Release Notes for Cisco Optical Network Planner, Release 25.1.1

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Hardware and software requirements

The hardware and software requirements for installing Cisco ONP, Release 25.1.1 are:

Hardware requirements

You need to have an Ubuntu server with version 22.04 or 24.04, or Red Hat server with versions 8.8 or 8.10

Recommended Server Configuration for Cisco Optical Network Planner (ONP):

- 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, Mozilla Firefox, and Microsoft Edge
- Recommended version of the Google Chrome browser:
  - For Windows: Version 134.0.6998.89
  - For Mac: Version 134.0.6998.44

  Recommended version of the Microsoft Edge browser:
  - For Windows: Version 134.0.3124.51
  - For Mac: Version 134.0.3124.51

  Recommended version of the Mozilla Firefox browser:
  - For Windows: Version 136.0
  - For Mac: Version 136.0

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	24.3.1, 25.1.1
NCS 1014	25.1.1
NCS 1010	7.7.1, 7.9.1, 7.10.1, 7.11.1, 24.3.1, 25.1.1
NCS 1020	24.3.1, 25.1.1
NCS 2000	11.0.0, 11.1.0, 12.1.0, 12.2.0, 12.3.1, 25.1.1
NCS 4000	6.5.33

What's new in Cisco Optical Network Planner, Release 25.1.1

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
Cisco Optical Network Planner	
Live network import from Cisco ONC	Cisco ONP now directly communicates with Cisco ONC to perform a live network import, eliminating the need for Cisco ONP to be directly connected to a device or network. In addition to the previously supported NCS 2000, networks that include NCS 1010 nodes contained within NCS 1010 and NCS 1014 shelves can also be imported.

Feature	Description

MOLS 2.0 Support	CONP now supports the latest Metro DCI Open Line System, MOLS 2.0, which is hosted on the NCS 1014 chassis. This includes support for:
	• new EDFA amplifier that hosts
	  • a new OTDR pluggable (ONS-QSFP-OTDR),
	  • a new coherent probe pluggable (DP01QSDD-ZT5-A1), and
	  • an existing OSC pluggable (ONS-SC-PTP-1510), and
	• a pair of new 32-channel colored add/drop passive modules
	  • NCS1K-MD-32O-CE
	  • NCS1K-MD-32E-CE
	
	Select the NCS 1014 platform during network creation to create MOLS 2.0 networks. You can design the new MOLS 2.0 networks through the properties.
	• Probe Channel and OTDR Pluggable at the network level,
	• OSC Pluggable property at the edge level,
	• the MOLS 2.0 colored add/drop modules (default option is odd + even cards) at add/drop level, and
	• noneditable Pre Amp, Pre PSD, Second Booster, Second Booster PSD at the C-band amplifier level.

Transponder Aggregation Service	This release introduces the transponder aggregation service, which provides comprehensive support for transponder service aggregation across NCS 1000 line cards on all L0 platforms. Key features include: • Support for transponder service creation and network-wide analysis, considering transponder services in both greenfield and brownfield deployments. • Compatibility with NCS 2000, NCS 1001, NCS 1010, and NCS 1014 platforms, with specific add/drop support for each platform. • Force update the transponder properties, with support for service control, property override, and UI configurations. • Update Optical, Traffic, BOM, Installation Parameters, and Cabling Reports to include transponder parameters. • Placement of transponder cards in NCS1004 and NCS1014 chassis, with NFV view including Transponder connections. • Draw services between ROADM/Terminal/Traffic sites, force transponder properties, and view updated BOM and reports after network analysis.

