

Atlas Event Logging Explanation

Introduction

The Atlas Event Log is used to log various message types at settable threshold levels. This section describes the entries that may be logged by the system event log. The Event Log's **CATEGORY** is particularly important – this is the minimum severity level that must be set in order that the event be logged.

The Event Log is a useful tool for troubleshooting switchboard (or call connection) activities including the viewing of digits received, digits transferred, and ISDN Messages. Since most of the events viewed in the following tables are used primarily during troubleshooting, they should be turned off in normal operation.

Setting the Event Log Category

The following steps outline the procedure for setting up the event category thresholds for the Event Log. These settings are very useful for low level debugging as well as notification of critical system events.

1. From the main menu, go to the **System Config** menu and press the right-arrow key to enter the right-pane menus. The **System Config** menu is shown in Figure 1 below:



Figure 1

2. Select the **Event Logging** field and press <Enter>. Once in the **Event Logging** menu, press the right-arrow key to access the right-pane menus (Note: All thresholds are set to Minor by default). Figure 2 below shows the **Event Logging** menu:

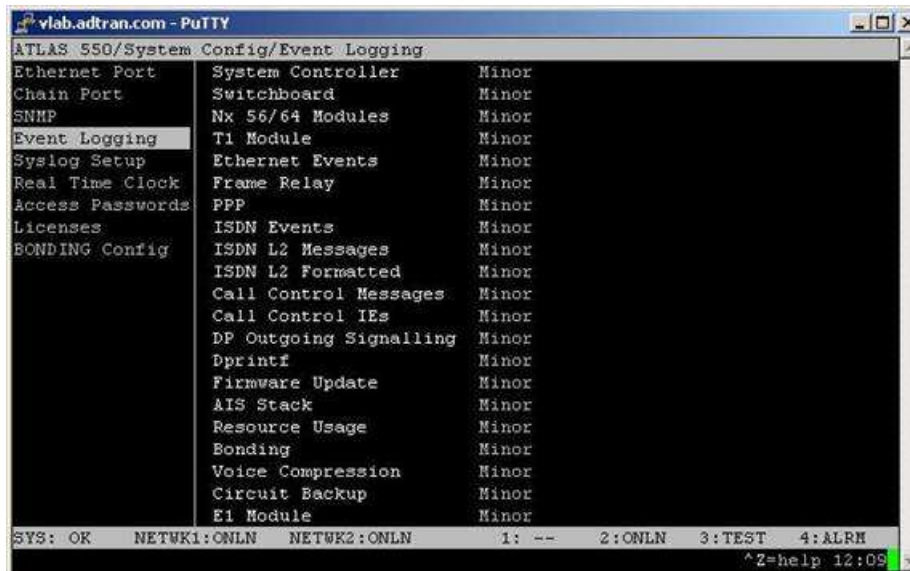


Figure 2

3. Refer to the tables under '**System Events**' below to determine the desired category thresholds.
4. To change the category, select the appropriate field and press <Enter>. This will provide a list of available options. Highlight the desired threshold and press <Enter> to select it. Whenever a system event occurs, that event will be logged if the event's severity level is equal to or more severe than the event type's current threshold setting. Figure 3 shows the available threshold options:

