Release Notes for Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6 DWDM, Release 10.3.x.x

Revised: August 20, 2015,

Cisco ONS 15454 DWDM Release Notes

This Release Notes document contains information about new features and enhancements, in the CiscoONS 15454 DWDM platforms. For the latest version of the Release Notes for Cisco ONS 15454, visit this URL:

http://www.cisco.com/en/US/products/ps13234/prod_release_notes_list.html

For detailed information regarding features, capabilities, hardware, and software introduced in this release, see the guides listed in the Additional References section.

Cisco also provides Bug Search Tool, a web resource for tracking defects. To access Bug Search Tool, visit this URL: https://tools.cisco.com/bugsearch.

Revision History

Date	Notes
August 2015	Added Critical Bug Fixes in Release 10.3.0.2, on page 3.
March 2015	Added Critical Bug Fixes in Release 10.3.0.1, on page 3 and New Enhancement for Release 10.3.0.1, on page 3.
March 2015	This is the first release of this publication.

Software and Hardware Requirements

Before you begin to install the software, you must check whether your system meets the minimum software and hardware requirements.

- Hardware—Intel Core i5, i7, or faster processor. A minimum of 4 GB RAM, 100 GB hard disk with 250 MB of available hard drive space.
- One of these operating systems:
  - Windows 7, Windows Server 2008, or later
  - Apple Mac OS X
  - UNIX workstation with Solaris Version 9 or 10 on an UltraSPARC-III or faster processor, with a minimum of 1 GB RAM and a minimum of 250 MB of available hard drive space.
  - Ubuntu 12.10
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  Note Java Runtime Environment—JRE 1.7

- Browser:
  - Internet Explorer

- Mozilla Firefox
- Safari
- Google Chrome

Critical Bug Fixes in Release 10.3.0.2

The following critical issues have been resolved in Release 10.3.0.2:

- The Cisco Prime Optical server that manages the Cisco CRS router in VTXP mode loses connectivity.
- The circuits do not start occasionally after the manual re-route.
- The traffic loss occurs when the OCHCC UNI circuit is forcefully restored on a different wavelength.
- The Loss of Signal (LOS) alarm is raised on the Cisco CRS router when the circuit is created with the pre-route option.
- The 10x10G-LC, 100G-LC, 100G-CK-C, 100GS-CK-LC, and 200G-CK-LC cards reset automatically after 124 days.

Critical Bug Fixes in Release 10.3.0.1

The following critical issues have been resolved in Release 10.3.0.1:

- A USB mount failure occurs after an LCD reseat.
- The CTC CORBA is stuck after continuous retrieval of TL1 RTRV requests, HTTP requests, and SNMP traps.
- During a circuit failure, optical power values are not displayed on the EAD R/T port of the 80-WXC-C card (in the multiplexer mode) in the CTC Performance tab.
- For the 80-WXC-C card configured in the multiplexer mode, the alarm description in the Alarms tab displays the threshold and current values that are 10 times greater than the configured threshold and current values.
- The OCHCC UNI circuit remains in PARTIAL state even after several cycles of restoration.

New Enhancement for Release 10.3.0.1

This section highlights the new enhancement for Release 10.3.0.1. For detailed documentation about this enhancement, see the user documentation.

Software Enhancement in Release 10.3.0.1

The following enhancement has been introduced in Release 10.3.0.1:

The type of revertive restoration is determined by the Mode field. This field is displayed when the Revert checkbox is checked. The Mode field can be set to either UNI-C or UNI-N. If the mode is set to UNI-C, the reversion of the circuit from the restored path to the original path is triggered by the UNI client that is connected, typically a Cisco CRS router. If the mode is set to UNI-N, the reversion of the circuit is triggered by the DWDM network. The revert can be either a manual revert or an auto revert. It is possible to set the soak time for both modes.

For more information about the Mode field, see the chapters in the .

New Features for Release 10.3

This section highlights new features for Release 10.3. For detailed documentation of each of these features, see the user documentation.

Hardware

These hardware units have been introduced in Release 10.3:

MR-MXP Card

The MR-MXP card is a mixed rate 10G and 40G client muxponder that is supported on the platforms. The card is equipped with one CPAK port, two SFP ports, and two QSFP+ ports. The card can interoperate with 100GS-CK-LC and 200G-CK-LC cards through an backplane.

