



# CHAPTER 3

## Viewing Network Reports

### 3.1 Types of Reports

Cisco Transport Planner provides the reports listed in [Table 3-1](#). Report availability depends on whether a network has been analyzed or whether it is in the Install or Upgrade state. Reports are also available by site. See [Table 3-1](#) for report availability details.

**Table 3-1** Report Availability

Report	Network Availability	Site Availability
NE Update	Analyzed	—
Installation Parameters	Analyzed	Analyzed
Traffic Matrix	Analyzed	Analyzed
Layout	Install, Upgrade, and Analyzed	Install, Upgrade, and Analyzed
Link Availability	Analyzed	Analyzed
Internal Connections	Analyzed	—
Optical Results	Analyzed	Analyzed
Wavelength Routing	Analyzed	—
Summary	Install, Upgrade, and Analyzed	Install, Upgrade, and Analyzed
Bill of Material	Install, Upgrade, and Analyzed	Install, Upgrade, and Analyzed
Ethernet Aggregated Demand	Analyzed	—
TDM Aggregated Demand	Analyzed	—

For more information on the Bill of Materials report, see the [“2.11 Generating a BoM”](#) section on [page 2-51](#). In addition, you can compare the following reports using the Reports Diff tool: Bill of Material, Internal Connections, and Installation Parameters.

To complete the procedures in this section, you must have a project open and the network(s) loaded. See the [“1.4.1 Opening a Project”](#) section on [page 1-15](#) and the [“1.4.2 Loading and Unloading Networks”](#) section on [page 1-16](#).

# 3.2 Viewing Reports

The following procedures use the Tasks Pane to access reports. You can also access reports by clicking the desired report in the Project Explorer tree Reports folder.

## 3.2.1 Viewing the Summary Report

The Summary report summarizes design information, optical results, design cost, and analyzer messages. You can view it before or after you analyze a network. It automatically appears when you analyze a network. Use the following procedure to view the report at another time:

- Step 1** Complete one of the following:
- To view the Summary report for a network, click the **Mgmt Tree** tab and click the network.
  - To view the Summary report for a site, click the **NtView Name** tab and click the site.
- Step 2** In the Tasks Pane, click **Summary**. The Summary tab appears (Figure 3-1).

Figure 3-1 Summary Tab

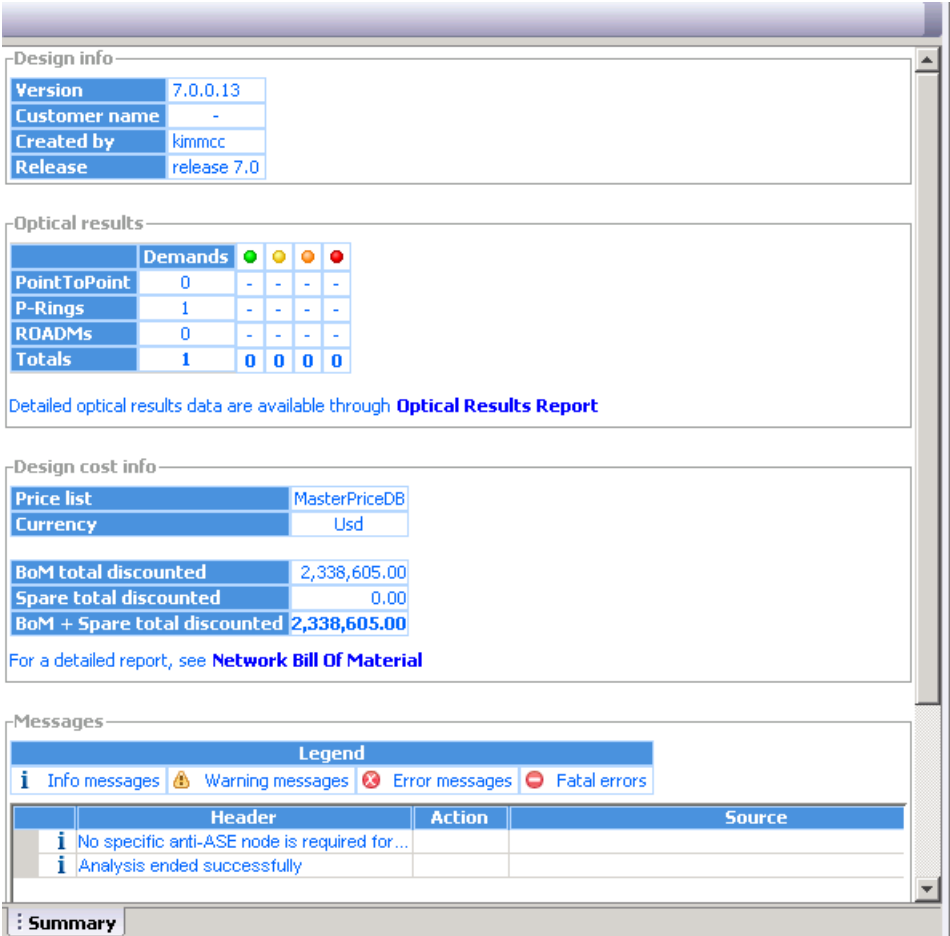


Table 3-2 lists the categories in the Summary tab and their descriptions.

**Table 3-2 Summary Tab Categories**

Category	Description
Design info	Displays the following information: <ul style="list-style-type: none"> <li>• Version—Displays the Cisco Transport Planner software release version.</li> <li>• Customer name—Displays the name of the customer requiring this network design.</li> <li>• Created By—Displays the user login name.</li> <li>• Release—Displays the Cisco Transport Planner software release number.</li> </ul>
Optical results	Indicates how many demands are included in the network, and identifies the number and severity of alarms for each demand.
Design cost info	Displays the following information: <ul style="list-style-type: none"> <li>• Price list—Displays the price list used.</li> <li>• Currency—Displays the currency selected for the price list.</li> <li>• BoM total discounted—Displays the total price of the products (excluding spare parts) in the network with the discount applied.</li> <li>• Spare total discounted—Displays the total price of the spare parts in the network with the discount applied</li> <li>• BoM + Spare total discounted—Displays the total price of the products (including spare parts) in the network with the discount applied.</li> </ul>
Messages	Displays any analyzer messages that occurred as a result of network analysis. Warning and error messages will help you identify problems with your current design. For a list of all system messages, see <a href="#">Appendix C, “System Messages.”</a>

## 3.2.2 Saving the NE Update File

After Cisco Transport Planner completes network analysis, you can create a configuration file. If the Optical Networking System (ONS) is Software Release 7.0 or later, a single XML file is created including all of the parameters for all the sites in the network; if the ONS is Software R4.7 or R5.0, a single TXT file is created for each site in the network. This file can be directly imported to a site using the NE Update feature in Cisco Transport Controller (CTC). CTC uses this file to preprovision a node.

Each file is named with the site name string by default. The list of reported installation parameters depend on the system release selected for the designed network. You generally save this file after you analyze an Install network.

Use the following procedure to save the NE Update file:

- 
- Step 1** Click the **Mgmt Tree** tab, and click the analyzed network.
  - Step 2** In the Tasks Pane, click **NE Update**. The Network Element Update File dialog box appears.

- Step 3** Check the **Include wavelength parameters** check box to include trunk wavelength preprovisioning in the NE Update XML file. Do not check this box if the network on which you import the NE Update file is using ONS Software R7.0.0. If this option is checked, trunk wavelength is preprovisioned in CTC for all the TXP and MXP units required to support present traffic demands.



**Note** During project creation, selecting MSTP- Release 7.0 allows you to create projects for system releases 7.0.0 and 7.0.x. However, when importing the NE Update file on a node using system release 7.0.0, the node cannot read the NE Update XML file if Include wavelength parameters is checked.

- Step 4** To save the file in a different directory than the Destination Folder, click **Change** and navigate to the desired directory. Click **Save**.
- Step 5** Click **Finish**.
- Step 6** Click **Cancel** to close the window without saving a configuration setup file.

### 3.2.3 Viewing the Installation Parameters

The Installation Parameters reports shows the values to be set (provisioned) at installation time on each site in the network. These parameters are grouped under the network elements (NE) that are created after network analysis. These parameters are exported when you save the NE Update file and are used to automatically provision a node using CTC.

Use the following procedure to view the installation parameters after a network has been analyzed:

- Step 1** Complete one of the following:
- To view the Installation Parameters report for a network, click the **Mgmt Tree** tab and click the network.
  - To view the Installation Parameters report for a site, click the **NtView Name** tab and click the site.
- Step 2** In the Tasks Pane, click **Installation Parameters**. The Installation Parameters tab appears (Figure 3-2). The ANS view subtab appears by default. This tab displays the Automatic Node Setup information.

**Figure 3-2 ANS View Subtab in the Installation Parameters Tab**

Name	Side	Position	Unit	Port #	Port ID	Port Label	Parameter
Site1							
Site2							
	A	Rack 1.Shelf 1.Slot 1	OPT-AMP 17	1	LINE-1-1-RX	COM RX	dwdm::Tx
	B	Rack 1.Shelf 1.Slot 17	OPT-AMP 17	1	LINE-17-1-RX	COM RX	dwdm::Tx
	A						dwdm::Rx
	A						dwdm::R
	A						dwdm:::
	A						dwdm::Tx:::
	A	Rack 1.Shelf 1.Slot 1	OPT-AMP 17	1	LINE-1-1-RX	COM RX	dwdm:::
	A						dwdm::Tx::Po
	A						dwdm::Rx::Po
	A						dwdm:
	B						dwdm::Rx
	B						dwdm::R
	B						dwdm:::

Table 3-3 describes the columns on the ANS view tab of the Installation Parameters report.

