Release Notes for Cisco Optical Network Planner, Release 24.3.1

First Published: 2024-09-24

Last Modified: 2026-07-23

Hardware and Software Requirements

The hardware and software requirements for installing Cisco ONP, Release 24.3.1 are:

Hardware Requirements

You need to have an Ubuntu server with version 22.04.

Recommended Server Configuration for Cisco Optical Network Planner (ONP) and Live Network Import (LNI):

- 8 CPU, 48 GB RAM, and 500GB server free space after installation, for 3 concurrent Parallel ONP analysis
- 8 CPU, 64 GB RAM, and 500GB server free space after installation, for 6 concurrent Parallel ONP analysis
- 8 CPU, 96 GB RAM, and 500GB server free space after installation, for 10 concurrent Parallel ONP analysis

Software Requirements

- Supported browsers: Google Chrome and Microsoft Edge
- Recommended version of the Google Chrome browser:
  - For Windows: Version 128.0.6613.113
  - For Mac: Version 128.0.6613.113

  Recommended version of the Microsoft Edge browser:
  - For Windows: Version 128.0.2739.63
  - For Mac: Version 128.0.2739.63

Note For an optimal Cisco ONP user experience, we recommend a minimum internet speed of 100 Mbps.

Supported Platforms and Releases

Cisco ONP supports the following platforms and releases:

Table 1: Supported Platforms and Releases

Platforms	Recommended and Supported Releases
NCS 1001	7.10.1
NCS 1004	7.11.1
NCS 1014	7.11.1, 24.3.1
NCS 1010	7.7.1, 7.9.1, 7.10.1, 7.11.1, 24.3.1
NCS 1020	24.3.1
NCS 2000	11.0.0, 11.1.0, 12.1.0, 12.2.0, 12.3.1
NCS 4000	6.5.33

What's New in Cisco Optical Network Planner, Release 24.3.1

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
Configuration	
Addition of new NCS 1020 Chassis for NCS 1010 Networks	NCS 1020 is a 10RU optical line system that supports the OLTs and NCS1K14-CCMD-16-C card in the NCS 1010 networks. The NCS 1020 chassis optimizes the NCS 1010 networks design, extending the reach of NCS 1010 networks. With OLTs and NCS1K14-CCMD-16-C, the NCS 1020 chassis provides a wide range of configuration options to NCS 1010 networks.
Colorless Add/Drop Configuration with SMR-9 Card	In addition to the SMR-20 card, the colorless Add/Drop configuration can now be added to both SSON and non-SSON networks using the SMR-9 card, providing more flexibility to use the available SMR-9 ports for add/drop functionality.

Feature	Description

Deployability and Debuggability Enhancements	Cisco ONP enhances the debuggability and deployability of the network with the following improvements in Optical sources, and various reports available in the **Results** page:
	• **Optical Sources**: Including new optical parameters such as vendor name, vendor ID, and submode in the downloaded optical souce Excel file to improve inperoperability with Cisco Optical Network Controller.
	• **BOM**: The exported Excel file includes these updates:
	  • Sales BOM Sheet: Providing information tailored for sales personnel.
	  • Net BOM Sheet: Providing the site-wise BOM count and categories of elements such as Chassis, Controllers, Mux-Demux units, Line Cards, Fillers, and more, offering a comprehensive overview of all network elements in the analyzed network.
	• **IPC**:
	  • Consolidating the IPC Cabling Report and the IPC Patch Report into a unified view with additional columns, streamlining connection details and eliminating the need to access multiple sources.
	  • Highlighting patches when clicked.
	• **Optical Reports**: Filtering results by any column available in the report for more precise data analysis.
	• **Elements > Messages**: Providing links to navigate to the respective object in the network tree, allowing users to take the necessary action to correct errors.

Improved Optical Results	The new network-level properties introduced improve the accuracy of the optical results. • **Ignore APC Penalty**: When enabled, the APC penalty is not considered while calculating the OSNR and power margin. • **SOL Optimized PSD**: When enabled, an optimum PSD value is calculated by considering the SOL Span losses. Also, Cisco ONP sets PSD and drop attenuation to specific values for the CCMD-16 LC card connected to the ports of the OLT-E-C, to achieve optimal RX power for the circuits.

