# Release Notes for Cisco NCS 2000 Series, Release 11.1.3.x

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## Cisco NCS 2000 Series Release Notes, Release 11.1.3



Note

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This Release Notes document contains information about new features and enhancements, in the Cisco NCS 2000 Series platforms.

For the latest version of the Release Notes for Cisco NCS 2000 Series, visit this URL:

http://www.cisco.com/c/en/us/support/optical-networking/network-convergence-system-2000-series/products-release-notes-list.html

## **Software and Hardware Requirements**

Before you begin to install the software, you must check whether your system meets the following 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 the following 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

• Java Runtime Environment—JRE 1.8 and later.

- Java version 8.0
- Browser:
  - Internet Explorer
  - Mozilla Firefox
  - Safari
  - Google Chrome

## **Critical Bug Fix in Release 11.1.3.1**

The following critical issue has been resolved in Release 11.1.3.1:

Carrier multilayer view does not display ports information in OCH Layer in the media channel node controller session and carrier node controller session circuit.

## What's New in Release in Cisco NCS 2000 Series, Release 11.1.3

Cisco is continuously enhancing the product with every release and this section covers a brief description of key features and enhancements. It also includes links to detailed documentation, where available.

| Feature   | Description   |  |
|---|---|--|
| Control Card and Node Configuration                                       |   |  |
| Accessing the<br>Controller Cards<br>using Link-Local<br>Address          | You can now use the link-local subnet address to access and configure the controller cards. This approach is helpful when you do not have admin privileges to the laptop through which the controller card is configured. Ensure that the controller card and the laptop are on the same subnet.  |  |
| Line Card configuration   |   |  |
| WSE and<br>400G-XP-LC<br>Encryption for<br>Incorrect SUDI<br>Certificates | With this enhancement, the system now selects the correct Secure Unique Device<br>Identification (SUDI) certificate combination on 400G-XP-LC and WSE cards, during<br>encryption negotiations. This feature ensures that users can configure encryption<br>without any errors or failures. The enhancement is applicable to both 10-Year and<br>99-Year certificate validity types.                                |  |
| On-demand<br>Firmware Upgrade<br>of SMR20 FS and<br>SMR20 FS CV<br>Cards  | It is necessary to perform a firmware upgrade to clear the<br>TRAF-AFFECT-RESET-REQUIRED (Traffic Affecting Reset Required) alarm on<br>the SMR 20 and SMR 20 FS CV cards. The <b>FIRMWARE Upgrade</b> button has been<br>introduced in the <b>Maintenance</b> > <b>Firmware</b> tabs to initiate the upgrade operation on<br>demand. This button performs an instantaneous firmware upgrade to the latest version. |  |
| New PRBS pattern<br>support for<br>400G-XP-LC card                        | CTC now supports <b>INVERTEDPRBS_31</b> as one of the PRBS patterns that are used to perform data integrity checks on the encapsulated packet data payloads. When a network comprises of both NCS 2000 and NCS 1004 nodes, this enhancement facilitates interoperability between the 400G-XP-LC card and NCS1K4-OTN-XP cards, as the latter only supports INVERTEDPRBS_31 pattern.                                  |  |

| Feature  | Description  |
|--|--|
| Improved CSR<br>encryption using<br>RSA-4096                           | The 400G-XP-LC, WSE, and MR-MXP cards now support RSA-4096 for Certificate Signing Request (CSR) encryption. As the RSA-4096 uses a longer encryption key compared to previously supported RSA-2048 and RSA-3072, it improves the security level of the signed certificate.  |
| Network Configura  | tion   |
| Bright ZR+ and<br>CFP2-DCO<br>Configuration<br>Support on NCS<br>2000. | This release introduces the Bright ZR+ and CFP2-DCO alien profiles to enable<br>end-to-end optical circuit management of an NCS 1004 node through an NCS 2000<br>node. These profiles are used when the NCS 1004 node is operationalized with NCS<br>1004 QXP and OTN-XP cards. You can choose <i>ONS-CFP2D-400G-C-FOiC</i> or<br><i>DP04QSDD</i> from <b>Alien Wavelength</b> drop-down list to utilize these profiles. The<br>DWDM trunk pluggable on NCS 2000 node supporting the new alien profiles are: |
|  | CFP2-DCO (ONS-CFP2D-400G-C-FOIC):  |
|  | • ONS-CFP2D-400G-C   |
|  | • DP04-CFP2-M25-K9   |
|  | • Bright ZR+ (DP04QSDD):   |
|  | • DP04QSDD-HE0   |
|  | • DP04QSDD-HK9   |
|  | • DP04QSDD-LK9   |
| Hardware Installati  | ion  |
| New Modular DC<br>Power Module on<br>NCS 2002 Chassis                  | The design of the DC Power module is enhanced to make the power system modular.<br>The modular units comprise a primary frame and two replaceable DC PSUs (available<br>for both ETSI and ANSI variants), each with unique PIDs. The PSUs are field<br>replaceable and provide redundancy to the power system.   |
| Security Reference   | <u>I</u>   |
| Improved network<br>security using ACL                                 | Using Access Control List (ACL), you can introduce an extra layer of security to NCS 2000 networks. Only the IPs approved by the network admin, which are included in the ACL, will get access to a node or a group of nodes in the network. This added security prevents unwanted machines or malicious hosts from logging into the NCS 2000 networks via CTC, TL1, Telnet, or SSH.   |
| Security User<br>Profiles on TACACS                                    | This release introduces the "SECURITY USER" and "SECURITY SUPER USER" user profiles, which TACACS Authentication validates. These users get the privileges to perform encryption configurations on the device. This feature allows TACACS+ enabled users to perform encryption functionalities on WSE, MR-MXP and 400G-XP-LC cards of NCS 2000.  |
| Pluggables   | 1  |

