CHAPTER 9

Statistics Supported

This chapter describes the statistics supported by the AXSM and PXM MIBs.

Contents of this chapter include:

Line Statistics

Line Statistics are supported primarily by the physical devices. In addition, the ATLAS policer is available only on AXSM cards with OC12, OC3, T3, and E3 physical interfaces.

Note The ATLAS policier is not available on AXSM cards with a OC48 physical interface.

The ATLAS is used in both the ingress and egress directions.

Ingress Per Line Physical Layer Statistics before Policer

Table 9-1 shows the ingress per line statistics Physical Layer (PHY) before the policer for the various AXSM options.

Table 9-1 Ingress per Line (PHY) Statistics before Policer

Statistic	BXM	AXSM OC48	AXSM OC3/12	AXSM T3/E3	MIB Object
CLP0 Cells From Port	yes	no	yes	yes	caclInRcvCLP0Cells
CLP1 Cells From Port	yes	no	yes	yes	caclInRcvCLP1Cells
Total Valid OAM Cells	no	no	yes	yes	caclInValidOAMCells
Total Valid RM Cells	no	no	yes	yes	none
Total Errored OAM/RM Cells	no	no	yes	yes	caclInErrOAMCells
non-zero GFC Cells	no	no	yes	yes	caclInGfcCells
Last Unknown VPI.VCI (invalid)	yes	no	yes	yes	caclInLastUnknVpi, caclInLastUnknVci
HEC Errored Cells Discarded	yes	yes	yes	yes	caclInHecErrDiscCells
HEC Errored Cells Corrected	yes	yes	yes	yes	caclInHecErrCorrectedCells

Ingress Per Line Policing Statistics

The ingress per line policing statistics (PHY) are shown in Table 9-2 for the various AXSM options.

Table 9-2 Ingress per Line Policing Statistics—AXSM Options

Statistic	BXM	AXSM OC48	AXSM OC3/12	AXSM T3/E3	MIB Object
UPC CLP0 Discards	no	no	yes	yes	caclInUpcCLP0DiscCells
UPC CLP0+1 Discards	yes	no	yes	yes	caclInUpcTotalDiscCells
Non—Compliant CLP0+1	no	no	yes	yes	caclInUpcTotalNonCompCells

Egress Per Line (PHY) Statistics to Port

The egress per line statistics to port are shown in Table 9-3 for the various AXSM options.

Table 9-3 Egress Per Line (PHY) Statistics to Port—AXSM Options

Statistic	BXM	AXSM OC48	AXSM OC3/12	AXSM T3/E3	MIB Object
CLP0 Cells to Port	yes	no	yes	yes	caclOutXmtCLP0Cells
CLP1 Cells to Port	yes	no	yes	yes	caclOutXmtCLP1Cells
CLP0+1 Cells to Port	yes	yes[1]	yes	yes	none
OAM Valid Cells	no	no	yes	yes	caclOutValidOAMCells
RM Valid Cells	no	no	yes	yes	caclOutRcvValidRMCells
OAM/RM Errored Cells	no	no	yes	yes	caclOutErrOAMCells

1. This statistic is specified from phy non idle

Port Statistics

Port Statistics refer to the statistics collected on a logical port (not physical port) in both ingress and egress directions.

Ingress Port Statistics

Table 9-4 shows the ingress port statistics for the various AXSM options.

Note For OAM cell statistics, the QE48 chip supports all 64 Service Groups.

Table 9-4 Ingress Port Statistics for AXSM Options

Statistic	BXM	AXSM OC48	AXSM OC3/12	AXSM T3/E3	MIB Object
CLP0 cells from Policer	yes	yes	yes	yes	caviEgrRcvClp0Cells
CLP1 cells from Policer	yes	yes	yes	yes	caviEgrRcvClp1Cells
CLP0 cells discarded (dropped)	yes	yes	yes	yes	caviEgrClp0DiscCells
CLP1 cells discarded (dropped)	yes	yes	yes	yes	caviEgrClp1DiscCells
CLP0 cells to backplane	no	yes	yes	yes	caviEgrXmtClp0Cells
CLP1 cells to backplane	no	yes	yes	yes	caviEgrXmtClp1Cells
Total OAM cells	yes	no	no	no	caviEgrRcvOAMCells

Egress IF Statistics

Table 9-5 shows the egress IF statistics for the various AXSM options.

