# View Network Reports

**Table 1: Feature History**

| Feature Name | Release Information | Feature Description |
|---|---|---|
| Deployability and Debuggability Enhancements | Cisco ONP Release 24.3.1 | |

| Feature Name | Release Information | Feature Description |
|---|---|---|
| | | 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

| Feature Name | Release Information | Feature Description |
|---|---|---|
| | | results by any column available in the report for more precise data analysis.<br><br>• **Elements > Messages**: Providing links to navigate to the respective object in the network tree, allowing users to take the necessary action to correct errors. |

*Table 2: Feature History*

| Feature Name | Release Information | Description |
|---|---|---|
| Simplified Navigation to Results Tab | Cisco ONP Release 5.1 | 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: <br><br> • Click the **Ellipsis** icon available in the right side of a particular site in the network tree to view: <br><br>   • BOM details <br>   • Optical Reports <br><br> • Click the **Ellipsis** icon available in the right side of a particular circuit/media/wave in the network tree to view: <br><br>   • Optical Report <br>   • Traffic Report <br><br> • New **IPC** tab —The **IPC** tab is introduced in **Cabling Reports** to intuitively view the internal patch connections for a site. <br><br> • 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. |

# Network Reports

Cisco ONP provides network reports, which are listed under the report availability tabs. Reports are available depending on whether a network is analyzed, or not. Reports are also available in site properties after analyzing the network.

Cisco ONP provides the following reports:

- Dashboard

- Elements

- Map

- BOM

- Layout

- Results

The Cisco ONP home page has multiple tabs to access the reports of the analyzed network. You can also view the reports for specific site, fiber, or wave properties by clicking the respective report in the Network Tree pane.

From Release 5.1, a search box is introduced in the **BOM** and **Results** tab. You can use the search box in the **BOM**, **Optical Report**, **Traffic Report**, and **Cabling Report** tabs to search for any specific site, fiber, or wave in the reports.

From Release 24.3.1, the *Reports* tabs that you open, do not refresh when you toggle between tabs.

# View Reports in the Dashboard Tab

The **Dashboard** tab provides the total count of sites, fibers, SRLGs, services, waves/media channels/circuits, and messages that exist in the network.

# View Reports in the Elements Tab

The **Elements** tab provides detailed reports of the network elements and messages.

| Report | Description |
|---|---|
| Sites | Shows the site information, which consists of the name of the sites, type and their X and Y coordinate values. |
| Fibers | Shows the information about the fiber length between the source and the destination for the corresponding sites. You can sort and filter the fiber details available in each column of the table. |
| Services | Shows the service type, source and destination sites for particular service, quantity, protection type, and status. For each service, the report shows the primary path, secondary path, and their status. |

| Report | Description |
|--------|-------------|
| Waves | The Waves report shows the number of waves available in the network and the wave utilization. Click each wave to view the following details:<br><br>• Wave—Consists of a wave UID and its source and destination sites.<br><br>• Wave Details—Provides details of wave OSNR, channel path, OTN services associated to wave and excluded channels.<br><br>• Channels—Port details of the source and destination cards, the wavelength that is used, and its utilization demands.<br><br>• Optical Results—Provides details of optical parameters such as OSNR, SOL, EOL, Power margin, CD, and PMD. |
| SRLGs | Lists the names of created SRLGs and their fiber details. Click **Export** at the bottom to export the report in .xlsx format. |
| Messages | Shows messages that are related to errors occurred while analyzing the network. By default, only critical messages for the analyzed network are listed here. You can disable the **Critical Only** toggle button to view all messages.<br><br>Click the link in the Target column to navigate to the respective object in the network tree and take the necessary action to correct the error. |

**Note** Click the Pop-up icon to view the reports in a larger, resizable window.

# View Details of the BOM Report

*Table 3: Feature History*

| Feature Name | Release Information | Feature Description |
|--------------|--------------------|--------------------|
| Support for New PIDs for SMR-20 Card | Cisco ONP Release 4.2 | The following new licensed PIDs for the SMR-20 card are displayed on the BOM page so that you can view the price details and consider ordering.<br><br>• NCS2K-FSSMR-2LIC=<br><br>• E-NCS2K-1P-LIC=<br><br>• E-NCS2K-5P-LIC=<br><br>• E-NCS2K-10P-LIC= |

*Table 4: Feature History*

| Feature Name | Release Information | Feature Description |
|---|---|---|
| MLP Brownfield with Diff BOM | Cisco ONP Release 4.1 | This feature allows you to perform the following:<br><br>• Compare the BOMs of two or more LNI imported networks.<br><br>• Upgrade brownfield network.<br><br>• Upgrade the Cisco ONP network with traffic sites. |

The Bill of Materials (BOM) report includes these components:

- Detailed price lists for each site.

