASELG measures the number of DA calls that are eligible for ADAS+ service. It is pegged when a call is determined to be ADAS+ eligible.

Associated registers

There are no associated registers.

Extension registers

ADASELG2

Associated logs

There are no associated logs.

ADASMON

Register type

Peg

Description

Automated Directory Assistance Service Plus (ADAS+) Monitored Calls (ADASMON)

ADASMON measures the number of ADAS+ to operator calls that are monitored.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ADASOPR

Register type

Peg

Description

Automated Directory Assistance Service Plus (ADAS+) to Operator Calls (ADASOPR)

Register ADASOPR measures the number of ADAS+ eligible calls that are served by ADAS+ and sent to an operator.

Associated registers

There are no associated registers.

Extension registers

ADASOPR2

Associated logs

There are no associated logs.

DARCL

Register type

Peg

Description

Directory assistance (DA) recall (DARCL)

Register DARCL measures the number of times that a call reconnects to an operator after the voice connection to the DAS has been taken down. The reconnect to operator only occurs when the DAS requests it from the DMS switch.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

DASRLS

Register type

Peg

Description

Directory assistance (DA) time-out release (DATIMRLS)

Register DATIMRLS measures the number of times that the DMS switch releases a DA call because the subscriber has neglected to hang up the phone after the voice connection to the DAS has been taken down and the DAS does not send a message informing the DMS switch what to do next. This value should normally be zero; if it is not, it is an indication that either the DAS is not handling interactive reconnects properly, or that messages are being lost.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

Log DAS103 is generated with a reason of "DAS TIMEOUT" whenever this OM is pegged.

TOPSDACC

Description

Traffic Operator Position System (TOPS) directory assistance call completion (DACC) (TOPSDACC)

TOPSDACC counts call completions that are handled by an operator and by Automatic Directory Assistance Call Completion (ADACC). ADACC allows a subscriber making a directory assistance (DA) call to be connected to the requested number without originating a new call. The subscriber can be connected to the requested number manually by an operator, or automatically by an audio response unit (ARU).

TOPSDACC registers count the following activities:

- call completion offers for operator-handled DA calls that are accepted by a subscriber
- ADACC requests that are received from directory assistance system (DAS)
- ADACC requests that are denied by a DMS switch
- ADACC requests that are offered to subscribers
- ADACC requests that are accepted by subscribers
- no-announcement ADACC calls that are completed by subscribers
- no-announcement ADACC requests denied to subscribers

OM group TOPSDACC is pegged on TOPS IS-41 RLT calls as well as TOPS ISUP RLT. TOPSDACC is also used for calls without any RLT

TOPS offices with release NA006 and higher

OM group TOPSDACC provides a maximum of 32 tuples for each office. The following table lists the key and info fields associated with OM group TOPSDACC.

Key field	Info field
Database Instance ([TOPSVR1, TOPSVR2] [0-15])	none

Note: The addition of this field allows the display of a tuple for each database instance that is defined in table SERVICES, when the OMSHOW command is issued.

TOPS offices with a release below NA006

OM group TOPSDACC provides one tuple for each office with TOPS multipurpose positions that is connected to a DAS database. The following table lists the key and info fields associated with OM group TOPSDACC.

Key field	Info field
none	none

Related functional groups

The following functional groups are associated with OM group TOPSDACC:

- TOPSMP with access to a DAS database
- NTX714AA (TOPS Inter-LATA Carrier Service)
- NTX187AA (TOPS Equal Access)
- NTX030CC (TOPS Call Processing Features)
- OSDA0001

Registers

The following table lists the registers associated with OM group TOPSDACC and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSDACC

Register name	Measures
AACCPT	Automatic Directory Assistance Call Completion
ADENY	Automatic directory assistance call completion (ADACC) denials
AOFFER	Automatic Directory Assistance Call Completion (ADACC) offers
AREQST	Automatic Directory Assistance Call Completion (ADACC) requests
NOANNCC	No Announcement Automatic Directory Assistance Call Completion (ADACC)

Registers for OM group TOPSDACC

Register name	Measures
NOANNFL	No Announcement Automatic Directory Assistance Call completion (ADACC) Requested and Denied
<u>OHACCPT</u>	Operator-handled directory assistance call completions (DACC)

AACCPT

Register type

Peg

Description

Automatic Directory Assistance Call Completion (ADACC) offers accepted (AACCPT)

Register AACCPT is incremented when a subscriber accepts an automatic call completion offer.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ADENY

Register type

Peg

Description

Automatic directory assistance call completion (ADACC) denials (ADENY)

Register ADENY is incremented when a DAS request for automatic call completion is denied because of datafill, billing, carrier, or translation restrictions.

Register ADENY is also incremented if ADACC is not offered by the DMS switch because of local or toll restrictions added by the ADACC Toll Restrictions feature.

Associated registers

Validation formula:

ADENY = AREQST - AOFFER

Note: An OM validation formula may appear inaccurate when taken around the interval where OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AOFFER

Register type

Peg

Description

Automatic Directory Assistance Call Completion (ADACC) offers (AOFFER)

AOFFER is incremented when a subscriber is offered automatic call completion.

Associated registers

Validation formula:

AOFFER = AREQST - ADENY

Note: An OM validation formula may appear inaccurate when taken around the interval where OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

AREQST

Register type

Peg

Description

Automatic Directory Assistance Call Completion (ADACC) requests (AREQST)

AREQST is incremented when the DAS requests the DMS switch to determine whether automatic call completion can be offered to a DA call. The DMS switch checks for datafill, billing, carrier, or translation restrictions that prevent automatic call completion for a call.

Associated registers

Validation formula:

AREQST = AOFFER - ADENY

Note: An OM validation formula may appear inaccurate when taken around the interval where OMs are reset. For more accuracy, please use the validation formula for the OM totals of the day.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NOANNCC

Register type

Peg

Description

No Announcement Automatic Directory Assistance Call Completion (ADACC) (NOANNCC)

Register NOANNCC measures the number of times that a subscriber completes a no-announcement ADACC call. This modification applies to the International Business Machine (IBM) DA protocol as well as the standard DA protocol.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

NOANNFL

Register type

Peg

Description

No Announcement Automatic Directory Assistance Call completion (ADACC)

Requested and Denied (NOANNFL) Register NOANNFL measures the number of times that a subscriber is denied no-announcement ADACC. This modification applies to the IBM DA protocol as well as the standard DA protocol.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

OHACCPT

Register type

Peg

Description

Operator-handled directory assistance call completions (DACC) (OHACCPT)

OHACCPT counts operator-handled DACC offers that are accepted by subscribers.

OHACCPT includes calls that are completed manually and semi-automatically by an operator. In a manual call completion, an operator enters the digits for the requested number. In a semi-automatic call completion, an operator selects the requested number from the DAS database and presses the TA key to transmit the digits.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TOPSDEV

Description

Traffic Operator Position System output devices

TOPSDEV counts messages that are printed on Traffic Operator Position System (TOPS) output devices.

TOPS output devices are assigned to administration and billing positions within a TOPS traffic office.

OM group TOPSDEV provides a maximum of one tuple for each output device. The following table lists the key and info fields associated with OM group TOPSDEV.

Key field	Info field
none	TOPS_DEV_REGISTER_INFO

TOPS_DEV_REGISTER_INFO consists of

- the device identification number (1-9999)
- the device type (for example, SADS, HADS)
- hotel name acronym (three characters) (if applicable)
- team identification number (0-30)

Table TOPSPOS must be datafilled to specify information on TOPS positions.

Table TOPSDEV must be datafilled to specify information on TOPS devices.

Related functional groups

The following functional groups are associated with OM group TOPSDEV:

- DMS-100 Local
- DMS-100/200
- DMS-100/200 TOPS
- DMS-200 Toll
- DMS-200 TOPS
- DMS-250

- DMS-300
- LBR
- Meridian SL-100 PBX
- DMS-MTX

Registers

The following table lists the registers associated with OM group TOPSDEV and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSDEV

Register name	Measures
NUMMSGS	Number of messages

NUMMSGS

Register type

Peg

Description

Number of messages

NUMMSGS is incremented when a message is printed on a TOPS output device.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

TOPSEA

Description

Traffic operator position system equal access

TOPSEA counts calls handled by a traffic operator position system (TOPS) operator for a carrier, transferred by a TOPS operator to a carrier, and forwarded by a TOPS operator to a carrier. It also counts inward service type calls received from a carrier, and calls that the initial carrier cannot complete and must be routed to an alternate carrier for completion.

OM group TOPSEA provides one tuple for each carrier. The following table lists the key and info fields associated with OM group TOPSEA.

Key field	Info field
none	none

Carriers for which TOPS operator services are provided are specified in table TOPEACAR.

Related functional groups

The TOPS Traffic Operator Position System functional group is associated with OM group TOPSEA.

Registers

The following table lists the registers associated with OM group TOPSEA and what they measure. For a description of a register, click on the register name.

Registers for OM group TOPSEA

Register name	Measures
ALTFRMIC	Alternate carrier from initial carrier
ALTTOIC	Initial carrier to alternate carrier
FWDTOIC	Forward to inter-exchange carrier
HDLFORIC	Handled for inter-exchange carriers

Registers for OM group TOPSEA

Register name	Measures
INWFRIC	Inward from inter-exchange carrier
XFRTOIC	Transferred to inter-exchange carrier

ALTFRMIC

Register type

Peg

Description

Alternate carrier from initial carrier

ALTFRMIC counts traffic operator position system (TOPS) equal access calls that the initial carrier cannot complete and are routed to an alternate carrier for completion. This register is incremented for the initial carrier.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

ALTTOIC

Register type

Peg

Description

Initial carrier to alternate carrier

ALTTOIC counts traffic operator position system (TOPS) equal access calls that are routed to an alternate carrier because the initial carrier selected cannot complete the call. This register is incremented for the alternate carrier.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

FWDTOIC

Register type

Peg

Description

Forward to inter-exchange carrier

FWDTOIC counts traffic operator position system (TOPS) equal access interLATA calls that are forwarded to the inter-exchange carrier.

The following calls are TOPS equal access interLATA calls that are forwarded to the inter-exchange carrier:

- interLATA calls for which the telephone company does not provide operator service
- centralized automatic message accounting (CAMA) calls for which the telephone company provides operator services

FWDTOIC is incremented when the route to the carrier has been determined.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

HDLFORIC

Register type

Peg

Description

Handled for inter-exchange carriers

HDLFORIC counts interLATA calls handled by a traffic operator position system (TOPS) operator for inter-exchange carriers.

HDLFORIC is incremented when the call is released from the TOPS operator position.

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

INWFRIC

Register type

Peg

Description

Inward from inter-exchange carrier

INWFRIC counts inward service type calls received from an inter-exchange carrier.

Inward service type calls are requests for services such as verification and directory assistance.

Associated registers

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

XFRTOIC

Register type

Peg

Description

Transferred to inter-exchange carrier

XFRTOIC counts traffic operator position system (TOPS) equal access interLATA calls that are transferred by the operator to the carrier.

These calls are not completed by the operator.

XFRTOIC is incremented when the call is released from the operator position.

There are no associated registers.

Extension registers

There are no extension registers.

Associated logs

There are no associated logs.

Transfer

Description

This OM group tracks down the outcome of Transfer transactions.

The following table lists the key and info fields associated with OM group Transfer.

Key field	Info field			
None	None			

Related functional groups

The following functional groups are related to OM group Transfer:

- Provisioning Manager
- IPCM

Registers

The following table lists the registers associated with OM group Transfer and what they measure. For a description of a register, click on the register name.

Registers for OM group Transfer

Register name	Measures
referSuccessOM	successful refer transactions
referFailOM	failed refer transactions
referOM	N/A

referSuccessOM

Register type

Peg

Description

Tracks number of successful REFER transactions. Does not include transfers handled by the Session Manager on behalf of the Transferee.

Associated registers

<u>referFailOM</u>

Extension registers

None

Associated logs

None

referFailOM

Register type

Peg

Description

Tracks number of failed REFER transactions. Does not include transfers handled by the Session Manager on behalf of the Transferee.

Associated registers

<u>referSuccessOM</u>

Extension registers

None

Associated logs

None

referOM

Register type

Peg

Description

This register not presently used.

Associated registers

None

Extension registers

None

Associated logs

TRK

Description

OM group Trunk group (TRK) provides information on trunk traffic for each trunk group.

The registers in TRK count the following:

- routing attempts
- seizure attempts
- seize failures
- total trunk use
- busy state use

The OM groups OFZ and OTS provide office-wide traffic summaries for trunks.

The following table lists the key and info fields associated with OM group TRK:

Key field	Info field			
COMMON_LANGUAGE_NAME	OM2TRKINFO has three parts: TRKDIR, NCCT, and NWCCT			

The TRKDIR is the trunk group direction. The fixed TRKDIR for TRK are as follows:

- IC: incoming trunk
- OG: outgoing trunk
- 2W: 2-way trunk

The NCCT is the total number of trunk circuits in the group.

The NWCCT is the number of trunk circuits available for service at the end of the reporting period.

You must datafill tables TRKNAME and OFCSTD.

You enter the administrative number in field AONUM in table TRKNAME. The administrative number associates with a trunk group.

The office parameter OFFICETYPE in table OFCSTD specifies the type of office. The value of OFFICETYPE controls the generation of TRK registers. Correct entries for OFFICETYPE appear below:

- OFF100 Local
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with traffic operator position system (TOPS)
- OFF200 Toll
- OFF200TOPS Toll with TOPS
- OFF200300 Combined gateway/toll
- OFF250 DMS-250
- OFF300 Gateway
- OFF250IBN DMS-250/SL-100
- OFF500 DMS-500
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll
- OFFCOMBITOPS Combined local/toll with international TOPS (ITOPS)
- OFFMTX100I DMS-MTX with DMS-100I capabilities
- OFFCOMB300 Combined local/toll and gateway
- OFFCOMB300ITOPS Combined local/toll and gateway with ITOPS

The office type parameters appear in table OFCSTD.

When the system reports an answer indication to CM from the outgoing trunk, the OM Answer register for the outgoing trunk increases.

Related functional groups

The following functional groups are associated with OM group TRK:

- OFF100 Local
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with traffic operator position system (TOPS)

- OFF200 Toll
- OFF200TOPS Toll with TOPS
- OFF200300 Combined gateway/toll
- OFF250 DMS-250
- OFF300 Gateway
- OFF250IBN DMS-250/SL-100
- OFF500 DMS-500
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll
- OFFCOMBITOPS Combined local/toll with international TOPS (ITOPS)
- OFFMTX100I DMS-MTX with DMS-100I capabilities
- OFFCOMB300 Combined local/toll and gateway
- OFFCOMB300ITOPS Combined local/toll and gateway with ITOPS

The office type parameters appear in table OFCSTD.

When the system reports an answer indication to CM from the outgoing trunk, the OM Answer register for the outgoing trunk increases.

Registers

The following table lists the registers associated with OM group TRK and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TRK (Sheet 1 of 3)

Register name	Measures
ACCCONG	Automatic congestion control
ANF	Invalid or no automatic number identification (ANI) signals
<u>ANSU</u>	Answered calls usage register
ANSWER	Answer supervisions
AOF	Automatic number identification (ANI) office failure

Registers for OM group TRK (Sheet 2 of 3)

Register name	Measures
BLKCTRK	Blocked calls on trunk
CONGEST	Congestion signals
CONNECT	Successful connections
<u>DEFLDCA</u>	Network management (NWM) reroute
<u>DREU</u>	Directional reservation (DRE) usage
<u>FA</u>	Fangen
FBUSY	Far-end busy
<u>FCONG</u>	Far-end congestion
<u>FV</u>	Fangen vorbereitet
GLARE	Glare
INANSWER	Answer messages sent and received on incoming trunk
INANSU	Answer messages received and sent usage on incoming trunk
INCATOT	Incoming attempts total
INFAIL	Incoming failures
INTRMLU	Incoming terminal traffic
<u>INTRNSU</u>	Incoming transit traffic
<u>INVAUTH</u>	Invalid authorization code
<u>MAXBU</u>	Maximum busy circuits
<u>MIDFAIL</u>	Established bearer path failures
<u>MBU</u>	Maintenance busy usage
MTRPULS	Metering pulses
<u>NANS</u>	Number of answered calls

Registers for OM group TRK (Sheet 3 of 3)

Register name	Measures
NATTMPT	Number of attempts
NCTFAIL	Network call transfer fail
<u>NCTPASS</u>	Network call transfer pass
NOANSWER	No Answer on trunk [Timed out]
<u>NOVFLATB</u>	Number of overflows, all trunks busy
<u>OUTANSU</u>	Answer message received and sent usage on an outgoing trunk
<u>OUTFAIL</u>	Outgoing failures
<u>OUTMTCHF</u>	Outgoing matching failure
<u>OUTTRMLU</u>	Outgoing terminal traffic
<u>OUTTRNSU</u>	Outgoing transit traffic
PRERTEAB	Preroute abandon
PREU	Protective reservation (PRE) usage
Q33FLT	Q33 fault
SBU	System busy usage
TANDEM	TANDEM
TOTU-U.S. and Australia only	Total usage
TRU	Traffic busy usage
TRU2WIN	Incoming two-way trunk usage

ACCCONG

Register type

Peg

Description

ACCCONG counts the number of times that a trunk group enters Automatic Congestion Control (ACC) congestion.