Table 9-5 Egress IF Statistics for AXSM Options

Statistic	BXM	AXSM -OC48	AXSM OC3/12	AXSM T3/E3	MIB Object
CLP0 cells from backplane	yes	yes	yes	yes	caviIngRcvClp0Cells
CLP1 cells from backplane	yes	yes	yes	yes	caviIngRcvClp1Cells
CLP0 cells discarded (dropped)	yes	yes	yes	yes	caviIngClp0DiscCells
CLP1 cells discarded (dropped)	yes	yes	yes	yes	caviIngClp1DiscCells
CLP0 cells to port	no	yes	yes	yes	caviIngXmtClp0Cells
CLP1 cells to port	no	yes	yes	yes	caviIngXmtClp1Cells
Total OAM cells	yes	yes	yes	yes	caviIngXmtOAMCells

Connection Statistics

Connection Statistics are supported by AXSM-XG, AXSM, AXSM-E, and PXM1 cards.

Ingress Connection Statistics

Table 9-6 shows the objects that provide ingress traffic statistic information related to an ATM channel.

Table 9-6 Connection Statistics

Statistic	MIB Object	Supported Modules
Number of valid CLP=0 ATM cells in the ingress direction of this channel after the traffic management entity.	cwacsIngXmtCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 ATM cells in the ingress direction of this channel prior to the traffic management entity.	cwacsIngRcvCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the ingress direction of this channel prior to the traffic management entity.	cwacsIngRcvCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the ingress direction of this channel after the traffic management entity.	cwacsIngXmtCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 cells in the ingress direction of this Channel that are discarded at the class of service queue due to overflow.	cwacsIngCLP0CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 cells in the ingress direction of this Channel that are discarded at the class of service queue due to overflow.	cwacsIngCLP1CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 cells in the ingress direction of this Channel that are discarded at the traffic policing entity due to UPC/PCR parameter violation.	cwacsIngCLP0UpcDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 cells in the ingress direction of this Channel that are discarded at the traffic policing entity due to UPC/PCR parameter violation.	cwacsIngCLP1UpcDiscard	AXSM-XG, AXSM, AXSM-E, PXM1

Table 9-6 Connection Statistics

Statistic	MIB Object	Supported Modules
Number of valid CLP=0 cells in the ingress direction of this Channel that are tagged as low priority by UPC.	cwacsIngCLP0UpcTagged	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the ingress direction of this Channel before the class of service queue.	cwacsIngRcvEFCI1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid UPC/PCR parameter compliant EFCI=1 cells in the ingress direction of this channel that are discarded at the CoS queue.	cwacsIngEFCI1Discard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid OAM cells in the ingress direction of this Channel before the CoS queue.	cwacsIngRcvOAM	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid OAM cells in the ingress direction of this Channel that are discarded at the CoS queue.	cwacsIngOAMDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid RM cells in the ingress direction of this Channel before the CoS queue.	cwacsIngRcvRM	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid RM cells in the ingress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsIngRMDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Current value of the ingress ACR(allowed Cell Rate) parameter.	cwacsIngACR	AXSM-XG, AXSM, AXSM-E, PXM1
Current length of the ingress queue of this channel in terms of number of cells.	cwacsIngVCQueueDepth	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 ATM cells in the ingress direction of this Channel PRIOR to the traffic management entity.	cwacsHighIngRcvCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the ingress direction of this Channel PRIOR to the traffic management entity.	cwacsHighIngRcvCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 ATM cells in the ingress direction of this Channel AFTER the traffic management entity.	cwacsHighIngXmtCLP0	AXSM-XG, AXSM, AXSM-E, PXM1

