Import Your Live Network and Plan Future Expansion with Cisco Optical Network Planner

Live Network Import (LNI) is the final step after a network is created, where the deployed devices and their current configuration are imported into Cisco Optical Network Planner to reflect the actual state of the live network.

LNI is a network import capability that:

- Imports deployed optical networks into Cisco Optical Network Planner in real time
- Supports networks with NCS 1004, NCS 1010, NCS 1014, and NCS 2000 nodes
- Provides a complete view of the deployed network after import

Perform live network import

Use this procedure to perform live import of a network from Cisco ONC.

Before you begin

- Perform LNI only when the Cisco ONC is in a stable or running state. Do not perform LNI during the maintenance period for software upgrade.
- Ensure that the release version of Cisco ONC you are using for the network import is 25.1.1 or above.
- Cisco ONP removes any card that is not properly connected via IPC in Cisco Optical Site Manager during LNI. To retain equipment, ensure that each card has at least one valid IPC connection in Cisco Optical Site Manager.
- Configure all the mandatory parameters on the circuit.
- Check the card label set for these NCS 2000 cards and update it if they are not aligned.

PID	Card label
NCS2K-16-AD-CCOFS	AD-16-FS
NCS2K-20-SMRFS	SMR20-FS-CV

PID	Card label
NCS2K-20-SMRFS-L	SMR20-FS
NCS2K-9-SMR17FS	SMR9-17-FS
NCS2K-9-SMR24FS	SMR9-24-FS
NCS2K-9-SMR34FS	SMR9-34-FS
NCS2K-9-SMR34FS-L	SMR9-34-FS
15454-M-RAMAN-COP=	OPT-RAMP-COP
15454-M-RAMAN-CTP=	OPT-RAMP-CTP
NCS2K-OPT-EDFA-35	OPT-EDFA-35

- Log in to the Cisco ONP web interface

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Procedure

Step 1 Choose **Import** > **Live Import**.

Step 2 In the **Import Live Network** dialog box:

a) Enter **CONC Server IP**, **Username**, and **Password**.

b) Click **Import**.

The **Import** button will be enabled only when all the values entered are valid.

Step 3 View the status of the LNI operation:

a) Click **Job Monitor**, to view the status of the IMPORT_LIVE_NETWORK task. Click **Refresh** to see the updated status.

After LNI is completed, the job is removed from the **Job Monitor** page.

b) Click **Logs** to view the list of events that are related to the LNI operation, as logs.

Step 4 After the completion of the LNI operation, choose **File** > **Open**.

The format of the LNI imported network filename is LNI_<Date>_<Time>.

Step 5 Click the imported network name to view the network under the **Map** tab and its corresponding network tree in the left panel.

You can view the tag **Imported from Network** in the interface.

Note

- During the live import of a network with an optical source, if the configuration code of the optical source does not match, it will default to NCS1004_SP_16QAM_300G_27%SDFEC_69GBd. You can update the optical source in upgrade mode while the network is in a locked state.

- The configurations that are supported by Cisco ONC can only be imported into Cisco ONP. See Configurations and hardware supported by LNI.
- Even if errors occur during the LNI operation, the operation is not canceled. In this case, when you open the imported network, a warning message appears.
- You can view the errors under the **Elements** > **Messages** tab. See both critical and noncritical messages.

  If you find unconnected equipment in the **Messages** tab, upgrade the imported LNI network and make the necessary adjustments to reintegrate the removed equipment into Cisco ONP. However, note that the newly created equipment UID may not match the one in Cisco Optical Site Manager. You can utilize the UID edit feature to align the UIDs between Cisco ONP and Cisco Optical Site Manager. Refer to Edit the Unique ID of the chassis
- Each user is permitted to initiate only one LNI process at a time. If a user tries to start an additional concurrent LNI process, the system will terminate the new request and display an error message indicating the restriction. This limitation is applied on a per-user basis, allowing multiple users to run their own LNI processes simultaneously on the same CONC server, as long as each user adheres to the rule of having only one active process.
- If both NCS and Non-NCS PIDS are present in the inventory, Cisco ONP enables the **Enable NCS** option. You can edit this option during upgrade after unlocking the site, if necessary.

What to do next

Click the **BOM** tab to view the BOM details of the network.

Note The PIDs of prototype cards are shown as "NA" in the BOM details of the LNI network.

You can export the CPZ, import the CPZ, and share the imported network. Use the **Entity Editor** to view network properties.

Collect troubleshooting data for live network import

Use this task when you need to share live network import data with the engineering team.

Before you begin

Ensure that the live network import has completed or failed with an error.

Follow these steps to collect troubleshooting data for live network import.

Procedure

Step 1 From Cisco Optical Network Planner, export and share the Cisco Optical Network Planner CPZ file for the network.

For detailed steps about exporting, see Export the CPZ file.

Step 2 Collect and share Cisco Optical Network Controller response data.

a) Open this URL in any browser.

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https://<conc_server_IP>:8443/onc-osapi-gw-service/v1/network
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b) Save the raw data response to text file in JSON format.