WS-C2960X False %ILET-1-DEVICE_AUTHENTICATION_FAIL: Messages and No Link Up on SFP Uplinks

Contents

Introduction

This document describes three software defects **specific to the Catalyst WS-C2960X model switches**, which are detailed in Cisco bug IDs [CSCul88801,](#) [CSCur56395,](#) [CSCut53599](#), and [Field Notice 64175](#). Also, a hardware issue detailed in Cisco bug ID [CSCuu00752](#) and [Field Notice 63972](#) is described.

Problem

Issue 1

The software defects in Cisco bug IDs [CSCul88801,](#) [CSCur56395,](#) and [CSCut53599](#) can result in one or more of these symptoms:

- False "%ILET-1-DEVICE_AUTHENTICATION_FAIL:" messages for the 2960X switch itself or for the FlexStack Plus module (C2960X-STACK=) .
- SFP/SFP+ (Small Form-Factor Pluggable) uplinks do not link up or are not displayed in the **show** command output. This typically occurs after a switch reload or after an SFP or FlexStack module Online Insertion or Removal (OIR).
- SFP error messages: hulc_sfp_iic_intf_read_eeprom sfp _index 1 yeti_iic_read_retry fail POST: ACT2 Authentication : End, Status Failed.

- Redundant Power System (RPS) error message: %PLATFORM_ENV-1-RPS_ACCESS: RPS is not responding.

Field Notice 64175 can be referenced for this issue as well.

Issue 2

The hardware defect in Cisco bug ID CSCuu00752 applies specifically to the FlexStack Plus module (C2960X-STACK=) only. These errors might be seen when a 2960X is booted up with an affected Flexstack Plus module. Note that this issue affects less than 0.03% of the install base.

- "POST: ACT2 Authentication : End, Status Passed FlexStack Module SmartChip Authentication Failed". Note that POST is the "Power On Self Test" that is run when the switch boots up. ACT2 is the Smart Chip responsible for hardware authentication.
- "%ILET-1-DEVICE_AUTHENTICATION_FAIL: The FlexStack Module inserted in this switch might not have been manufactured by Cisco or with Cisco's authorization. If your use of this product is the cause of a support issue, Cisco might deny operation of the product, support under your warranty or under a Cisco technical support program such as Smartnet. Please contact Cisco's Technical Assistance Center (TAC) for more information."

Issue 3

A C2960X-FIBER-STK or C2960X-HYBRID-STK FlexStack Extended module may experience the following ILET error if the C2960X switch the module is installed in is running software earlier then 15.2(6)E. 15.2(6)E or newer software is the minimum software required to support these 2 module types.

- "%ILET-1-DEVICE_AUTHENTICATION_FAIL: The FlexStack Module inserted in this switch might not have been manufactured by Cisco or with Cisco's authorization. If your use of this product is the cause of a support issue, Cisco might deny operation of the product, support under your warranty or under a Cisco technical support program such as Smartnet. Please contact Cisco's Technical Assistance Center for more information."

Solution

Issue 1

In order to resolve Cisco bug IDs CSCul88801, CSCur56395, and CSCut53599, upgrade the software to release 15.2(2)E4, 15.2(3)E3, or 15.2(4)E or later and then hard boot (unplug the power cable in order to power off/on the switch) the switch. If a switch stack is in use, hard boot each switch in the stack. If RPS is in use, hard boot the RPS as well.

Why a One Time Hard Boot is Required

This issue has to do with the internal i2c bus getting into a bad state. The releases 15.2(2)E4, 15.2(3)E3, and 15.2(4)E or later images have the fix, but the switch might require a hard boot (unplug the power cable in order to power off/on the switch) in order to reset power to the bus if the bus was already in the bad state prior to the upgrade. The code upgrade procedure itself initiates a soft boot in order to load the image, but the bus maintains power through that process

so an existing bad bus state might not get cleared. Once the issue is cleared after the hard boot, releases 15.2(2)E4, 15.2(3)E3, and 15.2(4)E or later will ensure it does not come back in the future even during future reloads or power outages. If a switch has not yet experienced the issue, then an upgrade to releases 15.2(2)E4, 15.2(3)E3, and 15.2(4)E or later without a hard boot will be enough to avoid the issue in the future.

Solution History

Cisco bug ID CSCut53599 was fixed in releases 15.2(2)E4, 15.2(3)E3, and 15.2(4)E or later releases. The fix also added enhanced stability to the i2c bus.

Cisco bug IDs CSCul88801 and CSCur56395 were fixed in software release 15.0(2a)EX5 or later. Cisco bug ID CSCur94280 added the same fix to software releases 15.2(2)E2 and 15.2(3)E1 or later.

Field Notice 64175 can be referenced for this issue as well.

Issue 2

- Ensure that the solution for issue 1 is in place.
- If the FlexStack ILET message continues then the FlexStack Plus module (C2960X-STACK=) needs to be replaced. Field Notice 63972 can be used in order to proactively help identify specific FlexStack Plus module serial numbers that are impacted by Cisco bug ID CSCuu00752 and also provides the procedure to get them replaced. Note that this issue affects less than 0.03% of the install base.

Issue 3

- Ensure that 15.2(6)E or newer software is running on the C2960X switch the C2960X-FIBER-STK or C2960X-HYBRID-STK FlexStack Extended module is installed in. This is the minimum software required to support these 2 module types.

Workarounds

Issue 1

- Remove the SFP uplinks and hard boot (unplug the power cable in order to power off/on the switch) in order to recover the switch for some period of time.
- Remove the SFP's uplinks from the switch and only use the downlink copper ports.
- Disconnect RPS from the switch/stack, power-cycle the stack, and let it run with no RPS connected.

Issue 2

- None

Issue 3

- None