| Description   |
|---|
| This release introduces support for the QSFP-100G-ERL-S pluggable. It provides 100GE client-side interface support for up to 25 km over a standard pair of G.652 Single-Mode Fiber (SMF) with duplex LC connectors. Currently, the QSFP-100G-ERL-S pluggable is supported on the 400G-XP-LC card.       |
|   |
| You can use the link-local subnet address to access and configure the controller cards<br>when you don't have administrative access to the laptop, which is under the same<br>subnet as the controller card.  |
| Using the ENT-MCH service creation command, you can extend the default channel width allocated by the GMPLS control plane for the SSON MCH circuits to 100 GHz. For channel width extension, specify an appropriate value for these parameters through the TL1 command during the MCH circuit creation: |
| GUARDBANDMODULATION GUARDBANDFILTERING  |
|   |

#### NCS 2000 to NCS 1010 Network Migration

This feature allows you to migrate from NCS 2000 MSTP networks comprising of 80-WXC-C ROADM cards to NCS 1010 networks. This network migration enables fiber reutilization to achieve higher bandwidth and potentially expand to the L-band part of the spectrum. The TAC team will support to complete this migration procedure.

You can reach out to the TAC team by either logging into the Technical Support Website at<u>http://www.cisco.com/c/en/us/support/index.html</u>or contacting the Cisco Technical Assistance Center (1 800 553-2447).

#### **TLS Version Support**

The supported version of Transport Layer Security (TLS) protocol is 1.2.

### **Other Important Information and References**

#### Alarms

The following alarms are introduced:

- LOGIN-FAIL-ACL-FAIL
- USB-EMPTY-CODE-VOL
- NO-VALID-USB-DB

#### **TL1 Commands**

The following new commands are added:

- DLT-ACL
- ENT-ACL
- RTRV-ACL
- SET-ACLCONFIG

### **Documentation Roadmap**

Use the documentation roadmap to quickly access publications of Cisco NCS 2000 Series, Release 11.x.x https://www.cisco.com/c/en/us/td/docs/optical/r11/ncs/doc-roadmap-ncs/b-ncsroadmap-11xx.html

#### **JRE Compatibility**

The JRE Compatibility table displays the JRE compatibility with NCS 2000 software releases.

### **Supported Pluggables**

The document at the following URL lists the GBIC, SFP, SFP+, QSFP, XFP, CXP, CFP, and CPAK modules that are supported on the Cisco NCS 2000 series platforms:

http://www.cisco.com/c/en/us/td/docs/optical/spares/gbic/guides/b\_ncs\_pluggables.html

### **Caveats**

### **Open Caveats**

The following table lists the open caveats:

| Identifier | Headline   |
|------------|--|
| CSCwf12256 | OTUK-TIM alarm severity to not changing to Critical post y-cable config deletion.                |
| CSCwe26519 | Not able to Apply/View xml from CTC Node view  |
| CSCwf21063 | Cold/Warm Restart may occur after INIT-SYS on Active Controller                                  |
| CSCvz13964 | LOS-P alarm is raised on ADD-RX port of SMR-1 just before completion of soft reboot              |
| CSCwe61213 | [ECU]: IMPROPRMVL alarm is getting raised and cleared while plugging in the ppm in the ECU ports |

#### **Bug Search Tool**

Cisco Bug Search Tool (BST) is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.

#### **Using Bug Search Tool**

You can use the Cisco Bug Search Tool to search for a specific bug or to search for all bugs in a release.

#### Procedure

| Step 1<br>Step 2 | Go to the http://tools.cisco.com/bugsearch.<br>Log in using your registered Cisco.com username and password.  |
|------------------|---|
|                  | The Bug Search page opens.  |
| Step 3           | Use any of these options to search for bugs, and then press Enter (Return) to initiate the search:<br>• To search for a specific bug, enter the bug ID in the Search For field. |
|                  | • To search for bugs based on specific criteria, enter search criteria, such as a problem description, a feature, or a product name, in the Search For field.                   |
|                  | • To search for bugs based on products, enter or select a product from the Product list. For example, if you enter "WAE," you get several options from which to choose.         |
|                  | • To search for hugs based on releases in the Releases list select whether to search for hugs affecting a   |

- To search for bugs based on releases, in the Releases list select whether to search for bugs affecting a specific release, bugs that were fixed in a specific release, or both. Then enter one or more release numbers in the Releases field.
- **Step 4** When the search results are displayed, use the filter tools to narrow the results. You can filter the bugs by status, severity, and so on. To export the results to a spreadsheet, click Export Results to Excel.

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