Feature	Description
Multicarrier Creation for NCS 1010 Networks	You can now create a Multi-Carrier circuit for the NCS 1010 networks. You can add central wavelength and path to all the carriers in colorless configurations. You can export optical reports and Netconf XML files with Multi-Carrier Circuits information for device updates. Upgraded networks treat the unlocked Multi-Carrier Circuits as new circuits, allowing edits to the circuits. Create Multi-Carrier Circuits to achieve a 38-channel plan using NCS1K14-CCMD-16-C card. Cisco ONP introduces two properties to create Multicarrier circuits in NCS 1010 networks. • **No of Carriers**: In this trail level property, enter the value to add the required number of carriers in a fiber path in the network. • **MC Routing Order**: In this site level property, choose *CREATION* or *NO-OF-CARRIERS* to create multiple carriers based on the *Frequency Allocation Order*.
New Parameters Included in NCS 1010 NETCONF XML file	The NETCONF XML file exported from the NCS 1010 network design now includes these new parameters to support seamless Day-0 provisioning and the setup of a new node added to the network. • Optical cross-connects • Gain range margin • Tone Rates • Raman tuning configurations • Slot reserve • Dmux WSS attenuation • Unused CCMD-16 ports shutdown • Span baseline-deviation • OTDR Thresholds • APC Span-loss correction threshold

Feature	Description
Omnidirectional Configuration Support for NCS 1010 Network	You can now include both colorless and colored omnidirectional configurations when designing an NCS 1010 network. New Properties Added: • **Add Omni-Directional** icon (under Entity Editor): Use this icon to add the required number of omnidirectional sides. • **Omni Variant** (under Side Properties): Select the desired Add/Drop stage, such as Dual OLT or 4x4 COFS. • **Max Auto Omni Allowed** (under Network Properties): Cisco ONP automatically generates the omni edges based on the number entered. This omnidirectional setup enhances the flexibility of the multidegree topology, allowing channels to be routed through any optical degree during a fiber cut without needing physical fiber reconnections.
PSM Support on Non-SSON Network	The **PSM-channel** option is now available as a **Protection Type** under the Wave properties for NCS 2000 non-SSON networks. This option allows you to use PSM channel trunk protection with the PSM card during network design, in addition to existing client protection. You can verify the optical feasibility for both working and protection paths, providing all necessary parameters and connections for deployment.
Skip Routing Failures in NCS 2000 Network Analysis	A new **Continue Analysis On Routing Failure** check box is introduced to improve network analysis reliability for larger NCS 2000 networks. When a routing failure occurs, this enhancement moves the network to **Partially Analysed** mode, and move the network to **Design** or **Upgrade** mode to edit properties and correct routing. After the analysis, • successful routing paths appear in the **BOM** and **Optical Reports** tabs. • failed routing paths are not listed in these tabs. • error messages for the individual routing failures appear in the **Messages** tab. • red cross marks appear next to the failed routing paths. This approach prevents a single failure from failing the entire analysis, isolating specific issues to enhance troubleshooting.
Spectrum Utilization and Path Finder	The Spectrum Utilization and Path Finder introduces the **Minimal Map**, a streamlined network visualization tool focusing on essential data points like Sites and Fibers, enhancing usability and performance. **General Settings** now allow individual customization, including default map views and spectrum utilization colors. The **Path Finder/Selector** enables interactive path selection with options for manual and custom path finding for multiple routing options. The **Spectrum Utilization** provides a comprehensive visualization of used spectrum, while the **Spectrum Finder** helps locate and apply available spectrum across fibers, offering dual-view capabilities and multiple selection methods. These enhancements collectively improve network management, planning, and resource optimization.

