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Vx/Hdx/Mx Router SNMP Traps

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Revision: V4.2-5

Vx/Hdx/Mx Router SNMP Traps

SFP Generated Traps

Warnings

- High Temperature Warning   Begin and Clear

   A SFP module has the ability to monitor and alarm on a high or low temperature reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 7 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

   This bit is set when the internal temperature of the SFP exceeds the high temperature warning level. The SFP temperature is stored at bytes 96 & 97 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighTempWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- Low Temperature Warning   Begin and Clear

   A SFP module has the ability to monitor and alarm on a high or low temperature reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 6 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

   This bit is set when the internal temperature of the SFP falls below the low temperature warning level. The SFP temperature is stored at bytes 96 & 97 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowTempWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- High Vcc Warning   Begin and Clear

   A SFP module has the ability to monitor and alarm on a high or low Vcc voltage reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 5 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

   This bit is set when the internal supply voltage to the SFP exceeds the high voltage warning level. The SFP voltage is stored at bytes 98 & 99 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighVccWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

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- Low Vcc Warning   Begin and Clear

  A SFP module has the ability to monitor and alarm on a high or low Vcc voltage reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 4 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the internal supply voltage to the SFP falls below the low voltage warning level. The SFP voltage is stored at bytes 98 & 99 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowVccWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- High TX Bias Warning   Begin and Clear

  A SFP module has the ability to monitor and alarm on a high or low TX bias current reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 3 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the internal current to the SFP transmitter exceeds the high current warning level. The SFP TX current value is stored at bytes 100 & 101 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighTxBiasWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- Low TX Bias Warning   Begin and Clear

  A SFP module has the ability to monitor and alarm on a high or low TX bias current reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 2 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the internal current to the SFP transmitter falls below the low current warning level. The SFP TX current value is stored at bytes 100 & 101 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowTxBiasWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

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- **High TX Power Warning   Begin and Clear**

  A SFP module has the ability to monitor and alarm on a high or low TX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 1 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the SFP transmitter laser power exceeds the high power warning level. The SFP TX power value is stored at bytes 102 & 103 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighTxPowerWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- **Low TX Power Warning   Begin and Clear**

  A SFP module has the ability to monitor and alarm on a high or low TX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 0 of byte 116 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the SFP transmitter laser power falls below the TX low power warning level. The SFP TX power value is stored at bytes 102 & 103 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowTxPowerWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- **High RX Power Warning   Begin and Clear**

  A SFP module has the ability to monitor and alarm on a high or low RX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 7 of byte 117 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the SFP received laser power exceeds the high power warning level. The SFP RX power value is stored at bytes 104 & 105 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighRxPowerWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- Low RX Power Warning   Begin and Clear

A SFP module has the ability to monitor and alarm on a high or low RX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 6 of byte 117 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the SFP received laser power falls below the low power warning level. The SFP RX power value is stored at bytes 104 & 105 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowRxPowerWarning	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

Alarms

- High Temperature Alarm Begin and Clear

A SFP module has the ability to monitor and alarm on a high or low temperature readings. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 7 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the internal temperature of the SFP exceeds the high temperature alarm level. The SFP temperature is stored at bytes 96 & 97 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighTempAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- Low Temperature Alarm   Begin and Clear

A SFP module has the ability to monitor and alarm on a high or low temperature reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 6 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the internal temperature of the SFP falls below the low temperature alarm level. The SFP temperature is stored at bytes 96 & 97 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowTempAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

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- High Vcc Alarm   Begin and Clear

A SFP module has the ability to monitor and alarm on a high or low Vcc voltage reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 5 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the internal supply voltage to the SFP exceeds the high voltage alarm level. The SFP voltage is stored at bytes 98 & 99 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighVccAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- Low Vcc Alarm   Begin and Clear

A SFP module has the ability to monitor and alarm on a high or low Vcc voltage reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 4 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the internal supply voltage to the SFP falls below the low voltage alarm level. The SFP voltage is stored at bytes 98 & 99 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowVccAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- High TX Bias Alarm   Begin and Clear

A SFP module has the ability to monitor and alarm on a high or low TX bias current reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 3 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the internal current to the SFP transmitter exceeds the high current alarm level. The SFP TX BIAS current value is stored at bytes 100 & 101 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighTxBiasAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

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- Low TX Bias Alarm   Begin and Clear

  A SFP module has the ability to monitor and alarm on a high or low TX bias current reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 2 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the internal current to the SFP transmitter falls below the low current alarm level. The SFP TX BIAS current value is stored at bytes 100 & 101 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowTxBasAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- High TX Power Alarm   Begin and Clear

  A SFP module has the ability to monitor and alarm on a high or low TX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 1 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the SFP transmitter laser power exceeds the high power alarm level. The SFP TX power value is stored at bytes 102 & 103 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighTxPowerAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- Low TX Power Alarm   Begin and Clear

  A SFP module has the ability to monitor and alarm on a high or low TX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 0 of byte 112 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

  This bit is set when the SFP transmitter laser power falls below the low power alarm level. The SFP TX power value is stored at bytes 102 & 103 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowTxPowerAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

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- High RX Power Alarm   Begin and Clear

A SFP module has the ability to monitor and alarm on a high or low RX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 7 of byte 113 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the SFP received laser power exceeds the high power alarm level. The SFP RX power value is stored at bytes 104 & 105 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdHighRxPowerAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

- Low RX Power Alarm   Begin and Clear

A SFP module has the ability to monitor and alarm on a high orlow RX laser power reading. This ability is internal to the SFP and is part of the digital diagnostic interface common to many SFPs. This notification is sent when bit 6 of byte 113 in the real-time diagnostic registers changes from 0 to 1 (Begin) or from a 1 to a 0 (Clear).