Feature	Description
L-Band support for 2.4TX transponder card in NCS 1010 network	In addition to the previously supported C-band, the NCS1K14-2.4T-X-K9 transponder card now also supports the L-band under the **Service** and **Trail** properties for the NCS 1010 network. The 2.4TX card's support for the L-band increases capacity and spectral efficiency by utilizing both the L-band and C-band. C-band and L-band circuits can now use the same cards with different trunks for propagation.
M2 chassis support	You can now select M2 Chassis as Chassis Type under the site properties for the NCS 2000 ROADM and OLA nodes in SSON and non-SSON networks. This is in addition to the M6 and M15 chassis that were supported previously. M2 chassis is suitable for small sites where only two slots are sufficient to meet the networking requirements. It provides a compact and efficient solution for locations with limited space or lower capacity needs.
Cisco Optical Site Manager enhancements	Cisco ONP has been enhanced to support COSM line card connectivity from ROADM nodes to various site types. A ROADM node equipped with a COSM card can now manage upto 14 additional OLA and ROADM nodes. Previously, this was limited to OLA-to-ROADM associations. The node with the COSM card acts as the primary node. The new **COSM High Availability** options available under the Site properties, such as **Auto**, **Local HA**, **None**, **Only Active**, and **Geo HA** enable more dynamic and rule-based association in the NCS 2000 network.
ALC2 Enhancements	The NETCONF XML file exported for the analyzed NCS 1010 network design with Microsoft configuration now includes a new parameter. • OTDR-ScanMode-Expert If you enable the **Enable Special Settings** check box under Network level properties, the generated XML file contains the OTDR-ScanMode-Expert parameter that is set to *multi-region*. If you do not enable the **Enable Special Settings** check box, then the scan mode configuration is not added to the device Netconf XML file.

Feature	Description
Split-Step Fourier (SSF) Simulation Method	The Split-Step Fourier (SSF) method is introduced to calculate optical parameters in addition to the existing e-GN algorithm for analyzing NCS 1010 networks. This enhancement: • Improves the accuracy of the simulations for OSNR and BER, particularly in complex network scenarios. • Provides an SSF engine that leverages GPUs to work on intense calculations. • Requests simulation generation from GENE (Generic Engine for NCS 1000 platforms) • Monitors analysis progress on the GPU server, and updates the user through analysis notifications. • Sends simulation results to GENE for report generation after analysis completion. • Provides a Lookup Table that contains the default optical specification values for each supported amplifier. The new properties that enable the SSF method for network analysis are. • At network level, **Advanced Optical Settings** > **SSF Simulation**–Enables the SSF simulation. Enable the *Enable Special Settings* check box to view the *SSF Simulation* check box. • At network level, **Advanced Optical Settings** > **LUT version**–Shows the default LUT version to be used for network analysis. Enable the *Enable Special Settings* check box to view the *LUT version* check box. • **Preferences** > **General Settings** > **SSF Server Details**–Allows to configure the GPU server used for SSF simulation. • **Manage** > **Lookup Table**–Allows you to refer the default optical specification of the supported amplifiers.
Enhancements and Engineering Initiatives	This release includes several user experience and functionality enhancements to the application: • Added color indication at the circuit and network level in the network tree for optical feasibility and overall network performance. • Enhanced selection capabilities within the network tree for more efficient management. • Added version and timestamp information to exported reports for improved traceability and documentation. • Displayed edge labels directly on the map view for easier identification and understanding of network topology. • Provided users with the ability to unlock and modify entity properties within the entity editor. • Enabled users to edit the Effective Mode Area parameter for fibers, allowing for more accurate OSNR and power calculations.

Feature	Description
View sustainability report	The **Sustainability Insights** tab in the Cisco ONP **Dashboard** presents these sustainability metrics for a network designed in Cisco ONP: • Energy Consumption Distribution (kWh) • CO2 Emission (Kg) • Energy Efficiency (kWh/GHz) • CO2 Emission Equivalent: This shows the number of miles traveled by a car, bus, and airplane that would produce the same amount of CO2 emissions. • Number of Trees Needed: Indicates the number of trees that would need to be planted to absorb the network's carbon emissions. This report helps you understand the environmental impact of the optical networks you design.

Feature	Description
Cisco Optical Network Planner Installation	
Additional installation server and browser support	**Operating System support**: Cisco ONP can now be installed on Red Hat servers with versions 8.8 or 8.10, in addition to the previously supported Ubuntu servers. **Browser support**: Mozilla Firefox is now supported for use with Cisco ONP, alongside the existing support for Google Chrome and Microsoft Edge browsers.

Caveats

Open caveats

This table lists the open caveats for Cisco ONP Release 25.1.1.

Identifier	Headline
CSCwo53438	In Plan Mode, restoration is not happening on fiber failure in 2K networks with TXP services
CSCwo53470	Upgrade-Old Auto association was not flushed after network level unlock
CSCwo65953	16th OLA node is not automatically associated to any SVO card
CSCwo77477	Layout edit for 4k-1k-2k and 1k-2k nodes should not remove the chassis in upgrade mode
CSCwo79060	MPO-8LC to SMR-20 connection removed and cabling report diff is not shown in LNI upgrade network
CSCwo95573	Edge labels were not aligned properly when zooming in on the MAP for the LNI Network

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.