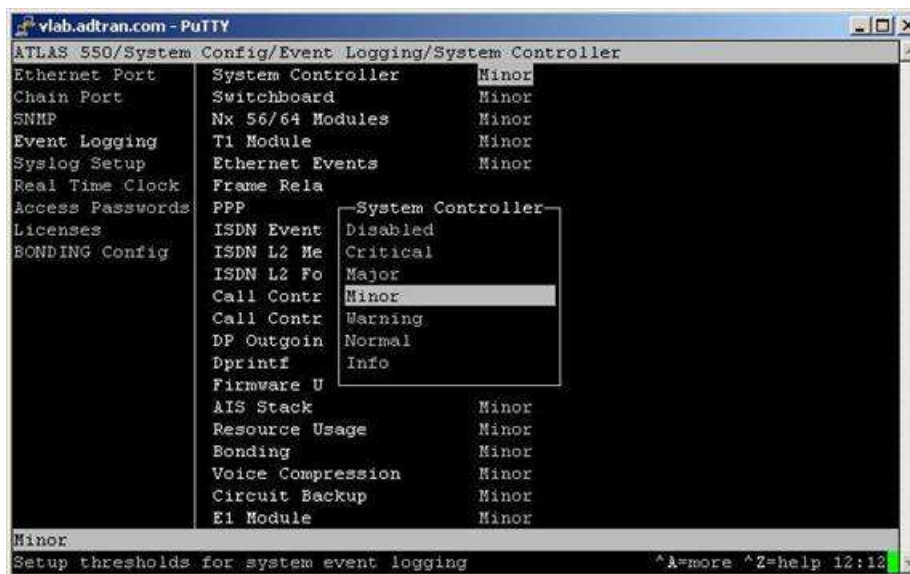


Figure 3

Note: Use caution when changing category values from their default levels. If too many sources have their category values set too low, the number of messages being logged in a given period can be very large. If too many messages are being logged too rapidly, system performance can be adversely affected.

Viewing the Events

The following steps outline the procedure for viewing **Event Log** messages.

1. From the **Main Menu**, go to the **System Status** menu and press the right arrow key to enter the right-pane menus.

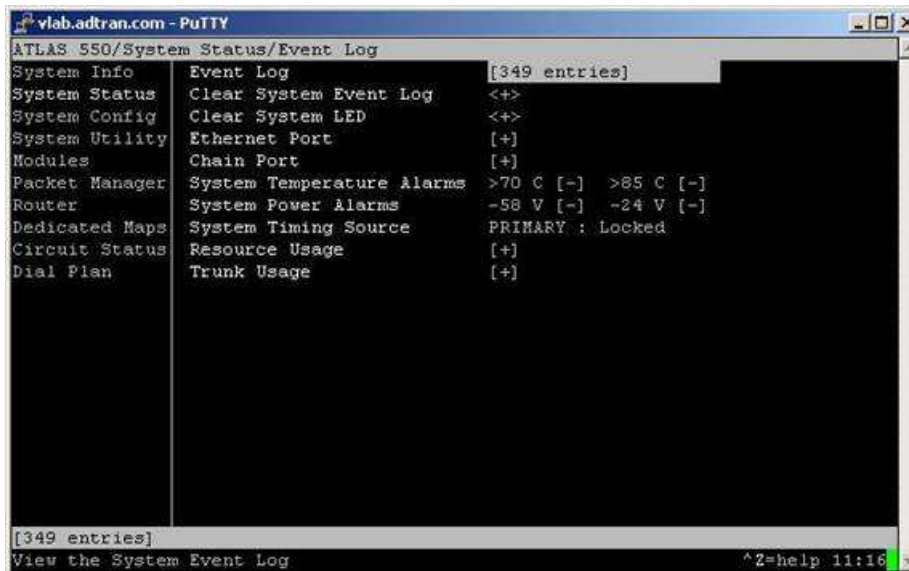


Figure 4

2. Select the **Event Log** field and press <Enter>. Once in the **Event Log**, press the right arrow key to access the actual messages.

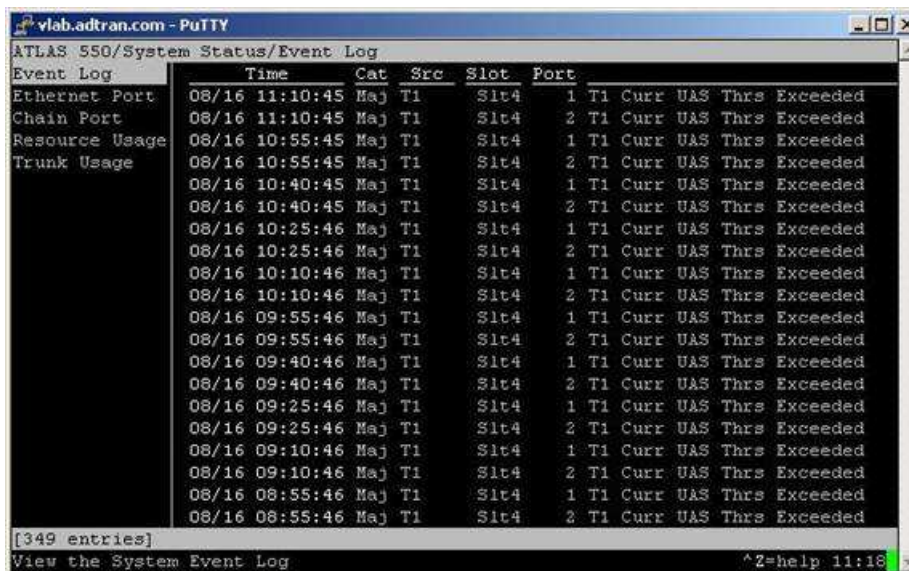


Figure 5

Note: The **Event Log** messages are stored in a first-in/first-out table. Therefore, the most recent log entry is found at the top of the log.

