

Description of "dspchanct" for AUSM and FRSM

Document ID: 23606

Introduction

Before You Begin

Conventions

Prerequisites

Components Used

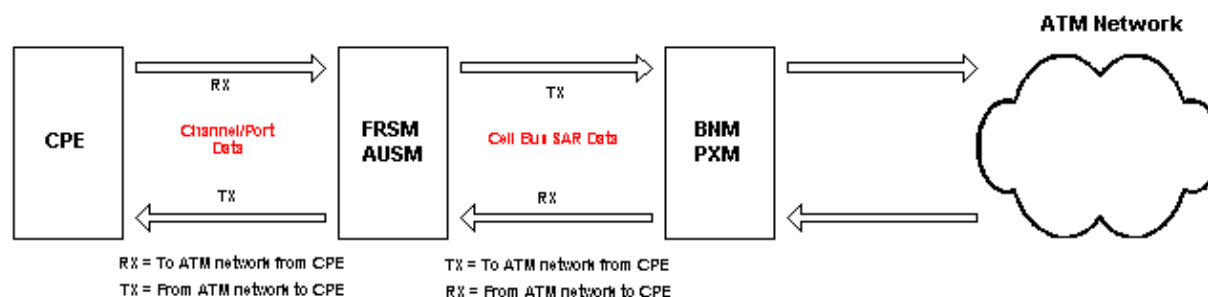
AUSM Channel Counter Description

FRSM Channel Counter Description

Related Information

Introduction

This document provides details for various fields produced in the output of the **dspchanct** command when using the command on both ATM User Service Module (AUSM) and Frame Relay Service Module (FRSM) connections.



Before You Begin

Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

Prerequisites

There are no specific prerequisites for this document.

Components Used

The information in this document is based on the software and hardware versions below.

- All versions of firmware for both the AUSM and the FRSM.

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

AUSM Channel Counter Description

The following is an example of the output of the counters after using the **dspchancnt** command on an AUSM connection:

```
axis.1.14.AUSM8.a > dspchancnt 32
ChanNum: 32
ChannelState: Alarm
ChannelEgressRcvState: Alarm
ChannelEgressXmitState: Sending OAM AIS
ChannelIngressRcvState: Alarm
ChannelIngressXmtState: Sending OAM AIS
ChanInServiceSeconds: 0
ChanIngressPeakQDepth(cells): 0
ChanIngressReceiveCells: 0
ChanIngressClpSetCells: 0
ChanIngressEfcisetRcvCells: 0
ChanIngressEfcisetXmtCells: 0
ChanIngressUpcClpSetCells: 0
ChanIngressQfullDiscardCells: 0
ChanIngressClpSetDiscardCells: 0
ChanIngressTransmitCells: 0
ChanShelfAlarmDiscardCells: 0
ChanEarlyPacketDiscardCells: 0
ChanPartialPacketDiscardCells: 0
ChanIngressTransmitAAL5Frames: 0
ChanIngressReceiveCellRate(cells/sec): 0
ChanIngressReceiveUtilization(percentage): 0
ChanIngressTransmitCellRate(cells/sec): 0
ChanIngressTransmitUtilization(percentage): 0
ChanEgressReceiveCellRate(cells/sec): 0
ChanEgressReceiveUtilization(percentage): 0
ChanEgressPortQFullDiscardCells: 0
ChanEgressPortQClpThreshDiscardCells: 0
ChanTransmitFifoFullCount (percard): 0

axis.1.14.AUSM8.a >
```

The following table describes the channel counters seen in the about output of the **dspchancnt** command on an AUSM connection.

Counter (dspchancnt/dspsarcnt)	Description
ChanIngressReceiveCells	The total number of cells received from the port side on this channel.
ChanIngressEfcisetRcvCells	The number of cells received from the port side on this channel that has the CLP bit in the ATM Header set to 1.
ChanIngressEfcisetXmtCells	The number of cells received from the port side on this channel that has the EFCI bit in the ATM Header set to 1.
ChanIngressUpcClpSetCells	The number of cells transmitted to the network with the EFCI bit in the ATM Header set to 1.

