Release Notes for Cisco Optical Network Planner, Release 5.0

First Published: 2022-08-10

Cisco Optical Network Planner (Cisco ONP) is a tool to model and test Optical Transport Networks (OTN) and Dense Wavelength Division Multiplexing (DWDM) optical networks by using a graphical environment. The primary purpose of Cisco ONP is to design and validate networks of NCS 1004, NCS 1010, NCS 2000 and NCS 4000 series. Using the Cisco ONP tool, you create multiple instances of a network, modify different parameters at each instance, and compare. Cisco ONP generates a rack view of all the sites that are deployed in the network, shows the differences between the instances, and provides a complete Bill of Materials (BoM) for the network.

Cisco ONP models the network, generates the BoM, and provides detailed information about the network, such as Cabling report, Optical report, and Traffic matrix.

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Hardware and Software Requirements

The hardware and software requirements for installing Cisco ONP, Release 5.0 are:

Hardware Requirements

You need to have Ubuntu server with version either 18.04.3 or 20.04.3.

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 103.0.5060.134
  - For Mac: Version 103.0.5060.114

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
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 ONP Release 5.0

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	
Greenfield NCS 1010 Network Design	You can design and validate NCS1010 optical line system. This feature helps to create OLT-C, OLT-R-C, ILA-C, ILA-R-C, and ILA-2R-C based NCS 1010 networks using fixed grid add/drop MD-32-ODD, MD-32-EVEN and flex grid add/drop BRK-24, BRK-16, and BRK-8 passive modules.
NCS 1010 Network Upgrade Flexibility	After a network is analyzed, all the network elements get locked. With this feature, you can selectively unlock certain network elements to upgrade the network further. This helps in preventing accidental updates to the part of the network that does not need any modification.

Feature	Description
View Internal Node Connections of NCS 1010 Network	The Node diagram tab displays a functional view that includes precise connections and port labeling of each component such as OLT or ILA, NCS1K-BRK-8/16/24, AAWG-32-O, and AAWG-32-E, for each site in an analyzed NCS 1010 network.
Layout Edit Support for NCS 1010 Networks	Cisco has introduced NCS 1010 as a new optical line system to meet the growing optical network needs. Using Cisco ONP you can visualize and edit layouts for NCS 1010 chassis and patch panels.
Export NETCONF File from NCS 1010 network	You can export the NETCONF XML files for all the NCS 1010 nodes, and upload them to the NCS 1010 nodes through the Yang suite. This enables automatic bring up of the NCS 1010 nodes using the NETCONF data.
Export Network Planning Data for Cisco Optical Network Controller (Cisco ONC)	You can export the network planning data in the form of a JSON file. This JSON file can be uploaded into Cisco ONC to configure the managed devices in bulk.
NCS2K-RMN-CTP-C+L support	Cisco ONP now supports the passive module, NCS2K-RMN-CTP-C+L (C- and L-band counterpropagating Raman amplifier), starting from the NCS 2000 system release 12.3.1 for SSON and non-SSON networks.
CX Unified Planning Tool Network Import	The integration between CX Unified Planning Tool (UPT) and Cisco ONP enables you to import the networks created and analyzed in Cisco CX UPT into Cisco ONP. This helps you avoid recreating the networks that are already created in UPT. This feature allows you to import networks having NCS 1010 and NCS 2000 nodes into Cisco ONP.
Create Optical Source using Excel Sheet	You can create an optical source by defining the details of interfaces and the corresponding optical classes in an Excel template. This feature provides you the flexibility to create any required optical source based on existing or new traffic resources.
Automatic Suggestion for Regeneration Sites	Cisco ONP displays feasibility report in the Plan mode. This report automatically suggests regeneration sites for the channels with high and marginal risk of failure. You can incorporate these regeneration sites in the optical network to make the channel optically feasible. This feature avoids multiple iterations required to manually create the regeneration sites and test the optical feasibility of large networks.

Caveats

Open Caveats

Table 2: Open Caveats

Caveat ID Number	Description
CSCwc58406	Analysis fails with error in upgrade after unlock and copy of pluggable circuit

Caveat ID Number	Description
CSCwc62165	Excel Import -Analysis is failing for NCS 2000 colored network when no contentionless sides are added
CSCwc62281	Few of the NCS 2000 BoM PIDS, total BOM is becoming zero, when addition of NCS 1000/NCS 4000 Layout in Analyze mode
CSCwc47776	Card position not getting reflected in the NetConf XML after doing layout movement on NCS 1010 node
CSCwc54441	FlexAlien -Analysis is failing when the demand with alien added having only mandatory fields

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.

Other Important Information

Upgrade from Cisco ONP Release 4.2 to Cisco ONP Release 5.0 is supported. Cisco recommends to clear the browser cache before starting with Cisco ONP Release 5.0.