This bit is set when the SFP received laser power falls below the low power alarm level. The SFP RX power value is stored at bytes 104 & 105 of the SFP diagnostic register table.

Objects:	1: sfpLabel 2: sfpTemperature 3: sfpThresholdLowRxPowerAlarm	4: sysContact 5: sysDescr 6: sysLocation 7: sysName

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Events

- TX Fault   Begin and Clear

  An SFP module has entered into the TX Fault state (Begin) or has exited this state (Clear). This state is determined by the TxFault status bit located in the SFP diagnostic registers.

Objects:	1: sfpLabel 2: sysContact 3: sysDescr 4: sysLocation 5: sysName

- LOS   Begin and Clear

  An SFP module has entered into the LOS state (Begin) or has exited this state (Clear). This state is determined by the LOS status bit located in the SFP diagnostic registers.

  This trap is not conditioned by the switch matrix, but is the LOS status of the SFP. For example, this trap will be generated when a fiber is removed from the SFP or when a existing connection is broken by the switch matrix.

Objects:	1: sfpLabel 2: sysContact 3: sysDescr 4: sysLocation 5: sysName

- SFP Removed or Inserted

  An SFP module has been removed or inserted.

Objects:	1: sfpLabel 2: sysContact 3: sysDescr 4: sysLocation 5: sysName

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VxRouter Generated Traps

Hardware Alarms

- Power Supply 1 Failure   Begin and Clear

  Power Supply 1 has failed (Begin) or is restored (Clear).

Objects:	1: vxRouterPSlabel 2: vxRputerPSstatus	3: sysContact 4: sysDescr 5: sysLocation 6: sysName

- Power Supply 2 Failure   Begin and Clear

  Power Supply 2 has failed (Begin) or is restored (Clear).

Objects:	1: vxRouterPSlabel 2: vxRputerPSstatus	3: sysContact 4: sysDescr 5: sysLocation 6: sysName

- Power Supply 3 Failure   Begin and Clear

  Power Supply 3 has failed (Begin) or is restored (Clear).

Objects:	1: vxRouterPSlabel 2: vxRputerPSstatus	3: sysContact 4: sysDescr 5: sysLocation 6: sysName

- Power Supply 4 Failure   Begin and Clear

  Power Supply 4 has failed (Begin) or is restored (Clear).

Objects:	1: vxRouterPSlabel 2: vxRputerPSstatus	3: sysContact 4: sysDescr 5: sysLocation 6: sysName

- Low Fan Speed   Begin and Clear

  A fan in the Fan Tray has failed (Begin) or is restored (Clear).

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

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- Temperature Warning   Begin and Clear

  The system has detected a temperature that is above the preset warning threshold (Begin) or is now cool (Clear).

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

- High Temperature   Begin and Clear

  The system has detected a temperature that is above the preset alarm threshold (Begin) or is now cool (Clear).

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

- CPU Error   Begin and Clear

  The system has detected a CPU fault (Begin) or the fault is now gone (Clear).

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

- I/O Card Error   Begin and Clear

  The system has detected an error is one of the I/O cards (Begin) or the card is now error free (Clear).

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

Events

- I/O Card Removed or Inserted

  An I/O card has been removed or inserted.

Objects:	1: vxRouterBPlabel 2: vxRouterCTlabel	3: sysContact 4: sysDescr 5: sysLocation 6: sysName

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- Fan Tray Removed or Inserted

  The Fan Tray has been removed or inserted.

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

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HDX Sync Card Traps

- HDX Sync Card Removed or Inserted

  The system SYNC card has been removed from or inserted into the chassis.

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

- HDX SYNC Locked or Unlocked

  The SYNC card has locked to the incoming sync signal or has lost lock.

Objects:	1: sysContact 2: sysDescr 3: sysLocation 4: sysName

Vx/Hdx/Mx Router SNMP Traps

Standard Traps

- Network link Up   (1.3.6.1.6.3.1.1.5.4)

  A linkUp trap signifies that the SNMP entity has detected that one of its communication links left the down state and transitioned into some other state (but not into the notPresent state).

- Network link Down   (1.3.6.1.6.3.1.1.5.3)

  A linkDown trap signifies that the SNMP entity has detected that one of its communication links is about to enter the down state from some other state (but not from the notPresent state).

- Cold Start   (1.3.6.1.6.3.1.1.5.1)

  A coldStart trap signifies that the SNMP entity is reinitializing itself and that its configuration may have been altered.

- Warm Start   (1.3.6.1.6.3.1.1.5.2)

  A warmStart trap signifies that the SNMP entity is reinitializing itself such that its configuration is unaltered.

- nsNotifyStart   (1.3.6.1.4.1.8072.4.0.1)

  An indication that the SNMP agent has started running.

- nsNotifyShutdown(1.3.6.1.4.1.8072.4.0.2)

  An indication that the SNMP agent is in the process of being shut down.

- mteTriggerFired   (1.3.6.1.2.1.88.2.0.1)

  A mte trigger event has fired. These are typically defined in the SNMP setup file: /etc/snmp/snmpd.conf. Example: proc vxrcntl   6 6