ChanIngressQfullDiscardCells	The number of cells (CLP=0) tagged (CLP=1) because of SCR violation.
ChanIngressClpSetDiscardCells	The number of cells discarded due to the ingress channel queue full condition.
ChanIngressTransmitCells	The following:-* CLP=0+1 cells discarded due to PCR violation. * CLP=0+1 cells discarded due to SCR violation when CLP tagging is disabled. * CLP=1 cells dropped due to the queue length exceeding the CLP threshold. When the received cell rate is greater than 100% then the cells discarded are due to PCR violation.
ChanShelfAlarmDiscardCells	The total number of cells transmitted to the network.
ChanEarlyPacketDiscardCells	The total number of cells discarded due to a shelf alarm condition.
ChanPartialPacketDiscardCells	The total number of cells discarded to Early Packet Discard
ChanIngressTransmitAAL5Frame	The total number of AAL5 Frames transmitted to the network.
ChanIngressReceiveCellRate	The total number of cells received from the port side in one second.
ChanIngressReceiveUtilization	The percentage utilization of the cells received from the port side with respect to the PCR of the channel.
ChanIngressTransmitCellRate	The total number of cells transmitted to the network in one second.
ChanIngressTransmitUtilization	The percentage utilization of the cells transmitted to the network with respect to the PCR of the channel.
ChanEgressReceiveCellRate	The total number of cells received from the network in one second
ChanEgressReceiveUtilization	The percentage utilization of the cells received from the network with respect to the PCR of the channel.
ChanEgressPortQFullDiscard-Cells	The total number of cells discarded due to the port queue full condition for the queue corresponding to the service type of this channel. For

	example if the channel for which the counters are monitored is a CBR channel then this count corresponds to the CBR queue for that port, and this queue is common for all the CBR channels on that port.
ChanEgressPortQClpThreshDiscardCells	The total number of cells discarded due to the port queue length exceeding the CLP threshold. It is similar to ChanEgressPortQFullDiscardCells above.
ChanTransmitFifoFullCount	The number of times the card tried to send a cell to the network but found the transmit FIFO to be full. This FIFO becomes full when the BNM is congested.
Total Cells[Tx]	The total number of cells transmitted to the network.
Total CellsCLP[Tx]	The number of cells with CLP bit set transmitted to the network.
Total CellsAIS[Tx]	The number of AIS OAM cells transmitted to the network.
Total CellsFERF[Tx]	The number of FERF OAM cells transmitted to the network.
Total CellsEnd2EndLpBk[Tx]	The number End-to-End loopback OAM cells transmitted to the network.
Total CellsSegmentLpBk[Tx]	The number Segment loopback OAM cells transmitted to the network.
Total Cells[Rx]	The total number of cells received from the network.
Total CellsCLP[Rx]	The number of cells with CLP bit set received from the network.
Total CellsAIS[Rx]	The number of AIS OAM cells received from the network.
Total CellsFERF[Rx]	The number of FERF OAM cells received from the network.
Total CellsEnd2EndLpBk[Rx]	The number End-to-End loopback OAM cells received from the network.
Total CellsSegmentLpBk[Rx]	The number Segment loopback OAM cells received from the network.

RcvCellsDiscOAM[Rx]	The number OAM cells discarded either due to CRC error or buffer not available.
---------------------	---

FRSM Channel Counter Description

The following is an example of the output of the counters after using the **dspchancnt** command on an FRSM connection:

```
axis.1.1.6.FRSM.a > dspchancnt 32

ChanNum:    32
ChanState:   alarm
ChanUpTime:  0

                                Tx          Rx
                                _____  _____

AbitState:   Off                  Off
ATMState:    Sending AIS         Not receiving
                                OAM state   any state

Total Frames: 0                   0
Total Bytes:  0                   0
Frames DE:    0                   0
Bytes DE:     0                   0
Frames Discarded: 0               0
Bytes Discarded: 0               0
FramesDiscXceedQDepth: 0         0
BytesDiscXceedQDepth: 0         0
FramesDiscXceedDEThresh: 0       0
Frames FECN:  0                   0
Frames BECN:  0                   0
FramesTagged FECN: 0             0
FramesTagged BECN: 0             0
KbpsAIR:      0                   0
FramesTaggedDE: 0                0
BytesTaggedDE: 0                  0
RcvFramesDiscShelfAlarm: 0        0
XmtFramesDiscPhyLayerFail: 0      0
XmtFramesDiscCRCError:  0         0
XmtFramesDiscReAssmFail: 0        0
XmtFramesDiscSrcAbort:  0         0
XmtFramesDuringLMIAAlarm: 0       0
XmtBytesDuringLMIAAlarm: 0        0
RcvFramesDiscUPC:  0             0
XmtFramesInvalidCPIs: 0           0
XmtFramesLengthViolations: 0      0
XmtFramesOversizedSDUs: 0         0
XmtFramesUnknownProtocols: 0      0
RcvFramesUnknownProtocols: 0      0

axis.1.1.6.FRSM.a >
```

The following table describes the channel counters seen in the about output of the **dspchancnt** command on an AUSM connection.