Table 9-6 Connection Statistics

Statistic	MIB Object	Supported Modules
Number of valid CLP=1 ATM cells in the ingress direction of this Channel AFTER the traffic management entity.	cwacsHighIngXmtCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 cells in the ingress direction of this Channel that are discarded at the class of service queue due to overflow.	cwacsHighIngCLP0CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 cells in the ingress direction of this Channel that are discarded at the class of service queue due to overflow.	cwacsHighIngCLP1CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 cells in the ingress direction of this Channel that are discarded at the traffic policing entity due to UPC/PCR parameter violation.	cwacsHighIngCLP0UpcDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 cells in the ingress direction of this Channel that are discarded at the traffic policing entity due to UPC/PCR parameter violation.	cwacsHighIngCLP1UpcDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 cells in the ingress direction of this Channel that are tagged as low priority by UPC.	cwacsHighIngCLP0UpcTagged	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the ingress direction of this Channel before the class of service queue.	cwacsHighIngRcvEFCI1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid UPC/PCR parameter compliant EFCI=1 cells in the ingress direction of this Channel that are discarded at the CoS queue.	cwacsHighIngEFCI1Discard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 ATM cells in the egress direction of this Channel PRIOR to the traffic management entity.	cwacsHighEgrRcvCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the egress direction of this Channel PRIOR to the traffic management entity.	cwacsHighEgrRcvCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 ATM cells in the egress direction of this Channel AFTER the traffic management entity.	cwacsHighEgrXmtCLP0	AXSM-XG, AXSM, AXSM-E, PXM1

Table 9-6 Connection Statistics

Statistic	MIB Object	Supported Modules
Number of valid CLP=1 ATM cells in the egress direction of this Channel AFTER the traffic management entity.	cwacsHighEgrXmtCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 cells in the egress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsHighEgrCLP0CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 cells in the egress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsHighEgrCLP1CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the egress direction of this Channel before the class of service queue.	cwacsHighEgrRcvEFCI1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the egress direction of this Channel that are discarded at the CoS queue.	cwacsHighEgrEFCI1Discard	AXSM-XG, AXSM, AXSM-E, PXM1

Egress Connection Statistics

Table 9-7 shows the objects that provide egress traffic statistic information related to an ATM channel.

Table 9-7 Egress Connection Statistics

Statistic	MIB Object	Supported Modules
Number of valid CLP=0 ATM cells in the egress direction of this Channel PRIOR to the traffic management entity.	cwacsEgrRcvCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the egress direction of this Channel PRIOR to the traffic management entity.	cwacsEgrRcvCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 ATM cells in the egress direction of this Channel AFTER the traffic management entity.	cwacsEgrXmtCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the egress direction of this Channel AFTER the traffic management entity.	cwacsEgrXmtCLP1	AXSM-XG, AXSM, AXSM-E, PXM1

Table 9-7 Egress Connection Statistics

Statistic	MIB Object	Supported Modules
Number of valid CLP=0 cells in the egress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsEgrCLP0CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 cells in the egress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsEgrCLP1CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the egress direction of this Channel before the class of service queue.	cwacsEgrRcvEFCI1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the egress direction of this Channel that are discarded at the CoS queue.	cwacsEgrEFCI1Discard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid OAM cells in the egress direction of this Channel before the CoS queue.	cwacsEgrRcvOAM	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid OAM cells in the egress direction of this Channel that are discarded at the CoS queue.	cwacsEgrOAMDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid RM cells in the egress direction of this Channel before the CoS queue.	cwacsEgrRcvRM	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid RM cells in the egress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsEgrRMDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Current value of the egress ACR(Allowed Cell Rate) parameter.	cwacsEgrACR	AXSM-XG, AXSM, AXSM-E, PXM1
Current length of the egress queue of this Channel in terms of number of cells.	cwacsEgrVCQueueDepth	AXSM-XG, AXSM, AXSM-E, PXM1
The agent clears the channel statistics collection if it receives a set to value of true(1) request from a manager.	cwacsStatsClear	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 ATM cells in the egress direction of this Channel PRIOR to the traffic management entity.	cwacsHighEgrRcvCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the egress direction of this Channel PRIOR to the traffic management entity.	cwacsHighEgrRcvCLP1	AXSM-XG, AXSM, AXSM-E, PXM1