None

Extension registers

None

Associated logs

None

ANF

Register type

Peg

Description

ANF counts incoming centralized-automatic message accounting (CAMA) or TOPS calls for which:

- the system receives invalid ANI signaling
- the system did not receive ANI signaling
- the numbering plan area code (N0/1X) or the central office code (NNX) of the calling number for the incoming trunk group is not correct

Register ANF increases when the system attaches the necessary receiver to the call.

The system generates this register for the following office types:

- OFF200
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBTOPS
- OFF200TOPS
- OFF200300
- OFF250
- OFF250IBN

For DMS-MTX switches and DMS-250 switches, this register increases when the DMS switch receives a calling number with a central office code. The code for the incoming CAMA trunk group concerned is not correct.

None

Extension registers

None

Associated logs

TRK120

ANSU

Register type

Usage

Scan rate

Not applicable

Description

ANSU provides a usage measurement of answered calls for each trunk group on a DMS-100I. This register increases when the extended multiprocessor system (XMS)-based peripheral module (XPM) detects an answer line signal from the outgoing trunk. The register decreases when the XPM detects an exit message from the outgoing trunk.

The system generates this register for office types OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS. This register is optional for office type OFFCOMB and is only present if the system loads package NTXB22AA (OM Enhancements).

Associated registers

NANS

Extension registers

None

Associated logs

None

ANSWER

Register type

Peg

Description

When an incoming line/trunk originates a call and an outgoing trunk reports an answer indication to the computer module (CM), register ANSWER increases. This register is the answer register for the outgoing trunk. Table 1 shows the interworking supported for releases

LEC0011 and above. Table 2 shows the interworking supported for release EUR004 and above.

This register only generates for the following office types:

- OFF100
- OFF200
- OFF200/300
- OFF250
- OFF300
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBITOPS
- OFF200TOPS
- OFFCOMBTOPS
- OFF250IBN
- OFF100OESD
- OFF200OESD
- OFFCOMBOESD

For DMS-MTX switches and DMS-250 switches, this register counts hardware or audio answer supervisions received on the trunk group.

For the DMS-100EUR switch, the only valid value for office parameter OFFICETYPE is OFF100.

The table <u>Interworking supported by OM TRK Answer Register for release LEC0011 and above</u> shows the interworking supported for releases LEC0011 and above. The table <u>Interworking Supported by OM TRK Answer Register for UK release EUR004 and above</u> shows the interworking supported for release EUR004 and above.

Interworking supported by OM TRK Answer Register for release LEC0011 and above

Originating/ Incoming Agents (see note)	Terminating / Outgoing Agents					
	ISUP Trunk	PTS Trunk	PRI Trunk (see note)	PX Trunk		
Line	Yes	Yes	Yes	Yes		
ISUP Trunk	runk Yes Yes		Yes	Yes		
PTS Trunk	Yes	Yes	Yes	Yes		
PRI Trunk (see note)	Yes	Yes	Yes	Yes		
PX Trunk	Yes	Yes	Yes	Yes		
Note: Only Northern American PRI trunks.						

Interworking Supported by OM TRK Answer Register for UK release EUR004 and above

	Outgoing Agents								
Incoming Agents	ISUP	C7N UP	DPM SS	AC15	DC5	R1	PRI	EC	LD
BRI Line	No	Yes	No	No	No	No	No	No	No
IBN Line	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C7NUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NPNSS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Interworking Supported by OM TRK Answer Register for UK release EUR004 and above

	Outgoing Agents								
Incoming Agents	ISUP	C7N UP	DPM SS	AC15	DC5	R1	PRI	EC	LD
R1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PRI	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
EC	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
LD	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes

Note: Supported in EUR003

Associated registers

None

Extension registers

None

Associated logs

None

AOF

Register type

Peg

Description

AOF counts incoming calls for which the originating office detects an ANI failure. Failure can be detected despite correct key pulse and signaling terminal control signals. The missing information digits, missing category code or the complete lack of digits indicates an ANI failure.

AOF generates for office types OFF100, OFFCOMB, OFFCOMBLWW, OFFCOMBTOPS, OFF200TOPS, OFF200300, OFF250, and OFF250IBN.

For DMS-MTX switches and DMS-250 switches, this register increases when an information digit 2 or 5 is received from the local office.

Associated registers

Extension registers

None

Associated logs

TRK118, TRK119

BLKCTRK

Register type

Peg

Description

BLKCTRK counts the number of times the following events occur:

- an associated trunk group for a call is a dedicated access line or primary rate access
- the trunk is the last available route in the route list
- the call receives general no-circuit (GNCT) treatment or busy (BUSY) treatment

BLKCTRK only appears in DMS-250 switches and OFFCOMBLWW offices.

Associated registers

None

Extension registers

None

Associated logs

TRK138

CONGEST

Register type

Peg

Description

CONGEST counts congestion signals received on the outgoing number 5 or number 6 trunk group.

This register generates only in office types OFF300 and OFF200300.

Associated registers

None

Extension registers

Associated logs

None

CONNECT

Register type

Usage

Scan rate

Not applicable

Description

CONNECT counts outgoing seizure attempts on the trunk group that appear to result in successful connection.

CONNECT increases before the system knows if the seizure is successful. The count reduces by 1 (decreases) if an indication of glare or seize failure is received. This register generates for all correct office types.

For office type OFF300, this register decreases on number 5 trunks, number 6 trunks and number 7 trunks.

Associated registers

The following registers are associated with the CONNECT register as well as with each other:

- GLARE, OUTFAIL
- OFZ_OUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk
- OFZ_OUTNWAT, which counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk
- OFZ_OUTRMFL, which counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following group of registers are also associated with the CONNECT register as well as with each other:

- GLARE, OUTFAIL
- SOTS_SOUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk
- SOTS_SOUTNWAT, which counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk
- SOTS_SOUTRMFL, which counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Validation formulas

The following formulas relate to CONNECT and its associated registers:

- OFZ_OUTNWAT + (OFZ_OUTNWAT2 x 65536) OFZ_OUTMFL -OFZ_OUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)
- SOTS_SOUTNWAT + (SOTS_SOUTNWAT2 x 65536) SOTS_SOUTMFL SOTS_SOUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)

Extension registers

None

Associated logs

None

DEFLDCA

Register type

Peg

Description

DEFLDCA counts calls that the system prevents from accessing the trunk group. The system routes the calls to this trunk group. The system denies access by the calls because of the action of network management controls.

DEFLDCA counts calls that the system denies for the activity of any of the following NWM controls:

- SKIP control is in effect
- the number of trunks qualified for incoming calls is at or below the directional reservation (DRE) level
- the number of idle trunks is at or below the protective reservation (PRE) level for calls that have been alternate-routed to the group
- time assignment speech interpolation (TASI) control is in effect
- selective trunk reservation (STR) control is in effect
- cancel to (CANT) control is in effect
- bidirectional trunk group reservation control (BRC) is in effect

If the control is SKIP, DRE, PRE, or TASI, the system routes the call. If cancel from (CANF) control is in effect, the system sends the call to treatment.

If the control is STR or CANT the system sends the call to treatment.

The system this register for all correct office types.

Associated registers

None

Extension registers

None

Associated logs

NWM100, NWM101, NWM102, NWM103, NWM104, NWM106, NWM108

DREU

Register type

Usage

Scan rate

100 s

Description

The system scans the trunk group and DREU records if DRE activates for a two-way trunk group.

The system generates DREU for all correct office types.

Associated registers

None

Extension registers

None

Associated logs

NWM100

FA

Register type

Peg

Description

FA increases when "fangen" (seizure) occurs on the trunk group.

The system generates this register in office types OFF100OESD, OFF200OESD, and OFFCOMBOESD.

Associated registers

Extension registers

None

Associated logs

None

FBUSY

Register type

Peg

Description

FBUSY increases when information about a call result from the far end indicates one of the following conditions:

- directory number changed
- subscriber line busy
- subscriber line on intercept
- subscriber line seized
- · out of service

The system generates this register in office type OFF300.

Associated registers

None

Extension registers

None

Associated logs

None

FCONG

Register type

Peg

Description

FCONG increases when information about the call result from the far end indicates one of the following conditions:

- congestion
- DMS-300 international congestion
- timeout

The system generates this register in office type OFF300.

None

Extension registers

None

Associated logs

None

FV

Register type

Peg

Description

FV counts "fangen vorbereitet" (seizure ready) states that occur on a trunk group.

The system generates this register in office types OFF100OESD, OFF200OESD, and OFFCOMBOESD.

Associated registers

None

Extension registers

None

Associated logs

None

GLARE

Register type

Peg

Description

GLARE increases when the system drops a trunk that the system selects at an earlier time. The system drops this trunk because the PM detects an origination before the PM can seize the trunk. The operating company gives information that indicates that outgoing calls give way to simultaneous incoming calls (glare).

The system attempts a new selection. If the system encounters glare again, the system routes the call to generalized no-circuit (GNCT) treatment. Register GLARE increases again. The system generates this register for office types that are correct.

The following registers are associated with the GLARE register as well as with each other:

- CONNECT, OUTFAIL
- OFZ_OUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk
- OFZ_OUTNWAT, which counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk
- OFZ_OUTRMFL, which counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following group of registers are also associated with the CONNECT register as well as with each other:

- CONNECT, OUTFAIL
- SOTS_SOUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk
- SOTS_SOUTNWAT, which counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk
- SOTS_SOUTRMFL, which counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Validation formulas

The following formulas relate to GLARE and its associated registers:

- OFZ_OUTNWAT + (OFZ_OUTNWAT2 x 65536) OFZ_OUTMFL -OFZ_OUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)
- SOTS_SOUTNWAT + (SOTS_SOUTNWAT2 x 65536) SOTS_SOUTMFL SOTS_SOUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)

Extension registers

None

Associated logs

TRK113, TRK121

INANSWER

Register type

Peg

Description

INANSWER counts the answered calls for incoming traffic for each incoming or two-way trunk.

None

Extension registers

None

Associated logs

None

INANSU

Register type

Usage

Scan rate

100 seconds

Description

INANSU shows the number of answered calls on incoming trunk calls. This register measures traffic in the answered state for each incoming or two-way trunk. The register measures the occupancy in Erlangs.

The value of register INANSU increases every 100 seconds according to the number of trunks occupied with answered calls.

Associated registers

None

Extension registers

None

Associated logs

None

INCATOT

Register type

Peg

Description

INCATOT counts incoming seizures on a trunk group, including seizures that fail or that the system abandons before routing. The system generates this register for all office types that are correct.

For DMS-MTX switches, this register increases when the system attempts to originate on an MTX trunk group. The system attempt includes handoff attempts for an originating mobile. This system can assign a maximum of eight MTX trunk groups to a cell site. The register

can increase a maximum of eight times for a single origination, one time for each group.

Associated registers

The following registers are associated with INCATOT:

- OFZ_NIN, which counts incoming calls
- OFZ_NINC, which counts incoming call attempts

Validation formulas

The following formulas relate to INCATOT and its associated registers:

- Σ TRK_INCATOT = OFZ_NIN + (OFZ_NIN2 x 65535)
- Σ TRK_INCATOT = OFZ_NINC + (OFZ_NIN2 x 65535)

Extension registers

None

Associated logs

None

INFAIL

Register type

Peg

Description

INFAIL increases when any one of the following events occurs on a trunk that has originated a call or appears to have originated a call:

- permanent signal
- partial dial timeouts and false starts
- bad digits, including bad signaling terminal (ST) digit
- any originations on one-way outgoing trunks
- lost integrity on the network path while connected to a service circuit or to another trunk before answer
- failure to attach a receiver after two attempts
- receiver queue overflow
- receiver queue wait time-out
- failure to time-out after 30 seconds while waiting for a multifrequency receiver
- progress message of a type not expected in the current call environment
- force-release before connection

These events can indicate a need for maintenance action. These events can result in call failure if a call was in progress. This register generates for office types that are correct.

Associated registers

The following registers are associated with register INFAIL:

- OFZ_INANN, which counts incoming calls that the system routes to an announcement
- OTS_INCLKT, which counts incoming calls that fail and that the system routes to lockout
- OTS_INCTRMT, which counts incoming calls that the system routes to a tone or an announcement
- OFZ_INLKT, which counts incoming calls that the system routes to lockout
- OFZ_INTONE, which counts incoming calls that the system routes to a tone
- OFZ_INLKT and OFZ_INTONE or OFZ_INANN, or OTS_INCLKT, and OTS_INCTRMT, which can also count calls that fail

Extension registers

None

Associated logs

TRK111, TRK114, TRK115, TRK116, TRK117, TRK138, TRK182, TRK183, TRK213

INTRMLU

Register type

Peg

Description

INTRMLU counts incoming terminal calls for which the first digit received is key pulse (KP) or KP1.

The system generates this register in office types OFF200300 and OFF300.

Associated registers

None

Extension registers

Associated logs

None

INTRNSU

Register type

Peg

Description

INTRNSU counts incoming transit calls for which the first digit received is KP2.

The system generates this register in office types OFF200300 and OFF300.

Associated registers

None

Extension registers

None

Associated logs

None

INVAUTH

Register type

Peg

Description

INVAUTH counts authorization codes that are not correct.

The system generates register INVAUTH in office types OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWN and OFFCOMB300. However the register is primarily pegged when the office type is set to OFF250IBN.

Associated registers

None

Extension registers

None

Associated logs

MAXBU

Register type

Usage

Scan rate

100 seconds

Description

Every 100 seconds the system scans the trunk group. MAXBU increases if the number of busy circuits exceeds the maximum number that the system recorded at an earlier time.

The system generates register MAXBU only in DMS-250 offices, which are non-DPT trunks. For DPT trunks, utilize DPTOFC and DPTNODE OM groups for usage and high water registers.

Associated registers

None

Extension registers

None

Associated logs

None

MBU

Register type

Usage

Scan rate

100 seconds

Description

Every 100 seconds the system scans the trunk group. MBU records if a trunk is in one of the following states:

- manual busy
- seized
- network management busy

The system generates register MBU for office types that are correct.

Associated registers

Extension registers

None

Associated logs

None

MIDFAIL

Register type

Peg

Description

MIDFAIL counts the established bearer path failures on a per trunk group basis. The MIDFAIL count gets pegged whenever AUD106 logs are generated.

The system generates this register in office types OFCSTD.

Associated registers

TRK2NET1_MIDFAIL3 and TRNK2_MIDFAIL2.

Extension registers

MIDFAIL2

Associated logs

AUDT106

MTRPULS

Register type

Peg

Description

MTRPULS counts metering pulses that the system generates for the trunk group.

The system generates this register in office types OFF2000ESD and OFFC0MB0ESD.

Associated registers

None

Extension registers

MTRPULS2

Associated logs

NANS

Register type

Peg

Description

NANS counts the number of answered calls for each trunk group on a DMS-100I. This register increases when the extended multiprocessor system (XMS)-based peripheral module (XPM) detects an answer line signal from the outgoing trunk.

The system generates register NANS in office types OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS. This register is optional for office type OFFCOMB and is only present if the system loads package NTXB22AA.

Associated registers

ANSU

Extension registers

None

Associated logs

None

NATTMPT

Register type

Peg

Description

NATTMPT increases when the system routes an outgoing call to a trunk group.

NATTMPT increases before network management controls increase. This register increases before an idle trunk and a network connection to the trunk are available. The system generates this register for office types that are correct.

For DMS-MTX switches, this register counts attempts to terminate on an MTX trunk group. These attempts include handoff attempts for a terminating mobile.

The system can assign up to eight MTX trunk groups to a cell site. Register MTX can increase up to eight times for a single termination, one time for each group.

None

Extension registers

None

Associated logs

None

NCTFAIL

Register type

Peg

Description

NCTFAIL records the total number of failed network call transfers (NCT). Register NCTFAIL is not available to all customers. Contact Nortel Support about NCTFAIL for your switch.

NCTFAIL is visible in offices where OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I, or OFF250IBN.

Associated registers

None

Extension registers

None

Associated logs

None

NCTPASS

Register type

Peg

Description

NCTPASS records the total number of completed network call transfers (NCT).

NCTPASS is visible only in offices where OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I, or OFF250IBN. Register NCTPASS is not available to all customers. Contact Nortel Support about NCTPASS for your switch.

Associated registers

Extension registers

None

Associated logs

None

NOANSWER

Register type

Peg

Description

NOANSWER counts the number of times a call has been taken down after a specified time-out value has been reached, as part of Black Box Fraud prevention (BBFP). The time-out value is implemented on a trunk-group basis and can be set to either one, two, three, four, or five minute intervals. Upon expiration of the timer, the NOANSWER register is pegged.

NOANSWER is displayed for the following office types: OFF100, OFF200, OFFCOMB, OFF200TOPS, OFFCOMBITOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, NOOFFICE. In office types OFF250, OFF250IBN and OFFMTX100I, register NOANSWER is displayed but not incremented because they are tandem offices, and the BBFP feature is supported only for end offices. However, in the OM code, the NOANSWER field had to be included in all end-office types; therefore, some non-end-office types also pick up the field.

NOANSWER functionality is activated and deactivated via the DLYFWDXMT option datafill of table TRKOPTS on a trunk-group basis.

NOANSWER is pegged when the black box fraud timer or DLYFWDXMT timer expires before an answer supervision signal is received. The timeout value is datafilled in table TRKOPTS.