Counter (dspchancnt)	Description	
	Tx	Rx
AbitState		

	The A bit transmit State 1 – LMI off 2 – LMI on and connection is O.K. i.e sending A=1 3 – LMI on and connection has failed i.e sending A=0	The A bit Receive State 1 – LMI off 2 – LMI on and connection is O.K. i.e receiving A=1 3 – LMI on and connection has failed i.e receiving A=0
ATMState	The transmit state of the VC (channel) on the ATM side 1 – Not sending any state 2 – Sending AIS OAM state	The receive state of the VC (channel) on the ATM side 1 – Not receiving any state 2 – Receiving AIS OAM state
Total Frames	The number of frames transmitted on the egress	received on the ingress
Total Bytes	The number of bytes transmitted on the egress	The number of bytes received on the ingress
Frames DE	The number of DE frames transmitted on the egress	The number of DE frames received on the ingress
Bytes DE	The number of DE bytes transmitted on the egress	The number of DE bytes received on the ingress
Frames Discarded	The number of frames discarded on the egress	The number of frames discarded on the ingress
Bytes Discarded	The number of bytes discarded on the egress	The number of bytes discarded on the ingress
FramesDiscXceedQDepth	The number of frames discarded on the egress due to exceeded queue depth	The number of frames discarded on the ingress due to exceeded queue depth

BytesDiscXceedQDepth	The number of bytes discarded on the egress due to exceeded queue depth	The number of bytes discarded on the ingress due to exceeded queue depth
FramesDiscXceedDEThresh	The number of frames discarded on the egress due to exceeding DE Threshold	The number of frames discarded on the ingress due to exceeding DE Threshold
Frames FECN	The number of frames transmitted with FECN bit set	The number of frames received with FECN bit set
Frames BECN	The number of frames transmitted with BECN bit set	The number of frames received with BECN bit set
FramesTagged FECN	The number of frames transmitted that were tagged with FECN bit	The number of frames received that were tagged with FECN bit
FramesTagged BECN	The number of frames transmitted that were tagged with BECN bit	The number of frames received that were tagged with BECN bit
KbpsAIR	Transmitted Average Information Rate	Received Average Information Rate
FramesTaggedDE	The number of frames transmitted that were tagged with DE bit	The number of frames received that were tagged with DE bit
RcvFramesDiscShelfAlarm		With DE bit rcvd and dropped when the BNM line in alarm

XmtFramesDiscPhyLayerFail	The frames discarded when T1/E1 line in alarm	
XmtFramesDiscCRCError	The number of frames discarded on the Egress due to CRC error If a cell is dropped in the n/work the reassembly will have a CRC error	
XmtFramesDiscReAssmFail		
XmtFramesDiscSrcAbort	The number of frames the source end requested to be dropped (could be due frame CRC error at the source end)	
XmtFramesDuringLMIAalarm	The number of frames transmitted during LMI port alarm	
XmtBytesDuringLMIAalarm	The number of bytes transmitted during LMI port alarm	
RcvFramesDiscUPC	The frames that were discarded because of exceeding CIR or policing	
XmtFramesInvalidCPIs		
XmtFramesLengthViolations	The frame too long/short	
XmtFramesOversizedSDUs	The data part of the SIW is too long	
XmtFramesUnknownProtocols	The protocol received in SIW doesn't	

	conform	
RevFramesUnknownProtocols		The protocol received in SIW doesn't conform

Related Information

- [MGX 8850 Configuration Cookbook](#)
 - [Cisco WAN Switching Solutions – Cisco Documentation](#)
 - [Guide to New Names and Colors for WAN Switching Products](#)
 - [Software Center – WAN Switching Software](#)
 - [Technical Support – Cisco Systems](#)
-

[Contacts & Feedback](#) | [Help](#) | [Site Map](#)

© 2008 – 2009 Cisco Systems, Inc. All rights reserved. [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)

Updated: Apr 30, 2009

Document ID: 23606