- Categories of elements such as Chassis, Controller, Mux-Demux, Line Card, Filler, and more.

- The overall BOM for the entire network.

To view the BOM for OTN and DWDM separately, click on each site.

You can compare the BOM of the existing network with other networks using the **Compare with: Other Networks** option.

You can export the BOM details in the form of a spreadsheet, by clicking **Export** and saving it to your local system.

From Release 24.3.1, the exported Excel file includes these updates:

- **Sales BOM Sheet**: Contains information tailored for sales personnel.

- **Net BOM Sheet**: Now includes the site-wise BOM count, providing a comprehensive overview of all network elements in the analyzed network.

We recommend that you export the BOM report only in the analyze mode. Exporting the reports in the upgrade and release upgrade modes may be inaccurate.
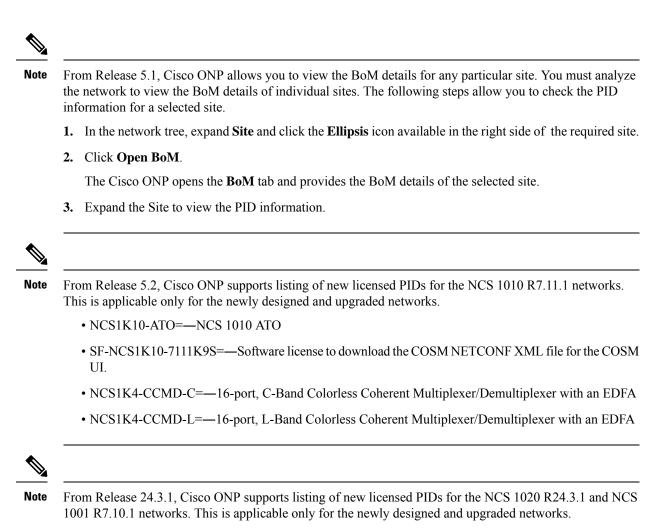
**Note** You can also compare the BOM of LNI imported networks.

**Note** From Release 4.2, Cisco ONP supports the listing of new licensed PIDs for the SMR-20 card. The PIDs are chosen based on the demand. This is applicable only for the newly designed and upgraded networks.

- NCS2K-FSSMR-2-LIC=―20-port FS-SMR licensed to enable two ports

- E-NCS2K-1P-LIC=―Software license to enable one port on licensed 20-port FS-SMR

- E-NCS2K-5P-LIC=―Software license to enable five ports on licensed 20-port FS-SMR

- E-NCS2K-10P-LIC=―Software license to enable ten ports on licensed 20-port FS-SMR

**Note** From Release 5.1, Cisco ONP allows you to view the BoM details for any particular site. You must analyze the network to view the BoM details of individual sites. The following steps allow you to check the PID information for a selected site.

1. In the network tree, expand **Site** and click the **Ellipsis** icon available in the right side of the required site.

2. Click **Open BoM**.

   The Cisco ONP opens the **BoM** tab and provides the BoM details of the selected site.

3. Expand the Site to view the PID information.

**Note** From Release 5.2, Cisco ONP supports listing of new licensed PIDs for the NCS 1010 R7.11.1 networks. This is applicable only for the newly designed and upgraded networks.

- NCS1K10-ATO=—NCS 1010 ATO

- SF-NCS1K10-7111K9S=—Software license to download the COSM NETCONF XML file for the COSM UI.

- NCS1K4-CCMD-C=—16-port, C-Band Colorless Coherent Multiplexer/Demultiplexer with an EDFA

- NCS1K4-CCMD-L=—16-port, L-Band Colorless Coherent Multiplexer/Demultiplexer with an EDFA

**Note** From Release 24.3.1, Cisco ONP supports listing of new licensed PIDs for the NCS 1020 R24.3.1 and NCS 1001 R7.10.1 networks. This is applicable only for the newly designed and upgraded networks.

- NCS1020-SA=—NCS 1020 Shelf Assembly

- NCS1020-FAN=—NCS 1020 Fan for NCS 1014 Slots

- NCS1020-FAN-BLANK=—NCS 1020 Fan Blank

- CWDM-SFP-1510=—CWDM 1510 NM SFP Gigabit Ethernet and 1G/2G FC

- CWDM-SFP-1610=—CWDM 1610 NM SFP Gigabit Ethernet and 1G/2G FC

- ONS-SC-Z3-1510=—SFP - OC48/STM16/GE, CWDM, 1510 nm, Commercial Temp

- ONS-SC-Z3-1610=—SFP - OC48/STM16/GE, CWDM, 1610 nm, Commercial Temp

- ONS-SE-155-1510=—SFP - OC3/STM1 CWDM, 1510 nm, EXT

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**Note**   From Release 24.3.1, Cisco ONP supports listing of new licensing PIDs and smart bandwidth licensing PIDs for the NCS 1014 Transponder cards. This is applicable only for the newly designed and upgraded networks.

