# Troubleshooting of Infrastructure Alarms

This chapter provides a description, severity, and troubleshooting procedure for each commonly encountered infrastructure alarm and condition in Cisco NCS 1020. When an alarm is raised, refer to its clearing procedure.

# LICENSE-COMM-FAIL

Default Severity: Major(MJ), Non-Service-Affecting (NSA)

Logical Object: plat_sl_client

The LICENSE-COMM-FAIL alarm is raised when the device is not able to communicate with the Cisco license cloud server.

## Clear LICENSE-COMM-FAIL Alarm

**Procedure**

This alarm is cleared when the communication with the Cisco cloud license server is restored.

If the alarm does not clear, contact your Cisco account representative or log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# Chassis Door Alarm

Default Severity: Minor (MN), Non-Service-Affecting (NSA)

Logical Object: SPI-ENVMON

The *Chassis Door is Open* alarm is raised when the chassis door is open.

## Clear the Chassis Door Alarm

**Procedure**

To clear the alarm, close the chassis door.

# DISASTER_RECOVERY_UNAVAILABLE_ALARM

Default Severity: Major(MJ), Non-Service-Affecting (NSA)

Logical Object: Instorch

The DISASTER_RECOVERY_UNAVAILABLE_ALARM is triggered when the chassis SSD image is corrupted or the system operates with uncommitted software.

## Clear the Disaster Recovery Unavailable Alarm

**Procedure**

This alarm clears automatically after the upgrade from a lower release to a higher release. The upgrade process completes after running the **install commit** command. It syncs the image with the local repository every 12 hours. For more details about software upgrade, see the Upgrade Software section of the *Cisco NCS 1020 System Setup and Software Installation Guide*.

If the alarm does not clear, contact your Cisco account representative or log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# EQUIPMENT_FAILURE

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: LC

The EQUIPMENT_FAILURE alarm is raised when any of the following equipment fails:

- Optical module
- Phase Lock Loop (PLL)
- Cloud Detection and Response (CDR)
- Line Card
- Field Programmable Gate Array (FPGA)
- Line card RAM or Disk
- META-DX2
- I/O Expander

## Clear the EQUIPMENT_FAILURE Alarm

**Procedure**

**Step 1** Collect logs to gather detailed diagnostic information. Use the **show tech-support** command in privileged EXEC mode:

**Example:**

```
RP/0/RP0/CPU0:ios#show tech-support
```

**Step 2** Check for any active alarms or syslogs to identify unexpected alarms that may have triggered the failure. If there are any alarms, clear the active alarms.

**Step 3** Examine the following parameters related to the failed equipment or line card.

- Ambient temperature
- Voltage
- Current
- Power supply

**Step 4** (Optional) If the alarm was raised for a CIM8 module in a 2.4T or 2.4TX line card, perform the following checks.

a) If there was an ambient temperature issue, perform the following steps.
b) Ensure that all fan trays are operational and the chassis and line card temperatures are within the recommended range.
c) After the chassis and line card temperatures are optimal, perform a CIM8 Online Insertion and Removal.
d) If the alarm is still active, conduct a cold reload of the Line Card using the **reload** *location Rack/Slot* **noprompt** command.

**Step 5** Attempt the following workarounds in sequence to resolve the issue:

a) Perform online insertion and removal of the failed module.
b) Conduct a warm reload of the Line Card using the **reload** *location* **0/1/NXR0 noprompt** command.
c) Conduct a cold reload of the Line Card using the **reload** *location Rack/Slot* command.

**Warning**
A cold reload of the line card affects traffic on the other slice of the line card.

**Step 6** If the alarm is still active after trying the workarounds in the previous steps, replace the faulty equipment.

For more details, refer to the Cisco Returns Portal or log in to the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# ESD_INIT_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The ESD_INIT_ERR_E alarm is raised when the Ethernet Switch Driver (ESD) initialization fails.

## Clear the ESD_INIT_ERR_E Alarm

### Procedure

Cisco IOS XR automatically detects and clears this alarm by resetting the switch.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PORT_AUTO_TUNE_ERR_E

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: ESD

The PORT_AUTO_TUNE_ERR_E alarm is raised when the port auto-tuning fails.

## Clear the PORT_AUTO_TUNE_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the port.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PORT_INIT_ERR_E

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: ESD

The PORT_INIT_ERR_E alarm is raised when the port initialization fails.

## Clear the PORT_INIT_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the port.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SPI_FLASH_CFG_INIT_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SPI_FLASH_CFG_INIT_ERR_E alarm is raised when there is an unsupported switch firmware version present.