The MR-MXP card provides the following features:

- Aggregation of 10x10G client payloads
- Aggregation of mixed bit-rate client payloads (2x40G and 2x10G)
- Termination point for a 100G client payload on the CPAK port

The aggregated payloads are then forwarded to a 200G companion trunk card.

For more information about the MR-MXP card, see the chapter in the .

200G-CK-LC and 200G-CK-LIC Cards

The 200G-CK-LC and 200G-CK-LIC cards are tunable DWDM trunk cards that are supported on the platforms. The cards are an enhancement of the 100GS-CK-LC card. The cards transport 100 or 200 gigabits per second across metro, regional, long-haul, and ultra-long-haul DWDM optical networks. The cards can interoperate with MR-MXP and 10x10G-LC cards through an backplane. The 200G-CK-LIC is the licensed card version of the 200G-CK-LC card.

The 200G-CK-LC card provides the following features:

- Supports 200G operating modes such as MXP_10x10G_100G, MXP_CK_100G, and MXP_200G.
- Allows choosing 16 QAM and QPSK as the modulation formats at the line side.
- Provides Standard G-FEC (Reed-Solomon), Soft Decision FEC (SD-FEC) encoding with 20% overhead.
- Provides Nyquist filtering for best performance and optimal band usage.
- Supports gridless tunability.
- Allows client access either through the local 100G CPAK interface or through backplane lines.
- Supports feature-based licensing.

For more information, see the chapter in the .

100GS-CK-LC Card Enhancements

The 100GS-CK-LC card supports 200G operating modes such as MXP_10x10G_100G, MXP_CK_100G, and MXP_200G in release 10.3.

Pluggable Port Modules

The Pluggable Port Modules supported on the MR-MXP card are:

- QSFP-40G-SR4=
- QSFP-4x10G-LR=

For more information about the Pluggable Port Modules support, see the document.

New Software Features

These software features have been introduced in Release 10.3:

Licensing

The 200G-CK-LIC card supports feature-based licensing. The 200G-CK-LIC is the licensed card version of the 200G-CK-LC card. The base functionality is enabled in the licensed card version. Additional features are provided through specific feature licenses.

For more information about licensing, see the .

Optical SMU

An Optical software maintenance upgrade (SMU) is a patch that is provided to the customer to fix an emergency situation, such as network failure or traffic loss. The user can download and activate a patch on the node(s) through CTC.

For more information about optical SMUs, see the chapter in the .

NFV Enhancements

In the Network Functional View (NFV), all the panes with the exception of the Overview pane are iconised or hidden. The complete application window is dedicated to the network map. The panes are visible on request.

Fast circuit creation of protected and unprotected circuits is supported. The **Circuit Creation** button in the **Circuit Creation** perspective allows the user to select the type of circuit to be created. The user can then select the source and destination nodes on the network map. The NFV performs a check for compatible interfaces on both the source and destination nodes. A pop up menu displays only those circuit types that are feasible between the selected nodes. When a specific type of circuit is chosen, a new window appears that facilitates the user to select only those interfaces that match the selection and are available on both the nodes. All the changes are applied just before the creation of the circuit.

Pre-routed circuits are supported. Pre-routed circuits can be created using the Pre-routed option. When the route is found by the NFV and is in DISCOVERED state, it is highlighted in blue on the map. The circuit is created but placed out of service. All the configuration parameters are disabled except for the circuit action options. The user can accept the path by clicking the **Accept** button or can change the constraints using the options in the **W & P Constraints config** drop-down list. The **Accept** button changes to Refresh if any other the constraints are applied. On clicking **Refresh**, the WSON re-computes the path. If the path is acceptable, the user clicks the **Accept** button and the circuit is placed in service.

For more information about NFV enhancements, see the chapters in the .

Feature Enhancements

- CTC displays the performance monitoring statistics that are retrieved from the PLIM interface of the router. The information is displayed in a tabular format.
- A new squelch option named LF is supported for 10GE, 40GE, and 100GE payloads. This option is supported on 10x10G-LC, CFP-LC, 100G-LC-C, 100G-CK-LC, 100GS-CK-LC, and 200G-CK-LC cards.