**Table 3-3 Installation Parameters Report ANS View Tab Columns**

Column	Description
Name	Displays the name of the site.
Side	Displays the node interface: T (terminal), E (east), or W (west).
Position	Displays the rack, shelf, and slot position of the card from which the patchcord originates.
Unit	Displays the name of the card.
Port #	Displays the port number from which the patchcord originates.
Port ID	Displays the port ID.
Port Label	Displays the name of the port.
Parameter	Displays the name of the parameter to be set, such as RX Power Low.
Value	Displays the name of the value to be set.
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 CTC interface. This column only applies to alarms. It does not apply to threshold crossing alerts (TCAs).

**Step 3** Click the **ANP view** tab to view the Automatic Node Provisioning information. Table 3-4 describes the columns on the ANP view tab of the Installation Parameters report.

**Table 3-4** *Installation Parameters Report ANP View Tab*

Category	Description
Name	Displays the name of the site.
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.

- Step 4** Click the **PP view** tab to view the Provisioning Parameters information. [Table 3-5](#) describes the columns on the PP view tab of the Installation Parameters report.

**Table 3-5** *Installation Parameters Report PP View Tab*

Column	Description
Name	Displays the name of the site.
Shelf ID	Displays the shelf identifier.
Slot position	Displays the slot number for the card with the PPM.
Port position	Displays the port number.
Ppm position	Displays the PPM location on the card.
Parameter	Displays the name of the PPM.
value	Displays the installation parameter value.

- Step 5** To close the Installation Parameters report, click the **X** on the top right of the Installation Parameters tab.

## 3.2.4 Viewing Internal Connections

Use the following procedure to view the network internal connections after a network has been analyzed.

Use this procedure to view patchcord connections related to optical amplifiers, optical filter units, connections with client interface units, transponders, line cards and pluggables.

- Step 1** Click the **Mgmt Tree** tab, and click the analyzed network.
- Step 2** In the Tasks Pane, click **Internal Connections**. The Internal Connections tab appears ([Figure 3-3](#)).

Figure 3-3 Internal Connections Tab

Name	Position	Unit	Port label	Attenuator	Position	Unit	F
<b>Site1</b>							
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	EXP TX		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	EXP TX		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	
LC-LC-2	Rack 1.PP-80-LC A	PP-80-LC	1560.6-TX		Rack 1.ONS 15454 ANSI Shelf...	OTU2-XP	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	OTU2-XP	3-TX		Rack 1.PP-80-LC A	PP-80-LC	!
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	OPT-AMP-17	COM TX		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OPT-AMP-17	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	OSCM	OSC TX		Rack 1.ONS 15454 ANSI Shelf...	OPT-AMP-17	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	OPT-AMP-17	OSC TX		Rack 1.ONS 15454 ANSI Shelf...	OSCM	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	DROP TX		Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	
MPO-8LC-2	Rack 1.PP-80-LC A	PP-80-LC	1-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-3...		Rack 1.PP-80-LC A	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC A	PP-80-LC	2-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-3...		Rack 1.PP-80-LC A	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC A	PP-80-LC	3-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-4...		Rack 1.PP-80-LC A	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC A	PP-80-LC	4-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-4...		Rack 1.PP-80-LC A	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC A	PP-80-LC	5-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-5...		Rack 1.PP-80-LC A	PP-80-LC	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	OS-C-ISM	COM TX		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OS-C-ISM	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	DROP TX		Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	
MPO-8LC-2	Rack 1.PP-80-LC B	PP-80-LC	1-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-3...		Rack 1.PP-80-LC B	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC B	PP-80-LC	2-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-3...		Rack 1.PP-80-LC B	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC B	PP-80-LC	3-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-4...		Rack 1.PP-80-LC B	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC B	PP-80-LC	4-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-4...		Rack 1.PP-80-LC B	PP-80-LC	
MPO-8LC-2	Rack 1.PP-80-LC B	PP-80-LC	5-Rx		Rack 1.ONS 15454 ANSI Shelf...	40-W55-C	ADD
MPO-8LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-5...		Rack 1.PP-80-LC B	PP-80-LC	
<b>Site2</b>							

**Step 3** The Internal Connections tab has the following two options:

- **Patchcord Installation**—To view all the patchcord connections that the installer has to mechanically cable within the site between the different ports of the cards.
- **SW Provisioning**—To view the patchcord representation on the local CTC interface. This subtab contains all the connections to be manually set or removed with respect to the default connections that are automatically generated by the software running on the node. This view has the following fields:
  - **To Be Manually Set**—These patchcord connection are manually set by using the CTC local craft.
  - **Automatically Set**—These patchcord connections are set automatically on the site by the system software.
  - **To Be Removed**—These patchcord connections are automatically set on the node and must be manually removed by using the CTC.

Click **Patchcord Installation** or click **SW Provisioning**

Table 3-6 lists the columns in the Internal Connections Details window and their descriptions. Click a columns to sort the table information by that column.

**Table 3-6 Internal Connections Tab Columns**

Column Name	Description
Name	Displays the name of the site. On the SW provisioning view subtab, this column indicates whether the connection should be manually set using the CTC interface or removed.
Position-1	Displays the rack, shelf, and slot position of the card from which the patchcord originates.
Unit-1	Displays the name of the card.
Port Num	(SW provisioning view subtab only) Displays the port number where the patchcord terminates.
Port ID-1	(SW provisioning view subtab only) Displays the port ID.
Port label-1	Displays the name of the port.
Attenuator	When indicated, this is the product ID of the bulk attenuator to be equipped on this connection. It also reports when an internal attenuator must be placed between the DC-TX and DC-RX ports on the preamplifier (when no DCU is equipped).
Position-2	Displays the rack, shelf, and slot position of the card where the patchcord terminates.
Unit-2	Displays the name of the card.
Port Num	(SW provisioning view subtab only) Displays the port number where the patchcord terminates.
Port ID-2	(SW provisioning view subtab only) Displays the port ID.
Port Label-2	Displays the name of the port.
P/F	Displays whether the connection relates to a present or forecast circuit.

- Step 4** To export the information to an external file, click **Export**. In the Internal connections export dialog box, type the name of the file and navigate to the desired folder. Click **Save**.
- Step 5** To close the Internal Connections tab, click the **X** in the upper right corner of the tab.

## 3.2.5 Viewing the Traffic Matrix Report

The Traffic Matrix report displays the point-to-point, P-ring, ROADM, and aggregated demand channel data in the form of service, Och-CC, trail, and section information (see [Figure 3-4](#) and [Figure 3-5](#)). The Och-CC row displays the circuit details from the source client card to the destination client card and does not include the regeneration points, if any.



**Figure 3-4 Report Details for a Point-to-Point Demand**

Unprotected				1+1/Y-Cable				Fiber-Switched			
Service				Service				Service			
+	Och-CC			+	Och-CC-W			+	Och-CC-W		
	+	Trail			+	Trail			+	Trail-W	
		+	Section			+	Section			+	Section
				+	Och-CC-P				+	Trail-P	
					+	Trail				+	Section
						+	Section				

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**Figure 3-5 Report Details for a P-Ring Demand**

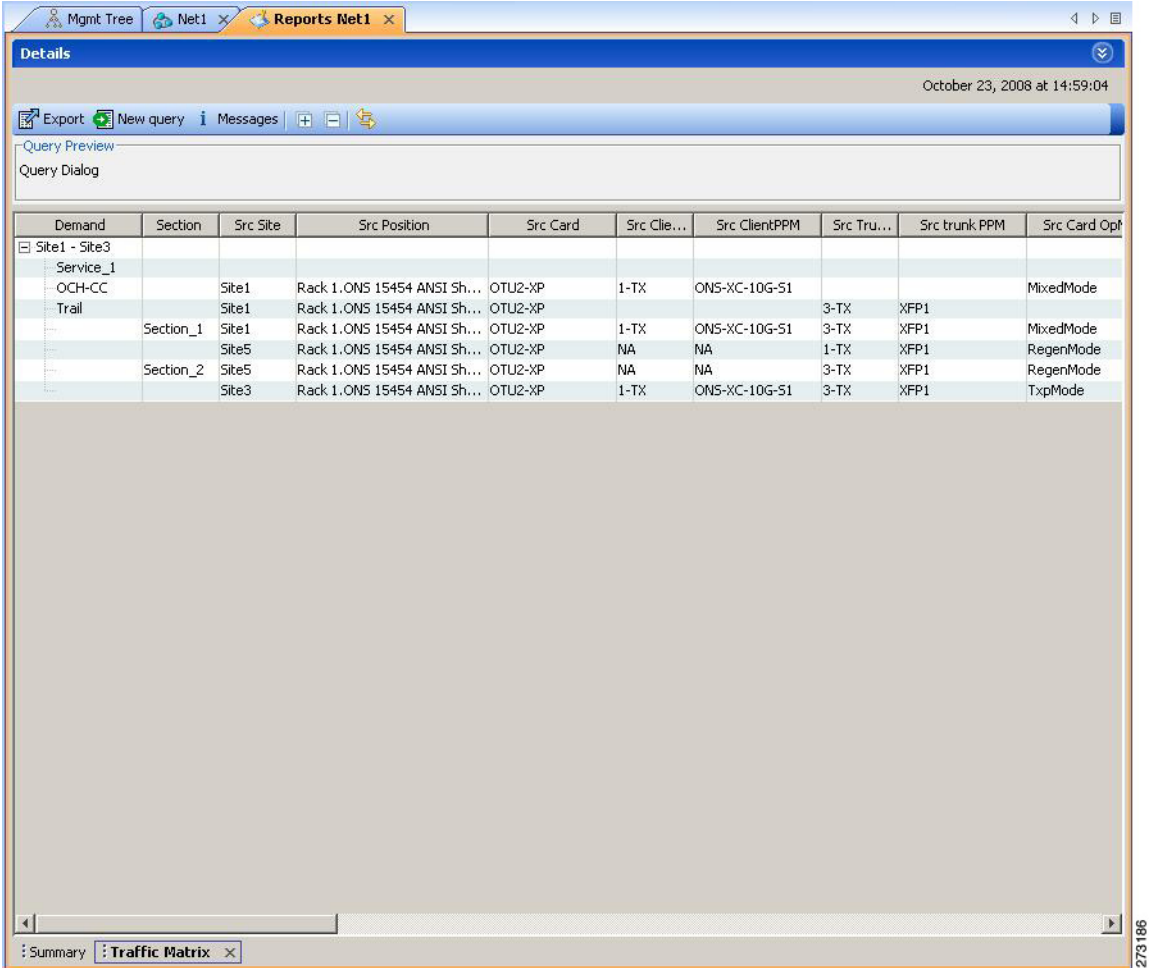
P-Ring			
Service			
	Och-CC		
	+	Trail	
		+	Section 1
		+	Section 2
	+	Trail	
		+	Section
	+	Trail	
		+	Section