## Clear the SPI_FLASH_CFG_INIT_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the Aldrin. If the alarm does not clear automatically:

- Restart the ESD process using the **process restart esd location 0/rp0/cpu0** command.
- Reload the rack using the **reload location 0/rack** command.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_ALL_PORTS_DOWN_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_ALL_PORTS_DOWN_ERR_E alarm is raised when all the switch ports are down.

## Clear the SWITCH_ALL_PORTS_DOWN_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the ports.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_CFG_INIT_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_CFG_INIT_ERR_E alarm is raised when the initial switch configuration fails.

## Clear the SWITCH_CFG_INIT_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the switch.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_CRITICAL_PORT_FAILED_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_CRITICAL_PORT_FAILED_E alarm is raised when there is a critical port failure.

## Clear the SWITCH_CRITICAL_PORT_FAILED_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the Aldrin. If the alarm does not clear automatically:

- Restart the ESD process using the **process restart esd location 0/rp0/cpu0** command.
- Reload the rack using the **reload location 0/rack** command.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_DMA_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_DMA_ERR_E alarm is raised when the switch Direct Memory Access (DMA) engine fails.

## Clear the SWITCH_DMA_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the switch.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_EEPROM_INIT_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_EEPROM_INIT_ERR_E alarm is raised when the Switch EEPROM initialization fails.

## Clear the SWITCH_EEPROM_INIT_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the switch.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_FDB_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_FDB_ERR_E alarm is raised when the switch forwarding database (FDB) operation fails.

## Clear the SWITCH_FDB_ERR_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the switch.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_FDB_MAC_ADD_ERR_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_FDB_MAC_ADD_ERR_E alarm is raised when the switch firmware is unable to add a MAC address to its database.

## Clear the SWITCH_FDB_MAC_ADD_ERR_E Alarm

### Procedure

To clear this alarm, contact technical support by logging into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html or call Cisco TAC (1 800 553-2447).

# SWITCH_FIRMWARE_BOOT_FAIL_E

Default Severity: Critical (CR), Non-Service-Affecting (NSA)

Logical Object: ESD

The SWITCH_FIRMWARE_BOOT_FAIL_E alarm is raised when the switch firmware boot fails.

## Clear the SWITCH_FIRMWARE_BOOT_FAIL_E Alarm

### Procedure

This alarm can be cleared when the ESD auto clears the alarm by resetting the switch.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_NOT_DISCOVERED_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_NOT_DISCOVERED_E alarm is raised when the switch is not discovered on the Peripheral Component Interconnect express (PCIe) bus.

## Clear the SWITCH_NOT_DISCOVERED_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the switch.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SWITCH_RESET_RECOVERY_FAILED_E

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: ESD

The SWITCH_RESET_RECOVERY_FAILED_E alarm is raised when the Switch Reset operation does not recover the switch.

## Clear the SWITCH_RESET_RECOVERY_FAILED_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by reloading the card using the **reload cpu0/rp0** command.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# UNSTABLE_LINK_E

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: ESD

The UNSTABLE_LINK_E alarm is raised when there is an unstable link with high number of UP and DOWN state changes.

## Clear the UNSTABLE_LINK_E Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by resetting the port.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# FAN FAIL

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: SPI-ENVMON

The FAN FAIL alarm is raised when one of the two fans stops spinning or fails. If a fan stops working properly, the temperature can increase beyond the usual operating range, which might also trigger the TEMPERATURE alarm to activate.

## Clear the FAN FAIL Alarm

**Procedure**

To clear this alarm, replace the faulty fan in the chassis.

If the alarm does not clear after replacing the faulty fan, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# FAN SPEED SENSOR 0: OUT OF TOLERANCE FAULT

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: SPI-ENVMON

The FAN SPEED SENSOR 0: OUT OF TOLERANCE FAULT alarm is raised when one or more fans in the fan tray are faulty.

## Clear the FAN SPEED SENSOR 0: OUT OF TOLERANCE FAULT Alarm

**Procedure**

To clear this alarm, replace the faulty fans in the chassis.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# FAN-POWER-ERROR

Default Severity: Major (MJ), Non-Service-Affecting (NSA)

Logical Object: SPI-ENVMON

The FAN-POWER-ERROR alarm is raised when the power supply to the fan tray fails.

## Clear the FAN-POWER-ERROR Alarm

**Procedure**

This alarm is cleared when:

- The power supply to the fan tray is restored.
- Online Insertion and Removal (OIR) of the fan tray is performed.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# FAN-TRAY-ABSENT

Default Severity: Major (MJ), Non-Service-Affecting (NSA)

Logical Object: SPI-ENVMON

The FAN-TRAY-ABSENT alarm is raised when one or more fan trays are absent or removed from the chassis.

