

Troubleshoot "IMPROPER REMOVAL" Alarm on ECU Pluggable Ports

Contents

[Introduction](#)

[Problem](#)

[Condition](#)

[Observation](#)

[Solution](#)

Introduction

This document describes the condition to raise and workaround to clear the "Improper Removal" alarm raised on External Connection Unit (ECU) PPMs for the M15 chassis.

Problem

Pluggable Port Modules (PPMs) on ECU report an "Improper Removal" alarm on the M15 chassis.

Condition

1. If pluggables are inserted and removed from the PPM ports on the ECU module, the ECU PPM port starts alarming the "Improper removal" alarm.
2. As per the system design, once the optics are inserted it recognizes the inventory and makes the port "ADMIN UP". There is no way to change the port Admin status to down as per design. Either make the port OOS or delete the PPM.

Observation

1. Improper Removal alarm on Shelf-1 slot 18 of all the PPM port ECU cards.

NE Name: Node_147 Node Address: 10.106.75.147

| Num | Ref | New | Date | Object | Eqpt Type | Slot | Port | Wavelength | Path Width | Sev | ST | SA | Cond | Description | Direction | Location |
|-----|-----|-----------------------------------|-----------------------|------------|--------------|------|------|---------------------|------------|-----|---------------|------|--------------|-----------------------------------|-----------|----------|
| 808 | 808 | NA | 08/05/01 13:14:47 IST | PPM-18-4 | PPM (1 Port) | 18 | 4 | NA | NA | CR | R | true | IMPROPRMVL | Improper Removal | NA | NEAR |
| 807 | 807 | NA | 08/05/01 13:14:47 IST | FAC-17-2-1 | TNC | 17 | 2-1 | 1510.00 nm (100GHz) | NA | NA | R | NA | ALS-DISABLED | Auto Laser Shutdown Disabled | Transmit | NEAR |
| 804 | 804 | NA | 08/05/01 13:13:44 IST | SLOT-16 | 17 SMR9 FS | 16 | NA | NA | NA | NA | R | NA | ALS-DISABLED | Auto Laser Shutdown Disabled | Transmit | NEAR |
| 803 | 803 | NA | 08/05/01 13:12:28 IST | PPM-6-4 | PPM (1 Port) | 6 | 4 | NA | NA | MN | R | NA | IMPROPRMVL | Improper Removal | NA | NEAR |
| 802 | 802 | NA | 08/05/01 13:12:23 IST | SLOT-13 | 200G-CK-LC | 13 | NA | NA | NA | MN | R | NA | LIC-EXPIRED | License Expired | NA | NEAR |
| 799 | 799 | NA | 08/05/01 13:12:03 IST | FAC-1-2-1 | TNCS-2 | 1 | 2-1 | 1510.00 nm (100GHz) | NA | NA | R | NA | ALS-DISABLED | Auto Laser Shutdown Disabled | Transmit | NEAR |
| 798 | 798 | NA | 08/05/01 13:12:01 IST | PPM-1-2 | TNCS-2 | 1 | 2 | NA | NA | MN | PROV-MISMATCH | NEAR | | | | |
| NA | R | Alarms Suppressed By User Command | NEAR | | | | | | | | | | | Alarms Suppressed By User Command | NA | NEAR |

2. Navigate to the inventory tab and check if there are no optics present for all the PPM ports on the ECU card. It helps to understand if any action needs to be taken.
3. Neither reseating the cable in the ECU port nor reseating the card helps.
4. In order to delete the alarm for ECU, you need to restore the default configuration on the node and manually provision the node but this is a tedious task and traffic affecting in production environment.
5. If the Node backup (node backup taken when the alarm is present) is used after the node factory default state, the "Improper removal" alarm returns.

Solution

There are two ways to clear the alarm.

1. Suppress the alarm on the ECU PPM ports using Alarm Profiles which clears the alarm from the alarms Tab but still be visible in the conditions tab.

The procedure to suppress the alarms is to navigate to ECU card > Provisioning > Alarm profiles . Select PPM ports. Choose all the 5 ports and click Force option > Apply as shown in the image.

| Port | Port Name | Admin S... | Service S... | Power | VOA Mo... | VOA Att... | VOA Att... |
|------|--------------|------------|--------------|-------|-----------|------------|------------|
| 1 | (COM-TX ... | unlocked | unlocke... | -14.2 | N/A | N/A | N/A |
| 8 | (OSC-TX [... | unlocked | unlocke... | N/A | N/A | N/A | N/A |
| 4 | (OSC-RX [... | unlocked | unlocke... | N/A | N/A | N/A | N/A |
| 6 | (LINE-RX ... | unlocked | unlocke... | -9.7 | N/A | N/A | N/A |
| 7 | (EXP-TX 1... | unlocke... | unlocke... | -50.0 | N/A | N/A | N/A |
| 8 | (EXP-RX 1... | unlocke... | unlocke... | -50.0 | N/A | N/A | N/A |
| 9 | (EXP-TX 1... | unlocke... | unlocke... | -50.0 | N/A | N/A | N/A |

| Port/PPM | Profile | Suppress Alarms |
|------------------|-----------|-------------------------------------|
| COM-TX [7-1-TX] | Inherited | <input checked="" type="checkbox"/> |
| COM-RX [7-1-RX] | Inherited | <input checked="" type="checkbox"/> |
| OSC-TX [7-2-TX] | Inherited | <input checked="" type="checkbox"/> |
| OSC-RX [7-2-RX] | Inherited | <input type="checkbox"/> |
| LINE-TX [7-3-TX] | Inherited | <input type="checkbox"/> |

Force all ports to profile: Inherited from Card profile Force (still need to "Apply")

Port 1 unlocked-enabled
 Port 2 unlocked-enabled
 Port 3 unlocked-enabled
 Port 4 unlocked-enabled
 Port 5 unlocked-enabled
 Port 6 unlocked-enabled
 Port 7 unlocked-disable...
 Port 8 unlocked-disable...
 Port 9 unlocked-disable...
 Port 10 unlocked-disable...
 Port 11 unlocked-disable...
 Port 12 unlocked-disable...
 Port 13 unlocked-enabled
 Port 14 unlocked-enabled
 Port 15 unlocked-disable...
 Port 16 unlocked-disable...