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Use the following procedure to view the traffic matrix report:

- 
- Step 1** Complete one of the following tasks:
    - To view the Traffic Matrix report for a network, click the **Mgmt Tree** tab and click the network.
    - To view the Traffic Matrix report for a site, click the **NtView name** tab and click the site.
  - Step 2** In the Tasks Pane under Reports, click **Traffic Matrix**. The Traffic Matrix tab appears (see [Figure 3-6](#)). A default query opens.

Figure 3-6 Traffic Matrix Tab



Each row in the tab shows the performance of one optical path. Table 3-7 describes the information in the columns. The Traffic Matrix report displays separate rows for the TX and RX direction of the optical channels.



**Note** To add a column to the report, right-click a column and choose the column name from the shortcut menu. The column names with checks in the shortcut menu appear on the report. To remove a column, right-click and choose the column (checked) from the shortcut menu.

Table 3-7 Traffic Matrix Tab Columns

Column Label	Description
Demand	Categorizes each demand type (Point-to-Point, P-ring, and ROADM). Each demand is further categorized into service, trails, and sections. Click the plus (+) sign by a demand type to expand and show the optical channels.
Section	Displays the sections under every service.
Src Site	Displays the site name for the optical channel source.

**Table 3-7 Traffic Matrix Tab Columns (continued)**

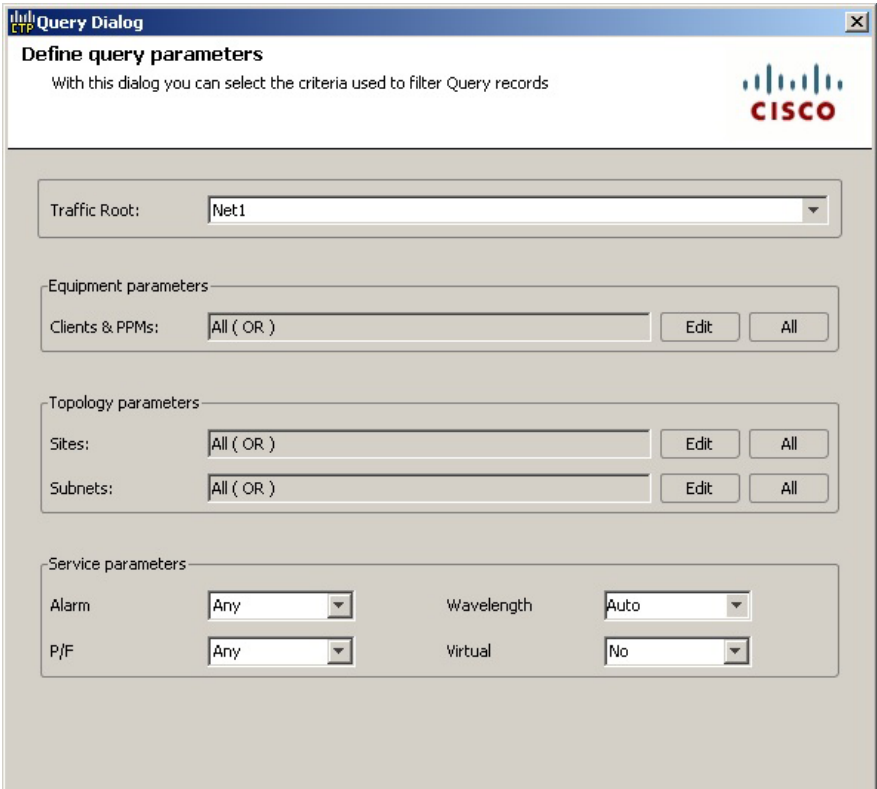
Column Label	Description
Source Position	Displays the rack, shelf, and slot identifiers for the source of the optical channel. The format of the field is <i>Rack.Shelf.Slot</i> .
Src Card	Displays the unit name for the optical channel source.
Src Client Port	Displays the port for the source of the optical channel; for example, 1-RX.
Src Client PPM	Displays the pluggable port modules for the source port; for example ONS-XC-10G-S1.
Src Trunk Port	Displays the trunk port for the source of the optical channel; for example, DWDM-TX.
Src Trunk PPM	Displays the pluggable port module for the trunk port.
Src Card OpMode	Displays the source card operating mode; for example, for the OTU2_XP card, the mode is TxpMode or RegenMode.
Src T/C OpMode	Displays the trunk or client operating mode.
A/D Src Position	Displays the rack, shelf, and slot identifiers for the source of the add/drop channel. The format of the field is <i>Rack.Shelf.Slot</i> .
A/D Src Unit	Displays the unit name for the add/drop channel source
A/D Src Port	Displays the port for the source of the add/drop channel
Dst Site	Displays the site name for the optical channel destination.
Dst Position	Displays the rack, shelf, and slot identifiers for the destination of the optical channel. The format of the field is <i>Rack.Shelf.Slot</i> .
Dst Card	Displays the unit name for the optical channel destination.
Dst Client Port	Displays the port for the destination of the optical channel; for example, 1-TX.
Dst Client PPM	Displays the pluggable port modules for the destination port.
Dst Trunk Port	Displays the trunk port for the source of the optical channel; for example, DWDM-TX.
Dst Trunk PPM	Displays the pluggable port module for the trunk port.
Dst Card OpMode	Displays the source card operating mode; for example, for the OTU-XP card, the mode is TxpMode or RegenMode.
Dst T/C OpMode	Displays the trunk or client operating mode.
A/D Dst Position	Displays the rack, shelf, and slot identifiers for the destination of the add/drop channel. The format of the field is <i>Rack.Shelf.Slot</i> .
A/D Dst Unit	Displays the unit name for the add/drop channel source.
A/D Dst Port	Displays the port for the destination of the add/drop channel.
Cl. Serv. Type	Displays the client service type of the demand; for example, OC-48.
Opt Bypass	Identifies where the optical channel is dropped and reinserted when it is not terminated on a TXP or MXP card (optical bypass). If “none” appears in the Op Bypass column, no optical bypass is defined for the optical channel.
Protection Type	Displays the protection type of the demand; for example, P-ring or Y-cable.

**Table 3-7 Traffic Matrix Tab Columns (continued)**

Column Label	Description
Wavelength	Displays the wavelength of the optical channel.
Latency	Displays the latency time for the current OCH-CC circuit. This value includes all the latency components for the OCH-CC circuit, including fiber and DWDM units on the path.

**Step 3** To create a new query, click **New Query** to open the Query Dialog box (see [Figure 3-7](#)). The Query Dialog box allows you to filter the optical results using a variety of parameters and templates.

**Figure 3-7 Query Dialog**



**Step 4** To perform a query using individual parameters, select the desired parameters from the drop-down lists in the Query Definition area. The selected parameters appear in the Query Preview area at the bottom of the screen. [Table 3-8](#) describes the fields in the Query Dialog box.

**Table 3-8 Query Dialog Fields**

Field Label	Description
Traffic Root	Allows you to filter the report to include only the data for the selected level. You can query up to the service level.
Clients & PPMs	Allows you to filter the report to include the data for the selected cards or PPM.
Sites	Allows you to filter the report to include only the results of incoming and outgoing services to or from a specific site.

**Table 3-8** Query Dialog Fields (continued)

Field Label	Description
Subnets	Allows you to filter the report to include only the results of services in the selected subnet.
Wavelength	Allows you to filter the report to include only services using the specified wavelength.
Alarm	Allows you to filter the report to include only services flagged with a green, yellow, orange, or red indicator.
P/F	Allows you to filter the report to include only present services, only forecast services, or both.
Virtual	Allows you to filter the report to include or exclude virtual channels in the Optical Results table.