Note: The **Event Log** within the Atlas can only hold 349 entries with the oldest getting removed first. Therefore, it may be necessary to setup and external Syslog server for storage of **Event Log** messages. Refer to the document [Using the Adtran Utility Syslog with the Atlas](#) for more details.

System Events

Table 1 through Table 8 provides a listing of Atlas system events, including tables of events for each category, according to the order they appear in the **Event Log** setup screen.

Table 1. System Controller Events

Console Log String	Category	Event
AC Power Supply has recovered	CRITICAL	AC power supply is functioning normal again

AC Power Supply has failed	CRITICAL	AC power supply is not operating properly
AC Power Supply has Exceeded Temperature Limit	CRITICAL	Internal system temperature has exceeded safe operating limit
AC Power Supply is Under Temperature Limit	CRITICAL	Internal temperature has cooled to safe operating limit
DC Power Supply has recovered	CRITICAL	DC power supply is functioning normal again
DC Power Supply has failed	CRITICAL	DC power supply is not operating properly
DC Power Supply has Exceeded Temperature Limit	CRITICAL	Internal system temperature has exceeded safe operating limit
DC Power Supply is Under Temperature Limit	CRITICAL	Internal temperature has cooled to safe operating limit
Firmware invalid	CRITICAL	Corrupted firmware
Firmware update failed	CRITICAL	Flash download failed
System Configuration Uploaded	CRITICAL	Atlas configuration files loaded into the system and activated
-24 V Power Failure Cleared	CRITICAL	-24 V power supply is functioning normally again
-24 V Power Failure	CRITICAL	-24 V power supply is not operating properly
-58 V Power Failure Cleared	CRITICAL	-58 V power supply is functioning normally again
-58 V Power Failure	CRITICAL	-58 V power supply is not operating properly
>70 Internal Temperature Warning Cleared	CRITICAL	Internal system temperature has cooled below 70°C
>70C Internal Temperature Warning	CRITICAL	Internal system temperature is greater than 70°C
>85 Internal Temperature Warning Cleared	CRITICAL	Internal system temperature has cooled below 85°C
>85C Internal Temperature Warning	CRITICAL	Internal system temperature is greater than 85°C
ACO Switch pressed	MINOR	ACO switch pressed
Login Failure	MINOR	Console Login Failure ¹
Timing source changed to Internal	MINOR	Neither the primary nor the backup are valid
Timing source changed to Backup	MINOR	The primary source is invalid; backup source valid and selected
Timing source changed to Primary	MINOR	The timing source changed to primary
Not responding to programming	MINOR	Unable to program module
External Alarm Cleared	MINOR	External alarm cleared
External Alarm Detected	MINOR	Alarm detected on External Alarm Monitor
Module Not Responding Cold	WARNING	Module removed or not responding
Firmware update completed	NORMAL	System cold start ²
Module Found	INFO	Flash download successful
SNMP Authentication Failure	INFO	Module found
		SNMP Authentication failure ³

1 Three Consecutive logins were attempted and failed

2 Generated five seconds after the completion of system initialization

- 3 Generated if the Atlas receives an SNMP request from and SNMP manager defined in the Atlas SNMP communities list but with a community name that does not match the community name defined in the SNMP communities list

Table 2. Switchboard Events

Console Log String	Category	Event
<number> rejected: No such number	WARNING	Call rejected ¹
<number> rejected: Outgoing reject list	NORMAL	Call rejected ²
<number> rejected: Busy	NORMAL	Call rejected ³
<number> accepted: <slot><port>	NORMAL	Call successfully routed

- 1 No such number in dial plan
- 2 Number is on outgoing reject list
- 3 All endpoints busy