## Clear the FAN-TRAY-REMOVAL Alarm

**Procedure**

Insert the fan trays into the chassis.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# FPD IN NEED UPGD

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: SPI-FPD

The FPD IN NEED UPGD alarm is raised when a newer FPD version in the FPD package is available on the FPD boot disk and the its internal memory has an outdated FPD version. A FPD package is stored on the boot disk and contains all the FPD images for each FPD on the platform for that Cisco IOS XR version. The FPDs run from images stored in its internal memory and not from the images inside the FPD package.

## Clear the FPD IN NEED UPGD Alarm

**Procedure**

This alarm is cleared when the correct FPD is upgraded using the **upgrade hw-module location** *location-id* **fpd** *fpd name* command. For more details, see the Upgrade FPDs Manually section of the *Cisco NCS 1020 System Setup and Software Installation Guide*.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# IMPROPRMVL

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: LC/PPM

The IMPROPRMVL alarm is raised when a line card or PPM is removed without deleting its configuration.

## Clear the IMPROPRMVL Alarm

To clear this alarm:

**Procedure**

**Step 1** Re-insert the line card or PPM.

**Step 2** Delete the line card configuration.

**Step 3** Remove the line card.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# INSTALL IN PROGRESS

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: SPI-INSTALL

The INSTALL IN PROGRESS alarm is raised when the install operation is in progress or if the "install commit" is not performed after activating a new image or package.

## Clear the INSTALL IN PROGRESS Alarm

**Procedure**

**Step 1** 1) Wait until the install operation is completed.

**Step 2** 2) Run the **install commit** command after the **install activate** command.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# Invalid sensor read error

Default Severity: Minior(MN),Non Service-Affecting (NSA)

Logical Object: SPI-ENVMON

Invalid sensor read error alarm raised when the system is unable to retreive data from its sensors.

## Clear the Invalid sensor read error Alarm

### Procedure

To clear this alarm, log in to the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html or call Cisco TAC (1 800 553-2447).

# Line card missing

Default Severity: Major (MJ) ,Non-Service-Affecting(NSA)

Logical Object: SPI-ENVMON

The *One or more LCs missing, running fans at max speed* alarm is raised when one or more line cards are missing, causing the fans to run at maximum speed.

## Clear the Line card missing Alarm

To clear this alarm:

### Procedure

Insert a line card or filler card in every slot where a line card is missing.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# [Low | High] Voltage

Default Severity: Critical (CR), Minor (MN), Non-Service-Affecting (NSA), Service Affecting (SA)

**Note** The severity of the alarm is determined by the voltage values detected by the sensor.

Logical Object: LC

A [Low | High] Voltage is raised if any of the internal voltage measurements are not within the operating range. Following are the formats of the alarms along with their descriptions:

- *[sensor name]: high voltage alarm* is raised when the voltage is above the operating range.
- *[sensor name]: low voltage alarm* is raised when the voltage is below the operating range.

## Clear the [Low | High] Voltage Alarm

**Procedure**

Verify the voltage of the power source. The voltage alarms clear automatically when the voltage is within the operating conditions. The voltage rating value varies depending on the standards of different countries for AC and DC power ranges.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# MEA Alarm

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: LC/PPM

The Mismatch Equipment Attributes (MEA) alarm for the Pluggable Port Module (PPM) or Quad Small Form-Factor Pluggable (QSFP) is raised when:

- There is a mismatch in the configured client data rate and the supported QSFP physical data rate.
- The inserted line card is not compatible with the configuration that is currently available in the slot.

## Clear the MEA Alarm

**Procedure**

**Step 1** Verify the client data rate:

a) Verify the supported physical data rate of the QSFP on NCS 1020 using the **show inventory** command.
b) Verify the configured client data rate on NCS 1020 using the **show hw-module location** command.
c) If the above values do not match, insert the appropriate pluggable or configure the required client data rate.

For more details on configuring the client data rate, see *Configuring the Card Mode* chapter of the Configuration Guide for Cisco NCS 1020.

**Step 2** Physically verify the type of card and configure the slot with the desired card type.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# NODE-UNPAIRED-FROM-BAND-PARTNER NODE Alarm

Default severity: Not Alarmed (NA), Non-Service-Affecting (NSA)

Logical Object: OTS Controller

The NODE-UNPAIRED-FROM-AND-PARTNER-NODE alarm is raised when:

- The interlink management port is shut, and cable between C and L band is disconnected.
- The partner band OLC configuration is removed from one end after the bidirectional connection is established, causing the connection to break in one of the directions.
- The partner-band node is unavailable due to RP reload or power cycle events.