**Step 5** Complete one of the following tasks, as needed:

- Click **Run Query**. The window closes, and the query results appear in the Traffic Matrix tab (see [Figure 3-6](#)). The parameters of the query appear in the horizontal area just below the button bar.
- Click **Reset Query** to clear your selections in the Query Dialog box.
- Click **Close** to close the window without running a query.

**Step 6** To close the Traffic Matrix report, click the **X** in the upper right corner of the tab.

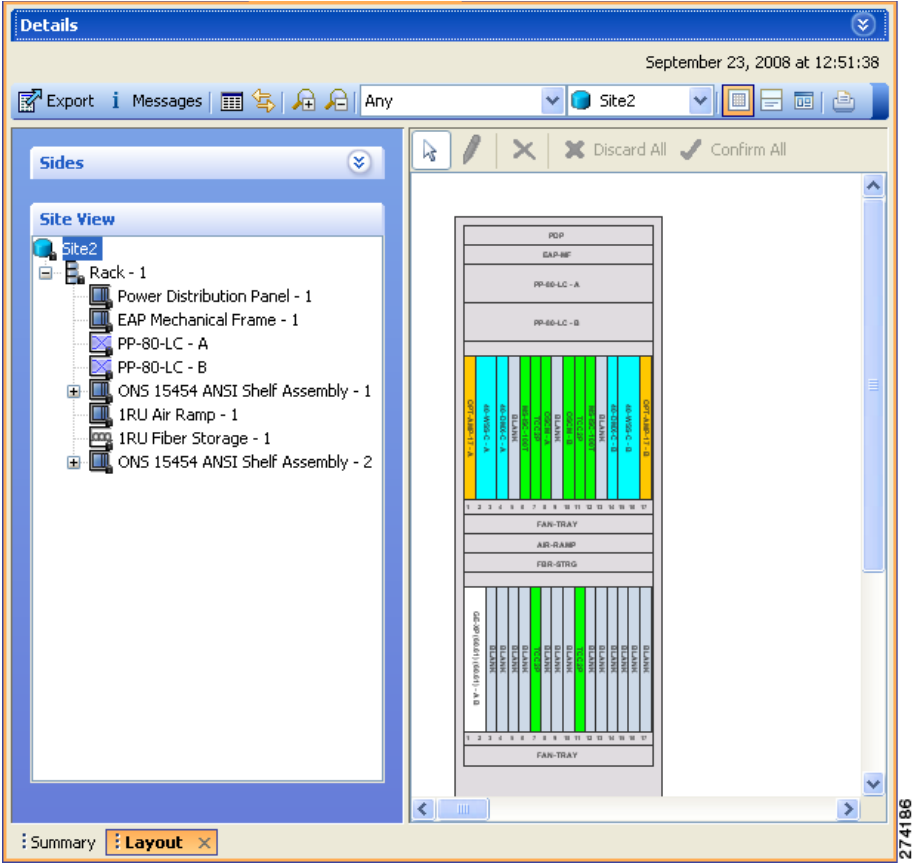
## 3.2.6 Displaying the Layout

Use the following procedure to view a graphical representation of each site in an analyzed network:

**Step 1** Click the **NtView Name** tab and click the desired site.

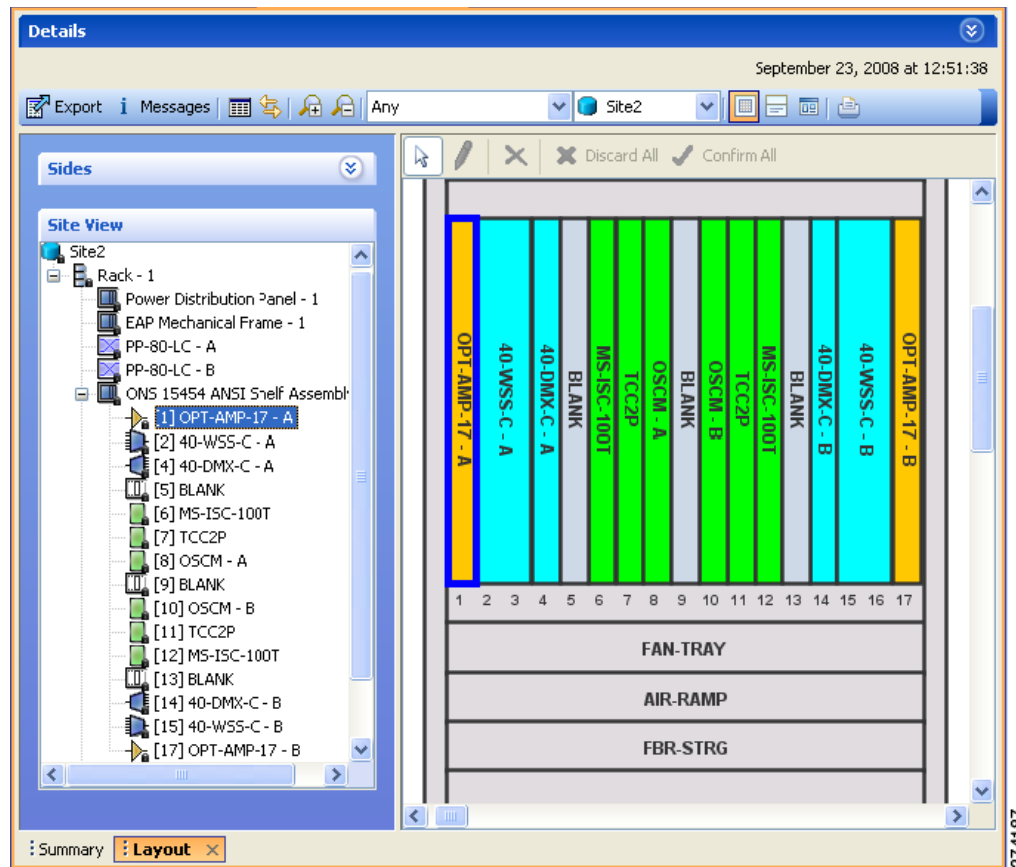
**Step 2** In the Tasks Pane, click **Layout**. The Layout tab appears ([Figure 3-8](#)). To change sites, choose the desired site from the drop-down list.

Figure 3-8 Layout Report (Rack View)



- Step 3** From the **Site** drop-down list, choose the site in the network to display in the layout report.
- Step 4** In the tree view on the left of the tab, right-click a rack and choose **Expand** to view a list of all shelves and cards in the rack.
- Step 5** Click the desired rack or shelf to view it in the layout graphic. [Figure 3-9](#) displays the shelf view.

Figure 3-9 Layout Report (Shelf View)



**Step 6** To view details about a card, double-click the card. The Details dialog box opens with client information:

- Product ID—Displays the product ID of the card.
- Service Category—Future use.
- Description—Provides a brief description of the card functionality.
- Price—Lists the price for the card based on the price list selected during project creation.
- ITU Channel—Identifies the ITU channel wavelength for the card.

For transponder and muxponder cards, click the **Ports** subtab in the Details dialog box to view which pluggable port modules are to be used for each TXP/MXP unit:

- P/F—P refers to pluggable port modules that support the present client demand, while F refers to pluggable port modules that support the future client demand.
- PID—Displays the pluggable port module product ID.
- Rate—Displays the capacity of the port at the node. It is equal to or greater than the sum of the size of the circuits assigned to the port.
- Reach—Displays the reach value.
- Service1—Lists all the client services assigned to the particular port.
- OTN—Specifies if the G.709 wrapper on the specified TXP/MXP port interface must be enabled or disabled.

- FEC—Specifies if the FEC on the specified TXP/MXP port interface is disabled, standard or enhanced.

**Step 7** Click **Close** to close the Details dialog box.

**Step 8** To filter the layout display, choose one of the following from the drop-down list:

- Any—Displays all cards for both the present and forecast traffic demand.
- Present—Displays cards for only the present traffic demand.
- Locked & Unlocked—Highlights the locked and unlocked cards in the layout.
- Alarmed—Highlights the alarmed cards in the layout.

**Step 9** After network analysis, all items are in locked mode. To unlock cards so that Cisco Transport Planner can rearrange the layout to optimize slot usage during network analysis, right-click locked card in the rack tree and choose **Unlock**.




---

**Note** You can unlock only on Upgrade networks in the Design state.

---

**Step 10** To export the graphical representation of the layout in JPEG format, click **Export**. In the Layout export dialog box, type the name of the file and navigate to the desired folder. Click **Save**.

**Step 11** To zoom the layout graphic in or out, click the Zoom In and Zoom Out icons. For more information about the Cisco Transport Planner icons, see [Appendix A, “GUI Information and Shortcuts.”](#)

**Step 12** To close the Layout report, click the **X** in the upper right corner of the tab.

---

## 3.2.7 Viewing Power Consumption from the Layout Report

Use the following procedure to view the power consumption for each unit of equipment in a site. Power consumption is available in report form from the Layout report.

---

**Step 1** Click the **NtView Name** tab and click the desired site.

**Step 2** In the Tasks Pane, click **Layout**. The Layout tab appears ([Figure 3-8 on page 3-14](#)). To change sites, choose the desired site from the drop-down list.

**Step 3** Click the View layout as table icon in the report tool bar. The Layout Table report appears ([Figure 3-10](#)).