Table 9-7 Egress Connection Statistics

Statistic	MIB Object	Supported Modules
Number of valid CLP=0 ATM cells in the egress direction of this Channel AFTER the traffic management entity.	cwacsHighEgrXmtCLP0	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 ATM cells in the egress direction of this Channel AFTER the traffic management entity.	cwacsHighEgrXmtCLP1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=0 cells in the egress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsHighEgrCLP0CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid CLP=1 cells in the egress direction of this Channel that are discarded at the CoS queue due to overflow.	cwacsHighEgrCLP1CoSDiscard	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the egress direction of this Channel before the class of service queue.	cwacsHighEgrRcvEFCI1	AXSM-XG, AXSM, AXSM-E, PXM1
Number of valid EFCI=1 cells in the egress direction of this Channel that are discarded at the CoS queue.	cwacsHighEgrEFCI1Discard	AXSM-XG, AXSM, AXSM-E, PXM1

PNNI Statistics

Table 9-8 shows the PNNI statistics of the objects related to scheduled grooming.

Table 9-8 PNNI Statistics for Grooming

Statistic	MIB Object
Status of the grooming request	cwcgSchedStatus
Total number of connections the management system requested to be evaluated for grooming.	cwcgNumConnRequests
The number of connections the managed system evaluated.	cwcgNumConnEvals
The number of connections the managed system attempted to reroute to the better route(s) during the grooming session.	cwcgNumConnAttempts
The number of connections rerouted successfully by the managed system during the grooming.	cwcgNumConnReroutes

Table 9-8 PNNI Statistics for Grooming

Statistic	MIB Object
The number of connections timed out during grooming.	cwcgNumConnTimedOuts
Number of connections that were removed from grooming after a scheduled grooming request has been enabled.	cwcgNumConnCancels
Number of connections the managed system rerouted successfully through Soft Reroute during the grooming session.	cwcgNumConnSoftReroutes
Number of connections the managed system not able to reroute through Soft Reroute during the grooming session.	cwcgNumConnUnchSoftReroutes

Table 9-9 shows the collection of objects providing information about signaling statistics.

Table 9-9 PNNI Signaling Statistics

Statistic	MIB Object
Number of CALL PROCEEDING messages received on this interface.	cwspCallProcRcv
Writing a 2 to this object resets the all Sig counters.	cwspSigCounterReset
Number of CONNECT messages received on this interface.	cwspConnectRcv
Number of CONNECT ACK messages received on this interface.	cwspConnectAckRcv
Number of SETUP messages received on this interface.	cwspSetupRcv
Number of RELEASE messages received on this interface.	cwspReleaseRcv
Number of RELEASE COMPLETE messages received on this interface.	cwspReleaseComplRcv
Number of RESTART messages received on this interface.	cwspRestartRcv
Number of RESTART ACK messages received on this interface.	cwspRestartAckRcv
Number of STATUS messages received on this interface.	cwspStatusRcv
Number of STATUS ENQUIRY messages received on this interface.	cwspStatusEnqRcv
Number of NOTIFY messages received on this interface.	cwspNotifyRcv