## Clear NODE-UNPAIRED-FROM-BAND-PARTNER-NODE Alarm

This alarm gets cleared when:

- The cable between C and L band is connected and the interlink management port is brought up.
- The OLC partner band configuration is removed from the alarmed node.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# OUT_OF_COMPLIANCE

Default Severity: Critical (CR), Service-Affecting (SA)

Logical Object: plat_sl_client

The OUT_OF_COMPLIANCE alarm is raised when one or more license entitlements is not in compliance. This state is seen when the license does not have an available license in the corresponding Virtual Account that the Cisco device is registered to, in the Cisco Smart Account.

## Clear Out of Compliance Alarm

### SUMMARY STEPS

1. To clear this alarm, enter into a compliance by adding the correct number and type of licenses to the Smart Account.

### DETAILED STEPS

#### Procedure

To clear this alarm, enter into a compliance by adding the correct number and type of licenses to the Smart Account.

If the alarm does not clear, contact your Cisco account representative or log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PEM PID-MISMATCH

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: SPI-ENVMON

The PEM PID-MISMATCH alarm is raised when two different Power Entry Modules (PEM) or PSUs with different PIDs are connected to the 0/PM0 and 0/PM1 node positions.

## Clear the PEM PID-MISMATCH Alarm

**Procedure**

To clear this alarm, make sure that both connected PSUs are of the same type and rating: either both AC 2KW or both AC 2.5KW. Similarly, for DC PSUs, both should be either DC 2KW or DC 2.5KW.

We recommend using PSUs with the same PIDs in both the 0/PM0 and 0/PM1 node positions.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# POWER MODULE OUTPUT DISABLED

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: SPI-ENVMON

The POWER MODULE OUTPUT DISABLED alarm is raised power supply is not connected to the power module.

## Clear the POWER MODULE OUTPUT DISABLED Alarm

**Procedure**

This alarm is automatically cleared when power supply is connected to the power module.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# POWER-MODULE-REDUNDANCY-LOST

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: SPI-ENVMON

The Power Group redundancy lost (POWER-MODULE-REDUNDANCY-LOST) alarm is raised if:

- the Power Supply Unit (PSU) is faulty or removed.
- the input PSU voltage goes beyond the working range of 180 to 264 volts for input high line (HL) and 90 to 140 volts for input low line (LL) nominal voltages.

## Clear the POWER-MODULE-REDUNDANCY-LOST Alarm

**Procedure**

To clear this alarm:

- Re-insert the power module and then connect the power supply to the module.
- If the alarm does not clear after re-inserting, replace the power module.
- Check the input voltage value of the PSU using the **show environment power** command.
- If the input voltage is beyond the working range, check the power supplied to the PSU.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# Provisioning Failed Alarm

Default Severity: Major (MJ), Service-Affecting (SA)

Logical Object: LC/Controller Name

The Provisioning Failed alarm is raised when invalid configuration is configured or invalid slice provisioning is made on the controller.

## Clear the Provisioning Failed Alarm

**Procedure**

**Step 1** Verify whether the provisioning configurations are supported for the line card.

**Step 2** Change it to supported configurations for the line card.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# Provisioning in Progress Alarm

Default Severity: Minor (MN), Non-Service-Affecting (NSA)

Logical Object: LC

The Provisioning in Progress alarm is raised when the provisioning request is in progress on the line card.

## Clear the Provisioning in Progress Alarm

**Procedure**

**Step 1** Verify the status of the alarm using the following debug command:

```
RP/0/RP0/CPU0:ios#show hw-module location '<0/n/NXR0>' mxponder
```

**Step 2** Wait till the status changes to **Provisioned**.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SIA_GRACE_PERIOD_REMAINING

Default Severity: Minor (MN), Non-Service-Affecting (NSA)

Logical Object: plat_sl_client

When the device enters an Out-of-Compliance (OOC) state, a grace period of 90 days begins. During this period, SIA license benefits can still be availed. The SIA_GRACE_PERIOD_REMAINING alarm is raised when a Software Innovation Access(SIA) upgrade is allowed during this grace period.

# Clear SIA Grace Period Remaining

### SUMMARY STEPS

1. This alarm is cleared when Software Innovation Access(SIA) licenses are purchased.

### DETAILED STEPS

#### Procedure

This alarm is cleared when Software Innovation Access(SIA) licenses are purchased.