Figure 3-10 Power Consumption

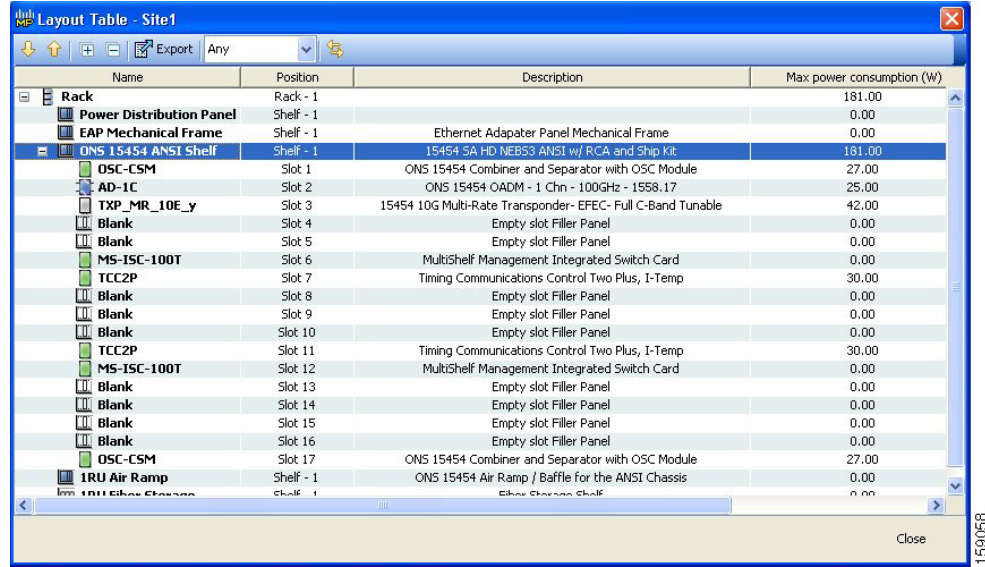


Table 3-9 describes the information in the columns.

Table 3-9 Layout Table (Power Consumption) Columns

Column Label	Description
Name	Lists the equipment at the site.
Position	Identifies the rack, shelf, or slot location for applicable units of equipment.
Description	Describes each equipment type.
Max Power Consumption (W)	Displays the maximum power consumption for each unit of equipment. <b>Note</b> For transponder/muxponder cards with pluggable port modules, the maximum power consumption shown is for the board fully equipped with the maximum number of pluggable port modules.
Average Power Consumption (W)	Displays the average power consumption for applicable units of equipment. <b>Note</b> For transponder/muxponder cards with pluggable port modules, the average power consumption shown is for the board fully equipped with the maximum number of pluggable port modules.
Unit Weights (kg/lb)	Displays the weight of all the units of a site in kilograms in a ETSI network and in pounds in an ANSI network.

**Step 4** To export power consumption data, click **Export**. The Layout table export dialog box appears. Type the name of the file and navigate to the desired folder. Click **Save**.

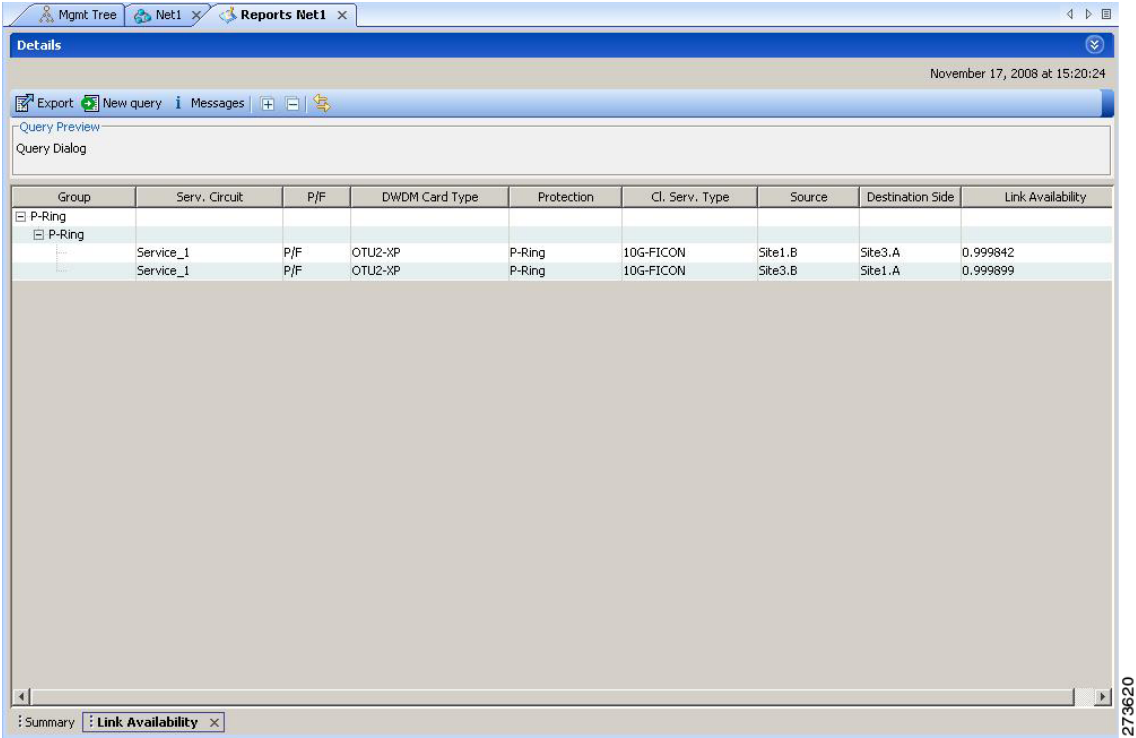
**Step 5** Click **Close** to close the Layout Table report.

### 3.2.8 Viewing the Link Availability Report

Cisco Transport Planner determines link availability based on unit failure rate and time to repair. Use the following procedure to view the Link Availability report:

- Step 1** Complete one of the following:
  - To view the Link Availability report for a network, click the **Mgmt Tree** tab and click the network.
  - To view the Link Availability report for a site, click the **NtView Name** tab and click the site.
- Step 2** In the Tasks Pane, click **Link Availability**. The Link Availability tab appears (Figure 3-11).

Figure 3-11 Link Availability Report



Each row in the tab shows the performance of one optical path. Table 3-10 describes the information in the columns.

Table 3-10 Link Availability Tab Columns

Column Label	Description
Group	Categorizes each demand type (Point-to-Point, P-ring, and ROADM). Click the plus (+) sign by a demand type to expand and show the optical channels.
Serv. Circuit	Displays the optical channel label; for example, Site1-Site2.
P/F	Identifies whether the channel is present and forecast (P/F) or forecast (F).
DWDM Card Type	Identifies the type of transponder or line card used for the optical channel.
Protection	Displays the protection type of the demand; for example, P-ring or Y-cable.

**Table 3-10 Link Availability Tab Columns (continued)**

Column Label	Description
Cl. Serv. Type	Displays the client service type of the demand; for example, OC-48.
Source	Displays the site name for the optical channel source.
Destination	Displays the site name for the optical channel destination.
Link Availability (% Complete)	Displays the link availability percentage. Link availability is calculated based on the failure rate and time to repair.

**Step 3** Click **New Query** to open the Query Dialog (Figure 3-7 on page 3-12). The Query Dialog allows you to filter the link availability using a variety of parameters.

**Step 4** To perform a query using individual parameters, select the desired parameters from the drop-down lists in the Query Definition area. The selected parameters appear in the Query Preview area at the bottom of the screen. Table 3-11 describes the fields in the Query Dialog.

**Table 3-11 Query Dialog Fields**

Field Label	Description
Traffic Root	Allows you to filter the report to include only the data for the selected level. You can query up to the service level.
Clients & PPMs	Allows you to filter the report to include the data for the selected cards or PPM.
Sites	Allows you to filter the report to include only the results of incoming and outgoing services to or from a specific site.
Subnets	Allows you to filter the report to include only the results of services in the selected subnet.
Wavelength	Allows you to filter the report to include only services using the specified wavelength.
Alarm	Allows you to filter the report to include only services flagged with a green, yellow, orange, or red indicator.
P/F	Allows you to filter the report to include only present services, only forecast services, or both.
Virtual	Allows you to filter the report to include or exclude virtual channels in the Optical Results table.

**Step 5** Choose one of the following, as needed:

- Click **Run Query**. The window closes, and the query results appear in the Link Availability tab. The parameters of the query appear in the horizontal area just below the button bar.
- Click **Reset Query** to clear your selections in the Query Dialog.
- Click **Close** to close the window without running a query.