Associated registers

None

Extension registers

None

Associated logs

TRK610

NOVFLATB

Register type

Peg

Description

NOVFLATB increases when a call with access to the trunk group overflows the group. The system routes the call because an idle trunk is not available. A call can access the same group more than one time. Overflow can occur only one time. Overflow occurs if the system cannot use the first trunk because of seize fail, glare or network blockage. Register NOVFLATB increases when the system cannot find an idle trunk on the first or any of the following access attempts. This register generates for office types that are correct.

For DMS-MTX switches, this register increases when an attempt to terminate on an MTX trunk group fails. This register increases when an attempt to handoff a terminating mobile to an MTX trunk group fails. Failure occurs because an idle trunk is not available. The system can assign up to eight MTX trunk groups to a cell site. This register can increase up to eight times for a single termination, one time for each group.

Associated registers

None

Extension registers

ATB100

Associated logs

None

OUTANSU

Register type

Usage

Scan rate

100 seconds

Description

OUTANSU shows the number of answered calls on outgoing trunk calls. This register measures traffic in the answered state for each outgoing or two-way trunk. The register measures the occupancy in Erlangs.

The value of register OUTANSU increases every 100 seconds according to the number of trunks occupied with answered calls.

None

Extension registers

None

Associated logs

None

OUTFAIL

Register type

Peg

Description

OUTFAIL counts attempts to seize an outgoing trunk in the trunk group that fail because of following:

- signaling problems
- loss of accuracy
- outgoing failures
- seizure failures

The system releases the trunk. The system performs a maximum of two attempts to seize a trunk. The system counts each failed attempt in OUTFAIL. If a second attempt to seize a trunk fails, the system routes the call to treatment.

The system can generate a log message. Generation of a log message depends on the cause of the failure.

The system generates register OUTFAIL for office types that are correct.

Associated registers

The following registers are associated with the OUTFAIL register as well as with each other:

- GLARE, CONNECT
- OFZ_OUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk
- OFZ_OUTNWAT, which counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk
- OFZ_OUTOSF, which counts calls that fail on the first attempt to seize an outgoing trunk.

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 OFZ_OUTROSF, which counts calls that fail on the second attempt to seize an outgoing trunk.

Note: The system counts each failure to seize an outgoing trunk in OUTFAIL. The system also counts the first failed attempt in OFZ_OUTOSF. The system also counts the second failed attempt in OFZ_OUTROSF.

 OFZ_OUTRMFL, which counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following registers are also associated with the OUTFAIL register as well as with each other:

- GLARE, CONNECT
- SOTS_SOUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk
- SOTS_SOUTNWAT, which counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk
- SOTS_SOUTRMFL, which counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Validation formulas

The following formulas relate to OUTFAIL and its associated registers:

- OFZ_OUTNWAT + (OFZ_OUTNWAT2 x 65536) OFZ_OUTMFL OFZ_OUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)
- SOTS_SOUTNWAT + (SOTS_SOUTNWAT2 x 65536) SOTS_SOUTMFL SOTS_SOUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)

Extension registers

None

Associated logs

TRK113, TRK121, TRK122, TRK162, TRK213

OUTMTCHF

Register type

Peg

Description

OUTMTCHF counts attempts to find a path from an incoming trunk or originating line to a selected trunk that fail. Failure occurs as a result of network blockage.

If the system blocks an outgoing call, the call again attempts to select a trunk. If the system blocks this attempt, OUTMTCHF counts the call again. The system routes the call to NBLH treatment.

The system generates this register for office types that are correct.

Associated registers

The following registers are associated with the OUTMTCHF register as well as with each other:

- OFZ_OUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk
- OFZ_OUTNWAT, which counts incoming or originating calls intended for a specified outgoing or test trunk.
- OFZ_OUTNWAT, which counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.
- OFZ_OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.
- OUTMTCHF and OFZ OUTMFL count first-trial failures.
- OUTMTCHF and OFZ_OUTRMFL count second-trial failures.

The following group of registers are also associated with the OUTMTCHF register as well as with each other:

- OTS_SOUTNWT, which counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.
- OUTMTCHF and OTS_SOUTMFL count first-trial failures.
- OUTMTCHF and SOTS_SOUTRMFL count second-trial failures.
- SOTS_SOUTMFL, which counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.
- SOTS_SOUTNWT, which counts incoming or originating calls intended for a specified outgoing or test trunk.
- SOTS_SOUTRMFL, which counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Validation formulas

The following formulas relate to OUTMTCHF and its associated registers:

- Σ TRK_OUTMTCHF = OFZ_OUTMFL + OFZ_OUTRMFL
- Σ TRK_OUTMTCHF = OTS_SOUTMFL + SOTS_SOUTRMFL

Extension registers

None

Associated logs

NET130

OUTTRMLU

Register type

Peg

Description

OUTTRMLU counts outgoing terminal calls for which the first digit received is KP or KP1.

The system generates this register in office types OFF200300 and OFF300.

Associated registers

None

Extension registers

None

Associated logs

None

OUTTRNSU

Register type

Peg

Description

OUTTRNSU counts outgoing transit calls for which the first digit received is KP2. The system generates this register in office types OFF200300 and OFF300.

Associated registers

None

Extension registers

None

Associated logs

PRERTEAB

Register type

Peg

Description

PRERTEAB counts incoming attempts the system abandons before the system can complete routing. The system generates this register for all office types that are correct.

The system generates this register in office types OFF100OESD, OFF200OESD, and OFFCOMBOESD.

Associated registers

The following registers are associated with the PRERTEAB register as well as with each other:

- OFZ_INABNC, which counts incoming calls the subscriber abandons
- OFZ_INABNM, which counts incoming calls the switch abandons

The following registers are also associated with the PRERTEAB register as well as with each other:

- OTS_INCABNC, which counts incoming calls the subscriber abandons
- OTS INCABNM, which counts incoming calls the switch abandons

Validation formulas

The following formulas relate to PRERTEAB and its associated registers:

Σ TRK PRERTEAB = OFZ INABNM + OFZ INABNC

Note: This relationship does not apply to calls that originate from a mobile telephone exchange (MTX).

Σ TRK_PRERTEAB = OTS_INCABNM + OTS_INCABNC

Note: This relationship does not apply to calls originating from a Mobile telephone.

Extension registers

None

Associated logs

TRK113, TRK116,

PREU

Register type

Usage

Scan rate

100 seconds

Description

Every 100 seconds the system scans the trunk group. This register records if the system turns the PRE on for a two-way trunk group.

The system generates this register for office types that are correct.

Associated registers

None

Extension registers

None

Associated logs

NWM101

Q33FLT

Register type

Peg

Description

Q33FLT counts Q33 circuit failures that occur on a given trunk. Datafill for this trunk appears in table TRKSGRP with the Q33SUP option. These faults occur when AB bits of time slot 16 are set to 11.

Associated registers

None

Extension registers

None

Associated logs

TRK149

SBU

Register type

Usage

Scan rate

100 seconds

Every 100 seconds the system scans the trunk group. This register records if a trunk is in one of the following states:

- remote busy
- peripheral module busy
- system busy
- carrier fail
- deloaded

The system generates this register for office types that are correct.

Associated registers

None

Extension registers

None

Associated logs

TRK106, TRK109

TANDEM

Register type

Peg

Description

TANDEM counts incoming calls on a trunk group that first routes to an outgoing trunk group. Register TANDEM increases before the system determines if the outgoing trunk group is busy, or if a junctor path is available. The system generates this register for office types that are correct, except OFF300.

Associated registers

OFZ_INOUT, which counts incoming calls that first route to other trunks, TOPS, AOSS, and terminating test lines.

Validation formula

OFZ_INOUT + (OFZ_INOUT2 x 65536) - (trunk-to-TOPS calls) = Σ TRK_TANDEM

Extension registers

None

Associated logs

TOTU-U.S. and Australia only

Register type

Usage

Scan rate

100 seconds

Description

Every 100 seconds the system scans the trunk group and register TOTU records if any trunk in the group is busy.

The system generates register TOTU in the following office types:

- OFF100
- OFF100G
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBTOPS
- OFF200
- OFF200TOPS
- OFF250
- OFF100OESD
- OFF200OESD
- OFFCOMBOESD

Associated registers

MBU, SBU, TRU

Validation formula

TOTU = TRU + SBU + MBU

Extension registers

None

Associated logs

None

TRU

Register type

Every 100 seconds the system scans the trunk group. This register records if a trunk in the group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The system generates this register for office types that are correct.

Associated registers

None

Extension registers

None

Associated logs

None

TRU2WIN

Register type

Usage

Scan rate

100 seconds

Description

Every 100 seconds the system scans the trunk group. TRU2WINr records if a two-way trunk in a group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The system generates register TRU2WIN for office type DMS250.

Associated registers

TRU

Extension registers

None

Associated logs

TRK2

Description

OM group Trunk group 2 (TRK2) is a continuation of TRK, and provides more information on trunk traffic. OM group TRK2 is for the international base only.

The following table lists the key and info fields associated with OM group TRK2:

Key field	Info field
COMMON_LANGUAGE_NAME	OM2TRKINFO

OM2TRKINFO is made up of three parts: TRKDIR, NCCT, and NWCCT. TRKDIR is the trunk group direction. The fixed TRKDIR for TRK are:

IC: incoming trunk

OG: outgoing trunk

2W: 2-way trunk

NCCT is the total number of trunk circuits in the group. NWCCT is the number of trunk circuits that are available for service at the end of the reporting period.

Tables TRKNAME and OFCSTD must be datafilled. The administrative number associated with a trunk group is datafilled in field ADNUM in table TRKNAME.

Related functional groups

There are no functional groups associated with OM group TRK2.

Registers

The following table lists the registers associated with OM group TRK2 and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TRK2

Register name	Measures
ANSSZG	Answer to seizure ratio
AVHOLD	Average trunk holding time
NALRTET	Number of alternated routed calls on trunk
<u>NALRTETU</u>	Number of alternately routed calls
NBSY	Number of busy calls
NINCTRM	Number of incoming to terminating (trunk to line) connections
NINCTRMC	Number of incoming to terminating (trunk to line) conversations
NINCTRMU	Number of incoming to terminating (trunk to line) answered calls
NORGOUT	Number of originating to outgoing (line to trunk) connections
NORGOUTC	Number of originating to outgoing (line to trunk) conversations
<u>NORGOUTU</u>	Number of originating to outgoing (line to trunk) answered calls
<u>NUNA</u>	Number of unanswered calls
RINGING	Ringing
TANDEMC	Tandem conversations
TANDEMU	Tandem answered calls

ANSSZG

Register type

ANSSZG measures the ratio of answer to seizure as a percentage for each trunk group.

Associated registers

ANSWER, INANSWER, CONNECT, and INCATOT in OM group TRK.

Validation formula

ANSSZG = [(ANSWER + INANSWER) x 100] / (CONNECT + INCATOT)

Extension registers

None

Associated logs

None

AVHOLD

Register type

Peg

Description

AVHOLD counts the average trunk holding time for each trunk group.

Associated registers

TRU, NATTMPT, INCATOT, and NOVFLATB in OM group TRK.

Validation formula

AVHOLD = (TRU x 100) / (NATTMPT + INCATOT - NOVFLATB)

Extension registers

None

Associated logs

None

NALRTET

Register type

Peg

Description

NALRTET counts the number of calls for each trunk group that are routed to an alternate trunk because of trunk overflows. NALRTET counts rerouted calls, but not reattempted calls.

Associated registers

None

Extension registers

None

Associated logs

None

NALRTETU

Register type

Usage

Scan rate

Not available

Description

NALRTETU shows the trunk usage for each trunk group for calls that are successfully routed to an alternate trunk.

Use the command **OMSHOW TRK class TOTAL** at CI level to display the office-wide value for this register.

Associated registers

None

Extension registers

None

Associated logs

None

NBSY

Register type

Peg

Description

NBSY counts the number of busy calls for each trunk group. NBSY increases when a busy tone or signal is received on a trunk group to indicate that the called party's line is busy.

NBSY counts only outgoing ISUP and R2 calls, and increases when the busy tone is received.

Associated registers

Extension registers

None

Associated logs

None

NINCTRM

Register type

Peg

Description

NINCTRM counts the number of incoming calls on a trunk group that are initially routed to a terminating line. NINCTRM is incremented before it is known if the terminating line is busy, or if a junctor path is available.

Use the command OMSHOW TRK class TOTAL at CI level to display the office-wide value for this register.

Associated registers

None

Extension registers

None

Associated logs

None

NINCTRMC

Register type

Peg

Description

NINCTRMC counts the number of incoming answered calls on a trunk group that are routed to a terminating line. NINCTRMC is incremented when an answer line signal is received from the terminating line after the incoming to terminating call connection.

Associated registers

None

Extension registers

None

Associated logs

NINCTRMU

Register type

Usage

Scan rate

Not available

Description

NINCTRMU shows the number of trunk to line answered calls for each trunk group. NINCTRMU measures traffic in the answered state for each trunk group.

Use the command **OMSHOW TRK class TOTAL** at CI level to display the office-wide value for this register.

Associated registers

None

Extension registers

None

Associated logs

None

NORGOUT

Register type

Peg

Description

NORGOUT counts the number of outgoing calls on a trunk group that are received from an originating line.

Use the command **OMSHOW TRK class TOTAL** at CI level to display the office-wide value for this register.

Associated registers

None

Extension registers

None

Associated logs

NORGOUTC

Register type

Peg

Description

NORGOUTC counts the number of outgoing answered calls on a trunk group that are received from an originating line. NORGOUTC is incremented when an answer signal is received from the outgoing trunk after the call connection from originating to outgoing.

Associated registers

None

Extension registers

None

Associated logs

None

NORGOUTU

Register type

Usage

Scan rate

Not available

Description

NORGOUTU shows the number of line to trunk answered calls for each trunk group. NORGOUTU measures traffic in the answered state for each trunk group.

Use the command **OMSHOW TRK class TOTAL** at CI level to display the office-wide value for this register.

Associated registers

None

Extension registers

None

Associated logs

None

NUNA

Register type

NUNA counts the number of unanswered calls for each trunk group. NUNA increases when no answer signal is received after call connection on a trunk group.

NUNA counts only ISUP trunk calls, and increases if no answer message is received after the Address Complete Message (ACM).

Associated registers

None

Extension registers

None

Associated logs

None

RINGING

Register type

Peg

Description

RINGING counts the number of connected calls used for measurement of the outgoing trunk (CISUP or CTUP). RINGING is incremented only when the ACM message is received on tandem in a non-fast answer call.

RINGING is updated properly only when the following office parameters are turned on:

- ACTIVATE_OMEF in table OFCVAR
- ISDN_ACCIND in table AMAOPTS

Associated registers

TRMTCM_TCMPSIG, which counts calls that the system routes to permanent signal timeout treatment.

Extension registers

None

Associated logs

None

TANDEMC

Register type

TANDEMC counts incoming answered calls on a trunk group that are routed to an outgoing trunk group. TANDEMC is incremented when an answer signal is received from the outgoing trunk group after the call connection from incoming to outgoing.

Associated registers

None

Extension registers

None

Associated logs

None

TANDEMU

Register type

Usage

Scan rate

Not available

Description

TANDEMU is a usage register that shows the number of trunk to trunk answered calls for each trunk group. TANDEMU measures traffic in the answered state for each trunk group.

Use the command **OMSHOW TRK class TOTAL** at CI level to display the office-wide value for this register.

Associated registers

None

Extension registers

None

Associated logs

TRK2NET1

Description

OM group Trunk to Network Group 1 (TRK2NET1) measures trunk group traffic for each bearer network. Registers in TRK2NET1 measure the following events for each trunk group:

- routing and seizure attempts
- seize failures
- total trunk use
- busy state use

TRK2NET2 contains registers that are extensions of a subset of registers in TRK2NET1. OM groups TRK and TRNK2 provide traffic data summaries on a per-trunk group basis for all trunk groups in an office. TRK2NET1 and TRK2NET2provide similar traffic data summaries with further refinement on a per-bearer network basis for each trunk group for all trunks groups in an office.

Set new office parameter MULTINET_DISPLAY_ACTIVE to Y to display TRK2NET1. Use the following syntax for the OMSHOW command for TRK2NET1:

> omshow trk2net1 active '<TRUNK_GROUP_NAME> <NETWORK_ID>'

where:

<TRUNK_GROUP_NAME> = the name of the trunk group as
defined in table CLLI
<NETWORK_ID> = the NETIDX key field of table BEARNETS
(examples: NET 0, NET 1)

Example command:

> omshow trk2net1 active 'TRI1ITOGS7 NET 0'

To enter the OMSHOW command successfully:

- the trunk group name and network id must be entered in ALL CAPITAL LETTERS
- both the trunk group and network id must be included and enclosed in the same set of single quotes (' ')
- only one network id can be specified in a single command

If the command is not entered correctly, the system displays the following error message: Invalid KEY NAME for this node.

The following table lists the key and info fields associated with OM group TRK2NET1. The group provides one tuple for each trunk group and each bearer network in which the trunk group has members provisioned.