- S-NCS1K14-L-100U= : NCS 1014 100G Client Capacity Smart License - 400-600

- S-NCS1K14-L-100L= : NCS 1014 100G Client Capacity Smart License - 700-900

- S-NCS1K14-L-100M= : NCS 1014 100G Client Capacity Smart License - 1T-1.2T

- NCS1K14-2.4T-K9= : Network Convergence System 1014 2.4T Line Card

- NCS1K14-2.4T-X-K9=: Network Convergence System 1014 2.4T-X Line Card

- NCS1K4-QXP-K9=: NCS1004 3.2T QSFP-DD DCO Transponder

- ESS-TXP-SIA3: Essential Coherent DWDM interface SIA 36-59 months

- ESS-TXP-SIA5: Essential Coherent DWDM interface SIA 60-120 months

- ESS-TXP-RTU: Essential Coherent line card interface RTU

- ADV-TXP-SIA3: Advance Coherent DWDM interface SIA 36-59 months

- ADV-TXP-SIA5: Advance Coherent DWDM interface SIA 60-120 months

- ADV-TXP-RTU: Advance Coherent line card interface RTU

# View Details of Layout and Internal Connections

To get the details of layout and internal connections, perform the following steps:

**Before you begin**

Log in to Cisco ONP Web Interface.

**Step 1**   Click the **Layout** tab on the Cisco ONP home page.

**Step 2**   Type the site name in the search box, or select a site from the **Sites** drop-down list.

The site layout is displayed with its racks and cards. Hover the mouse pointer over the transponder card to view the details of slot, PID of the card, and ports. Expand the Ports to view details, such as wavelength and trunk mode. Similarly, hover the mouse pointer over chassis to know the total power consumption.

SVO supports up to 50 UIDs, beyond which, the site layout displays incorrect UID for the chassis.

**Step 3**   Click the **IPC** tab to view the selected site's internal patch connections.

# Export Internal Connections

Cisco ONP allows you to export internal fiber connection in two ways, either at Site-level or Network-level. To export the details, Click the **Ellipsis** icon available in the right side of the internal fiber connection or site, and click **Export**.

# View End-to-End OCH Connections

*Table 5: Feature History*

| Feature Name | Release Information | Feature Description |
|---|---|---|
| View the End-to-End Optical Channel (OCH) Connectivity from Source to Destination | Cisco ONP Release 24.3.1 | 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:<br><br>• **Degree Connection View**: Displays the source and destination site's connectivity.<br><br>• **Functional View**: Displays the end-to-end port and card connections from source to destination through the fiber. |

To view the end-to-end OCH connectivity from source to destination, perform the following steps:

**Before you begin**

Log in to Cisco ONP Web Interface.

**Step 1**      Click the **Layout** tab on the Cisco ONP homepage.

**Step 2**      Click the **OCH** tab.

The **OCH Pipes** pane appears to display the sites and sections in the circuits tree.

**Step 3**      Click the ellipses (3 vertical dots) icon next to the **Circuits**.

A pop-up list appears to display the view options.

*Table 6: Option Descriptions*

| Options | Descriptions |
|---|---|
| Expand All | Expands all the items in the circuits tree. |
| Collapse All | Collapses all the items in the circuits tree. |

**Step 4**      Use the search bar or filter icon to select the required source and destination sites.

| Icon/Field | Description |
|---|---|
| Search | Locates the site based on the typed-in site name. |
| Filter | Filters the circuit based on **Source Site** and **Destination Site**. |

| Icon/Field | Description |
|---|---|
| Reset | Resets the filter conditions. |

Based on the unit that you select in the circuit tree, you can see the site connectivity or the detailed end-to-end OCH connectivity.

| If you click the... | Then you can see the... |
|---|---|
| circuit in the OCH tree | source and destination site connectivity only. |
| sections in the OCH tree | end-to-end OCH connectivity, including intermediate nodes and cards connectivity. |