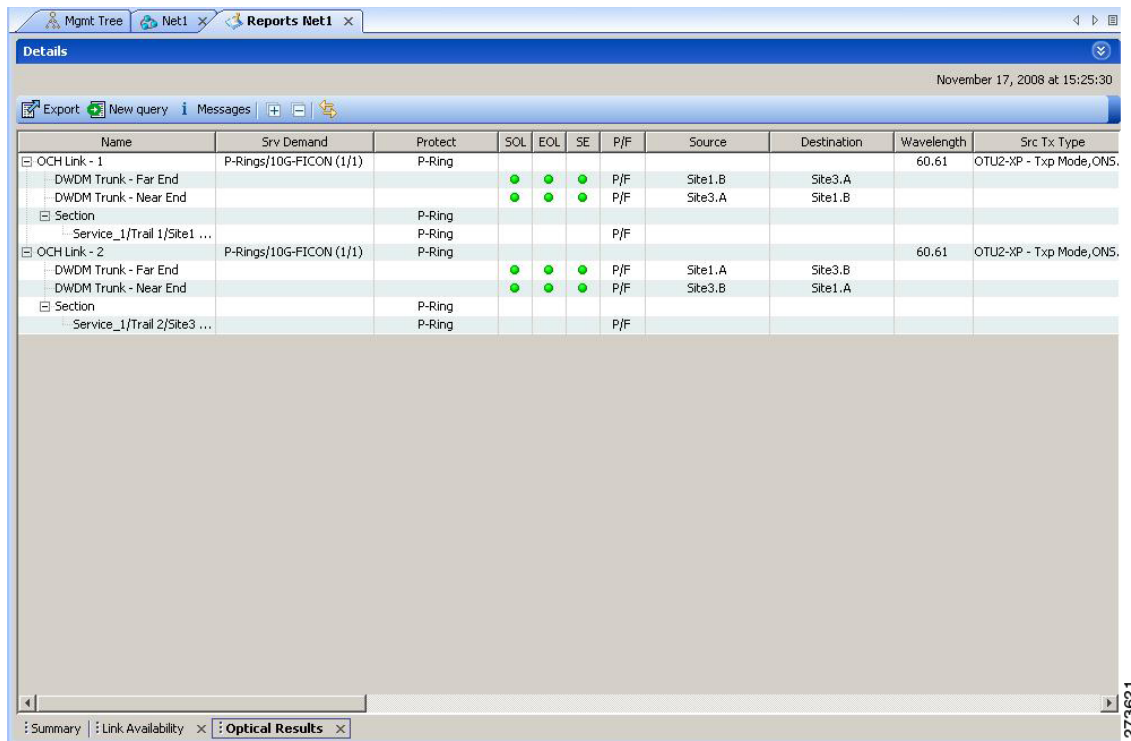
**Step 6** To close the Link Availability report, click the **X** in the upper right corner of the tab.

### 3.2.9 Viewing Optical Results

Use the following procedure to view the optical results of the network that you created and analyzed:

- Step 1** Complete one of the following:
- To view the Optical Results report for a network, click the **Mgmt Tree** tab and click **Optical Results** under Reports in the Project Explorer pane.
  - To view the Optical Results report for a site, click the **NtView Name** tab and right click on the site and select **Optical Results** in the drop down menu.
- Step 2** In the Tasks Pane, click **Optical Results**. The Optical Results tab appears (Figure 3-12).

**Figure 3-12** Optical Results Tab



Each row in the tab shows the performance of one optical path. Table 3-12 describes the information in the columns.

**Table 3-12** Optical Results Tab Columns

Column Label	Description
Name	Displays the identification number automatically given to each path in the order that the channels were entered into the design.
Srv Demand	Identifies the demand group for the optical channel.
Protect	Displays the protection type of the channel. For a protected channel, both paths are shown. The path leaving the east side of the source is shown first.

**Table 3-12** *Optical Results Tab Columns (continued)*

<b>Column Label</b>	<b>Description</b>
SOL	Displays the results summary of the analysis run with Start of Life fiber loss values. The indicator shows the optical performance for the each direction of the bidirectional OCH Trail. Green indicates success, yellow indicates success with a marginal failure risk (between 0 and 16 percent), orange indicates that the channel has a higher risk of failure (between 16 and 50 percent), and red indicates failure.
EOL	Displays the results summary of the analysis run with End of Life fiber loss values. The indicator shows the optical performance for the each direction of the bidirectional Optical Channel Trail (OCH Trail). The indicator shows the optical performance for the path at the end of the fiber's life. Green indicates success, yellow indicates success with a marginal failure risk (between 0 and 16 percent), orange indicates that the channel has a higher risk of failure (between 16 and 50 percent), and red indicates failure.
SE	Indicates a system-related error exists that may impact the analysis of the design. If the indicator is red, review the messages reported at the end of the analysis or determine which units or sites are having a problem.
Regeneration	Displays potential intermediate sites where a regeneration of the optical signal can be carried out, if necessary.
Multi-channel NLE Status	Displays the status of the single channel nonlinear effect (NLE) alarm check. Green indicates check passed. Yellow indicates marginal NLE; orange indicates consistent NLE, and red indicates failure.
Wavelength	Displays the assigned wavelength of the optical path.
P/F	Displays the present/forecast services indication.
Source	Displays the name of the source site and side; for example, Site 1-E.
Destination	Displays the name of the destination site and side; for example, Site 1-E.
Span (km)	Displays the total span length (source -> destination) for this path in kilometers.
Tx Type	Displays the type of DWDM unit or pluggable port module used for the specific OCH Trail.
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 (dB)	Displays the start of life average OSNR value at the receiver. OSNR refers to the selected resolution bandwidth (RBW) bandwidth.
EOL OSNR (dB)	Displays the end of life average OSNR value at the receiver. OSNR refers to the selected RBW bandwidth.
SOL OSNR Margin (dB)	Displays the SOL 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.
EOL OSNR Margin (dB)	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 (dBm)	Displays the SOL received average power at the destination site in dBm.
EOL RX (dBm)	Displays the EOL received average power at the destination site in dBm.

**Table 3-12** Optical Results Tab Columns (continued)

Column Label	Description
SOL Power margin (dB)	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 no power problems.
EOL Power margin (dB)	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 no power problems.
SOL Overload (dB)	Displays the SOL overload margin at the receiver in decibels. A positive value indicates no overload problems.
EOL Overload (dB)	Displays the EOL overload margin at the receiver in decibels. A positive value indicates no overload problems.
RX atten	Displays the attenuation at the input of the receiver.
PMD (ps)	Displays the calculated total PMD for each circuit. This total includes all the PMD components for the OCH Trail, including fiber and DWDM units on the path. If the overall PMD for the link overcomes the maximum allowed, the PMD value is colored red. The maximum allowed value depends on the client interface. For these special cases, the network must be manually resolved by contacting a Cisco optical sales engineer.
Latency	Displays the latency time for the current circuit. This value includes all the latency components for the OCH Trail, including fiber and DWDM units on the path.
Filtering Penalty	Displays the value of the penalties caused by the different filter types (OADM, ROADM, and arrayed waveguide grating, [AWG]).

**Step 3** Click **New Query** to open the Query Dialog (Figure 3-7 on page 3-12). The Query Dialog allows you to filter the optical results using a variety of parameters.

**Step 4** To perform a query using individual parameters, select the desired parameters from the drop-down lists in the Query Definition area. The selected parameters appear in the Query Preview area at the bottom of the screen. Table 3-13 describes the fields in the Query Dialog.

**Table 3-13** Query Dialog Fields

Field Label	Description
Traffic Root	Allows you to filter the report to include only the data for the selected level. You can query upto the service level.
Clients & PPMs	Allows you to filter the report to include the data for the selected cards or PPM
Sites	Allows you to filter the report to include only the results of incoming/outgoing services to or from a specific site.
Subnets	Allows you to filter the report to include only the results of services in the selected subnet.
Wavelength	Allows you to filter the report to include only services using the specified wavelength.
Alarm	Allows you to filter the report to include only services flagged with a green, yellow, orange, or red indicator.

**Table 3-13** Query Dialog Fields (continued)

Field Label	Description
P/F	Allows you to filter the report to include only present services, only forecast services, or both.
Virtual	Allows you to filter the report to include or exclude virtual channels in the Optical Results Table.

**Step 5** Choose one of the following tasks, as needed:

- Click **Run Query**. The window closes, and the query results appear in the Optical Results tab. The parameters of the query appear in the horizontal area just below the button bar.
- Click **Reset Query** to clear your selections in the Query Dialog.
- Click **Close** to close the window without running a query.

**Step 6** To close the Optical Results report, click the **X** in the upper-right corner of the tab.

## 3.2.10 Viewing Wavelength Routing

Use the following procedure to view the wavelength routing map for the network that was analyzed:

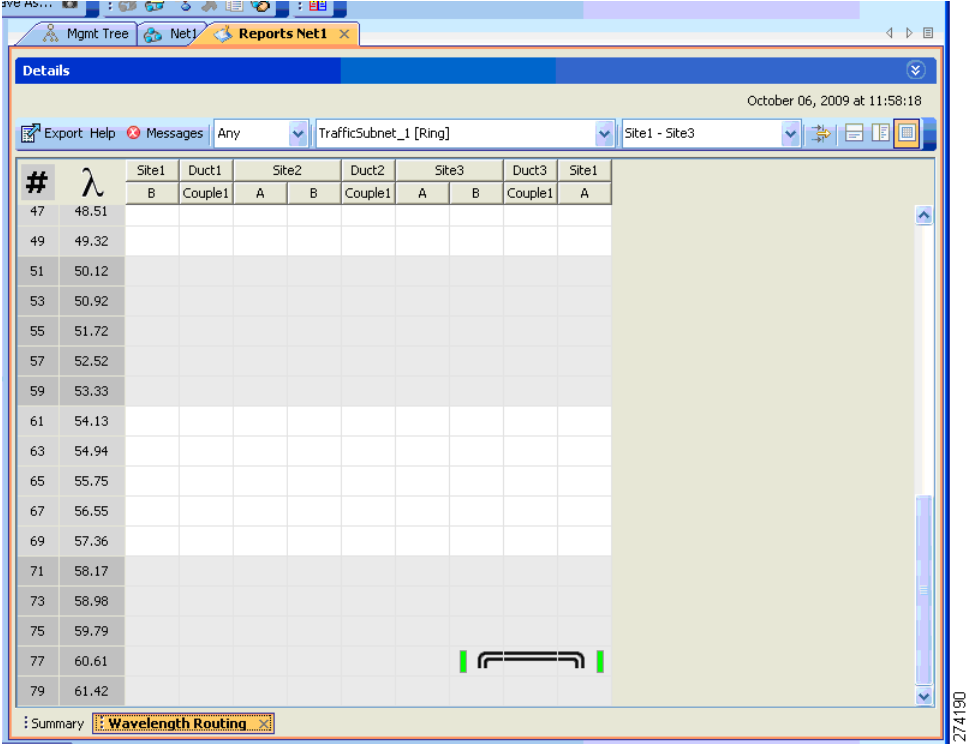
**Step 1** Click the **Networks Mgmt Tree** tab, and click the analyzed network.