Key field	Info field
None	OM2TRKINFO

Info field OM2TRKINFO includes:

- CLLI
- bearer network ID (NET 0)
- bearer network name (TDM_ENET)
- trunk group direction. Values:

IC = incoming trunk

OG = outgoing trunk

2W = two-way trunk

- total number of trunk circuits in the group in the associated bearer network
- number of trunk circuits in the associated bearer network available for service at the end of the report period

Office parameter OFFICETYPE in table OFCSTD controls the generation of the registers for TRK2NET1. The following table describes the correct entries (values) for table OFCSTD.

Office type values for table OFCSTD (Sheet 1 of 2)

Value (name)	Office type
NOOFFICE	Default
OFF100	Local
OFF100OESD	Austrian local
OFF200	Toll
OFF200OESD	Australian toll
OFF200TOPS	Toll with traffic operator position system (TOPS)
OFF200300	Combined gateway/toll

Office type values for table OFCSTD (Sheet 2 of 2)

Value (name)	Office type
OFF250	DMS-250
OFF250IBN	DMS-250/SL-100
OFF300	Gateway
OFFCOMB	Combined local/toll
OFFCOMBLWW	Combined local/toll with wireless
OFFCOMBOESD	Australian combined local/toll
OFFCOMBTOPS	Combined local/toll with TOPS

Related functional groups

The following functional groups are associated with OM group TRK2NET1:

- Carrier VolP North America
- Carrier VoIP International

Registers

The following table lists the registers associated with OM group TRK2NET1 and what they measure. For a description of a register, click on the register name.

Registers for OM group TRK2NET1

Register name	Measures
ANIOFCFL	Automatic number identification office failure
ANSUFIN	Answer message usage on an incoming trunk
CNCTAT	Successful connection attempts
GLARE1	Glare
INCAATT	Incoming attempts total
INVATHCD	Invalid authorization code
MAXBSY	Maximum busy circuits

Registers for OM group TRK2NET1

Register name	Measures
MBSYU	Maintenance busy usage
MIDFAIL3	Established bearer path failures
NACCCNG	Automatic congestion control
NANE	No automatic number identification signals
NANSWER	Answer supervisions
NATMPT	Number of attempts
<u>NINANSWER</u>	Answer messages on an incoming trunk
NINFAIL	Incoming failures
<u>NOANSWR</u>	No answer on trunk (timed out)
<u>NVFLATB</u>	Number of overflows, all trunks busy
<u>OUTANSWR</u>	Answer message usage on an outgoing trunk
<u>OUTFL</u>	Outgoing failures
PRERTEA1	Pre-route abandon
<u>SBSYU</u>	System busy usage
TNDMATT	Tandem attempts
TOTBSYU	Total usage
TRFCU	Traffic busy usage
TRKNWBLK	Outgoing matching failure

ANIOFCFL

Register type

Peg

Description

ANIOFCFL counts incoming calls for which the originating office detects an ANI failure. The office can detect a failure even when the key pulse and signaling terminal control signals are correct. Missing or no information digits or a missing category code indicates an ANI failure.

ANIOFCFL is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFFCOMBLOPS, OFFCOMBLOPS, OFFCOMBLOPS, OFFCOMBS300, NOOFFICE.

Associated registers

TRK AOF

Extension registers

None

Associated logs

TRK118, TRK119

ANSUFIN

Register type

Usage

Scan rate

100 seconds

Description

ANSUFIN records the number of answered calls on incoming trunk calls for each two-way trunk. The register measures occupancy in Erlangs. The value of ANSUFIN increases every 100 seconds according to the number of trunks occupied with answered calls.

ANSUFIN is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, NOOFFICE.

Note: This register is not pegged in the current load, and will be removed in a future release.

Associated registers

TRK INANSU

Extension registers

None

Associated logs

None

CNCTAT

Register type

CNCTAT counts outgoing seizure attempts on the trunk group that appear to result in successful connection. The register increases before the system recognizes whether the seizure is successful. A glare or seize failure decreases the count decreases by 1.

CNCTAT is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

The following registers are associated with CNCTAT:

- GLARE1 increases when the system drops an earlier selected trunk because the peripheral module detects an origination before it can seize the trunk.
- TRK CONNECT

Extension registers TRK2NET2 CNCTAT2

Associated logs

None

GLARE1

Register type

Peg

Description

GLARÉ1 increases when the system drops a trunk that the system previously selected when the PM detects an origination before it can seize the trunk. The operating company indicates that outgoing calls give way to simultaneous incoming calls (glare). If glare occurs again when the system attempts to select a new trunk, the calls routes to generalized no-circuit (GNCT) treatment and GLARE1 increases again.

GLARE1 is present in the following office types:OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

CNCTAT, **OUTFL**, TRK_GLARE

Extension registers

None

Associated logs

TRK113, TRK121

INCAATT

Register type

Peg

Description

INCAATT counts incoming seizures on a trunk group, including seizures that fail or that the system abandons before routing.

INCAATT is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK_INCATOT

Extension registers

TRK2NET2_INCAATT2

Associated logs

None

INVATHCD

Register type

Peg

Description

INVATHCD counts authorization codes that are not correct. The register is pegged against the CLLI and bearer network of the originator.

Although INVATHCD is pegged primarily when the office type is set to OFF250IBN, the register is present also in the following office types: OFF250, OFFMTX100I, OFF500, OFFCOMBLWW and OFFCOMB300.

Associated registers

TRK_INVAUTH

Extension registers

None

Associated logs

None

MAXBSY

Register type

Usage

Scan rate

100 seconds

Description

MAXBSY scans the trunk group and increases if the number of busy circuits exceeds the maximum number that the system recorded earlier.

The register is present in the following office types: OFF250, OFF250IBN, OFFMTX100I,OFF500, OFFCOMBLWW, OFFCOMB300.

Note: MAXBSY will always be set to zero for DPT trunks.

Associated registers

TRK_MAXBU

Note: TRK_MAXBU will always be set to zero for DPT trunks.

Extension registers

None

Associated logs

None

MBSYU

Register type

Usage

Scan rate

100 seconds

Description

MBSYU records if a trunk is manual busy, network management busy, or seized.

MBSYU is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK_MBU

Extension registers

None

Associated logs

None

MIDFAIL3

Register type

Peg

Description

MIDFAIL3 counts the established bearer path failures on a per bearer network basis for each trunk group in an office. The MIDFAIL3 count gets pegged whenever AUD106 logs are generated.

The system generates this register in office types OFCSTD.

Associated registers

TRK MIDFAIL and TRK2NET2 MIDFAIL4

Extension registers

MIDFAIL4

Associated logs

AUDT106

NACCCNG

Register type

Peg

Description

NACCCNG counts the number of times that a trunk group enters automatic congestion control (ACC) congestion.

NACCONG is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS,

OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, NOOFFICE.

Associated registers

TRK ACCCONG

Extension registers

None

Associated logs

None

NANF

Register type

Peg

Description

NANF counts incoming centralized automatic message accounting (CAMA) or TOPS calls for which:

- the system receives either invalid automatic number identification (ANI) signaling, or no ANI signaling
- the numbering plan area code (N0/1X) or the central office code (NNX) of the calling number for the incoming trunk group is not correct. NANF increases when the system attaches the necessary receiver to the call.

NANF is present in the following office types:off100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF200TOPS, OFFCOMBLWW, OFFCOMB300, NOOFFICE.

Associated registers

TRK ANF

Extension registers

None

Associated logs

TRK120

NANSWER

Register type

NANSWER counts all line/trunk-to-trunk answered calls, and is the answer register for the outgoing trunk. The system generates NANSWER for the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF300, OFFCOMB300, OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

TRK ANSWER

Extension registers

TRK2NET2 NANSWER2

Associated logs

None

NINANSWER

Register type

Peg

Description

NINANSWER counts the answered calls for incoming traffic on each incoming or two-way trunk. The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFFCOMBTOPS, NOOFFICE.

Note: This register is not pegged in the current load, and will be removed in a future release.

Associated registers

TRK INANSWER

Extension registers

None

Associated logs

None

NINFAIL

Register type

NINFAIL increases when one of the following events occurs on a trunk that has originated a call or appears to have originated a call:

- permanent signal
- partial dial time-outs and false starts
- bad digits, including bad signaling terminal (ST) digits
- originations on one-way outgoing trunks
- lost integrity on the network path while connected to a service circuit or to another trunk before answer
- failure to attach a receiver after two attempts
- receiver queue overflow
- receiver queue wait time-out
- failure to time-out after 30 seconds while waiting for a multi frequency receiver
- progress message of a type not expected in the current call environment
- force-release before connection

NINFAIL is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK INFAIL

Extension registers

None

Associated logs

TRK111, TRK114, TRK115, TRK116, TRK117, TRK138, TRK182, TRK183, TRK213

NATMPT

Register type

NATMPT counts the number of system attempts to route an outgoing call to a trunk group. The register increases before an idle trunk and a network connection to the trunk are available.

NATMPT is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK NATTMPT

Extension registers TRK2NET2,_NATMPT2

Associated logs

None

NOANSWR

Register type

Peg

Description

NOANSWR counts the number of times a call is taken down after a specified time-out, as part of Black Box Fraud prevention (BBFP). The time-out value for each trunk-group can be set in table TRKOPTS in one- to five-minute intervals.

NOANSWR increases when the timer expires before an answer supervision signal is received. To activate or deactivate the NOANSWR functionality, datafill option DLYFWDXMT in table TRKOPTS for each trunk group.

NOANSWR is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF300, OFFCOMB300, OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers TRK NOANSWER

Extension registers

Associated logs

TRK610

NVFLATB

Register type

Peg

Description

NVFLATB increases when a call with access to the trunk group overflows the group. The system routes the call because an idle trunk is not available. A call can access the same group more than one time. Overflow can occur only one time. Overflow occurs if the system cannot use the first trunk because of seize fail, glare or network blockage. NVFLATB increases when the system cannot find an idle trunk on first or subsequent access attempts.

NVFLATB is present in the following register types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK_NOVFLATB

Extension registers

None

Associated logs

ATB100

OUTANSWR

Register type

Usage

Scan rate

100 seconds

Description

OUTANSWR records the number of answered calls on outgoing trunk calls. The register measures (in Erlangs) traffic in the answered state for each outgoing or two-way trunk. The OUTANSWR value increases according to the number of trunks occupied with answered calls.

OUTANSWR is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFFCOMBTOPS, NOOFFICE.

Note: This register is not pegged in the current load, and will be removed in a future release.

Associated registers

TRK_OUTANSU

Extension registers

None

Associated logs

None

OUTFL

Register type

Peg

Description

OUTFL counts attempts to seize an outgoing trunk in the trunk group that fail because of:

- signaling problems
- loss of accuracy
- outgoing or seizure failures

The system releases the trunk, performs two attempts (maximum) to seize a trunk, and counts each failed attempt in OUTFL. If a second attempt to seize a trunk fails, the system routes the call to treatment. A log message can be generate, depending on the cause of failure.

OUTFL is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

CNCTAT, GLARE1, TRK_OUTFAIL

Extension registers

Associated logs

TRK113, TRK121, TRK122, TRK162, TRK213

PRERTEA1

Register type

Peg

Description

PRERTEA1 counts incoming attempts that the system abandons before it can complete routing.

PRERTEA1 is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK_PRERTEAB

Extension registers

None

Associated logs

TRK113, TRK116,

SBSYU

Register type

Usage

Register type

100 seconds

Description

SBSYU records if a trunk is in one of the following states:

- remote busy
- peripheral module busy
- system busy
- carrier fail
- deloaded

SBSYU is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW,

OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFF200OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK SBU

Extension registers

TRK2NET2_SBSYU2

Associated logs

TRK106, TRK109

TNDMATT

Register type

Peg

Description

TNDMATT counts incoming calls on a trunk group that first route to an outgoing trunk group. The register increases before the system determines if the outgoing trunk group is busy, or if a junctor path is available.

TNDMATT is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF100SCP, OFF100OESD, OFF200OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK_TANDEM

Extension registers

TRK2NET2_TNDMATT2

Associated logs

None

TOTBSYU

Register type

Usage

Scan rate

100 seconds

Description

TOTBSYU records if any trunk in the group is busy.

TOTBSYU is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFFCOMB300, OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

The following registers are associated with TOTBSYU:

• MBSYU, SBSYU, TRFCU

TOTBSYU = MBSYU + SBSYU + TRFCU

TRK_TOTU (U.S. and Australia only)

TRK_TOTU = the sum of all the TOTBSYU for all bearer networks in the trunk group

Extension registers

TRK2NET2_TOTBSYU2

Associated logs

None

TRFCU

Register type

Usage

Scan rate

100 seconds

Description

TRFCU records if a trunk in a trunk group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK CP BUSY DELOAD)
- lockout (TK_LOCKOUT)

TRFCU is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers

TRK_TRU

Extension registers TRK2NET2 TRFCU2

Associated logs

None

TRKNWBLK

Register type

Peg

Description

TRKNWBLK counts attempts to find a path from an incoming trunk or originating line to a selected trunk that fail because of network blockage. If the system blocks an outgoing call, the call attempts to select a trunk again. If the system blocks the second attempt, TRKNWBLK counts the call again. The call routes to network blockage heavy traffic (NBLH) treatment.

TRKNWBLK is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF200TOPS, OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFF200AVON, OFF100SCP, OFF100OESD, OFFCOMBOESD, OFFCOMB300, NOOFFICE.

Associated registers TRK_OUTMTCHF

Extension registers

None

Associated logs

NET130

TRK2NET2

Description

OM group Trunk to Network Group 2 (TRK2NET2) measures trunk group traffic for each bearer network. The group contains registers that are extensions of a subset of registers in TRK2NET1.

As with OM group TRK2NET1, set new office parameter MULTINET_DISPLAY_ACTIVE to Y to display TRK2NET2. Use the following syntax for the OMSHOW command for TRK2NET2:

> omshow trk2net2 active '<TRUNK_GROUP_NAME> <NETWORK_ID>'

where:

<TRUNK_GROUP_NAME> = the name of the trunk group as
defined in table CLLI
<NETWORK_ID> = the NETIDX key field of table BEARNETS
(examples: NET 0, NET 1)

Example command:

> omshow trk2net2 active 'TRI1ITOGS7 NET 0'

To enter the OMSHOW command successfully:

- the trunk group name and network id must be entered in ALL CAPITAL LETTERS
- both the trunk group and network id must be included and enclosed in the same set of single quotes (' ')
- only one network id can be specified in a single command

If the command is not entered correctly, the system displays the following error message: Invalid KEY NAME for this node.

The following table lists the key and info fields associated with OM group TRK2NET2. The group provides one tuple for each trunk group and each bearer network in which the trunk group has members provisioned.

Key field	Info field
None	OM2TRKINFO

Info field OM2TRKINFO includes:

- CLLI
- bearer network ID (NET 0)
- bearer network name (TDM_ENET)
- trunk group direction. Values:

IC = incoming trunk

OG = outgoing trunk

2W = two-way trunk

- total number of trunk circuits in the group in the associated bearer network
- number of trunk circuits in the associated bearer network available for service at the end of the report period

Office parameter OFFICETYPE in table OFCSTD controls the generation of the registers for TRK2NET2. The following table describes the correct entries (values) for table OFCSTD.

Office type values for table OFCSTD (Sheet 1 of 2)

Value (name)	Office type
NOOFFICE	Default
OFF100	Local
OFF100OESD	Austrian local
OFF100SCP	DMS-100 Service Control Point (SCP)
OFF200	Toll
OFF200AVON	DMS 100/200 local/toll with Autovon (U.S. and Canada)
OFF200OESD	Australian toll
OFF200TOPS	Toll with traffic operator position system (TOPS)
OFF200300	Combined gateway/toll
OFF250	DMS-250
OFF250IBN	DMS-250/SL-100
OFF300	Gateway

Office type values for table OFCSTD (Sheet 2 of 2)

Value (name)	Office type
OFF500	DMS-500
OFFCOMB	Combined local/toll
OFFCOMB300	Combined local/toll and gateway
OFFCOMB300ITOPS	Combined local/toll and gateway with international TOPS (ITOPS)
OFFCOMBITOPS	Combined local/toll with ITOPS
OFFCOMBLWW	Combined local/toll with wireless
OFFCOMBOESD	Australian combined local/toll
OFFCOMBTOPS	Combined local/toll with TOPS
OFFMTX100I	DMS-MTX with DMS100I

Related functional groups

The following functional groups are associated with OM group TRK2NET2:

- Carrier VolP North America
- Carrier VoIP International

Registers

The following table lists the registers associated with OM group TRK2NET2 and what they measure. For a description of a register, click on the register name.

Registers for OM group TRK2NET2 (Sheet 1 of 2)

Register name	Measures
CNCTAT2	Successful connection attempts
INCAATT2	Incoming attempts
MIDFAIL4	Established bearer path failures
NANSWER2	Answer supervisions
NATMPT2	Number of attempts

Registers for OM group TRK2NET2 (Sheet 2 of 2)

Register name	Measures
SBSYU2	System busy usage
TNDMATT2	Tandem attempts
TOTBSYU2	Total usage
TRFCU2	Traffic busy usage

CNCTAT2

Register type

Peg

Description

CNCTAT2 counts outgoing seizure attempts on the trunk group that appear to result in successful connection. The register increases before the system recognizes whether the seizure is successful. A glare or seize failure decreases the count by 1.