Table 3. Nx56/64 Events

Console Log String	Category	Event
Nx56/64 Clock Slip Alarm Active	MAJOR	Clock Slip Alarm Active
Nx56/64 Clock Slip Alarm Cleared	MAJOR	Clock Slip Alarm Cleared
Nx56/64 External Clock Alarm Active	MAJOR	External Clock Alarm
Nx56/64 External Clock Alarm Cleared	MAJOR	External Clock Alarm Cleared
Nx56/64 PLL Alarm Active	MAJOR	PLL Alarm Active
Nx56/64 PLL Alarm Cleared	MAJOR	PLL Alarm Cleared
Nx56/64 511 Test Pattern Active	WARNING	511 Test Pattern Activated
Nx56/64 511 Test Pattern Cleared	WARNING	511 Test Pattern Deactivated
Nx56/64 Bilateral Loopback Active	WARNING	Bilateral Loopback Activated
Nx56/64 Bilateral Loopback Cleared	WARNING	Bilateral Loopback Deactivated
Nx56/64 Excessive Zeros Alarm	WARNING	Excessive Zeros from DTE
Nx56/64 Excessive Zeros Alarm Cleared	WARNING	Excessive Zeros condition cleared
Nx56/64 CTS Asserted	INFO	CTS Asserted
Nx56/64 CTS Dropped	INFO	CTS Dropped
Nx56/64 DCD Asserted	INFO	DCD Asserted
Nx56/64 DCD Dropped	INFO	DCD Dropped
Nx56/64 DTR Asserted	INFO	DTR Asserted
Nx56/64 DTR Dropped	INFO	DTR Dropped
Nx56/64 RTS Asserted	INFO	RTS Asserted
Nx56/64 RTS Dropped	INFO	RTS Dropped

Table 4. T1 Events

Console Log String	Category	Event
T1 Blue Alarm Cleared	MAJOR	Blue Alarm Cleared
T1 Blue Alarm Active	MAJOR	Blue Alarm Set

T1 D Channel Alarm Cleared	MAJOR	D Channel Alarm Cleared
T1 D Channel Alarm Active	MAJOR	D Channel Alarm Set
T1 LOS Cleared	MAJOR	LOS Alarm Cleared
T1 LOS Active	MAJOR	LOS Alarm Set
T1 Red Alarm Cleared	MAJOR	Red Alarm Cleared
T1 Red Alarm Active	MAJOR	Red Alarm Set
T1 Tx Blue Alarm Cleared	MAJOR	Tx Blue Alarm Cleared
T1 Tx Blue Alarm Active	MAJOR	Tx Blue Alarm Set
T1 Tx Yellow Alarm Cleared	MAJOR	Tx Yellow Alarm Cleared
T1 Tx Yellow Alarm Active	MAJOR	Tx Yellow Alarm Set
T1 Yellow Alarm Cleared	MAJOR	Yellow Alarm Cleared
T1 Yellow Alarm Active	MAJOR	Yellow Alarm Set
T1 Curr CSS Thrs Exceeded	WARNING	Current T1 Controlled Slip Seconds Threshold Exceeded
T1 Curr ES Thrs Exceeded	WARNING	Current T1 Errored Seconds Threshold Exceeded
T1 Curr LCV Thrs Exceeded	WARNING	Current T1 Line Code Violations Threshold Exceeded
T1 Curr LES Thrs Exceeded	WARNING	Current T1 Line Errored Seconds Threshold Exceeded
T1 Curr PCV Thrs Exceeded	WARNING	Current T1 Path Code Violations Threshold Exceeded
T1 Curr SEFS Thrs Exceeded	WARNING	Current T1 Severely Errored Framing Seconds Threshold Exceeded
T1 Curr SES Thrs Exceeded	WARNING	Current T1 Severely Errored Seconds Threshold Exceeded
T1 Curr UAS Thrs Exceeded	WARNING	Current T1 Unavailable Seconds Threshold Exceeded
T1 Line Loopback Active	WARNING	Line Loopback Active
T1 Loopback Cleared	WARNING	Loopback Cleared
T1 Payload Loopback Active	WARNING	Payload Loopback Active
T1 Total CSS Thrs Exceeded	WARNING	Total T1 Controlled Slip Seconds Threshold Exceeded
T1 Total ES Thrs Exceeded	WARNING	Total T1 Errored Seconds Threshold Exceeded
T1 Total LCV Thrs Exceeded	WARNING	Total T1 Line Code Violations Threshold Exceeded
T1 Total LES Thrs Exceeded	WARNING	Total T1 Line Errored Seconds Threshold Exceeded
T1 Total PCV Thrs Exceeded	WARNING	Total T1 Path Code Violations Threshold Exceeded
T1 Total SEFS Thrs Exceeded	WARNING	Total T1 Severely Errored Framing Seconds Threshold Exceeded
T1 Total SES Thrs Exceeded	WARNING	Total T1 Severely Errored Seconds Threshold Exceeded
T1 Total UAS Thrs Exceeded	WARNING	Total T1 Unavailable Seconds Threshold Exceeded

