Release Notes for Cisco Optical Network Planner, Release 5.1

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Hardware and Software Requirements

The hardware and software requirements for installing Cisco ONP, Release 5.1 are:

Hardware Requirements

You need to have Ubuntu server with version either 20.04 or 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 browser: Google Chrome
- Recommended version of the Google Chrome browser:
  - For Windows: Version 112.0.5615.50
  - For Mac: Version 112.0.5615.50

Note Minimum 100Mbps internet speed is recommended for optimum Cisco ONP user experience.

Supported Platforms and Releases

Cisco ONP supports the following platforms and releases:

Table 1: Supported Platforms and Releases

Platforms	Recommended and Supported Releases
NCS 1004	7.0.1
NCS 1010	7.7.1, 7.9.1
NCS 2000	11.0.0, 11.1.0, 12.1.0, 12.2.0, 12.3.1
NCS 4000	6.5.28

What's New in Cisco Optical Network Planner Release 5.1

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	
NCS 1010 C+L Network Design	Cisco ONP now supports the C+L-band networks that help you plan NCS 1010 networks using the OLT-L and ILA-L line cards to increase your network's bandwidth capacity. Enhanced with L-band related properties, the UI enables you to design a C+L-band network for your ever-increasing channel demands. The following L-band types are introduced to suit your design needs: • **C+L**—This band type adds more channels to your network, increasing its traffic carrying capacity. • **C+L Futuristic**—This band type creates a network with C-band edges and future provisions for L-band edges that you can cost-effectively upgrade after exhausting the C-band capacity.
Export and Import of Network Topology in Excel Format	It is now possible to export the topology data of an existing network into an Excel file. You can easily modify the exported data in Excel and import it back into Cisco ONP to create a new network or modify an existing network. The following are the supported Excel formats: • **xlsx**—Standard Excel with multiple sheets, each corresponding to a network element such as Network, Sites, Circuits, Spans, OTNdemands, and so on. • **xlsm**—Macros-enabled Excel file that can filter out and display only the applicable network element sheets based on the platform selected in the Network sheet. Cisco ONP has the built-in intelligence to automatically calculate the shortest path between a source and a destination, even if only a partial fiber path is mentioned in the imported Excel file.
Bright ZR+ Pluggable Support	The Bright ZR+ pluggable can now be included in the network design by choosing them as **Card Type** or **Client Interface** under the **Trail** properties. This selection is available for all types of sites. The Bright ZR+ pluggable has high transmit optical power up to 0dBm, high transmit OSNR, and high-density QSFP-DD form factor.

Feature	Description
QSFP-100G-ERL-S Pluggable	The new QSFP-100G-ERL-S pluggable enables you to design and validate topologies for NCS 2000 R11.1.3 networks. This pluggable is supported on the QSFP ports of the 400G-XP-LC transponder card with 100GE data rate. You can select this pluggable from the **Client Interface** drop-down list at trail level properties for the 400G-XP-LC transponder card.
New Bandwidth Properties	Cisco ONP introduces the **Statistical Simulation Sigma**, **Statistical Simulation Margin Sigma**, and **OSNR Resolution Bandwidth** properties in this release. When the ideal OSNR values calculated by Cisco ONP are not feasible to be used at the time of deployment, you can modify the values for these properties to customize OSNR margin, power margin, and G-OSNR values to fix the fiber span issues.

Simplified Navigation to Results Tab	Cisco ONP now provides a simplified approach to navigate to the **Results** tab to view reports for analyzed multinode network topologies with the following enhancements:
	• Right-click on a particular site in the network tree to view:
	  • BOM details
	  • Optical Reports
	• Right-click on a particular circuit/media/wave in the network tree to view:
	  • Optical Report
	  • Traffic Report
	• New **IPC** tab —The **IPC** tab is introduced in **Cabling Reports** to intuitively view the internal patch connections for a site.
	• Search Box—The **Results** tab is enhanced with a Search Box at the top. You can use this search box to find a particular site in the topology by entering the site name.