CNCTAT2 is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFFCOMB300, OFF200AVON, OFF100SCP,OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

TRNK2 CONNECT2, TRK2NET1 CNCTAT

Extension registers

None

Associated logs

None

INCAATT2

Register type

Peg

Description

INCAATT2 counts incoming seizures on a trunk group, including seizures that fail or that the system abandons before routing.

The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF250, OFF250IBN, OFFMTX100I,

OFF500, OFFCOMBLWW, OFF300, OFFCOMB300, OFF200AVON, OFF100SCP,OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

TRNK2_INCATOT2, TRK2NET1_INCAATT

Extension registers

None

Associated logs

None

MIDFAIL4

Register type

Peg

Description

The MIDFAIL4 count gets pegged when its associated register MIDFAIL3 overflows its maximum value.

The system generates this register in office types OFCSTD.

Associated registers

TRNK2_MIDFAIL2 and TRK2NET1_MIDFAIL3

Extension registers

None

Associated logs

None

NANSWER2

Register type

Peg

Description

NANSWER2 counts all line/trunk-to-trunk answered calls, and is the answer register for the outgoing trunk. The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS,OFF250, OFF250IBN, OFFMTX100I,OFF500, OFFCOMBLWW, OFF300, OFFCOMB300, OFF100OESD,OFF200OESD,OFFCOMBOESD.

Associated registers

TRNK2_ANSWER2, TRK2NET1_NANSWER

Extension registers

None

Associated logs

None

NATMPT2

Register type

Peg

Description

NATMPT2 counts the number of system attempts to route an outgoing call to a trunk group. The register increases before an idle trunk and a network connection to the trunk are available.

The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFFCOMB300, OFF200AVON, OFF100SCP,OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

TRNK2 NATTMPT2, TRK2NET1 NATMPT

Extension registers

None

Associated logs

None

SBSYU2

Register type

Usage

Register type

100 seconds

Description

SBSYU2 records if a trunk is in one of the following states:

- remote busy
- peripheral module busy
- system busy
- carrier fail
- deloaded

The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFFCOMB300, OFF200AVON, OFF100SCP,OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

TRNK2 SBU2, TRK2NET1 SBSYU

Extension registers

None

Associated logs

TRK106, TRK109

TNDMATT2

Register type

Peg

Description

TNDMATT2 counts incoming calls on a trunk group that first route to an outgoing trunk group. The register increases before the system determines if the outgoing trunk group is busy, or if a junctor path is available. The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFFCOMB300, OFF100SCP, OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

TRNK2 TANDEM2, TRK2NET1 TNDMATT

Extension registers

None

Associated logs

None

TOTBSYU2

Register type

Usage

Scan rate

100 seconds

Description

TOTBSYU2 records if any trunk in the group is busy. The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFFCOMB300, OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

SBSYU2, TRFCU2, TRK2NET1_TOTBSYU, TRNK2_TOTU2 (U.S. and Australia only)

TRNK2_TOTU2 = the sum of all of the TOTBSYU2 for all bearer networks in the trunk group

Extension registers

None

Associated logs

None

TRFCU2

Register type

Usage

Scan rate

100 seconds

Description

TRFCU2 records if a trunk in a trunk group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The register is present in the following office types: OFF100, OFF200, OFFCOMB, OFFCOMBITOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, OFF300, OFFCOMB300, OFF200AVON, OFF100SCP,OFF100OESD, OFF200OESD, OFFCOMBOESD, NOOFFICE.

Associated registers

TRNK2_TRU2, TRK2NET1_TRFCU

Extension registers

Associated logs None

TRNK2

Description

OM group Trunk group 2 (TRNK2) provides traffic data summaries on a per trunk group basis for all trunk groups in an office.

The registers in TRNK2 monitor the following usage information:

- number of calls answered
- number of successful connections
- network management reroutes
- total incoming attempts
- total outgoing attempts
- system busy usage
- number of tandem calls
- total usage
- traffic busy usage

With support for multiple bearer networks, a trunk group can be configured to have members in multiple bearer networks. The existing TRK and TRNK2 OM groups only provide data on a per trunk basis. When office parameter MULTINET_DISPLAY_ACTIVE is set to 'Y', then new OM groups (TRK2NET1 and TRK2NET2) are created to provide a per trunk group and per bearer network view of the trunk group usage.

The following table lists the key and info fields associated with OM group TRNK2:

Key field	Info field
(information not available)	(information not available)

Related functional groups

Registers

The following table lists the registers associated with OM group TRNK2 and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TRNK2

Register name	Measures
ANSWER2	Answer supervisions 2
CONNECT2	Successful connections 2
DEFLDCA2	Network management (NWM) reroute 2
INCATOT2	Incoming attempts total 2
MIDFAIL2	Established bearer path failures
NATTMPT2	Number of attempts 2
SBU2	System busy usage 2
TANDEM2	TANDEM 2
TOTU2-U.S. and Australia only	Total usage 2
TRU2	Traffic busy usage 2

ANSWER2

Register type

Peg

Description

When an incoming line/trunk originates a call and an outgoing trunk reports an answer indication to the computer module (CM), register ANSWER2 increases. This register is the answer register for the outgoing trunk.

The table <u>Interworking supported by OM TRNK2 Answer Register for release LEC0011 and above</u> shows the interworking supported for releases LEC0011 and above. The table <u>Interworking Supported by OM TRNK2 Answer Register for UK release EUR004 and above</u> shows the interworking supported for release EUR004 and above.

Interworking supported by OM TRNK2 Answer Register for release LEC0011 and above

Originating/ Incoming	Terminating / Outgoing Agents				
Agents (see note)	ISUP Trunk	PTS Trunk	PRI Trunk (see note)	PX Trunk	
Line	Yes	Yes	Yes	Yes	
ISUP Trunk	Yes	Yes	Yes	Yes	
PTS Trunk	Yes	Yes	Yes	Yes	
PRI Trunk (see note)	Yes	Yes	Yes	Yes	
PX Trunk	Yes	Yes	Yes	Yes	
Note: Only Northe	Note: Only Northern American PRI trunks.				

Interworking Supported by OM TRNK2 Answer Register for UK release EUR004 and above

	Outgoing Agents								
Incoming Agents	ISUP	C7N UP	DPM SS	AC15	DC5	R1	PRI	EC	LD
BRI Line	No	Yes	No	No	No	No	No	No	No
IBN Line	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C7NUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NPNSS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Interworking Supported by OM TRNK2 Answer Register for UK release EUR004 and above

				Outgoir	ng Agen	its			
Incoming Agents	ISUP	C7N UP	DPM SS	AC15	DC5	R1	PRI	EC	LD
R1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PRI	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
EC	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
LD	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes

Note: Supported in EUR003

Associated registers

None

Extension registers

None

Associated logs

None

CONNECT2

Register type

Usage

Scan rate

Not applicable

Description

CONNECT2 counts outgoing seizure attempts on the trunk group that appear to result in successful connection.

CONNECT2 increases before the system knows if the seizure is successful. The count reduces by 1 (decreases) if an indication of glare or seize failure is received. This register generates for all correct office types.

For office type OFF300, this register decreases on number 5 trunks, number 6 trunks and number 7 trunks.

Associated registers

None

Validation formulas

None

Extension registers

None

Associated logs

None

DEFLDCA2

Register type

Peg

Description

DEFLDCA2 counts calls that the system prevents from accessing the trunk group. The system routes the calls to this trunk group. The system denies access by the calls because of the action of network management controls.

DEFLDCA2 counts calls that the system denies for the activity of any of the following NWM controls:

- SKIP control is in effect
- the number of trunks qualified for incoming calls is at or below the directional reservation (DRE) level
- the number of idle trunks is at or below the protective reservation (PRE) level for calls that have been alternate-routed to the group
- time assignment speech interpolation (TASI) control is in effect
- selective trunk reservation (STR) control is in effect
- cancel to (CANT) control is in effect
- bidirectional trunk group reservation control (BRC) is in effect

If the control is SKIP, DRE, PRE, or TASI, the system routes the call. If cancel from (CANF) control is in effect, the system sends the call to treatment.

If the control is STR or CANT the system sends the call to treatment.

The system this register for all correct office types.

Associated registers

None

Extension registers

None

Associated logs

None

INCATOT2

Register type

Peg

Description

INCATOT2 counts incoming seizures on a trunk group, including seizures that fail or that the system abandons before routing. The system generates this register for all office types that are correct.

For DMS-MTX switches, this register increases when the system attempts to originate on an MTX trunk group. The system attempt includes handoff attempts for an originating mobile. This system can assign a maximum of eight MTX trunk groups to a cell site. The register can increase a maximum of eight times for a single origination, one time for each group.

Associated registers

None

Extension registers

None

Associated logs

None

MIDFAIL2

Register type

Peg

Description

The MIDFAIL2 count gets pegged when its associated register MIDFAIL overflows its maximum value.

The system generates this register in office types OFCSTD.

Associated registers

TRK2NET2_MIDFAIL4 and TRK_MIDFAIL

Extension registers

None

Associated logs

None

NATTMPT2

Register type

Peg

Description

NATTMPT2 increases when the system routes an outgoing call to a trunk group.

NATTMPT2 increases before network management controls increase. This register increases before an idle trunk and a network connection to the trunk are available. The system generates this register for office types that are correct.

For DMS-MTX switches, this register counts attempts to terminate on an MTX trunk group. These attempts include handoff attempts for a terminating mobile.

The system can assign up to eight MTX trunk groups to a cell site. Register MTX can increase up to eight times for a single termination, one time for each group.

Associated registers

None

Extension registers

None

Associated logs

None

SBU₂

Register type

Usage

Scan rate

100 seconds

Description

Every 100 seconds the system scans the trunk group. This register records if a trunk is in one of the following states:

- remote busy
- peripheral module busy
- system busy
- carrier fail
- deloaded

The system generates this register for office types that are correct.

Associated registers

None

Extension registers

None

Associated logs

TRK106, TRK109

TANDEM2

Register type

Peg

Description

TANDEM2 counts incoming calls on a trunk group that first routes to an outgoing trunk group. Register TANDEM2 increases before the system determines if the outgoing trunk group is busy, or if a junctor path is available. The system generates this register for office types that are correct, except OFF300.

Associated registers

None

Extension registers

None

Associated logs

None

TOTU2-U.S. and Australia only

Register type

Usage

Scan rate

100 seconds

Description

Every 100 seconds the system scans the trunk group and register TOTU records if any trunk in the group is busy.

Associated registers

None

Extension registers

None

Associated logs

None

TRU2

Register type

Peg

Description

Every 100 seconds the system scans the trunk group. This register records if a trunk in the group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The system generates this register for office types that are correct.

Associated registers

None

Extension registers

None

Associated logs

TRKQOSOM

Description

OM group Trunk Quality of Service Operational Measurement (TRKQOSOM) presents QOS threshold crossing counts on a per trunk group basis. The counts presented are JITTER, DELAY, and PKTLOSS (packet loss).

The following table lists the key and info fields associated with OM group TRKQOSOM.

Key field	Info field
Common Language Name (CLLI) A value corresponding to the entries in table CLLI for which GWC members have been datafilled.	None

Related functional groups

There are no functional groups associated with OM group TRKQOSOM.

Registers

The following table lists the registers associated with OM group TRKQOSOM and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group TRKQOSOM

Register name	Measures
JITTER	Jitter threshold exceeded
DELAY	Delay threshold exceeded
<u>PKTLOSS</u>	Loss threshold exceeded

JITTER

Register type

Peg

Description

JITTER indicates that the jitter QOS statistic for a call has exceeded the datafilled JITTER threshold. The threshold is defined in office parameter PACKET_QOS_OM_THRESHOLDS in table OFCVAR.

Associated registers

DELAY, PKTLOSS

Extension registers

None

Associated logs

None

DELAY

Register type

Peg

Description

DELAY indicates that the delay QOS statistic for a call has exceeded the datafilled DELAY threshold. The threshold is defined in office parameter PACKET QOS OM THRESHOLDS in table OFCVAR.

Associated registers

JITTER, PKTLOSS

Extension registers

None

Associated logs

None

PKTLOSS

Register type

Peg

Description

PKTLOSS is a peg register used to indicate that the packet loss QOS statistic for a call has exceeded the datafilled LOSS threshold. The threshold is defined in office parameter

PACKET_QOS_OM_THRESHOLDS in table OFCVAR.

Associated registers <u>JITTER</u>, <u>DELAY</u>

Extension registersNone

Associated logs None

UPSNFAIL

Description

The switch uses the UCS PSN Failure (UPSNFAIL) OMs to record the number of Call processing class primitives that it denies because of SOC option UPSN0001.

The following table lists the key and info fields associated with OM group UPSNFAIL:

Key field	Info field
NIL	None

Related functional groups

There are no functional groups associated with OM group UPSNFAIL.

Registers

The following table lists the registers associated with OM group UPSNFAIL and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group UPSNFAIL

Register name	Measures
PRIMFAIL	Primitive failure

PRIMFAIL

Register type

Peg

Description

The switch pegs register PRIMFAIL every time it denies a call processing class primitive due to SOC option UPSN0001.

Associated registers

Extension registersNone

Associated logs UPSN100

UserProvisioning

Description

User Provisioning OM Group adds support for Operational Measurements for adding a User, deleting a User, moving a User to a MCP system domain and users added/modified via LDAP sync from the LDAP server.

This OM Group has an OM row for each domain present in the system to keep track of user provisioning. An OM Group row (respective to the domain name) is dynamically created when a domain/subdomain is added, and removed when the respective domain/subdomain is deleted.

The following table lists the key and info fields associated with OM group UserProvisioning.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group UserProvisioning:

Provisioning Manager

Registers

The following table lists the registers associated with OM group UserProvisioning and what they measure. For a description of a register, click on the register name.

Registers for OM group UserProvisioning

Register name	Measures
added	added
deleted	deleted
movedto	moved to
movedfrom	moved from

Registers for OM group UserProvisioning

Register name	Measures
Idapadded	LDAP added
Idapmodified	LDAP modified

added

Register type

Peg

Description

Users added to the domain/subdomain.

Associated registers

deleted

Extension registers

None

Associated logs

None

deleted

Register type

Peg

Description

Users deleted from the domain/subdomain

Associated registers

added

Extension registers

None

Associated logs

None

movedto

Register type

Peg

Description

Users moved into the domain/subdomain from another domain/subdomain

Associated registers

None

Extension registers

None

Associated logs

None

movedfrom

Register type

Peg

Description

Users moved from the domain/subdomain to another domain/subdomain

Associated registers

None

Extension registers

None

Associated logs

None

Idapadded

Register type

Peg

Description

The number of users that are added to this domain via LDAP sync

Associated registers

None

Extension registers

None

Associated logs

None

Idapmodified

Register type

Peg

Description

The number of users that are modified in this domain via LDAP sync

Associated registers

None

Extension registers

None

Associated logs

UTR

Description

OM group Universal Tone Receiver (UTR) counts and records call processing requests from lines and trunks to UTRs and the activities in request-wait queues.

Digitone and multifrequency calls request UTRs for digit collection. If a UTR is not available, the system places the request in a queue until a channel is available. A UTR has 32 channels and is in an XMS-based peripheral module (XPM).

The receiver attachment delay recording (RADR) measurement calculates the time the request for a UTR channel remains in the queue. Registers UTRRADA, UTRLDLYP, and UTRUDLYP report these measurements.

The XPM counts the UTR registers and transfers the registers to the central control every 5 minutes. Under heavy load conditions, this process can take more than 5 min. To provide an accurate example of a 10-second time period, the system updates register UTRSAMPL when 10 seconds pass. A time stamp at the call processing level determines when 10 seconds pass. The system moves the time stamp forward 10 seconds. The system adds the count of UTRs in use and the current count of UTR requests in the queue to UTRTRU and UTRQOCC.

The following table lists the key and info fields associated with OM group UTR.

Key field	Info field
None	UTR_OMINFO

The information field contains:

- the peripheral module (PM) name and number
- the fields defined
- the number of UTRs that have software for each PM

The field refers to each UTR tuple by a number. Field ADNUM in tables LTCINV and RCCINV identifies peripherals. The field uses the ADNUM identification that corresponds to the UTR equipped peripheral to refer to each UTR tuple. When the ADNUM field does not identify peripherals, the system numbers the UTR tuples from 0 to a maximum of 255.

- Tuple RADTESTC contains the total of the UTRRADA registers for all XPMs with UTR.
- Tuple RADLDLYP contains the total of the UTRLDLYP registers for all XPMs with UTR.
- Tuple RADUDLYP contains the total of the UTRUDLYP registers for all XPMs with UTR.

When the operating company sets office parameter OMINERLANGS in table OFCOPT to Y (yes), usage registers UTRQOCC and UTRTRU store in deci-erlangs.

Related functional groups

The functional group Universal Tone Receiver is associated with OM group UTR.

Registers

The following table lists the registers associated with OM group UTR and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group UTR (Sheet 1 of 2)

Register name	Measures
UTRLDLYP	UTR lower delay peg
<u>UTROVLFL</u>	UTR overflow
<u>UTRQABAN</u>	UTR queue abandon
UTRQOCC	UTR queue occupied
<u>UTRQOVFL</u>	UTR queue overflow
UTRRADA	UTR receiver attachment delay
<u>UTRSAMPL</u>	UTR samples
<u>UTRSZRS</u>	UTR seizures

Registers for OM group UTR (Sheet 2 of 2)

Register name	Measures
<u>UTRTRU</u>	UTR available
UTRUDLYP	UTR upper delay peg

UTRLDLYP

Register type

Peg

Description

UTRLDLYP counts requests for a UTR that are in the queue for a minimum of 3 seconds. Register UTRLDLYP counts the requests that the system denies and requests the system abandons after a minimum of 3 seconds.