Table 5. Ethernet Events

Console Log String	Category	Event
Out of Memory	CRITICAL	Not enough memory for Ethernet driver

Table 6. ISDN Events

Console Log String	Category	Event
--------------------	----------	-------

BRI configuration failed: No ISDN resources are available	CRITICAL	NO BRI resources available
PRI configuration failed: No ISDN resources are available	CRITICAL	NO PRI resources available
<message>: Incorrectly formatted cause IE	MAJOR	Incorrectly formatted IE
D channel is DOWN	MAJOR	D Channel Down
BRI NT: SPID <spid> was rejected	MAJOR	SPID Failed
BRI NT: SPID Negotiations failed - resetting the link	MAJOR	SPID Negotiation failed
BRI LT: SPID <spid> received - NOT IN LIST	MAJOR	Unknown SPID received
BRI NT: SPID Negotiations failed - Retrying	MINOR	SPID Retry in progress
No SPID matches the call profile: <called number><call type>	WARNING	No matching SPID found
No SPID with free B channels matches call type: <call type>	WARNING	No Matching SPID found
LT: Tried to call unregistered SPID <spid>	WARNING	SPID Unregistration attempted
Configured BRI as LT	NORMAL	BRI LT configuration successful
Configured BRI as NT	NORMAL	BRI NT configuration successful
Rejected an incoming call for an unregistered SPID	NORMAL	Call Rejected
D channel is UP	NORMAL	D Channel UP
Released: No longer an ISDN line	NORMAL	ISDN line released
No outgoing B channel available for call to <number>	NORMAL	No B channels for call
Configured PRI as central office emulator	NORMAL	PRI CO configuration successful
Configured PRI as CPE	NORMAL	PRI CPE configuration successful
BRI NT: Spid <spid> registered	NORMAL	SPID registered
BRI LT: All SPIDs registered	NORMAL	SPID Registration complete
BRI NT: All SPIDs registered	NORMAL	SPID Registration complete
BRI LT: Registering SPID <spid>	NORMAL	SPID Registration in progress
BRI NT: Registering SPID <spid>	NORMAL	SPID Registration in progress
Call to <called number> declared busy after leaving Atlas	INFO	Call busy
Call to <called number> refused: Busy	INFO	Call busy
Call to <called number> cleared from Atlas end	INFO	Call cleared
Call to <called number> connected	INFO	Call connected
Call to <called number> disconnected by far end	INFO	Call disconnected
Call not accepted to <called number>: No channel available	INFO	Call not accepted
Call to Atlas: <called number> received	INFO	Call received
Call to <called number> ringing	INFO	Call ringing
Dialing <called number>	INFO	Dialing number
Incoming call to <called number> accepted	INFO	Incoming call accepted

Incoming call to <called number> refused	INFO	Incoming call refused
---	------	-----------------------

Table 7. Circuit Backup Events

Console Log String	Category	Event
Circuit Backup Attempt Failed	MAJOR	Outgoing backup call was unsuccessful
Circuit Backup Test Call Failed	MAJOR	Outgoing backup test call was unsuccessful
Attempting Circuit Backup	MINOR	Circuit Backup call attempted to restore data circuit
Circuit Backup Active	MINOR	Port is currently in backup
Circuit Backup Deactivated, Primary Restored	MINOR	Port was in backup, but primary data function was restored
Circuit Backup Data Alarm Active	MINOR	Inband keep alive messages were disrupted or corrupted
Circuit Backup Data Alarm Cleared	MINOR	Inband keep alive messages are functioning properly
Circuit Backup Test Call Originated	INFO	Circuit Backup test call was attempted by the unit
Circuit Backup Test Call Connected	INFO	Circuit Backup test call was successfully connected to backup site
Circuit Backup Test Call Passed	INFO	Circuit Backup test call was successfully maintained for test period

Table 8. DP Outgoing Signaling Events

Console Log String	Category	Event
TX Set Rx ABCP <> Tx ABCD <> ¹	INFO	Atlas changed signal bits on port
RX Change Rx ABCD <> Tx ABCD <>	INFO	Equipment connected to port changed signal bits

- 1 The Atlas series uses only AB signaling bits. The CD signaling bits are a copy of the AB values. These values are shown in hexadecimal notation. For example, if AB signal bits are 01, then the total signal bits would be 01 01. Putting that in hexadecimal notation results in an event of Tx set Rx ABCD 0x05.