**Step 5** In the graphical area, use the action icons to view the source and destination sites connectivity.

*Table 7: Action Icons*

| Icons | Description |
|---|---|
| Zoom In | Zooms in for a closer view of the specific connection |
| Zoom Out | Zooms out for a larger view of the entire connection |
| Fit View | Resets the zoom-in/zoom-out view to the default view |
| Lock/Unlock | Locks the view at a specific area<br>Unlocks the view |
| Download PNG | Downloads the end-to-end circuit connection as PNG image |
| Switch to Degree Connection View / Switch to Functional View | • **Degree Connection View**: Displays the source and destination site's connectivity<br><br>• **Functional View**: Displays the end-to-end port and card connections from source to destination through the fiber |
| Reset All Nodes Position | Reverts the nodes to the default position |

## Export End-to-End OCH Connections

To view the end-to-end OCH connectivity from source to destination, perform the following steps:

**Step 1** In the graphical area, click the download icon.

The **Export** pop-up list appears to display the circuit options.

*Table 8: Option Descriptions*

| Options | Descriptions |
|---------|--------------|
| Current Circuit | Provides details of the end-to-end OCH connectivity for the circuit that you selected |
| All Circuits | Provides details of the end-to-end OCH connectivity for all the circuits |

**Step 2**    Click the required option to export the end-to-end OCH connectivity details in an excel sheet.

# View Power Consumption and Unit Weight Report

*Table 9: Feature History*

| Feature Name | Release Information | Feature Description |
|--------------|---------------------|---------------------|
| Power Consumption and Unit Weight Report | Cisco ONP Release 5.2 | Now, you can generate the power consumption and unit weight report for each product ID (PID). In the layout tab, you can see the power consumption and unit weight values and export them into Excel as a report for a single site or all sites. With prior knowledge of power consumption and weight details for each PID, you can plan and design an energy-efficient network. <br><br> The new options that allow you to view and export the reports are: <br><br> • **Show Typical Power Consumption** <br><br> • **Show Max Power Consumption** <br><br> • **Show Unit Weight** <br><br> • **Power Consumption & Weight** |

The Power Consumption and Unit Weight report includes power consumption and weight details of cards and shelves in each individual site. To view the Power Consumption and Unit Weight of each site, perform the following steps.

☞

**Remember**    The power consumption of the Power Supply Unit (PSU) is not included in the total power consumption for the NCS 1001, NCS 1010, NCS 1014, and NCS 1020 chassis. To determine the total power consumption for these chassis, add eight percent of the aggregated power consumption of all the cards inside the chassis to cover the PSU power consumption.

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**Note**    You must upgrade and analyze the LNI network to view the power consumption and weight report.

**Before you begin**

[Log in to Cisco ONP Web Interface.](#)

**Step 1**  Click the **Layout** tab on the Cisco ONP home page.

**Step 2**  Click the ellipses (3 vertical dots) icon next to the **Sites**.

A pop-up list appears to display the following options.

*Table 10: Option Descriptions*

| Options | |
|---|---|
| Expand All | Expands all the items in the layout tree. |
| Collapse All | Collapses all the items in the layout tree. |
| Show Typical Power Consumption | Check the **Show Typical Power Consumption** check box to view the typical power consumption values of each card and shelf in watts. |
| Show Max Power Consumption | Check the **Show Max Power Consumption** check box to view the power consumption values of each card and shelf in watts. Max Power Consumption for a shelf is the sum of cards and modules. **Note** The total power consumption of an NCS 2000, NCS 4000, or NCS 1000 shelf changes based on AC or DC power supply. • For DC power supply, total power consumption of the shelf includes all Cards, DC power module, and fan tray. • For AC power supply in NCS 2000 M6 only, total power consumption of the shelf includes all cards, fan tray, 10% of power consumed by all cards, and 5W of Cooling Unit power consumption. |
| Show Unit Weight | Check the **Show Unit Weight** check box to view the weight of each card and shelf in kilogram. Unit Weight for a shelf is the sum of cards and modules. |

**Step 3**  Choose the options as required.

## Export Power Consumption and Unit Weight Report

To export the power consumption and weight report of each shelf and card, perform the following steps:

**Step 1**  In the graphical area, click the download icon.

The **Export** pop-up list appears displaying the following options.

*Table 11: Option Descriptions*

| Options | |
|---|---|
| Current site | Provides details of the site that you selected. |
| All Sites | Provides details of all the site. |

**Step 2**      Click the option as required.

**Step 3**      Click **Power Consumption & Weight** to export the optical reports details in an Excel sheet.

We recommend that you export the power consumption and weight report only in the analyze mode. Exporting the reports in the upgrade and release upgrade modes may be inaccurate.

# Compare the Installation Parameters of Two Networks

*Table 12: Feature History*

| Feature Name | Release Information | Feature Description |
|---|---|---|
| UI Revamp of Optical Reports | Cisco ONP Release 4.1 | This feature improves the user experience while comparing the installation parameters and optical reports of two networks. |

Use this task to compare the installation parameters of two networks.