Detailed Tooltip for Sites on the Map View	The **See More Details** option has been introduced in the tooltip displayed on hovering over Sites on the **Map** view of an analyzed network. This option shows the Amplifier data and PSD (Power Spectral Density) profile graph. The **See More Details** option avoids navigating to the **Entity Editor** to view these details.
Convert NCS 2000 Network to NCS 1010 Network	The newly introduced **NCS 1010 Convert** option under the **Network** menu enables you to directly convert an existing NCS 2000 network into an NCS 1010 network. This conversion eliminates the need to build an NCS 1010 network from scratch.

Feature	Description
New Network Level Properties	Three new Network Level properties are introduced to enable you to customize the core operations of an NCS 2000 Network. These operations ran in the background in the earlier releases. The new properties available under **Core Operations** as check boxes are: • **Enable LOGO Algorithm**—It runs the Local Optimization Global Optimization (LOGO) algorithm to find the efficient output power setpoint for booster amplifiers. By default, this **Enable LOGO Algorithm** check box is enabled. • **Log Enabled**—It generates, and stores logs only for selected network topologies. This saves a lot of storage space compared to previous implementations in which logs were automatically generated and saved for all topologies. • **Ignore Raman Span Checks**—It ignores the analysis of Raman spans between ROADM sites. This is useful when designing non-standard network topologies with more than two Raman amplifiers between ROADM sites. Selecting the check box prevents Cisco ONP from raising an error message when analyzing such topologies.
BOM Customization for the UCS-based SVO Server Application	From this release onwards, the **BOM** does not include any UCS-based SVO server information. It is expected that you add the server PID and quantities manually. Cisco ONP prompts you to add the server by displaying the message "*UCS server is not billed in BoM, please add it as needed.*" in the **Messages** tab of the **Elements** tab.
Multilayer Nodes Enhancements	You can now choose from the full array of supported **Card Types** and **Client Interfaces** under the **Trail** properties option for the multilayer nodes. Previously, only a limited set of cards were available for selection. With this enhancement, you can design diverse networks leveraging the unique functionalities of all types of cards.
Installation	
Migrate R5.0 Data to R5.1	Migrate your Cisco ONP data such as network designs, user profiles, optical sources, and so on, from Release 5.0 while upgrading to R5.1. Answering the required user prompt, you can opt for data migration during installation. After installing R5.1, all your existing R5.0 data such as user profiles and networks will be available in the new release too.

Caveats

Open Caveats

The following table lists the open caveats for Cisco ONP Release 5.1.

Identifier	Headline
CSCwf08050	Site names with spaces are not exporting properly in regen sites via excel export.
CSCwf04539	After Applying Regen Sites in Upgraded net, new sections Path of Wave is listing whole Path of Trail.

Identifier	Headline
CSCwe20671	Traffic Report navigation is not working for MPZ imported network for aggregated demand.
CSCwe56206	Error message to be updated when L-band edge is not added on intermediate nodes.
CSCwe79799	SMR-9 card SVG images shown for Blank Card in rack layout tooltip for Import MPZ and LNI network.
CSCwe53542	Import excel on existing network with Site Type change is not working.
CSCwf06203	Extra OSC connections in Layout->IPC report on upgrade analysis of data migrated network.
CSCwe97054	User deletion without assigning existing networks to other user taking more time.
CSCwe98155	Analysis failing with PREPARATION_TO_PSET_CREATION error after converting MPZ network to NCS 1010 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

Upgrade from Cisco ONP Release 5.0 to Cisco ONP Release 5.1 is supported. We recommend to clear the browser cache before starting with Cisco ONP Release 5.1.

Note NCS 2000 R12.31 software PID is changed in Cisco ONP Release 5.1. We recommend reanalysing the Cisco ONP Release 5.0 analysed NCS 2000 R12.31 networks in Cisco ONP Release 5.1 to get the updated PID.