Table 9-9 PNNI Signaling Statistics

Statistic	MIB Object
Number of ALERT messages received on this interface.	cwspAlertRcv
Number of PROGRESS messages received on this interface.	cwspProgressRcv
Number of ADD PARTY messages received on this interface.	cwspAddPtyRcv
Number of ADD PARTY ACK messages received on this interface.	cwspAddPtyAckRcv
Number of ADD PARTY REJECT messages received on this interface.	cwspAddPtyRejRcv
Number of DROP PARTY messages received on this interface.	cwspDropPtyRcv
Number of Incorrect messages received on this interface.	cwspIncorrectMsgRcv
Number of timeouts occurred on this interface.	cwspTimerExpiries
Indicates the last cause of release or cranckback.	cwspLastCause
Indicates the last diagnostic of release or cranckback.	cwspLastDiagnostic
Number of CALL PROCEEDING messages transmitted from this interface.	cwspCallProcXmt
Number of CONNECT messages transmitted from this interface.	cwspConnectXmt
Number of CONNECT ACK messages transmitted from this interface.	cwspConnectAckXmt
Number of SETUP messages transmitted from this interface.	cwspSetupXmt
Number of RELEASE messages transmitted from this interface.	cwspReleaseXmt
Number of RELEASE COMPLETE messages transmitted from this interface.	cwspReleaseComplXmt
Number of RESTART messages transmitted from this interface.	cwspRestartXmt
Number of RESTART ACK messages transmitted from this interface.	cwspRestartAckXmt
Number of STATUS messages transmitted from this interface.	cwspStatusXmt

Table 9-9 PNNI Signaling Statistics

Statistic	MIB Object
Number of STATUS ENQUIRY messages transmitted from this interface.	cwspStatusEnqXmt
Number of NOTIFY messages transmitted from this interface.	cwspNotifyXmt
Number of ALERT messages transmitted from this interface.	cwspAlertXmt
Number of PROGRESS messages transmitted from this interface.	cwspProgressXmt
Number of ADD PARTY messages transmitted from this interface.	cwspAddPtyXmt
Number of ADD PARTY ACK messages transmitted from this interface.	cwspAddPtyAckXmt
Number of ADD PARTY REJECT messages transmitted from this interface.	cwspAddPtyRejXmt
Number of DROP PARTY messages transmitted from this interface.	cwspDropPtyXmt
Sscop link status on an NNI interface.	cwspSscopStatus

Table 9-10 shows the collection of objects providing information about call statistics of an interface.

Table 9-10 PNNI Call Statistics

Statistic	MIB Object
Writing a 2 to this object resets all counters.	cwspCountReset
Number of incoming Signaling messages (Setup and Add Party) received by the switching node on this interface for Call establishment.	cwspInCallAttempts
number of incoming Signaling Messages (Connect and Add Party Ack) received by the switching node on this interface which marks that a call has been successfully established.	cwspInCallEstabs
Number of incoming Point-to-Point (p2p) and Point-to-MultiPoint(p2mp) SVC/SPVC call attempts failed on this interface.	cwspInCallFailures

Table 9-10 PNNI Call Statistics

Statistic	MIB Object
Number of incoming Point-to-Point(p2p) and Point-to-MultiPoint(p2mp) SVC/SPVC call attempts which failed due to address filtering on this interface.	cwspInFilterFailures
Number of incoming Point-to-Point(p2p) and Point-to-MulitPoint(p2mp) SVC/SPVC call attempts on this interface which failed because there was no route to the destination available.	cwspInRouteFailures
Number of incoming Point-to-Point(p2p) and Point-to-MulitPoint(p2mp) SVC/SPVC call attempts on this interface which failed because there were not enough resources as requested in the parameters of the call.	cwspInResrcFailures
Number of signaling timers timed out for incoming Point-to-Point(p2p) and Point-to-MultiPoint(p2mp) SVC/SPVC calls on this interface.	cwspInTimerFailures
Number of Crankback IEs received on this interface for incoming Point-to-Point(p2p) and Point-to-MultiPoint (p2mp) SVC/SPVC call attempts.	cwspInCrankbacks
Number of outgoing Signaling messages (Setup and Add Party) on this interface for Call establishment.	cwspOutCallAttempts
Number of outgoing Signaling messages (Connect and Add Party Ack) which mark the call being established on this interface.	cwspOutCallEstabs
Number of outgoing Signaling messages for Point-to-Point and Point-to-MultiPoint call establishment on this interface which failed	cwspOutCallFailures