**Before you begin**

Log in to Cisco ONP Web Interface.

**Step 1**      Click the **Results** tab on the Cisco ONP home page.

**Step 2**      Click **Installation Parameters**.

**Step 3**      Click **Other Networks**.

**Step 4**      From the list of networks, choose the network to compare with.

You can find a new parameter called **diffBy**.

**Note**      You can click **Clear** to stop the comparison of two networks.

**Step 5**      Click **Export Report** to export the comparison report.

# Compare the Optical Report of Two Networks

Use this task to compare the optical report of two networks.

**Before you begin**

Log in to Cisco ONP Web Interface.

**Step 1**   Click the **Results** tab on the Cisco ONP home page.

**Step 2**   Click **Optical Report**.

**Step 3**   Click **Other Networks**.

**Step 4**   From the list of networks, choose the network to compare with.

You can find two values in the optical parameters such as Protection, SOL, EOL, SE, P/F, Source, Src Colorless, Src Contentionless, Destination, Dst Colorless, Dst Contentionless, Wavelength, Src Tx Type, Dst Tx type, Span, Suggested Regen Locations, BER Target, SOL OSNR, EOL OSNR, SOL OSNR margin, EOL OSNR margin, SOL RX, EOL RX, SOL Power Margin, EOL Power Margin, SOL Overload, EOL Overload, Residual CD, CD robustness, Single-Channel NLE Status, Multi-Channel NLE Status, Min GB, Filtering Penalty, PMD, RX Atten, TX Atten, Encryption, SNLE Components, MNLE Components, OSNR Penalties and POWER Penalties.

**Note**   You can click **Clear** to stop the comparison of two networks.

**Step 5**   Click **Export Report** to export the comparison report.

# View the Results of Analysed Network

Use this task to view the details of optical reports, installation parameters, traffic reports, and cabling reports.

**Note**   Optical results are available only in Upgrade and Release Upgrade modes. You can refer to the optical results data to check and correct the optically not feasible channels. After making the necessary corrections, analyze again to update the optical results based on the new modifications in the Upgrade and Release Upgrade modes.

**Before you begin**

Log in to Cisco ONP Web Interface.

**Step 1**   Click the **Results** tab on the Cisco ONP home page.

By default, the **Optical Report** tab appears. Each row in the tab shows the performance of one optical path. See Optical Report, on page 17.

From Release 5.1, the **OSNR RBW** drop-down list allows you to select the OSNR Resolution bandwidth between 0.5 nm and 0.1 nm. The default value is 0.5 nm. This value can be changed in all the modes such as Design mode, Analyzed mode, Upgrade mode, and Release upgrade mode. When you change the value to 0.1 nm the SOL G-OSNR and EOL G-OSNR value increases to 7dB.

From Release 5.1, Cisco ONP allows you to view the optical report for any particular optical path. You must analyze the network to view the optical report of an individual optical path. The following steps allow you to check the wave and aggregated wave information for a selected circuit.

a.   In the network tree, expand **Circuits/Waves/Media Channels** and click the **Ellipsis** icon available in the right side of  the required optical path.

**b.** Click **Open Results**.

The Cisco ONP opens the **Optical Report** tab and provides the details of the selected optical path.

**c.** Expand the optical path to view the wave information.

**Note** From Release 24.1.1, you can view the multicarrier sites highlighted in the *Optical Report* tab, and organized in the *Installation Report* tab.

**Step 2** Click **Export Report** to export the optical reports details in an Excel sheet.

We recommend that you export the optical report only in the analyze mode. Exporting the reports in the upgrade and release upgrade modes may be inaccurate.

**Step 3** Click the **Installation Parameters** tab.

The Installation Parameters report shows the values to be set (provisioned) at the installation time on each site in the network.

To view the installation parameters for Automatic Node Setup (ANS) and Automatic Node Provisioning (ANP), click the **ANS** , and **ANP** tabs. See Installation Parameters, on page 19

**Step 4** Click the **Traffic Report** tab.

You can view the aggregated demand channel data in the form of the traffic reports. See Traffic Reports, on page 20.

**Note** To view the traffic report for any particular optical path, do the following:

**a.** In the network tree, expand **Circuit** and click the **Ellipsis** icon available in the right side of  the required optical path.

**b.** Click **Open Results**.

The Cisco ONP displays the traffic report for the selected optical path.

**Note** By default, clicking **Open Results** opens **Optical Result** under the **Results** tab. You must click **Traffic Report** to view traffic reports.