EXP 5-8: 16 18 20 22 15 17 19 21

Tab View
 Alarms Conditions History Circuits Provisioning Inventory Maintenance Performance

Optical Line
 Opt.Ampli.Line
 OCH
 SLTE
 Licensing
 Alarm Profile

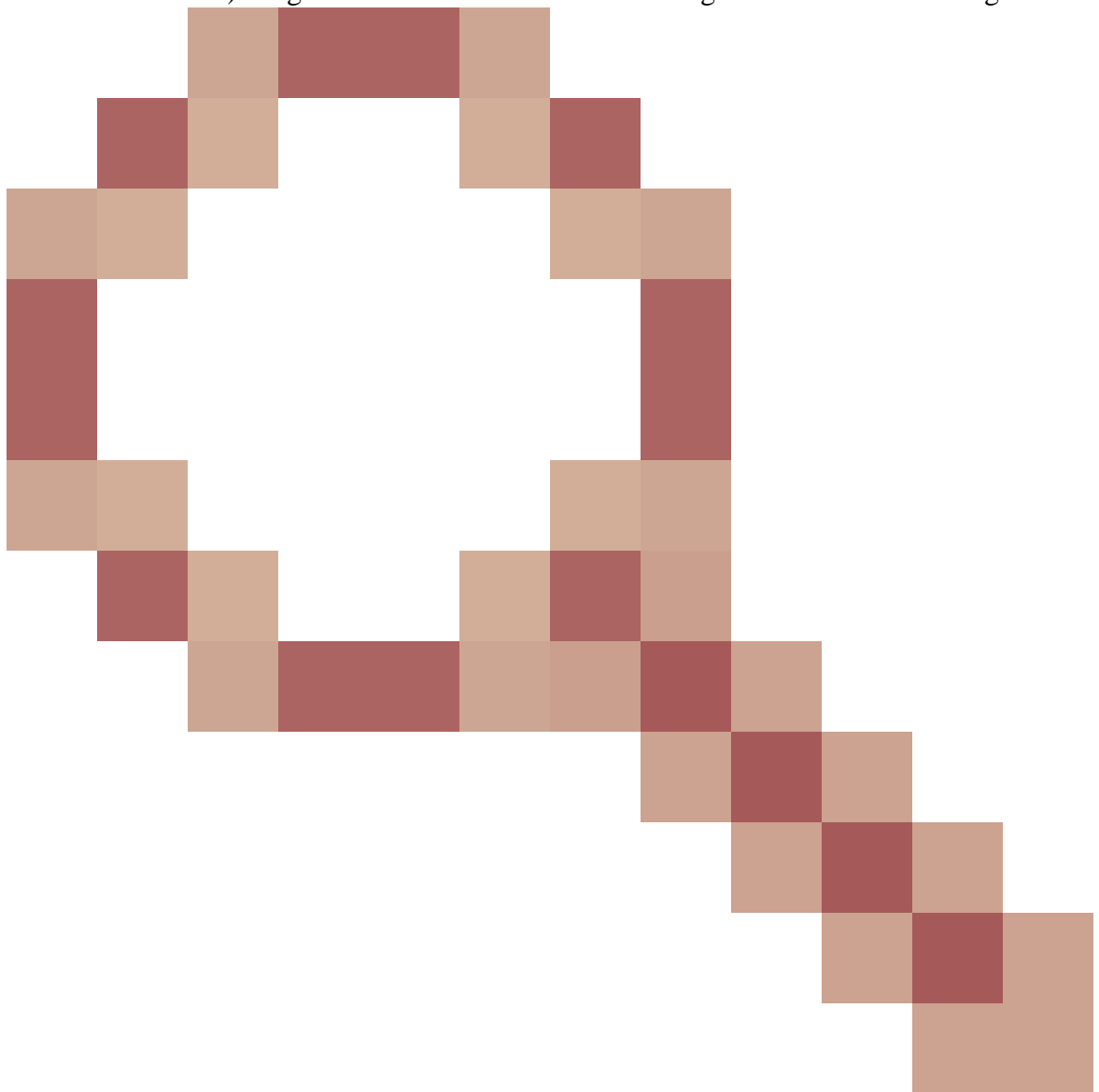
| Port/PPM | Profile | Suppress Alarms |
|------------------|-----------|-------------------------------------|
| COM-TX [7-1-TX] | Inherited | <input checked="" type="checkbox"/> |
| COM-RX [7-1-RX] | Inherited | <input checked="" type="checkbox"/> |
| OSC-TX [7-2-TX] | Inherited | <input type="checkbox"/> |
| OSC-RX [7-2-RX] | Inherited | <input type="checkbox"/> |
| LINE-TX [7-3-TX] | Inherited | <input type="checkbox"/> |

Force all ports to profile: Inherited from Card profile Force (still need to "Apply")

Apply
 Reset
 Help

NET CKT RSA-SSL Memory: 200 of 683 MB

2. Or Reset the node to Default configuration and provision the node from scratch (which is not advisable as it needs a good amount of downtime). Bug details: The defect ID is matching to this issue. Cisco bug



ID [CSCwe06300](#)