If the alarm does not clear, contact your Cisco account representative or log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SIA_UPGRADE_BLOCKED

Default Severity: Major(MJ), Service-Affecting (SA)

Logical Object: plat_sl_client

The SIA_UPGRADE_BLOCKED alarm is raised when Software Innovation Access(SIA) grace period has expired.

# Clear SIA Grace Period Remaining

#### Procedure

This alarm is cleared when the SIA licences are purchased.

If the alarm does not clear, contact your Cisco account representative or log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# SSD-ACCESS-ERROR

Default Severity: Critical (CR) ,Non-Service-Affecting(NSA)

Logical Object: Instorch

The SSD-ACCESS-ERROR is raised when the system cannot access the chassis SSD either because of chassis SSD corruption or because the chassis SSD has been removed.

## Clear the SSD-ACCESS-ERROR Alarm

To clear this alarm:

**Procedure**

**Step 1** Re-insert the chassis SSD if it is not properly inserted.

**Step 2** If the alarm does not clear after reinserting, replace the corrupted SSD on the chassis.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# TEMPERATURE

Default Severity: Minor (MN), Non-Service-Affecting (NSA)

Logical Object: SPI-ENVMON

The TEMPERATURE alarm is raised when the temperature of a sensor exceeds the normal operating range because of any of the following reasons:

- One or more fans stops working.
- Inadequate airflow.
- Environmental temperature of the room is abnormally high.

## Clear the TEMPERATURE Alarm

**Procedure**

To clear this alarms:

**Step 1** Check the fan speed and temperature values using the **show environment** command.

**Step 2** Check any fan tray or failure alarms using the **show alarms brief system active**.

**Step 3** Ensure that:

a) there are no airflow obstructions.
b) fans are working fine.
c) environmental temperature of the room is not abnormally high.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# UPGRADE_LICENSE_GRACE_PERIOD_REMAINING

Default Severity: Minor (MN), Non-Service-Affecting (NSA)

Logical Object: plat_sl_client

The UPGRADE_LICENSE_GRACE_PERIOD_REMAINING alarm is raised when a software upgrade is allowed in the upgrade license grace period.

## Clear Upgrade License Grace Period Remaining

### SUMMARY STEPS

1. This alarm is cleared when SIA licenses are purchased.

### DETAILED STEPS

#### Procedure

This alarm is cleared when SIA licenses are purchased.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# VOLTAGE

Default Severity: Minor (MN), Major (MJ), Critical (CR), Non-Service-Affecting (NSA)

Logical Object: SPI-ENVMON

The VOLTAGE alarm is raised when the voltage is out of the operating range.

## Clear the VOLTAGE Alarm

#### Procedure

To clear this alarm:

**Step 1** Check if the input voltage is within the expected range.

**Step 2** Check the component level voltage is within the operating range using the **show environment voltage** command.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# CPU_NOT_SEATED_PROPERLY_FAILURE

Default Severity: Critical

Logical Object: N/A

The CPU_NOT_SEATED_PROPERLY_FAILURE alarm is raised when the CPU card is not inserted completely into the chassis.

## Clear the CPU_NOT_SEATED_PROPERLY_FAILURE Alarm

To clear this alarm:

**Procedure**

Remove and re-insert the CPU into the chassis.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# CPU-CURRMON-I2C-BUS

Default Severity: Critical

Logical Object: N/A

The CPU-CURRMON-I2C-BUS alarm is raised when either the Interface or the current sensors of the RP fail.

## Clear the CPU-CURRMON-I2C-BUS Alarm

To clear this alarm:

**Procedure**

Verify the environmental monitor parameters for the system using the **show environment all location** *0/RP0/CPU0* command

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# CPU-JMAC-I2C-BUS

Default Severity: Critical

Logical Object: N/A

The CPU-JMAC-I2C-BUS alarm is raised when either the Interface or the JMAC device on the RP fails.

## Clear the CPU-JMAC-I2C-BUS Alarm

To clear this alarm:

**Procedure**

Verify the environmental monitor parameters for the system using the **show environment all location** *0/RP0/CPU0* command

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# CPU-POWMAN-I2C-BUS

Default Severity: Critical

Logical Object: N/A

The CPU-POWMAN-I2C-BUS alarm is raised when the Interface or Power Manager device on the controller fails, which might also trigger High Voltage alarms on the RP.

## Clear the CPU-POWMAN-I2C-BUS Alarm

To clear this alarm:

**Procedure**

Verify the environmental monitor parameters for the system using the **show environment all location** *0/RP0/CPU0* command

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# CPU-TEMP-I2C-BUS

Default Severity: Critical

Logical Object: N/A

The CPU-TEMP-I2C-BUS alarm is raised when the Interface or temperature sensor on the RP fails, which might also trigger High Voltage alarms on the RP.