**c.** Expand the optical path to view the wave information.

In Release 5.1, you can view traffic report for all imported networks except the imported .mpz networks. To view the traffic report for individual optical path in imported .mpz networks, you must manually search in the Search box.

**Step 5** Click the **Cabling Report** tab. See Cabling Report, on page 21

You can view the patch cord connections related to internal patch connections and multi-shelf management. This report is available for the networks starting from NCS 2000 system Release 12.1.0.

From Release 5.1, Cisco ONP allows you to view the internal patch connections for any particular site. You must analyze the network to view the IPC details of individual sites. The following steps allow you to check the IPC information for a selected site.

**a.** In the network tree, expand **Site** and click the **Ellipsis** icon available in the right side of  the required site.

**b.** Click **Open Cabling Report**.

The Cisco ONP opens the **Cabling Report** tab. By default, the **IPC** tab appears and provides the IPC details of the selected site.

c. Expand the Site to view the internal patch connections.

Use the Search box on top of the reports to search for any specific site or wave in the reports. The following steps help you to find any specific information in the reports.

a. Enter the name of the specific site or wave in the Search box.

b. Choose **equals** or **contains** from the drop-down list.

c. Click the Search icon to search for the required site or wave.

# Optical Report

From Release 24.3.1, you can filter the results by any column available in the report for more precise data analysis. For reports represented as colored icons, you can use the first letter of the color (e.g., "g" for green) to filter the results.

*Table 13: Optical Report*

| Optical Parameter | |
|---|---|
| Name | Displays the ID number of the wave and aggregated waves. ID is automatically generated based on the site name. |
| Protection | Displays the protection type of the wave. |
| Protection Type | Displays whether the path type is Protected or Working path for NCS 1001. |
| SOL | Displays an icon indicating the results summary of the analysis that is run with Start of Life (SOL) fiber loss values:<br><br>• Green indicates success.<br><br>• Yellow indicates success with a marginal failure risk.<br><br>• Orange indicates that the channel has a higher risk of failure.<br><br>• Red indicates failure. |
| EOL | Displays an icon indicating the results summary of the analysis that is run with End of Life (EOL) fiber loss values. The indicator shows the optical performance for the path at the end of the fiber life:<br><br>• Green indicates success.<br><br>• Yellow indicates success with a marginal failure risk.<br><br>• Orange indicates that the channel has a higher risk of failure.<br><br>• Red indicates failure. |
| SE | Indicates a system-related error that may impact the analysis of the design. If the indicator is red, review the messages that are reported at the end of the analysis or determine which units or sites have a problem. |

| Optical Parameter | |
|---|---|
| P/F | Displays the present or forecast services indication. |
| Source | Displays the name of the source site and side; for example, Site 1-E. |
| Src Colorless | Displays whether the colorless functionality is enabled on source ports. |
| Src Contentionless | Displays whether the contentionless functionality is enabled on source ports. |
| Destination | Displays the name of the destination site and side; for example, Site 1-E. |
| Dst Colorless | Displays whether the colorless functionality is enabled on destination ports. |
| Dst Contentionless | Displays whether the contentionless functionality is enabled on destination ports. |
| Wavelength | Displays the wavelength of the optical channel. |
| Band Type | Displays the band type of the optical path. |
| Src Tx Type | Displays the type of DWDM unit or pluggable port module that is used at the source of the specific Optical Channel (OCH) trail. The class of the DWDM unit is also displayed. |
| Dst Tx type | Displays the type of DWDM unit or pluggable port module that is used at the destination of the specific OCH Trail. The class of the DWDM unit is also displayed. |
| Span | Displays the total span length (source to destination) for this path in kilometers. |
| Suggested Regen Locations | Displays the regeneration locations. |
| BER Target | Displays the bit error rate (BER) target for this channel, based on the capability of the channel's optical interface. It is 1.0E-15 for the interfaces using forward error correction (FEC) and 1.0E-12 for interfaces without FEC. |
| SOL OSNR | Displays the start of life average Optical Signal to Noise Ratio (OSNR) value at the receiver. |
| EOL OSNR | Displays the end of life average OSNR value at the receiver. |
| SOL OSNR margin | Displays the SOL OSNR margin calculation. It is the difference between the OSNR value at certain power of the working point of the receiver client and the working area boundary. |
| EOL OSNR margin | Displays the EOL OSNR margin calculation, which is the difference between the OSNR value at a certain power of the working point of the receiver client and the working area boundary. |
| SOL RX | Displays the SOL average power that is received at the destination site in dBm. |
| EOL RX | Displays the EOL average power that is received at the destination site in dBm. |
| SOL Power Margin | Displays the SOL power budget margin at the receiver in decibels. It is defined as the offset between the receiver working point and the BER curve with margin. A positive value indicates that there are no power problems. |
| EOL Power Margin | Displays the EOL power budget margin at the receiver in decibels. It is defined as the offset between the receiver working point and the BER curve with margin. A positive value indicates that there are no power problems. |