UTRUDLYP and UTRLDLYP increase when a request waits in the queue for a minimum of 7 seconds. When the system denies the request for a UTR, both registers increase.

Associated registers

UTRUDLYP

Extension registers

None

Associated logs

None

UTROVLFL

Register type

Peg

Description

UTROVFL increases if receivers are not available when the system requests a receiver. The count in this register represents the number of attempts to secure a position in the wait queue for the UTR. The number of calls that enter the queue equals UTROVFL subtracted from UTRQOVFL.

Associated registers

None

Extension registers

Associated logs

None

UTRQABAN

Register type

Peg

Description

UTRQABAN increases when the system deletes a UTR request from the wait queue. The system deletes the request because the calling party abandons the call or because the incoming trunk times out.

Associated registers

None

Extension registers

None

Associated logs

None

UTRQOCC

Register type

Usage

Scan rate

10 seconds

Description

UTRQOCC records if requests for UTRs are present in the wait queue. The operating company can set office parameter OMINERLANGS in table OFCOPT to Y. When OMINERLANGS is set to Y, the system stores the register count in deci-erlangs, not in hundred call seconds (CCS).

Associated registers

UTRSAMPL

Extension registers

None

Associated logs

UTRQOVFL

Register type

Peg

Description

UTRQOVFL increases when the system denies a UTR request a position in the wait queue because the queue is full. The wait queue can hold the same number of requests as the number of available UTR channels. Each UTR has 32 channels.

Associated registers

TRK_INFAIL, which increases when register UTRQOVFL increases

Extension registers

None

Associated logs

None

UTRRADA

Register type

Peg

Description

UTRRADA counts requests for a UTR channel on which the system performs receiver attachment delay record (RADR) measurements. Not all call processing and diagnostic requests are in the queue. The system cannot include these requests in UTRRADA. The number of RADR calls correspond to the number of requests that call processing makes for UTR channels.

Associated registers

None

Extension registers

None

Associated logs

None

UTRSAMPL

Register type

Peg

Description

UTRSAMPL increases when the system takes samples of queue occupancy and the number of receivers in use. The system takes these samples every 10 seconds. The call processing time stamp determines when 10 seconds passes.

When the system takes a sample, the system adds the current count of UTRs in use to UTRTRU. The system also adds the current count of UTR requests in the queue to UTRQOCC.

Associated registers

UTRTRU, UTRQOCC

Extension registers

None

Associated logs

None

UTRSZRS

Register type

Peg

Description

UTRSZRS increases each time the system supplies a UTR to a call in response to a request.

Associated registers

None

Extension registers

UTRSZRS2

Associated logs

None

UTRTRU

Register type

Usage

Scan rate

10 seconds

Description

UTRTRU records the number of universal tone receivers in use. The operating company can set the office parameter OMINERLANGS in

table OFCOPT to Y. When OMINERLANGS is Y, the system stores the register counts in deci-erlangs. The system does not store the register counts in hundred call seconds (CCS).

Associated registers UTRSAMPL

Extension registers

None

Associated logs

None

UTRUDLYP

Register type

Peg

Description

UTRUDLYP counts requests for a UTR that are in the queue for a minimum of 7 seconds. The register also counts the number of requests that the system denies. This register also counts requests that the system abandoned after a minimum of 7 seconds.

UTRLDLYP increases when a request waits in the queue for a minimum of 7 seconds. If the system denies the request for a UTR, registers UTRUDLYP and UTRLDLYP increase.

Associated registers

UTRLDLYP

Extension registers

None

Associated logs

VAMPACG

Description

The Variable Advanced Intelligent Network Messaging and Automatic Code Gaping (VAMPACG) measures the use of the VAMPACG control system for applications in table Variable Advanced Intelligent Network Messaging Platform Transaction ID (VAMPTRID).

The following table lists the key and info fields associated with OM group VAMPACG:

Key field	Info field
VAMP_MSGSET	None

Related functional groups

There are no functional groups associated with OM group VAMPACG.

Registers

The following table lists the registers associated with OM group VAMPACG and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group VAMPACG

Register name	Measures
VACGADD	VAMP ACG control Added
VACGEXP	VAMP ACG Expired
VACGREM	VAMP ACG Removed
VACGUPD	VAMPACG Updated
VACGQCAC	VAMP ACG Queries Checked Against Control
<u>VACGBLK</u>	VAMP ACG Queries Blocked
VACGREST	VAMP ACG Control Systems Reset

VACGADD

Register type

Peg

Description

VACGADD measures ACG controls that have been added to the control list for the application.

Associated registers

None

Extension registers

None

Associated logs

VAMP302

VACGEXP

Register type

Peg

Description

VACGEXP measures ACG controls that have expired on the duration timer.

Associated registers

None

Extension registers

None

Associated logs

VAMP302

VACGREM

Register type

Peg

Description

VACGREM measures the ACG controls that have been removed from the duration timer.

Associated registers

None

Extension registers

None

Associated logs

VAMP 302

VACGUPD

Register type

Peg

Description

VACGUPD measures the ACG controls that have been updated. A control is updated when VAMP receives an ACG message that contains a control that already exists in the control list for that application.

Associated registers

None

Extension registers

None

Associated logs

VAMP302

VACGQCAC

Register type

Peg

Description

VACGQCAC measures queries for an application that have been checked against the ACG controls in the controls list.

Associated registers

None

Extension registers

None

Associated logs

None

VACGBLK

Register type

Peg

Description

VACGBLK measures an applications queries that have been blocked by an ACG control in the control list.

Associated registers

Extension registers

None

Associated logs

VAMP 301

VACGREST

Register type

Peg

Description

VACGRSET measures ACG Global Control Restore messages received by VAMP for an application.

Associated registers

None

Extension registers

None

Associated logs

VAMP 303

VoiceMail

Description

The VoiceMail OM group tracks down calls routed to Voicemail.

The following table lists the key and info fields associated with OM group VoiceMail.

Key field	Info field
None	None

Related functional groups

The following functional groups are related to OM group VoiceMail:

Session Manager

Registers

The following table lists the registers associated with OM group VoiceMail and what they measure. For a description of a register, click on the register name.

Registers for OM group VoiceMail

Register name	Measures
alarmNotif	alarm notification

alarmNotif

Register type

Peg

Description

Tracks the number of calls routed to Voicemail

Associated registers

None

Extension registers

None

Associated logs

VOW

Description

OM group Virtual Office Worker (VOW) tracks VOW usage for the MSL-100.

The following table lists the key and info fields associated with OM group VOW. The group provides one tuple for each logical group.

Key field	Info field
CUSTOMER_GROUP	NIL_TYPE_ID

Related functional groups

There are no functional groups associated with OM group VOW.

Registers

The following table lists the registers associated with OM group VOW and what they measure. For a description of a register, click on the register name.

Registers for OM group VOW

Register name	Measures
INPASS	VOWIN pass
INFAIL	VOWIN fail
<u>OUTPASS</u>	VOWOUT pass
<u>OUTFAIL</u>	VOWOUT fail
<u>CINPASS</u>	VOW CKLN/CLN login pass
CINFAIL	VOW CKLN/CLN login fail
COUTPASS	VOW CKLN/CLN logout pass
COUTFAIL	VOW CKLN/CLN logout fail
<u>PCCPASS</u>	VOWPCC pass code change pass
<u>PCCFAIL</u>	VOWPCC pass code change fail
<u>AUDPASS</u>	VOW audit logout pass

Registers for OM group VOW

Register name	Measures
AUDFAIL	VOW audit logout fail
ROUTPASS	VOWROUT pass
ROUTFAIL	VOWROUT fail

INPASS

Register type

Peg

Description

INPASS counts successful VOWIN attempts.

Associated registers

INFAIL

Validation formula

INPASS + INFAIL = Total VOWIN attempts

Extension registers

None

Associated logs

VOW501

INFAIL

Register type

Peg

Description

INFAIL counts failed VOWIN attempts.

Associated registers

INPASS

Validation formula

INPASS + INFAIL = Total VOWIN attempts

Extension registers

Associated logs

VOW502

OUTPASS

Register type

Peg

Description

OUTPASS counts successful VOWOUT attempts.

Associated registers

OUTFAIL

Validation formula

OUTPASS + OUTFAIL = Total VOWOUT attempts

Extension registers

None

Associated logs

VOW501

OUTFAIL

Register type

Peg

Description

OUTFAIL counts failed VOWOUT attempts.

Associated registers

OUTPASS

Validation formula

OUTPASS + OUTFAIL = Total VOWOUT attempts

Extension registers

None

Associated logs

VOW502

CINPASS

Register type

Peg

Description

CINPASS counts successful VOW login attempts using CKLN/CLN.

Associated registers

CINFAIL

Validation formula

CINTPASS + CINFAIL = Total CKLN/LN login attempts

Extension registers

None

Associated logs

VOW501

CINFAIL

Register type

Peg

Description

CINFAIL counts failed VOW login attempts using CKLN/CLN.

Associated registers

CINPASS

Validation formula

CINTPASS + CINFAIL = Total CKLN/LN login attempts

Extension registers

None

Associated logs

VOW502

COUTPASS

Register type

Peg

Description

COUTPASS counts successful VOW logout attempts using CKLN/CLN.

Associated registers

COUTFAIL

Validation formula

COUTPASS + COUTFAIL = Total CDLN/LN logout attempts

Extension registers

None

Associated logs

VOW501

COUTFAIL

Register type

Peg

Description

COUTFAIL counts failed VOW logout attempts using CKLN/CLN.

Associated registers

COUTPASS

Validation formula

COUTPASS + COUTFAIL = Total CDLN/LN logout attempts

Extension registers

None

Associated logs

VOW502

PCCPASS

Register type

Peg

Description

PCCPASS counts successful VOW pass code changes.

Associated registers

PCCFAIL

Validation formula

PCCPASS + PCCFAIL = Total VOWPCC attempts

Extension registers

None

Associated logs

VOW501

PCCFAIL

Register type

Peg

Description

PCCFAIL counts failed VOW pass code changes.

Associated registers

PCCPASS

Validation formula

PCCPASS + PCCFAIL = Total VOWPCC attempts

Extension registers

None

Associated logs

VOW502

AUDPASS

Register type

Peg

Description

AUDPASS counts successful VOW logouts through the VOW audit.

Associated registers

AUDFAIL

Validation formula

AUDPASS + AUDFAIL = Total AUDIT logout attempts

Extension registers

None

Associated logs

VOW501, VOW601

AUDFAIL

Register type

Peg

Description

AUDFAIL counts failed VOW logouts through the VOW audit.

Associated registers

AUDPASS

Validation formula

AUDPASS + AUDFAIL = Total AUDIT logout attempts

Extension registers

None

Associated logs

VOW502, VOW601

ROUTPASS

Register type

Peg

Description

ROUTPASS counts successful VOWROUT attempts.

Associated registers

ROUTFAIL

Validation formula

ROUTPASS + ROUTFAIL = Total VOWROUT attempts

Extension registers

None

Associated logs

VOW501

ROUTFAIL

Register type

Peg

Description

ROUTFAIL counts failed VOWROUT attempts.

Associated registers

ROUTPASS

Validation formula

ROUTPASS + ROUTFAIL = Total VOWROUT attempts

Extension registers

Associated logs VOW502

VPTRUSAG

Description

OM group Variable AIN Message Platform Transaction Resource Identifier Usage (VPTRUSAG) measures the use of VAMP resources as provisioned for Carrier Advanced Intelligent Network (CAIN) applications in table VAMPTRID; assists in engineering these resources and the T1 response timer.

The following table lists the key and info fields associated with OM group VPTRUSAG:

Key field	Info field
None	None

Related functional groups

There are no functional groups associated with OM group VPTRUSAG.

Registers

The following table lists the registers associated with OM group VPTRUSAG and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group VPTRUSAG (Sheet 1 of 2)

Register name	Measures
TRIDSEIZ	TRIDs seized
TRIDUSED	max TRIDs in use
TRIDOVFL	TRID seize failures
TRIDCMPS	max COMPs per TRID
TRIDMSGS	max MESGs per TRID
COMPSEIZ	COMPs seized
COMPUSED	max COMPs in use
COMPOVFL	COMP seize failures
COMPT1TM	T1 timer requests

Registers for OM group VPTRUSAG (Sheet 2 of 2)

Register name	Measures
COMPT1T0	T1 timeouts
MESGSEIZ	MESGs seized
MESGUSED	max MESGs in use
MESGOVFL	MESG seize failures

TRIDSEIZ

Register type

Peg

Description

TRIDSEIZ measures seizures of transaction ID blocks (TRID).

Associated registers

TRIDOVFL

Validation formula

TRIDSEIZ + TRIDOVFL = the number of queries attempted requiring a TRID block

Extension registers

TRIDSEI2

Associated logs

None

TRIDUSED

Register type

Peg

Description

TRIDUSED tracks the highest number of TRID blocks in use at one time.

Associated registers

None

Extension registers

Associated logs

VAMP201, VAMP203

TRIDOVFL

Register type

Peg

Description

TRIDOVFL measures failed attempts to seize TRID blocks.

Associated registers

TRIDSEIZ

Validation formula

TRIDSEIZ + TRIDOVFL = the number of queries attempted requiring a TRID block

Extension registers

None

Associated logs

VAMP202

TRIDCMPS

Register type

Peg

Description

TRIDCMPS tracks the highest number of component identifier (COMP) blocks allocated against a single TRID block.

Associated registers

None

Extension registers

None

Associated logs

None

TRIDMSGS

Register type

Peg

Description

TRIDMSGS tracks the highest number of message buffers (MESG) allocated against a single TRID block.

Associated registers

None

Extension registers

None

Associated logs

None

COMPSEIZ

Register type

Peg

Description

COMPSEIZ measures seizures of COMP blocks.

Associated registers

COMPOVFL

Validation formula

COMPSEIZ + COMPOVFL = number of queries attempted requiring a COMP block

Note: Every query message requiring a TRID block, requires at least one COMP block.

Extension registers

None

Associated logs

None

COMPUSED

Register type

Peg

Description

COMPUSED tracks highest number of COMP blocks in use at any one time.

Associated registers

Extension registers

None

Associated logs

VAMP201, VAMP203

COMPOVFL

Register type

Peg

Description

COMPOVFL measures failed attempts to seize COMP blocks.

Associated registers

COMPSEIZ

Validation formula

COMPSEIZ + COMPOVFL = number of queries attempted requiring a COMP block

Note: Every query message requiring a TRID block, requires at least one COMP block.

Extension registers

None

Associated logs

VAMP202

COMPT1TM

Register type

Peg

Description

COMPT1TM measures number of COMP blocks for which T1 timing was requested.

Associated registers

COMPT1T0

Validation formula

COMPT1TO <= COMPT1TM

Extension registers

COMPT1T2

Associated logs

None

COMPT1T0

Register type

Peg

Description

COMPT1T0 measures number of COMP blocks for which T1 timer timed out without a receiving a response.

Associated registers

COMPT1TM

Validation formula

COMPT1TO <= COMPT1TM

Extension registers

None

Associated logs

None

MESGSEIZ

Register type

Peg

Description

MESGSEIZ measures seizures of MESG blocks.

Associated registers

MESGOVFL

Validation formula

MESGSEIZ + MESGOVFL = number of queries attempted requiring a MESG block

Extension registers

MESGSEI2

Associated logs

None

MESGUSED

Register type

Peg

Description

MESGUSED tracks highest number of MESG blocks in use at any one time.

Associated registers

None

Extension registers

None

Associated logs

VAMP201, VAMP203

MESGOVFL

Register type

Peg

Description

MESGOVFL measures failed attempts to seize MESG blocks.

Associated registers

MESGSEIZ

Validation formula

MESGSEIZ + MESGOVFL = number of queries attempted requiring a MESG block

Extension registers

None

Associated logs

VAMP202

VTCAPERR

Description

OM group Variable AIN Messaging Platform Transaction Capabilities Part Base Error (VTCAPERR) counts the number of protocol errors detected in TCAP messages, packages, and components received using VAMP TCAP.

Note: One exception is Register VTCAPERR which counts the number of undeliverable network messages sent and returned.

The following table lists the key and info fields associated with OM group VTCAPERR:

Key field	Info field
VAMP_MSGSET	None

Related functional groups

There are no functional groups associated with OM group VTCAPERR.