## Clear the CPU-TEMP-I2C-BUS Alarm

To clear this alarm:

**Procedure**

Verify the environmental monitor parameters for the system using the **show environment all location** *0/RP0/CPU0* command

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# EITU-FPGA-PCIE-ERROR

Default Severity: Critical

Logical Object: N/A

The EITU-FPGA-PCIE-ERROR alarm is raised when

- the EITU FPGAs or the PCIe link between the FPGA and the RP fails, or
- the FPGA and the RP are disconnected.

## Clear the EITU-FPGA-PCIE-ERROR Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by recovering the FPGA.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# EITU-SECONDARY-FPGA-PCIE-ERROR

Default Severity: Critical

Logical Object: N/A

The EITU-SECONDARY-FPGA-PCIE-ERROR alarm is raised when

- the EITU FPGAs or the PCIe link between the FPGA and the RP fails, or
- the FPGA and the RP are disconnected.

## Clear the EITU-SECONDARY-FPGA-PCIE-ERROR Alarm

**Procedure**

Cisco IOS XR automatically detects and clears this alarm by recovering the FPGA.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# FPGA-SEU-UNCORR-ERROR

Default Severity: Critical

Logical Object: N/A

The FPGA-SEU-UNCORR-ERROR alarm is raised when an irrecoverable SEU occurs on an EITU FPGA.

## Clear the FPGA-SEU-UNCORR-ERROR Alarm

To clear this alarm:

**Procedure**

Log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# FT0-IDPROM-I2C_ACCESS-ERROR

Default Severity: Critical

Logical Object: N/A

The FT<*fan_tray_number*>-IDPROM-I2C_ACCESS-ERROR alarm is raised when there is a failure or disconnection on the interface or the EEPROM on the fan tray.

## Clear the FT0-IDPROM-I2C_ACCESS-ERROR Alarm

To clear this alarm:

**Procedure**

**Step 1** Remove and re-insert the fan tray into the chassis.

**Step 2** Swap the fan tray with another slot's tray to check if the alarm follows the fan tray or the slot location. If the alarm is raised again, replace the faulty fan tray.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# GNSS-I2C-ERROR

Default Severity: Critical

Logical Object: N/A

The GNSS-I2C-ERROR alarm is raised when either the I2C interface or the GNSS module on the EITU fails.

This can lead to unexpected behavior in the timing features.

## Clear the GNSS-I2C-ERROR Alarm

To clear this alarm:

**Procedure**

Log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# GOLDEN_BIOS_BOOTED

Default Severity: Critical

Logical Object: N/A

The GOLDEN_BIOS_BOOTED alarm is raised when the RP has booted from the Golden BIOS Flash due to:

- a hardware failure, or
- a software corruption on the primary BIOS flash.

## Clear the GOLDEN_BIOS_BOOTED Alarm

To clear this alarm:

**Procedure**

Log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# IDPROM-CORRUPT

Default Severity: Critical

Logical Object: N/A

The IDPROM-CORRUPT alarm is raised when

- the manufacturing EEPROM of the unit, such as an Optical Module, Fan Tray, or Rack, is corrupted or
- the software is unable to identify the unit due to corruption.

As a result, the **show inventory** command output may display missing hardware for the affected unit.

## Clear the IDPROM-CORRUPT Alarm

To clear this alarm:

**Procedure**

Log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# IDPROM-I2C_ACCESS-ERROR

Default Severity: Critical

Logical Object: N/A

The IDPROM-I2C_ACCESS-ERROR alarm is raised when there is:

- a failure on the I2C interface, or
- a malfunction in the Manufacturing EEPROM on the Rack.

As a result, the **show inventory** command output displays missing a serial number or PID information.

## Clear the IDPROM-I2C_ACCESS-ERROR Alarm

To clear this alarm:

**Procedure**

Log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# LC_SEATED

Default Severity: Critical

Logical Object: N/A

The LC_SEATED alarm is raised when the line card is not inserted completely into the chassis.

## Clear the LC_SEATED Alarm

To clear this alarm:

**Procedure**

**Step 1** Remove the line card from the chassis and then re-insert it.

**Step 2** If the traffic is down, swap the line card to another slot to check if the alarm is raised again on the new slot. If the alarm is raised again, replace the faulty line card.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# LC1_PRI_I2C_ACCESS_FAILURE

Default Severity: Critical

Logical Object: N/A

The LC<*line_card_number*>_PRI_I2C_ACCESS_FAILURE alarm is raised when either the I2C interface or the devices on the targeted line card fail.

As a result, the software may be unable to recognize or reload the affected line card.