Feature	Description
Support for NCS 1001 Network Creation	This release supports the design of C-band NCS 1001 networks. The NCS 1001 is a 1RU, DWDM line system optimized for data center environments. It includes support for amplifiers, PSM modules, and various colored add/drop modules such as MD-32-EVEN, FLD-4, MD-48-ODD, MD-48-EVEN, and MD-64. Cisco ONP supports unprotected, terminal section, and terminal path protection over the NCS 1001 network. Also, the NCS 1001 network is compatible with optical sources such as NCS 1004, CIM8, Bright ZR, QDD, and CFP2.
Transponder Support on NCS 1010 Network	You can now create optical services for the NCS 1010 network. You can include cards such as NCS1K14-2.4T-K9, NCS1K14-2.4T-X-K9, and NCS1K4-QXP-K9 as native transponder instead of optical sources and check the feasibility of the network. You can generate the traffic report and BoM with the exact count of cards and pluggables based on the requirements, along with licensing details for the OLT card and the transponders.

User Interface Enhancements	Cisco ONP improves the user experience with these user interface enhancements:
	• **Maps**:
	  • Providing an option to increase the workable area.
	  • Switching to zoom mode that automatically centers the map on the selected node.
	  • Highlighting nodes and fibers selected in the network tree on the map.
	• **Entity Editor**: Adding tooltips for some of the properties.
	• **Results**:
	  • Including Raman information in the Fiber Details that are exported from **Export>Fibers**.
	  • Introducing **Export Report** button to export Optical Reports/BOM differences between two networks in CONP.
	  • Maintaining the recent view in the **Results** tab view when switching to the **Map** or **BoM** tabs.
	• Enabling editing of EOL Aging Loss with **Aging Loss [dB]** property in both the entity editor and Properties pane.
	• Updating optical sources with minimum system release information for user visibility in the **Manage Optical Source** dialog box.
	• Adding an *OMNI* marker to identify the Omni-Directional sides in the NCS 2000 networks.
	• **Component Logs**: Streamlining log management, this **Logs** menu option provides direct access to critical component logs such as cnp Backend (BE), ODE, GENE, and PCE through the user interface.

Feature	Description
User-Defined Colorless Ports Distribution for CCMD Card in NCS 1010 Network	The new property, **Colorless Port Distribution** is introduced under the **Add/Drop Multiplexer** properties. This property allows you to select the number of CCMD cards to connect to the LC ports of the enhanced OLT and determine the number of channels for each chosen CCMD card. It provides the flexibility to choose the desired number of CCMD cards and distribute the colorless ports across them.
View the End-to-End Optical Channel (OCH) Connectivity from Source to Destination	You can now view the end-to-end OCH connection details in the graphical form for the analysed NCS 1010 networks. The new **OCH** tab in **Layout** displays all the OCH connectivity from source to destination in: • **Degree Connection View**: Displays the source and destination site's connectivity. • **Functional View**: Displays the end-to-end port and card connections from source to destination through the fiber.

Caveats

Open Caveats

The following table lists the open caveats for Cisco ONP Release 24.3.1.

Table 2: Open Caveats

Identifier	Headline
CSCwm40126	Forecast circuit related information should not be sent to Netconf and COSM XML
CSCwm29571	Save as Network Netconf xml download name is showing old network name
CSCwm40076	Circuit and associated Service unlock together via import excel in upgrade is not working
CSCwm29697	8%varience to be added to total NCS1001 power consumption to make it final power consumption
CSCwm39909	Not able to force client ports in upgrade when Circuit is tagged to service
CSCwm45224	TXP license PID is added in Material ID column of exported BoM report..
CSCwm33404	Omni add/drop connectivity not shown on regen node for omni regen circuit OCH pipe

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 Go to the https://bst.cloudapps.cisco.com/bugsearch.

Step 2 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:

- 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 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**.

Other Important Information

The CONP API is now open for external tools to:

- Create or open designs
- Update topology information (sites, fibers, demands)
- Execute analysis
- Fetch all reports
- Read the status of ongoing actions (design analysis, loading, file fetching)

Additionally, the API allows external tools to force Raman amplification at the span level, including choosing the desired amplifier.