| Optical Parameter | |
|---|---|
| SOL Overload | Displays the SOL overload margin at the receiver in decibels. A positive value indicates that there are no overload problems. |
| EOL Overload | Displays the EOL overload margin at the receiver in decibels. A positive value indicates that there are no overload problems. |
| Residual CD | Displays the chromatic dispersion (CD) margin of the demand. |
| CD robustness | Displays the robustness to chromatic dispersion of the receiver. |
| Single-Channel NLE Status | Displays the status of alarms if any nonlinear effect (NLE) is present in the demand. |
| Multi-Channel NLE Status | Provides the status of the nonlinear effect (NLE) on a particular channel or demand due to other channels or demands. |
| Min GB | Displays the minimum Guard Band (GB) requirement between channels on the 40G CP-DQPSK MXP and 40G CP-DQPSK ME MXP cards, and other transponders in a mixed any-to-any connectivity. |
| Filtering Penalty | Displays the value of the penalties that are caused by different filter types (OADM, ROADM, and arrayed waveguide grating (AWG)). |
| PMD | Displays the calculated total Polarization Mode dispersion (PMD) for each circuit. If the overall PMD for the link overcomes the maximum that is allowed, the PMD value is displayed in a red-colored font. The maximum allowed value depends on the client interface. For these special cases, the network must be manually resolved by contacting a Cisco TAC team. |
| RX Atten | Displays the attenuation at the input of the receiver. |
| TX Atten | Displays the attenuation at the output of the receiver. |
| Encryption | Displays the encryption type of the channel. Possible values are N/A, Yes, No. |

## Installation Parameters

**Table 14: ANS Parameters**

| Parameter | Description |
|---|---|
| Name | Displays the name of the site |
| Side | Displays the line side |
| Position | Displays the rack, shelf number, and slot position of the card where the patch cord originates. |
| Unit | Displays the name of the card. |
| Port | Displays the port number where the patch cord originates. |
| Port ID | Displays the port ID. |
| Port Label | Displays the name of the port. |

| Parameter | Description |
|---|---|
| Parameter | Displays the name of the parameter to be set, such as RX Power Low, PSDShape, PSD, Gain, AmpliGainRange, AddAttenuation, DropAttenuation, Control Mode, MinExpSpanLoss, MaxExpSpanLoss and so on.<br><br>For the CCMD-16 LC card connected to the ports of the OLT-E-C, the PSD is set using a specific formula and the VOA drop attenuation is set to 0dB to have optimal RX power for the circuits. |
| Value | Displays the name of the value to be set for the parameter. |
| Measurement Unit | Displays the measurement unit for the related installation parameter value, such as dBm. |
| Manual Set | Indicates with a Yes or No which parameters must be manually set using the Cisco Transport Controller (CTC) interface. |

*Table 15: ANP Parameters*

| Parameter | Description |
|---|---|
| Name | Displays the name of the site. |
| Unit ID | Displays the unit (slot number) of the passive units in the shelf. |
| Shelf ID | Displays the shelf identifier. |
| Rack Number | Displays the rack number. |
| Rack Position | Identifies the rack position in the shelf. |
| Slot Position | Identifies the slot position in the shelf for the card. |
| Equipment Type | Displays the card type. |
| Description | Displays the details of the card type. |

# Traffic Reports

*Table 16: Traffic Reports*

| Traffic Report | Description |
|---|---|
| Demand | Categorizes each demand type. Each demand is further categorized into service, trails, and sections. |
| Section | Displays the sections under every service. |
| Src Site | Displays the site name for the optical channel source. |
| Band Type | Displays the band type for the optical path. |

| Traffic Report | Description |
|---|---|
| Src Position | Displays the rack, shelf ID, and slot identifiers for the source of the optical channel. |
| Src Card | Displays the unit name for the optical channel source. |
| Dst Site | Displays the site name for the optical channel destination. |
| Dst Position | Displays the rack, shelf ID, and slot identifiers for the destination of the optical channel. |
| Dst Card | Displays the unit name for the optical channel destination. |
| Client Service Type | Displays the client service type of the demand; for example, OC-48. |
| Protection Type | Displays the protection type of the demand |
| Encryption | Displays whether the demand is encrypted or not, values are NA, Yes, No. |
| Wavelength | Displays the wavelength value of the optical channel, and the serial number of the wavelength in the wavelength band. |
| Max Latency (for NCS 2000 network) | Displays the latency time for the current circuit. This value includes all the latency components for the circuit, including fiber and DWDM units on the path. |
| Fiber Latency (for NCS 1010 and NCS 1001) | Displays the latency time for the fiber. |

# Cabling Report

The IPC Cabling Report and the IPC Patch Report are now consolidated into a single, unified view with additional columns. This streamlines connection details and eliminates the need to access multiple sources.