Registers

The following table lists the registers associated with OM group VTCAPERR and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group VTCAPERR (Sheet 1 of 2)

Register name	Measures
VTETPBAD	VAMP TCAP Bad/Incorrect Transaction Portion
<u>VTETPPKG</u>	VAMP TCAP Unrecognized Package Type
<u>VTETPPRM</u>	VAMP TCAP Permission-to-Release Error
VTETPUCS	VAMP TCAP Unexpected Component Sequence
VTETPUID	VAMP TCAP Unrecognized Transaction ID
VTETPNID	VAMP TCAP Missing Respond ID
VTEDPBAD	VAMP TCAP Bad/incorrect Dialog Portion

Registers for OM group VTCAPERR (Sheet 2 of 2)

Register name	Measures
VTEDPDLG	VAMP TCAP Unrecognized Dialog ID
VTEDPINC	VAMP TCAP Inconsistent/missing Dialog Portion
VTECPBAD	VAMP TCAP Bad/incorrect Component Portion
VTECPCMP	VAMP TCAP Unrecognized Component Type
VTECPDID	VAMP TCAP Duplicate Invoke ID
VTECPCID	VAMP TCAP Unrecognized Correlation ID
VTECPOPC	VAMP TCAP Unrecognized Operation/Error Code
VTECPUPS	VAMP TCAP Unexpected Parameter set/sequence
VTEPMBAD	VAMP TCAP Bad or incorrect parameter
VTEPMPID	VAMP TCAP Unrecognized parameter ID
VTEPMMND	VAMP TCAP Missing mandatory parameter
VTEPMCND	VAMP TCAP Missing Conditional parameter
VTEPMERR	VAMP TCAP Erroneous parameter data
VTEUCOMM	VAMP TCAP Unexpected communication
<u>VTENETWK</u>	VAMP TCAP Network error on send
VTENRSRC	VAMPTCAP Resource unavailable/decoding software error
VTEOTHER	VAMP TCAP Other errors

VTETPBAD

Register type

Peg

Description

VTETPBAD counts the number of bad or incorrect transaction portion errors.

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Associated registers

None

Extension registers

None

Associated logs

None

VTETPPKG

Register type

Peg

Description

VTETPPKG counts the number of unrecognized package type errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTETPPRM

Register type

Peg

Description

VTETPPRM counts the number of ``permission to release" errors when transactions are terminated. This OM groups' peg count also includes query or last conversation package errors sent ``without permission."

Note: This error applies only to ANSI TCAP and is not detectable by VAMP.

Associated registers

None

Extension registers

None

Associated logs

VTETPUCS

Register type

Peg

Description

VTETPUCS counts the number of unexpected component sequence errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTETPUID

Register type

Peg

Description

VTETPUID counts the number of unrecognized transaction ID errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTETPNID

Register type

Peg

Description

VTETPNID counts the number of missing respond ID errors.

Associated registers

None

Extension registers

Associated logs

None

VTEDPBAD

Register type

Peg

Description

VTEDPBAD counts the number of bad or incorrect dialog portion errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTEDPDLG

Register type

Peg

Description

VTEDPDLG counts the number of unrecognized dialog ID errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTEDPINC

Register type

Peg

Description

VTEDPNIC counts the number of inconsistent or missing dialog portion errors.

Associated registers

Extension registers

None

Associated logs

None

VTECPBAD

Register type

Peg

Description

VTECPBAD counts the number of bad or incorrect component portion errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTECPCMP

Register type

Peg

Description

VTECPCMP counts the number of unrecognized component errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTECPDID

Register type

Peg

Description

VTECPDID counts the number of duplicate invoke ID errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTECPCID

Register type

Peg

Description

VTECPCID counts the number of unrecognized correlation ID errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTECPOPC

Register type

Peg

Description

VTECPOPC counts the number of unrecognized operation or code errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTECPUPS

Register type

Peg

Description

VTECPUPS counts the number of unexpected parameter set/sequence errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTEPMBAD

Register type

Peg

Description

VTEPMBAD counts the number of bad or incorrect parameter errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTEPMPID

Register type

Peg

Description

VTEPMPID counts the number of unrecognized parameter ID errors.

Associated registers

None

Extension registers

None

Associated logs

VTEPMMND

Register type

Peg

Description

VTEPMMND counts the number of missing mandatory parameter errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTEPMCND

Register type

Peg

Description

VTEPMCND counts the number of missing conditional parameter errors.

Associated registers

None

Extension registers

None

Associated logs

None

VTEPMERR

Register type

Peg

Description

VTEPMERR counts the number of incorrect parameter data errors.

Associated registers

None

Extension registers

Associated logs

None

VTEUCOMM

Register type

Peg

Description

VTEUCOMM counts the number of unexpected communication errors.

Associated registers

None

Extension registers

None

Associated logs

VAMP301

VTENETWK

Register type

Peg

Description

VTENETWK counts the number of network errors, when an undeliverable VAMP message is returned.

Associated registers

None

Extension registers

None

Associated logs

None

VTENRSRC

Register type

Peg

Description

VTENRSRC counts the number of lack of resources or decoding software errors using VAMP TCAP.

Associated registers

Extension registers

None

Associated logs

None

VTEOTHER

Register type

Peg

Description

VTEOTHER counts the number of other including internal or miscellaneous errors including internal errors.

Associated registers

None

Extension registers

None

Associated logs

VTCAPRCV

Description

OM group Variable AIN Messaging Platform Transaction Capabilities Received (VTCAPRCV) is pegged when TCAP messages, packages, and components are received using VAMP TCAP.

The following table lists the key and info fields associated with OM group VTCAPRCV:

Key field	Info field
VAMP_MSGSET	None

Related functional groups

There are no functional groups associated with OM group VTCAPRCV.

Registers

The following table lists the registers associated with OM group VTCAPRCV and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group VTCAPRCV (Sheet 1 of 2)

Register name	Measures
<u>VTRMESGS</u>	VAMP TCAP Received Messages
<u>VTRQWPRM</u>	VAMP TCAP Received Query without Permission Package or ITU-T
VTRQWOPM	VAMP TCAP Received Query without Permission Package
VTRCWPRM	VAMP TCAP Received Conversation with Permission Packages or ITU-T Continue Package
VTRCWOPM	VAMP TCAP Received Conversation without Permission
VTRRESPN	VAMP TCAP Received Response Package or ITU-T
VTRUNIDR	VAMP TCAP Received Unidirectional Package

Registers for OM group VTCAPRCV (Sheet 2 of 2)

Register name	Measures
VTRPABRT	VAMP TCAP Received P-Abort Packages
VTRUABRT	VAMP TCAP Received U-Abort Packages
<u>VTRINVKL</u>	VAMP TCAP Received Invoke Last Component
VTRINVNL	VAMP TCAP Received Invoke Non-Last or ITU-T Invoke Component
VTRRTRSL	VAMP TCAP Received Return Result Last Component
VTRRTRNL	VAMP TCAP Received Return Result Non-Last Component
VTRERROR	VAMP TCAP Received Return Error Component
VTRREJCT	VAMP TCAP Received Reject Component
VTRDLOGP	VAMP TCAP Received Dialog Portions

VTRMESGS

Register type

Peg

Description

VTRMESGS counts all TCAP messages received using VAMP TCAP regardless of transport mechanism.

Associated registers

None

Validation formula

VTSMESGS = sum of all package-type OM fields in OM group VTCAPSNT

Extension registers

VTRMSGS2

Associated logs

VTRQWPRM

Register type

Peg

Description

VTRQWPRM counts the number of TCAP packages received with ANSI Query with Permission or ITU-T Begin.

Associated registers

None

Extension registers

VTRQWPM2

Associated logs

None

VTRQWOPM

Register type

Peg

Description

VTRQWOPM counts the number of TCAP packages received using ANSI Query without permission.

Associated registers

None

Extension registers

VTRQWOP2

Associated logs

None

VTRCWPRM

Register type

Peg

Description

VTRCWPRM counts the number of TCAP packages received that contain package type ANSI Conversation with Permission or ITU-T Continue.

Associated registers

Extension registers

VTRCWPM2

Associated logs

None

VTRCWOPM

Register type

Peg

Description

VTRCWOPM counts the number of TCAP packages received using ANSI Conversation without permission.

Associated registers

None

Extension registers

VTRCWOP2

Associated logs

None

VTRRESPN

Register type

Peg

Description

VTRRESPN counts the number of TCAP packages received containing package type ANSI Response or ITU-T End.

Associated registers

None

Extension registers

VTRRESP2

Associated logs

None

VTRUNIDR

Register type

Peg

Description

VTRUNIDR counts the number of TCAP packages received with package type ANSI or ITU-T Unidirectional.

Associated registers

None

Extension registers

VTRUNID2

Associated logs

None

VTRPABRT

Register type

Peg

Description

VTRPABRT counts the number of TCAP packages received with ANSI or ITU-T Abort with P-Abort cause.

Associated registers

None

Extension registers

VTRPABT2

Associated logs

None

VTRUABRT

Register type

Peg

Description

VTRUABRT counts the number of TCAP packages received with ANSI or ITU-T Abort with U-Abort cause.

Associated registers

None

Extension registers

VTRUABT2

Associated logs

VTRINVKL

Register type

Peg

Description

VTRINVKL counts the number of TCAP components received with ANSI Invoke (Last).

Associated registers

None

Extension registers

VTRINVL2

Associated logs

None

VTRINVNL

Register type

Peg

Description

VTRINVNL counts the number of TCAP components with ANSI Invoke (Non-Last) or ITU-T.

Associated registers

None

Extension registers

VTRINVN2

Associated logs

None

VTRRTRSL

Register type

Peg

Description

VTRRTRSL counts the number of TCAP components with ANSI or ITU-T Return Result (Last).

Associated registers

Extension registers

VTRRTRL2

Associated logs

None

VTRRTRNL

Register type

Peg

Description

VTRRTRNL counts the number of TCAP components with ANSI or ITU-T Return Result (Non-Last).

Associated registers

None

Extension registers

VTRRRNL2

Associated logs

None

VTRERROR

Register type

Peg

Description

VTRERROR counts the number of TCAP components with ANSI or ITU-T Return Error.

Associated registers

None

Extension registers

VTRERRR2

Associated logs

None

VTRREJCT

Register type

Peg

Description

VTRREJCT counts the number of TCAP components with ANSI or ITU-T Reject.

Associated registers

None

Extension registers

VTRREJT2

Associated logs

None

VTRDLOGP

Register type

Peg

Description

VTRDLOGP counts the number of TCAP components containing a TCAP dialog portion.

Associated registers

None

Extension registers

VTRDLOG2

Associated logs

VTCAPSNT

Description

OM group Variable AIN Messaging Platform Transaction Capabilities Sent (VTCAPSNT) is pegged when TCAP messages, packages, and components sent using VAMP TCAP.

The following table lists the key and info fields associated with OM group VTCAPSNT:

Key field	Info field
VAMP_MSGSET	None

Related functional groups

There are no functional groups associated with OM group VTCAPSNT.

Registers

The following table lists the registers associated with OM group VTCAPSNT and what they measure. For a detailed description of a register, click on the register name.

Registers for OM group VTCAPSNT (Sheet 1 of 2)

Register name	Measures
<u>VTSMESGS</u>	Variable AIN Messaging Platform Transaction Capabilities Message Sent
VTSQWPRM	Variable AIN Messaging Platform Transaction Capabilities Query without Permission Package or ITU-T
<u>VTSQWOPM</u>	Variable AIN Messaging Platform Transaction Capabilities Query without Permission Package Sent
VTSCWPRM	Variable AIN Messaging Platform Transaction Capabilities Conversation with Permission Packages or ITU-T Continue Package
VTSCWOPM	Variable AIN Messaging Platform Transaction Capabilities Conversation without Permission Sent

Registers for OM group VTCAPSNT (Sheet 2 of 2)

Register name	Measures
VTSRESPN	Variable AIN Messaging Platform Transaction Capabilities Response Package Sent or ITU-T
VTSUNIDR	Variable AIN Messaging Platform Transaction Capabilities Unidirectional Package Sent
VTSPABRT	Variable AIN Messaging Platform Transaction Capabilities P-Abort Packages Sent
VTSUABRT	Variable AIN Messaging Platform Transaction Capabilities U-Abort Packages Sent
VTSINVKL	Variable AIN Messaging Platform Transaction Capabilities Invoke Last Component Sent
VTSINVNL	Variable AIN Messaging Platform Transaction Capabilities Invoke Non-Last or ITU-T Invoke Component Sent
<u>VTSRTRSL</u>	Variable AIN Messaging Platform Transaction Capabilities Return Result Last Component Sent
VTSRTRNL	Variable AIN Messaging Platform Transaction Capabilities Return Result Non-Last Component Sent
VTSERROR	Variable AIN Messaging Platform Transaction Capabilities Return Error Component Sent
VTSREJCT	Variable AIN Messaging Platform Transaction Capabilities Reject Component Sent
VTSDLOGP	Variable AIN Messaging Platform Transaction Capabilities Dialog Portions Sent

VTSMESGS

Register type

Peg

Description

VTSMESGS counts all TCAP messages using VAMP TCAP regardless of transport mechanism.

Associated registers

None

Validation formula

VTSMESGS = sum of all package-type OM fields in OM group VTCAPSNT

Extension registers

VTSMSGS2

Associated logs

None

VTSQWPRM

Register type

Peg

Description

VTSQWPRM counts the number of TCAP packages sent containing ANSI Query with Permission or ITU-T Begin.

Associated registers

None

Extension registers

VTSQWPM2

Associated logs

None

VTSQWOPM

Register type

Peg

Description

VTSQWOPM counts the number of TCAP packages sent using ANSI Query without permission.

Associated registers

None

Extension registers

VTSQWOP2

Associated logs

VTSCWPRM

Register type

Peg

Description

VTSCWPRM counts the number of TCAP packages sent that contain package type ANSI Conversation with Permission or ITU-T Continue.

Associated registers

None

Extension registers

VTSCWPM2

Associated logs

None

VTSCWOPM

Register type

Peg

Description

VTSCWOPM counts the number of TCAP packages sent using ANSI Conversation without permission.

Associated registers

None

Extension registers

VTSCWOP2

Associated logs

None

VTSRESPN

Register type

Peg

Description

VTSRESPN counts the number of TCAP packages sent containing package type ANSI Response or ITU-T End.

Associated registers

Extension registers

VTSRESP2

Associated logs

None

VTSUNIDR

Register type

Peg

Description

VTSUNIDR counts the number of TCAP packages sent with package type ANSI or ITU-T Unidirectional.

Associated registers

None

Extension registers

VTSUNID2

Associated logs

None

VTSPABRT

Register type

Peg

Description

VTSPABRT counts the number of TCAP packages sent with ANSI or ITU-T Abort with P-Abort cause.

Associated registers

None

Extension registers

VTSPABT2

Associated logs

None

VTSUABRT

Register type

Peg

VTSUABRT counts the number of TCAP packages sent with ANSI or ITU-T Abort with U-Abort cause.

Associated registers

None

Extension registers

VTSUABT2

Associated logs

None

VTSINVKL

Register type

Peg

Description

VTSINVKL counts the number of TCAP components sent with ANSI Invoke (Last).

Associated registers

None

Extension registers

VTSINVL2

Associated logs

None

VTSINVNL

Register type

Peg

Description

VTSINVNL counts the number of TCAP components sent with ANSI Invoke (Non-Last) or ITU-T.

Associated registers

None

Extension registers

VTSINVN2

Associated logs

VTSRTRSL

Register type

Peg

Description

VTSRTRSL counts the number of TCAP components sent with ANSI or ITU-T Return Result (Last).

Associated registers

None

Extension registers

VTSRTRL2

Associated logs

None

VTSRTRNL

Register type

Peg

Description

VTSRTRNL counts the number of TCAP components sent with ANSI or ITU-T Return Result (Non-Last).

Associated registers

None

Extension registers

VTSRRNL2

Associated logs

None

VTSERROR

Register type

Peg

Description

VTSERROR counts the number of TCAP components sent with ANSI or ITU-T Return Error.

Associated registers

Extension registers

VTSERRR2

Associated logs

None

VTSREJCT

Register type

Peg

Description

VTSREJCT counts the number of TCAP components sent with ANSI or ITU-T Reject.

Associated registers

None

Extension registers

VTSREJT2

Associated logs

None

VTSDLOGP

Register type

Peg

Description

VTSDLOGP counts the number of TCAP components sent containing a TCAP dialog portion.

Associated registers

None

Extension registers

VTSDLOG2

Associated logs

WINTOPS

Description

OM group Wireless Intelligent Network -TOPS (WINTOPS) measures application-level events for wireless Automated Directory Assistance Call Completion (ADACC) with release. WIN provides ADACC with release for both IS-41 and global system for mobile communications (GSM).

WINTOPS records IS-41 and GSM events previously recorded in OM group IS41TOPS, which is deleted in SN07. For details, refer to the section for OM group IS41TOPS.

The following table lists the key and info fields associated with OM group WINTOPS. The group provides one tuple for each wireless network type.

Key field	Info field
IS41, GSM	None

The tuples in WINTOPS are for:

- IS-41 WIN
- GSM Customized Applications For Mobile Network Enhanced Logic (CAMEL)

Related functional groups

There are no functional groups associated with OM group WINTOPS.

Registers

The following table lists the registers associated with OM group WINTOPS and what they measure. For a description of a register, click on the register name.