ISDN Cause Codes

In addition to the above events, certain recognized ISDN cause codes are sent to the Event Log from the ISDN message facility during **ISDN Events, L2 Messages, and L2 Formatted** event categories. Table 9 lists the codes applicable to the Atlas Series and the minimum category required for logging the cause code event.

Table 9. ISDN Cause Code Events

Cause Code Event	Category	Code
ACCESS_INFO_DISCARDED	WARNING	43
BAD_INFO_ELEM	MAJOR	99
BEAR_CAP_NOT_AVAIL	MINOR	58
CALL_REJECTED	INFO	21
CAP_NOT_IMPLEMENTED	MINOR	65
CHAN_NOT_IMPLEMENTED	MINOR	66
CHANNEL_UNACCEPTABLE	INFO	6

DEST OUT OF ORDER	INFO	27
FACILITY NOT IMPLEMENTED	MAJOR	69
FACILITY NOT SUBSCRIBED	MNOR	50
FACILITY REJECTED	INFO	29
INCOMING CALL BARRED	MINOR	54
INCOMPATIBLE DEST	MAJOR	88
INTERWORKING UNSPEC	WARNING	127
INVALID CALL REF	MAJOR	81
INVALID ELEM CONTENTS	MAJOR	100
INVALID MSG UNSPEC	MAJOR	95
INVALID NUMBER FORMAT	INFO	28
MANDATORY IE LEN ERR	MAJOR	103
MADATORY IE MISSING	MAJOR	96
NETWORK CONGESTION	WARNING	42
NETWORK OUT OF ORDER	WARNING	38
NO CIRCUIT AVAILABLE	WARNING	34
NO ROUTE	INFO	2
NO USER RESPONDING	INFO	18
NONEXISTENT MSG	MAJOR	97
NORMAL CLEARING	INFO	16
NUMBER CHANGED	INFO	22
OUTGOING CALL BARRED	MINOR	52
PRE EMPTED	WARNING	45
PROTOCOL ERROR	MAJOR	111
REQ CHANNEL NOT AVAIL	WARNING	44
RESP TO STAT ENQ	INFO	30
SERVICE NOT AVAIL	MINOR	63
TEMPORARY FAILURE	WARNING	41
TIMER EXPIRY	MAJOR	102
UNASSIGNED NUMBER	INFO	1
UNSPECIFIED CAUSE	INFO	31
USER BUSY	INFO	17
WRONG MESSAGE	INFO	98
WRONG MSD FOR STATE	MAJOR	101

Cause Code Log Entries

Cause Code IEs that are non-Q.931 (i.e., the Coding Standard field is not 0) are logged with the following format:

<message> : <coding standard> code <cause code>

The coding standard field is one of the following: Reserved, National, or Local. Each Cause Code IE log entry ends with a location designation. Table 10 shows these designations. Tables 11 through Table 13 provide listings of system events.

Table 10. Cause Code Log Entry Location Designations

Code	Location
INTL	International network
INWK	Network beyond internetworking point
LN	Public network serving the local user
LPN	Private network serving the local user
RLN	Public network serving the remote user
RPN	Private network serving the remote user

TN	Transit network
U	User

Table 11. ISDN L2 Messages

Console Log String	Category	Event
<message contents>	INFO	ISDN Layer 2 (LAPD) Message ¹

- 1 Provides a hex dump of the entire LAPD frame.

Table 12. ISDN Call Control Messages

Console Log String	Category	Event
Host> > CC <tag><call ID> <message>	INFO	ISDN Call Control Messages
CC> > Host <tag><call ID> <message>	INFO	ISDN Call Control Messages

Table 13. Source: ISDN Information Elements

Console Log String	Category	Event
<message contents>	INFO	ISDN Information Element ¹

- 1 Provides a hex dump of the ISDN IE sent with a call control message.