**Table 17: IPC**

| Parameter | Description |
|---|---|
| Name | Displays the name of the site. |
| Src Unit Type | Displays the source unit. |
| Src Position | Displays the rack, shelf, and slot position of the card from which the patch cord originates. |
| Src Port Label | Displays the name of the port. |
| SrcFicBay | Displays the assigned rack number. |

| Parameter | Description |
|---|---|
| SrcShelfName | Displays the type of shelf or the shelf name. |
| SrcShelfNumber | Displays the type of shelf or the shelf name. |
| SrcShelfUniqueId | Displays the unique ID assigned to the shelf. The unique ID will be used in COSM XML to posh the configuration to the device. |
| SrcRUPosition | Displays the rack unit position in layout. |
| SrcCardNumber | Displays the card slot number within the Shelf . |
| Cable | Displays the type of cable. |
| Dst Unit Type | Displays the source unit. |
| Dst Position | Displays the rack, shelf, and slot position of the card from which the patch cord terminated. |
| Dst Port Label | Displays the name of the port. |
| DstFicBay | Displays the assigned rack number. |
| DstShelfName | Displays the type of shelf or the shelf name. |
| DstShelfNumber | Displays the assigned shelf number. |
| DstShelfUniqueId | Displays the unique ID assigned to the shelf. The unique ID will be used in COSM XML to posh the configuration to the device. |
| DstRUPosition | Displays the rack unit position in layout. |
| DstCardNumber | Displays the card slot number within the Shelf . |
| ManuallySet/AutomaticallySet | Indicates whether a cable connection will be automatically generated or requires manual configuration for NCS 2000 networks. |

*Table 18: MSM*

| Parameter | Description |
|---|---|
| Name | Displays the name of the site. |
| Src Unit Type | Displays the source unit. |
| Src Position | Displays the rack, shelf, and slot position of the card from which the patch cord originates. |
| Src ID | Displays the source unit ID. |
| Src Port Label | Displays the name of the port. |

| Parameter | Description |
|---|---|
| Cable Type | Displays the type of cable. |
| Dst Unit Type | Displays the source unit. |
| Dst Position | Displays the rack, shelf, and slot position of the card from which the patch cord terminated. |
| Dst ID | Displays the destination unit ID. |
| Dst Port Label | Displays the name of the port. |
| W/P | Displays whether the connection relates to a present or forecast circuit. |

# Confidential Banner

**Table 19: Feature History**

| Feature Name | Release Information | Feature Description |
|---|---|---|
| Confidential Banner | Cisco ONP Release 4.1 | This feature indicates the confidentiality of the reports or results generated by Cisco ONP for a network. The CONFIDENTIAL banner is placed in all the exported reports. It is placed in the first row and first cell of the Excel sheet, followed by a blank row and the contents of the exported report. |

**Table 20: Feature History**

| Feature Name | Release Information | Feature Description |
|---|---|---|
| Customizable Confidential Banner | Cisco ONP Release 4.2 | The Confidential Banner string can be customized as required. An admin user can modify the banner string when the *confidentialBanner.enabled* field is set to true in the *feature.properties* file. |

The **CONFIDENTIAL** banner is to be present in all the exported reports. It is placed in the first row, first cell of the Excel sheet (.xslx), followed by a blank row and the contents of the exported report.

The exported reports include:

- Sites
- Fibers

**Confidential Banner**

- Services

- Waves

- Traffic

- Failure (Plan and Restore)

- BOM

- Media Channel

- SRLG

- Messages

- Optical Result

- Failure Group

- Cabling Report

- Service Aggregation

- IPC (Individual and All sites)

> **Note**
> - The **CONFIDENTIAL** banner is present in all the sheets, if multiple sheets are present in the xlsx file.
>
> - The **CONFIDENTIAL** banner is updated, only when you export the reports in .xlsx format.
>
> - The server admin can customize the banner string **CONFIDENTIAL** in the *confidentialBanner.content* field as required. The admin must set the *confidentialBanner.enabled* field to *true* in the *feature.properties* file to enable banner change. By default, the *confidentialBanner.enabled* value is set to *false*.