## Clear the LC1_PRI_I2C_ACCESS_FAILURE Alarm

To clear this alarm:

**Procedure**

**Step 1** Remove the line card from the chassis and then re-insert it.

**Step 2** If the traffic is down, swap the line card to another slot to check if the alarm is raised again on the new slot. If the alarm is raised again, replace the faulty line card.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# OPT-MOD-SPI-FAILURE

Default Severity: Critical

Logical Object: N/A

The OPT-MOD-SPI-FAILURE alarm is raised when the Optical Module becomes inaccessible through the SPI interface due to a software or hardware failure.

This results in the software being unable to communicate with the Optical Module.

## Clear the OPT-MOD-SPI-FAILURE Alarm

To clear this alarm:

**Procedure**

If the traffic is down, do one of the following:

a) Reload the optical module using the **reload location** command.
b) Remove the optical module and re-insert it.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# OPT-MOD-0-PGOOD-INRUSH-LOW

Default Severity: Critical

Logical Object: N/A

The OPT-MOD-0-PGOOD-INRUSH-LOW alarm is triggered when the main power input from the rack to Optical Module 0 in Slot 0 fails, causing the module to become nonfunctional.

## Clear the OPT-MOD-0-PGOOD-INRUSH-LOW Alarm

To clear this alarm:

**Procedure**

**Step 1** Check the values of these parameters using the **show environment all** command.

- SA_U_ADM1275_12V_MOD0
- SA_U_ADM1275_12V_MOD0_IMON

**Step 2** If the traffic is down, do one of the following:

- Reload the optical module using the **reload location** *0/0* command.
- Remove the optical module and re-insert it.
- Swap the optical module to another slot to check if the alarm is raised again on the new slot. If the alarm is raised again, replace the faulty optical module.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# OPT-MOD-0-PGOOD-LOW

Default Severity: Critical

Logical Object: N/A

The OPT-MOD-0-PGOOD-LOW alarm is triggered when Optical Module 0 in Slot 0 becomes nonfunctional due to an internal power failure.

## Clear the OPT-MOD-0-PGOOD-LOW Alarm

**Procedure**

1) If the traffic is down, reload the optical module using the **reload location** *0/0* command.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# OPT-MOD-3-PGOOD-INRUSH-LOW

Default Severity: Critical

Logical Object: N/A

The OPT-MOD-3-PGOOD-INRUSH-LOW alarm is triggered when the main power input from the rack to Optical Module 3 in Slot 1 fails, causing the module to become nonfunctional.

## Clear the OPT-MOD-3-PGOOD-INRUSH-LOW Alarm

To clear this alarm:

**Procedure**

**Step 1** Check the values of these parameters using the **show environment all** command.

- SA_U_ADM1275_12V_MOD3
- SA_U_ADM1275_12V_MOD3_IMON

**Step 2** If the traffic is down, do one of the following:

- Reload the optical module using the **reload location** *0/1* command.
- Remove the optical module and re-insert it.
- Swap the optical module to another slot to check if the alarm is raised again on the new slot. If the alarm is raised again, replace the faulty optical module.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# OPT-MOD-3-PGOOD-LOW

Default Severity: Critical

Logical Object: N/A

The OPT-MOD-3-PGOOD-LOW alarm is triggered when Optical Module 3 in Slot 1 becomes nonfunctional due to an internal power failure.

## Clear the OPT-MOD-3-PGOOD-LOW Alarm

**Procedure**

If the traffic is down, reload the optical module using the **reload location** *0/1* command.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PHY1-MDIO-ACCESS-ERROR

Default Severity: Critical

Logical Object: N/A

The PHY1-MDIO-ACCESS-ERROR alarm is raised when either the MDIO interface or the PHY1 device on the Rack fails.

## Clear the PHY1-MDIO-ACCESS-ERROR Alarm

**Procedure**

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PHY2-MDIO-ACCESS-ERROR

Default Severity: Critical

Logical Object: N/A

The PHY2-MDIO-ACCESS-ERROR alarm is raised when either the MDIO interface or the PHY2 device on the Optical Module in Slot 0 fails.

This results in unexpected behaviour for timing features.

## Clear the PHY2-MDIO-ACCESS-ERROR Alarm

To clear this alarm:

**Procedure**

If the traffic is down, do one of the following:

- Reload the optical module using the **reload location** *0/0* command.
- Remove the optical module and re-insert it.
- Swap the optical module to another slot to check if the alarm is raised again on the new slot. If the alarm is raised again, replace the faulty optical module.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PHY2-POWER-ZONE-ERROR

Default Severity: Critical

Logical Object: N/A

The PHY2-POWER-ZONE-ERROR alarm is raised when there is a failure in the power zone of PHY2, located on the Optical Module in Slot 0.