- A side description can be created or edited for all the optical and virtual sides of the node using CTC or TL1.
- The Trail Trace Identifier (TTI) in the path monitoring overhead is supported in OTU, and ODU OTN frames. It is possible to individually manage the Source Access Point Identifer (SAPI), Destination Access Point Identifier (DAPI), and User Operator Data fields. This feature is also supported in CTC when Cisco CRS Router is configured.
- Pseudo Random Binary Sequence (PRBS) generation is supported on VTXP.
- A new message is displayed when the WSON signals the circuit successfully.
- PSM is supported with 100GS-CK-LC or 200G-CK-LC cards on their trunk ports. The protection switch time of 50 ms can be achieved in TXP-100G configuration with 20%SD FEC.
- The TNC/TSC/TNCE/TSCE control cards on the chassis automatically detects and adjusts the cooling profile according to the cards present on the chassis.
- OSC power calibration method can be used in spans amplified with EDRA1-xx and EDRA2-xx cards.
- The privilege for Provisioning user has been extended at Node View and Network View.

For more information about feature enhancements, see the , , , Security Reference, and chapters.

TCC2 and TCC2P Card Limitations

From Release 10.3, a Subtended Shelf Controller having TCC2 or TCC2P control cards cannot be converted to a standalone shelf or a master shelf. However, a network element with TCC2 or TCC2P control cards in an older release can be upgraded as specified in the Software Upgrade Matrix.

Cisco Bug Search Tool

Use the Bug Search Tool (BST) to view the list of outstanding and resolved bugs in a release.

BST, the online successor to Bug Toolkit, is designed to improve the effectiveness in network risk management and device troubleshooting. The tool allows partners and customers to search for software bugs based on product, release, and keyword, and aggregates key data such as bug details, product, and version. The tool has provision to filter bugs based on credentials to provide external and internal bug views for the search input.

The BST is available at Bug Search. To search for a specific bug, go to https://tools.cisco.com/bugsearch/bug/*bugid*. For more information on BST, see Bug Search Help.

Search Bugs in BST

Follow the instructions below to search bugs specific to software release 10.0 in BST.

Procedure

Step 1 Go to https://tools.cisco.com/bugsearch/.
You will be prompted to log into Cisco.com. After successful login, the Bug Toolkit page opens.

Step 2 To search for release 10.0 bugs, enter the following parameters in the page:
a) Search For – Enter **ONS 15454** in the text box.
b) Releases – Enter the appropriate release number.

c) Show Bugs – Select **Affecting or Fixed in these Releases**.

Step 3 Press **Enter**.
Note:

- By default, the search results include bugs with all severity levels and statuses, and bugs that were modified during the life cycle of the bug. After you perform a search, you can filter your search results to meet your search requirements.
- An initial set of 25 search results is shown in the bottom pane. Drag the scroll bar to display the next set of 25 results. Pagination of search results is not supported.

Additional References

Related Documents

Use this document in conjunction with the other release-specific documentation listed in this table:

Link	Description
Cisco ONS Documentation Roadmap	Provides quick access to publications of Cisco ONS releases.
Cisco ONS 15454 DWDM Configuration Guides	Provides background and reference material, procedures for installation, turn up, provisioning, and maintenance of Cisco ONS 15454 dense wavelength division multiplexing (DWDM) systems.
Cisco ONS 15454 DWDM Troubleshooting Guide	Provides general troubleshooting instructions, alarm troubleshooting instructions, and a list of error messages that apply to the Cisco ONS 15454 DWDM systems.
Cisco ONS 15454 Hardware Installation Guide	Provides installation information about the Cisco ONS 15454 (ANSI and ETSI) DWDM hardware.
Installing the Cisco ONS 15454 M2 and ONS 15454 M6 Passive Optical Modules	Provides installation information about the Cisco ONS 15454 DWDM passive optical modules.
Cisco ONS 15454 DWDM Licensing Configuration Guide	Provides information about installing and managing Cisco ONS 15454 DWDM licenses.
Cisco ONS SONET TL1 Command Guide and Cisco ONS SDH TL1 Command Guide	Provides a comprehensive list of TL1 commands.
Installing the GBIC, SFP, SFP+, XFP, CXP, CFP, and CPAK Optical Modules in Cisco ONS Platforms	Provides information about the Pluggable Port Modules support.

Technical Assistance

Link	Description
http://www.cisco.com/support	The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.

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