Table 9-10 PNNI Call Statistics

Statistic	MIB Object
Number of outgoing Signaling messages for call establishment on this interface which failed the address filtering	cwspOutFilterFailures
Number of outgoing Signaling messages for call establishment on this interface which failed because the route was not available	cwspOutRouteFailures
Number of outgoing Signaling messages for call establishment on this interface which failed because the resource requested was not available.	cwspOutResrcFailures
Number of Signaling timers timed-out on this interface for outgoing signaling messages.	cwspOutTimerFailures
Number of Crankback IEs being sent on this interface for outgoing signaling Release messages.	cwspOutCrankbacks

SNMP Statistics

SNMP statistics refer to the statistics of the message processing and dispatching.

Table 9-11 shows statistics for SNMP messages.

Table 9-11 Statistics for SNMP Messages

Statistic	MIB Object
Number of packets received by the SNMP engine which were dropped because they referenced a securityModel that was not known to or supported by the SNMP engine.	snmpUnknownSecurityModels
Number of packets received by the SNMP engine which were dropped because there were invalid or inconsistent components in the SNMP message.	snmpInvalidMsgs

Table 9-11 Statistics for SNMP Messages

Statistic	MIB Object
Number of packets received by the SNMP engine which were dropped because the PDU contained in the packet could not be passed to an application responsible for handling the pduType.	snmpUnknownPDUHandlers
Number of packets received by the SNMP engine which were dropped because they requested a securityLevel that was unknown to the SNMP engine or otherwise unavailable.	usmStatsUnsupportedSecLevels
Number of packets received by the SNMP engine which were dropped because they appeared outside of the authoritative SNMP engine's window.	usmStatsNotInTimeWindows
Number of packets received by the SNMP engine which were dropped because they referenced a user that was not known to the SNMP engine.	usmStatsUnknownUserNames
Number of packets received by the SNMP engine which were dropped because they referenced an snmpEngineID that was not known to the SNMP engine.	usmStatsUnknownEngineIDs
Number of packets received by the SNMP engine which were dropped because they did not contain the expected digest value.	usmStatsWrongDigests
Number of packets received by the SNMP engine which were dropped because they could not be decrypted.	usmStatsDecryptionErrors

Table 9-12 shows a collection of objects providing configuration of an SNMP engine which implements the SNMP user-based security model.

Table 9-12 SNMP Configuration Statistics

Statistic	MIB Object
Number of packets received by the SNMP engine which were dropped because they referenced a securityModel that was not known to or supported by the SNMP engine.	snmpUnknownSecurityModels
Number of packets received by the SNMP engine which were dropped because there were invalid or inconsistent components in the SNMP message.	snmpInvalidMsgs
Number of packets received by the SNMP engine which were dropped because the PDU contained in the packet could not be passed to an application responsible for handling the pduType.	snmpUnknownPDUHandlers
Number of packets received by the SNMP engine which were dropped because they requested a securityLevel that was unknown to the SNMP engine or otherwise unavailable.	usmStatsUnsupportedSecLevels
Number of packets received by the SNMP engine which were dropped because they appeared outside of the authoritative SNMP engine's window.	usmStatsNotInTimeWindows
Number of packets received by the SNMP engine which were dropped because they referenced a user that was not known to the SNMP engine.	usmStatsUnknownUserNames
Number of packets received by the SNMP engine which were dropped because they referenced an snmpEngineID that was not known to the SNMP engine.	usmStatsUnknownEngineIDs
Number of packets received by the SNMP engine which were dropped because they did not contain the expected digest value.	usmStatsWrongDigests
Number of packets received by the SNMP engine which were dropped because they could not be decrypted.	usmStatsDecryptionErrors