This results in unexpected behaviour for timing features.

## Clear the PHY2-POWER-ZONE-ERROR Alarm

To clear this alarm:

**Procedure**

If the traffic is down, do one of the following:

a) Reload the optical module using the **reload location** *0/0* command.
b) Remove the optical module and re-insert it.
c) Swap the optical module to another slot to check if the alarm is raised again on the new slot.
d) If the alarm is raised again, replace the faulty optical module.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PHY3-MDIO-ACCESS-ERROR

Default Severity: Critical

Logical Object: N/A

The PHY3-MDIO-ACCESS-ERROR alarm is raised when there is:

- a failure on the MDIO interface, or
- a failure on the PHY3 device located on the Optical Module in Slot 1.

This results in unexpected behaviour for timing features.

## Clear the PHY3-MDIO-ACCESS-ERROR Alarm

To clear this alarm:

### Procedure

If the traffic is down, do one of the following:

a) Reload the optical module using the **reload location** *0/1* command.
b) Remove the optical module and re-insert it.
c) Swap the optical module to another slot to check if the alarm is raised again on the new slot.
d) If the alarm is raised again, replace the faulty optical module.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PHY3-POWER-ZONE-ERROR

Default Severity: Critical

Logical Object: N/A

The PHY3-POWER-ZONE-ERROR alarm is raised when there is a failure in the power zone of PHY3, located on the Optical Module in Slot 1.

This results in unexpected behaviour for timing features.

## Clear the PHY3-POWER-ZONE-ERROR Alarm

To clear this alarm:

**Procedure**

If the traffic is down, do one of the following:

a) Reload the optical module using the **reload location** *0/1* command.
b) Remove the optical module and re-insert it.
c) Swap the optical module to another slot to check if the alarm is raised again on the new slot.
d) If the alarm is raised again, replace the faulty optical module.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PM0-IDPROM-I2C_ACCESS-ERROR

Default Severity: Critical

Logical Object: N/A

The PM0-IDPROM-I2C_ACCESS-ERROR alarm is raised when there is:

- a hardware failure on the I2C interface, or
- a hardware failure on the manufacturing EEPROM of the PSU in slot 0.

As a result, the **show inventory** command output displays missing a serial number or PID information.

## Clear the PM0-IDPROM-I2C_ACCESS-ERROR Alarm

To clear this alarm:

**Procedure**

**Step 1** If the setup has a redundant-powered PSU, remove the PSU and re-insert it.

**Step 2** If the traffic is down, swap the PSU to another slot to check if the alarm is raised again on the new slot.

**Step 3** If the alarm is raised again, replace the faulty PSU.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# PM1-IDPROM-I2C_ACCESS-ERROR

Default Severity: Critical

Logical Object: N/A

The PM1-IDPROM-I2C_ACCESS-ERROR alarm is raised when there is:

- a hardware failure on the I2C interface, or
- a hardware failure on the manufacturing EEPROM of the PSU in Slot 1.

As a result, the **show inventory** command output displays missing serial number or PID information.

## Clear the PM1-IDPROM-I2C_ACCESS-ERROR Alarm

To clear this alarm:

**Procedure**

**Step 1** If setup has redundant powered PSU, remove the PSU and re-insert it.

**Step 2** If the traffic is down, swap the PSU to another slot to check if the alarm is raised again on the new slot.

**Step 3** If the alarm is raised again on a new slot, replace the faulty PSU.

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# USB-3-OVERCURRENT-ERROR

Default Severity: Critical

Logical Object: N/A

The USB-3-OVERCURRENT-ERROR alarm is raised when there is an overcurrent detected on the BOOT USB port on the RP.

## Clear the USB-3-OVERCURRENT-ERROR Alarm

**Procedure**

1) Remove any faulty USB device connected to the USB port of the Controller (RP).

If the alarm does not clear, log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).

# ZARLINK-SPI-OR-114M-CLOCK-ERROR

Default Severity: Critical

Logical Object: N/A

The ZARLINK-SPI-OR-114M-CLOCK-ERROR alarm is raised when there is a failure on the DPLL located on the Rack, making it no longer accessible by software.

This may result in unexpected behaviour in timing features.

## Clear the ZARLINK-SPI-OR-114M-CLOCK-ERROR Alarm

To clear this alarm:

**Procedure**

Log into the Technical Support Website at http://www.cisco.com/c/en/us/support/index.html for more information or call Cisco TAC (1 800 553-2447).