**Step 2** In the Tasks Pane, click **Wavelength Routing**. The Wavelength Routing tab appears (Figure 3-13). Each wavelength supported by the platform is represented by a row.



**Note** ROADM (Any-to-Any) demands are not shown in this report.

Figure 3-13 Wavelength Routing Tab



Step 3 Choose one of the following from the Messages drop-down list:

- Any (to view both forecast and present routing)  
When you select Any, forecast demands are shown with a grey background.
- Present (to view only the present routing)
- Forecast (to view only the forecast routing).

Step 4 To view the routing map for a particular linear or ring subnet, expand the Traffic subnet ALL option in the traffic subnet drop-down list and choose the subnet.



Note

In addition to the existing subnets, a linear subnet is created for every demand. Choosing a linear subnet from the Traffic Subnet ALL option displays the routing map for that particular demand only. You cannot view the routing maps for all the demands across subnets at the same time. You can view the routing map for any of the point-to-point demands by selecting it from the drop-down list.



Note

The two ends of the circuit are indicated by the add/drop source and destination sites. See Table 3-14.



Table 3-14 lists and explains the circuit icons present in the routing map.

**Table 3-14** *Circuit Icons in a Routing Map*







Component	Description
	Indicates channel a add/drop source or destination site.
	Indicates channel a add/drop source or destination site.
	Indicates an express site.
	Indicates alarms.
	Indicates the side of the site through which the demand exits the subnet. For example, in <a href="#">Figure 3-14</a> a point-to-point demand is created from site 2 to site 4. The demand exits the subnet at site 1 on side C. To view the complete circuit, select the linear subnet from the traffic subnet drop-down list.
	Indicates the regeneration site.

Figure 3-14 Point-to-point Demand

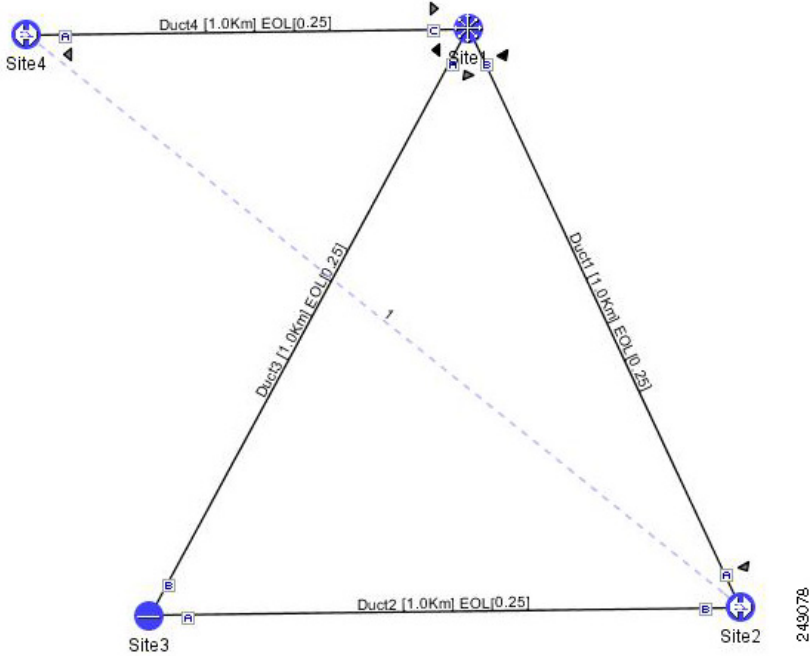


Table 3-15 describes the columns in the Wavelength routing tab.

Table 3-15 Wavelength Routing Tab Columns

Column Label	Description
wl	Lists the wavelengths supported by the platform.
Site #	Represents a site in the network. The colors in the Site columns indicate for each side of the site the SOL/EOL channel status. <ul style="list-style-type: none"> <li>• Green indicates success.</li> <li>• Yellow indicates success with a marginal failure risk (between 0 and 16 percent).</li> <li>• Orange indicates that the channel has a higher risk of failure (between 16 and 50 percent)</li> <li>• Red indicates failure.</li> </ul>
Duct #	Represents a duct in the network.
A	Represents a Terminal or a Terminal+ site.
A and B	Represents a Line or Line+ site.
A, B, C, and D	Represents a Multi-Degree site with PP-MESH-4.
A, B, C, D, E, F, G, and H	Represents a Multi-Degree site with PP-MESH-8.
Couple	Represents a pair of fibers at a site.

**Note**

Tool tips are available on this report. Move the cursor over a Site column for circuit information, card name, and product ID. Move the cursor over a Duct/Couple column for loss, length, and fiber type.

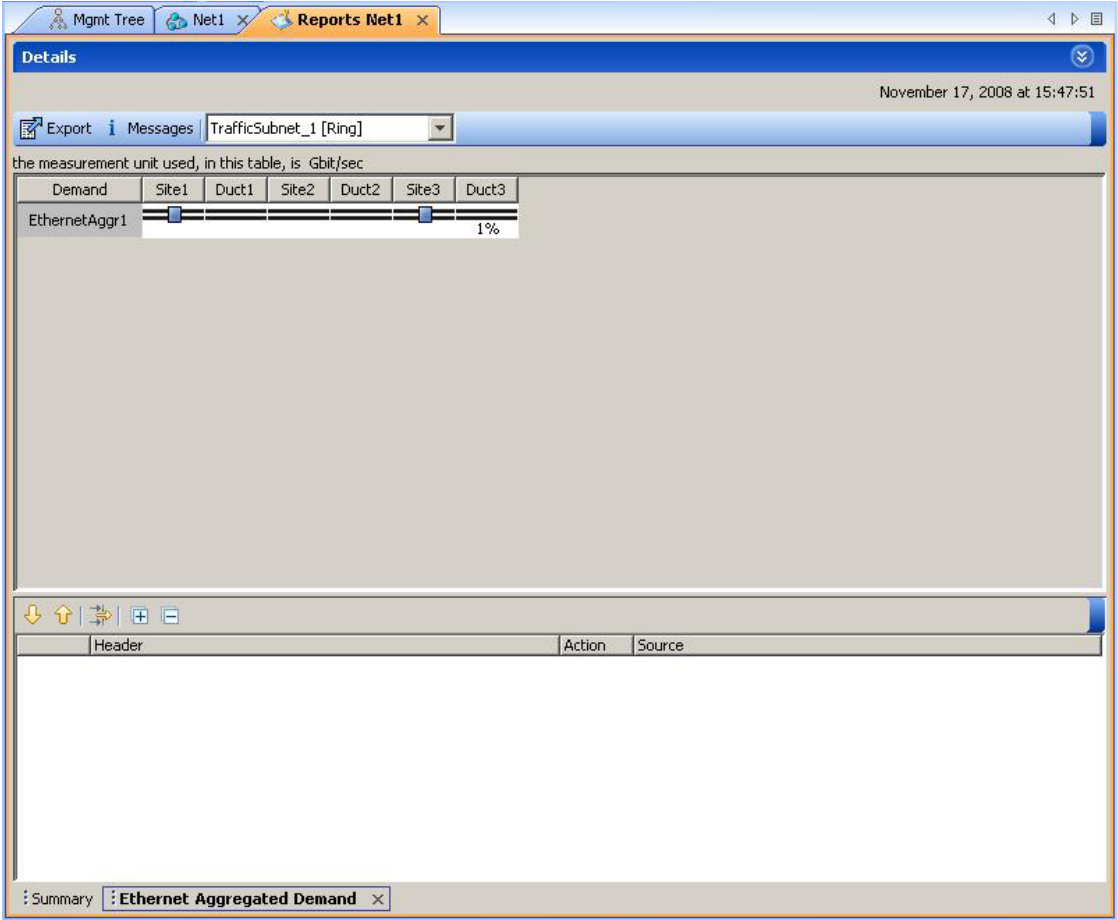
- Step 5** To export the graphical representation of the layout in JPEG format, click **Export**. In the Wavelength Routing export dialog box, type the name of the file and navigate to the desired folder. Click **Save**.
- Step 6** To close the Wavelength Routing report, click the **X** in the upper-right corner of the window.

## 3.2.11 Viewing the Ethernet Aggregated Demand Report

Use the following procedure to view the Ethernet Aggregated Demand report:

- Step 1** Click the Mgmt Tree tab and right-click the analyzed network.
- Step 2** Choose Ethernet Aggregated Demand from the drop-down list.  
The Ethernet Aggregated Demand Report tab appears ([Figure 3-15](#)).