Registers for OM group WINTOPS (Sheet 1 of 2)

Register name	Measures
ABANDON	Abandon
CONNECT	Connect
DISCONN	Disconnect

Registers for OM group WINTOPS (Sheet 2 of 2)

Register name	Measures
ERRCONN	Error connect
ERRDISC	Error disconnect
ERRSSFT	Error service switching function timer
<u>NODATA</u>	No TCAP data
<u>NOTLDNS</u>	No temporary local directory numbers
REQCONN	Request connection
RESTIMR	Reset timer
RXLAFAIL	Retranslation failure
SANTIMR	[TOPS] Sanity timer expiration
TLDNTIME	Temporary local directory number (TLDN) time-out
WINBEGIN	Wireless Intelligent Network Begin
WINEND	Wireless Intelligent Network End

Note the following patterns for WINTOPS registers:

- Every WIN call flow (successful or unsuccessful) pegs <u>WINBEGIN</u>.
- A successful IS-41 or GSM WIN call flow pegs <u>WINBEGIN</u>, <u>REQCONN</u>, and <u>CONNECT</u>.
- A successful GSM CAMEL call flow pegs <u>DISCONN</u> and <u>WINEND</u>.
- <u>ABANDON</u> and <u>RESTIMR</u> are pegged under normal circumstances and do not indicate problems.
- <u>DISCONN</u> on an IS-41 WIN call does not indicate a problem necessarily. In IS-41, DISCONN pegs with the following registers that also indicate a problem: <u>ERRCONN</u>, <u>ERRDISC</u> and <u>ERRSSFT</u>.
- The following registers indicate problems: <u>ERRCONN</u>, <u>ERRDISC</u>, <u>ERRSSFT</u>, <u>NODATA</u>, <u>NOTLDNS</u>, <u>RXLAFAIL</u>, <u>SANTIMR</u> and <u>TLDNTIME</u>

ABANDON

Register type

Peg

Description

ABANDON increments on a WIN call when the caller disconnects before receiving ADACC with release. The caller can hang up:

- while in queue for the operator
- because the operator cannot find a listing
- without accepting call completion

Associated registers

None

Extension registers

None

Associated logs

None

CONNECT

Register type

Peg

Description

CONNECT increments when TOPS directs the mobile switching center (MSC) to connect to the requested number. In IS-41, this occurs when TOPS sends the AnalyzedInformation RETURN RESULT. In GSM, this occurs when TOPS sends the Connect.

Associated registers

None

Extension registers

CONNECT2

Associated logs

None

DISCONN

Register type

Peg

DISCONN incremented when TOPS directs the MSC release the trunk to TOPS. In IS-41, this occurs when TOPS sends the AnalyzedInformation RETURN RESULT with an Action Code of disconnect call. In GSM, this is when TOPS sends the DisconnectForwardConnection.

The register pegs on all successful GSM wireless ADACC with release calls. DISCONN does not usually peg on an IS-41 call. When it does, it indicates the caller did not receive ADACC with release.

Associated registers

None

Extension registers DISCONN2

Associated logs

TOPS131, TCAP100

ERRCONN

Register type

Peg

Description

ERRCONN increments on a WIN call when the MSC cannot connect to TOPS using the TLDN provided by TOPS. Translation or circuit failures at the MSC or in the network can cause the error.

Associated registers

None

Extension registers

None

Associated logs

TOPS131

ERRDISC

Register type

Peg

Description

ERRDISC increments on a WIN call when TOPS unexpectedly releases its trunk to the MSC. The register pegs only on an IS-41 call.

On a GSM call, registers <u>WINBEGIN</u>, <u>REQCONN</u>, and <u>WINEND</u> are pegged, but not <u>DISCONN</u> and <u>CONNECT</u>.

Associated registers

None

Extension registers

None

Associated logs

TOPS131

ERRSSFT

Register type

Peg

Description

ERRSSFT increments on a WIN call when the MSC SSFT timer expires. The timer ensures TOPS does not take too long to process the WIN call. TOPS can reset this timer using the ResetTimer message, which is controlled by datafill in table ISUPTRK.

Associated registers

None

Extension registers

None

Associated logs

TOPS131

NODATA

Register type

Peg

Description

NODATA increments when TOPS cannot locate an IS-41 or GSM TCAP data in the temporary table for a call.

Associated registers

Register <u>RXLAFAIL</u> pegs with NODATA because the original called number cannot be determined, and a default of 411 is used.

Extension registers

Associated logs

TOPS131

NOTLDNS

Register type

Peg

Description

NOTLDNS increments when TOPS cannot obtain an idle temporary local directory number (TLDN) from table TOPSTLDN.

Associated registers

None

Extension registers

None

Associated logs

TOPS131

REQCONN

Register type

Peg

Description

REQCONN increments when TOPS sends an IS-41 ConnectResource or GSM EstablishTemporaryConnection to the MSC.

Associated registers

None

Extension registers

REQCONN2

Associated logs

None

RESTIMR

Register type

Peg

Description

RESTIMR increments when TOPS sends an IS-41 or GSM ResetTimer to the MSC.

Associated registers

None

Extension registers

RESTIMR2

Associated logs

None

RXLAFAIL

Register type

Peg

Description

RXLAFAIL increments when a TOPS IS-41 or GSM call arrives, but TOPS cannot find the original called number and must use a default of 411. The register can peg with NODATA if the original called number cannot be found because there is no extension block.

Associated registers

None

Extension registers

None

Associated logs

TOPS131 when 411 is used because the TCAP data is not found.

SANTIMR

Register type

Peg

Description

SANTIMR increments when the TOPS IS-41 or GSM call end sanity timer expires. TOPS starts the timer after sending the IS-41 AnalyzedInformation RETURN RESULT or GSM Connect to the MSC. If the MSC does not release the trunk and ends the TOPS call before the timer expires, TOPS ends its call and frees resources.

Associated registers

None

Extension registers

Associated logs

TOPS131

TLDNTIME

Register type

Peg

Description

TLDNTIME increments when the TOPS IS-41 or GSM SCP process finds a TLDN that has been allocated for more than 30 seconds. The TLDN is idled, then selected by the next TOPS IS-41 or GSM call. The TLDN list is cleaned up if some MSC calls end before routing to TOPS.

Associated registers

None

Extension registers

None

Associated logs

None

WINBEGIN

Register type

Peg

Description

WINBEGIN increments when TOPS receives an IS-41 AnalyzedInformation or a GSM InitialDP from an MSC, which indicates the beginning of the WIN TOPS call.

Associated registers

None

Extension registers

WINBEGI2

Associated logs

None

WINEND

Register type

Peg

WINEND increments when TOPS receives a GSM Application End from the MSC, which indicates the end of a successful WIN TOPS call. The message is not used in the IS-41 call flow, so the register does not peg for IS-41 TOPS calls.

Register DARLT in group TOPSISUP also can count instances of successful ADACC with RLT.

Associated registers

None

Extension registers WINEND2

Associated logsNone

XPMLNK

Description

OM group XPM Link (XPMLNK) records one-way and two-way link blockage. It is used in all extended multiprocessor system (XMS)-based peripheral modules (XPM) with switched lines.

The following table lists the key and info fields associated with OM group XPMLNK.

Key field	Info field
PM_TYPE PM_NO	XPMLNK_OM_KEY
	XPMLNK_OM_KEY consist of the following parts:
	 OM registers
	 XPM type and number
	 OM registers count

Related functional groups

The peripheral module functional group is associated with OM group XPMLNK.

Registers

The following table lists the registers associated with OM group XPMLNK and what they measure. For a description of a register, click on the register name.

Registers for OM group XPMLNK (Sheet 1 of 2)

Register name	Measures
CSLAA	C-side link allocation attempts
CSLBLK	C-side link blockage
CSLCBU	C-side link call busy usage
CSLMU	C-side link maintenance busy use
PSLAA	P-side link allocation attempts
<u>PSLBLK</u>	P-side link blockage

Registers for OM group XPMLNK (Sheet 2 of 2)

Register name	Measures
<u>PSLMU</u>	P-side link maintenance busy use
<u>PSLCBU</u>	P-side link call busy use

CSLAA

Register type

Peg

Description

CSLAA increases when the network attempts to allocate a channel to the XPM.

Associated registers

None

Extension registers

None

Associated logs

None

CSLBLK

Register type

Peg

Description

CSLBLK increases for each failed attempt to allocate a channel between the network and the XPM.

Associated registers

None

Extension registers

None

Associated logs

None

CSLCBU

Register type

Peg

CSLCBU records the time in hundred call seconds (CCS) that C-side links are busy because of call processing.

Associated registers

LMD_LMTRU, RSCIS_RSCISCBU, RLCDIS_ISTOTTRU

Extension registers

None

Associated logs

None

CSLMU

Register type

Peg

Description

CSLMU records the time in CCS that C-side links are not available for call processing.

Associated registers

None

Extension registers

None

Associated logs

None

PSLAA

Register type

Peg

Description

PSLAA increases when the system allocates a channel between an XPM and the subtending nodes.

Associated registers

LMD_NTERMATT, LMD_NORIGATT

Extension registers

None

Associated logs

PSLBLK

Register type

Peg

Description

PSLBLK increases for each attempt that fails to allocate a channel between the XPM and one of the subtending nodes.

Associated registers

LMD_PMTRMBLK

Extension registers

None

Associated logs

None

PSLMU

Register type

Peg

Description

PSLMU records the time in CCS that links between the XPM and subtending nodes are not available for call processing.

Associated registers

None

Extension registers

None

Associated logs

None

PSLCBU

Register type

Peg

Description

PSLCBU records the time in CCS that P-side links are busy because of call processing.

Associated registers

Extension registers

None

Associated logs None

XPMOCC

Description

OM group Central Processing Unit (CPU) occupancy (XPMOCC) provides processor occupancy measurements for all extended multiprocessor system (XMS)-based peripheral modules (XPM).

The following table lists the key and info fields associated with OM group XPMOCC.

Key field	Info field
None	XPMOCC_OM_KEY

OM group XPMOCC provides one tuple for occupancy information on the unified processor (UP). The system provides an additional tuple for processors with an enhanced ISDN signaling pre-processor (EISP) that reside on the EISP.

Related functional groups

The following functional groups are associated with OM group XPMOCC:

- Automated Directory Assistance Service (ADAS)
- DMS-100 local office
- DMS-100/200 combined local/toll office
- DMS-100/200 combined local/toll office with TOPS
- DMS-200 toll office
- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Registers

The following table lists the registers associated with OM group XPMOCC and what they measure. For a description of a register, click on the register name.

Registers for OM group XPMOCC

Register name	Measures
AVGCPOCC	Average call processing occupancy
AVGLPOCC	Average low occupancy processing
CPUCP30	CPU call processing 30
CPUCP40	CPU call processing 40
CPUCP50	CPU call processing 50
CPUCP60	CPU call processing 60
CPUCP70	CPU call processing 70
CPUCP80	CPU call processing 80
CPUCP85	CPU call processing 85
CPUCP90	CPU call processing 90
CPUCP95	CPU call processing 95
CPUCP100	CPU call processing 100
<u>CPUTOTL</u>	CPU total
<u>NUMRPTS</u>	Number reports
<u>PMORIGS</u>	Total call origination attempts
<u>PMTERMS</u>	PM terminations

AVGCPOCC

Register type

Usage

Scan rate

Not available

AVGCPOCC measures average call processing occupancy.

Associated registers

None

Extension registers

None

Associated logs

None

AVGLPOCC

Register type

Usage

Scan rate

Not available

Description

AVGLPOCC is a usage register for UPs, and measures average low priority occupancy. AVGLPOCC always contain a zero for EISP tuples.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP30

Register type

Peg

Description

CPUCP30 counts the number of times call processing occupancy is in the 0% to 30% range.

Associated registers

None

Extension registers

Associated logs

None

CPUCP40

Register type

Peg

Description

CPUCP40 counts the number of times call processing occupancy is in the 31% to 40% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP50

Register type

Peg

Description

CPUCP50 counts the number of times call processing occupancy is in the 41% to 50% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP60

Register type

Peg

Description

CPUCP60 counts the number of times call processing occupancy is in the 51% to 60% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP70

Register type

Peg

Description

CPUCP70 counts the number of times call processing occupancy is in the 61% to 70% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP80

Register type

None

Description

CPUCP80 counts the number of times call processing occupancy is in the 71% to 80% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP85

Register type

Peg

CPUCP85 counts the number of times call processing occupancy is in the 81% to 85% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP90

Register type

Peg

Description

CPUCP90 counts the number of times call processing occupancy is in the 86% to 90% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUCP95

Register type

Peg

Description

CPUCP95 counts the number of times call processing occupancy is in the 91% to 95% range.

Associated registers

None

Extension registers

None

Associated logs

CPUCP100

Register type

Peg

Description

CPUCP100 counts the number of times call processing occupancy is in the 96% to 100% range.

Associated registers

None

Extension registers

None

Associated logs

None

CPUTOTL

Register type

Peg

Description

CPUTOTL accumulates the totals in registers <u>CPUCP30</u>, <u>CPUCP40</u>, <u>CPUCP50</u>, <u>CPUCP60</u>, <u>CPUCP70</u>, <u>CPUCP85</u>, <u>CPUCP85</u>, <u>CPUCP95</u>, and <u>CPUCP100</u>.

Associated registers

None

Extension registers

None

Associated logs

None

NUMRPTS

Register type

Peg

Description

NUMRPTS counts the number of 15-minute reports added to accumulation registers to normalize <u>AVGCPOCC</u> and <u>AVGLPOCC</u>.

Associated registers

Extension registers

None

Associated logs

None

PMORIGS

Register type

Peg

Description

PMORIGS counts the total call origination attempts and reports on an XPM-by-XPM basis. This register contains a value only for tuples that associate with the UP. PMORIGS always contains a zero for EISP tuples.

Associated registers

None

Extension registers

None

Associated logs

None

PMTERMS

Register type

Peg

Description

PMTERMS counts the total call termination attempts and reports on an XPM-by-XPM basis. This register contains a value only for tuples that associate with the UP. PMTERMS always contains a zero for EISP tuples.

Associated registers

None

Extension registers

None

Associated logs

XPMOVLD

Description

OM group XPM Overload (XPMOVLD) reports on the number of terminations and delays for extended multiprocessor system (XMS)-based peripheral modules (XPM). Although XPMOVLD monitors the same events as PMOVLD, XPMOVLD provides several new categories of overload indicator classes.

OM group XPMOVLD increases the amount of information on:

- XPM call processing overload events
- The severity of XPM call processing overload events

The following table lists the key and info fields associated with OM group XPMOVLD.

Key field	Info field
None	None

This group provides one tuple for each office.

Related functional groups

The following functional groups are associated with OM group XPMOVLD:

- Automated Directory Assistance Service (ADAS)
- DMS-100 local office
- DMS-100/200 combined local/toll office
- DMS-100/200 combined local/toll office with TOPS
- DMS-200 toll office
- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Registers

The following table lists the registers associated with OM group XPMOVLD and what they measure. For a description of a register, click on the register name.

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Registers for OM group XPMOVLD

Register name	Measures
<u>PMSGIPC</u>	PM message IPC buffer congestion
PORGDLY	Number of originations delayed
<u>PORGIPC</u>	PM origination IPC buffer congestion
PORGLCM	PM origination line concentrating module
<u>PORGMISC</u>	PM origination miscellaneous
<u>PORGMSG</u>	PM origination messages lost
<u>PORGPTQ</u>	PM origination terminal quota
PORGSLLC	PM origination site line load control
PTRMDLY	Number of terminations delayed
<u>PTRMMISC</u>	PM termination miscellaneous
<u>PTRMMSG</u>	PM termination lost
PTRMPTQ	PM termination terminal quota

PMSGIPC

Register type

Peg

Description

PMSGIPC counts the number of messages lost as a result of Inter-process Communication (IPC) buffer congestion. The register counts messages instead of originations.

Associated registers

None

Extension registers

Associated logs

None

PORGDLY

Register type

Peg

Description

PORGDLY counts the number of delayed originations.

Associated registers

None

Extension registers

None

Associated logs

None

PORGIPC

Register type

Peg

Description

PORGIPC counts the number of originations lost from IPC buffer congestion.

Associated registers

None

Extension registers

None

Associated logs

None

PORGLCM

Register type

Peg

Description

PORGLCM counts the number of originations lost from line concentrating module overload.

Associated registers

Extension registers

None

Associated logs

None

PORGMISC

Register type

Peg

Description

PORGMISC counts the number of originations lost; for example, an IPC buffer index is incorrect.

Associated registers

None

Extension registers

None

Associated logs

None

PORGMSG

Register type

Peg

Description

PORGMSG counts the number of originations lost; for example, too many messages appear in the flow control system.

Associated registers

None

Extension registers

None

Associated logs

None

PORGPTQ

Register type

Peg

PORGPTQ counts the number of originations lost. This occurs when the limit has been reached on the number of messages that appear in the flow control system.

Associated registers

None

Extension registers

None

Associated logs

None

PORGSLLC

Register type

Peg

Description

PORGSLLC counts the number of originations lost as a result of site line load control.

Associated registers

None

Extension registers

None

Associated logs

None

PTRMDLY

Register type

Peg

Description

PTRMDLY counts the number of terminations delayed.

Associated registers

None

Extension registers

None

Associated logs

PTRMMISC

Register type

Peg

Description

PTRMMISC counts the number of terminations lost; for example, an IPC buffer index is incorrect.

Associated registers

None

Extension registers

None

Associated logs

None

PTRMMSG

Register type

Peg

Description

PTRMMSG counts the number of terminations lost; for example, too many messages appear in the flow control system.

Associated registers

None

Extension registers

None

Associated logs

None

PTRMPTQ

Register type

Peg

Description

PTRMPTQ counts the number of terminations lost. This occurs when the limit has been reached on the number of messages that appear in the flow control system.

Associated registers

Extension registers

None

Associated logs None