Figure 3-15 Ethernet Aggregated Demand Tab

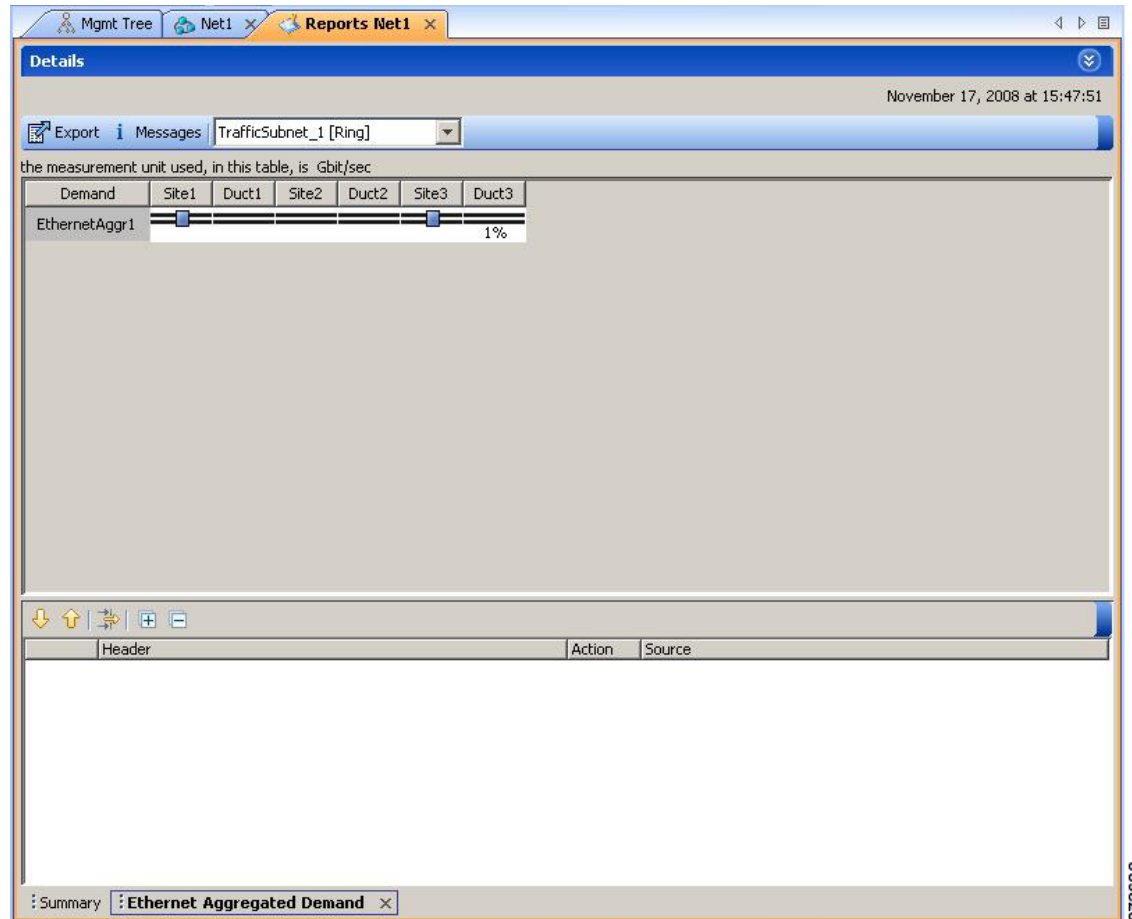


### 3.2.12 Viewing the TDM Aggregated Demand Report

Use the following procedure to view the TDM Aggregated Demand report:

- Step 1** Click the Mgmt Tree tab and right-click the analyzed network.
- Step 2** Choose TDM Aggregated Demand from the drop-down list.  
The TDM Aggregated Demand Report tab appears (Figure 3-16).

Figure 3-16 TDM Aggregated Demand Tab



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### 3.2.13 Viewing Report Differences

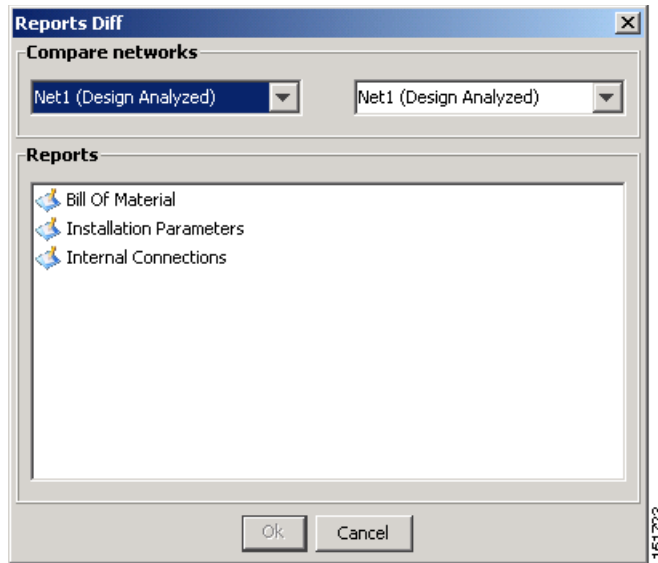
You can compare the BoM, Internal Connections, and Installation Parameters reports for two networks. This is useful to see the differences between a baseline network and an Install or Upgrade network.

- The BoM Diff report lists the units that were added and/or removed from the BoM.
- The Internal Connection Diff report lists changed connections. If at least one of the two endpoints of an internal connection is different, Cisco Transport Planner reports that the internal connection has changed. The report shows all internal connections that were present in the baseline network but are not present in the final network, and all internal connections not present in the baseline network but present in the final network.
- The Installation Parameters Diff report lists changed parameters between the baseline network and the final network.

Use the following procedure to compare networks:

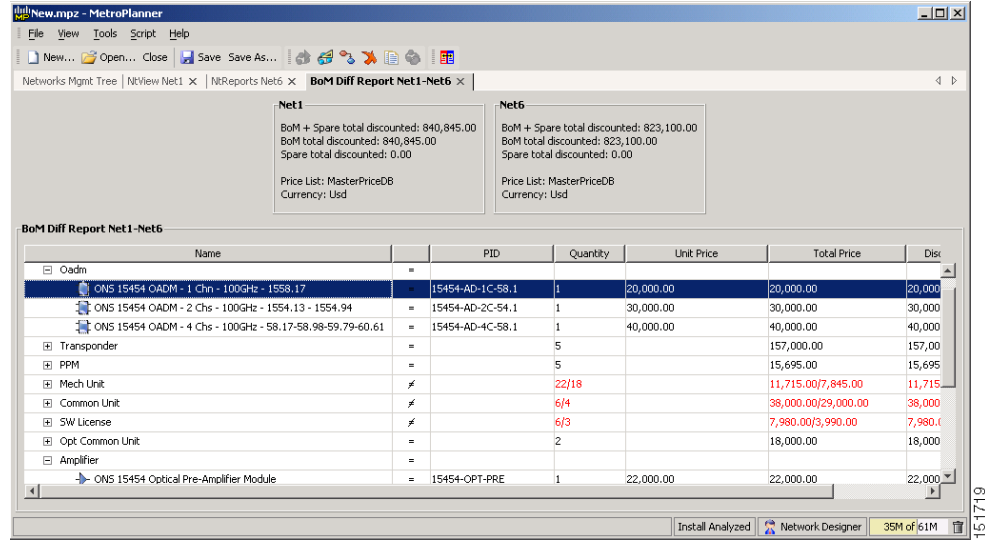
- Step 1** Click the Reports Diff icon. For more information about Cisco Transport Planner icons, see [Appendix A, “GUI Information and Shortcuts.”](#) The Reports Diff dialog box appears. [Figure 3-17](#) shows the Reports Diff dialog box as it appears when at least two analyzed networks exist in a project.

**Figure 3-17 Reports Diff Dialog Box**



- Step 2** In the Compare networks area, choose the baseline network from the drop-down list on the left. Choose the network to compare from the drop-down list on the right.
- Step 3** Click the report you would like to view. If you chose one non-analyzed network, you can view only the Bill of Material differences report.
- Bill of Material—([Figure 3-18 on page 3-31](#)) For a description of the columns, see [Table 3-16 on page 3-31](#).
  - Installation Parameters—([Figure 3-19 on page 3-32](#)) For a description of the columns, see [Table 3-17 on page 3-33](#).
  - Internal Connections—([Figure 3-20 on page 3-34](#)) For a description of the columns, see [Table 3-18 on page 3-35](#).
- Step 4** Click **OK**.
- [Figure 3-18](#) shows the BoM Diff report.

Figure 3-18 BoM Diff Report



The upper section of the BoM Diff Report tab displays the following information for each network:

- BoM total discounted—Displays the price for the overall network (without spare parts) for each item in the BoM. If Use global discount is checked, the total includes the discount from the Global discount percentage field.
- Spare total discounted—Displays the price for all of the recommended spare parts in all of the maintenance centers for the overall network. It is the sum of each spare item using the discounted price. The total appears after you check the Spare Part Report check box.
- BoM + Spare total discounted—Displays the sum of the BoM total discounted price and spare total discounted price.
- Price List—Displays the name of the price list database selected for the project.
- Currency—Displays the value of the currency used for each of the price values as specified within the selected price list database.

Table 3-16 describes the information in the BoM Diff report columns. Click a column to sort the table information by that column.

Table 3-16 BoM Diff Report Columns

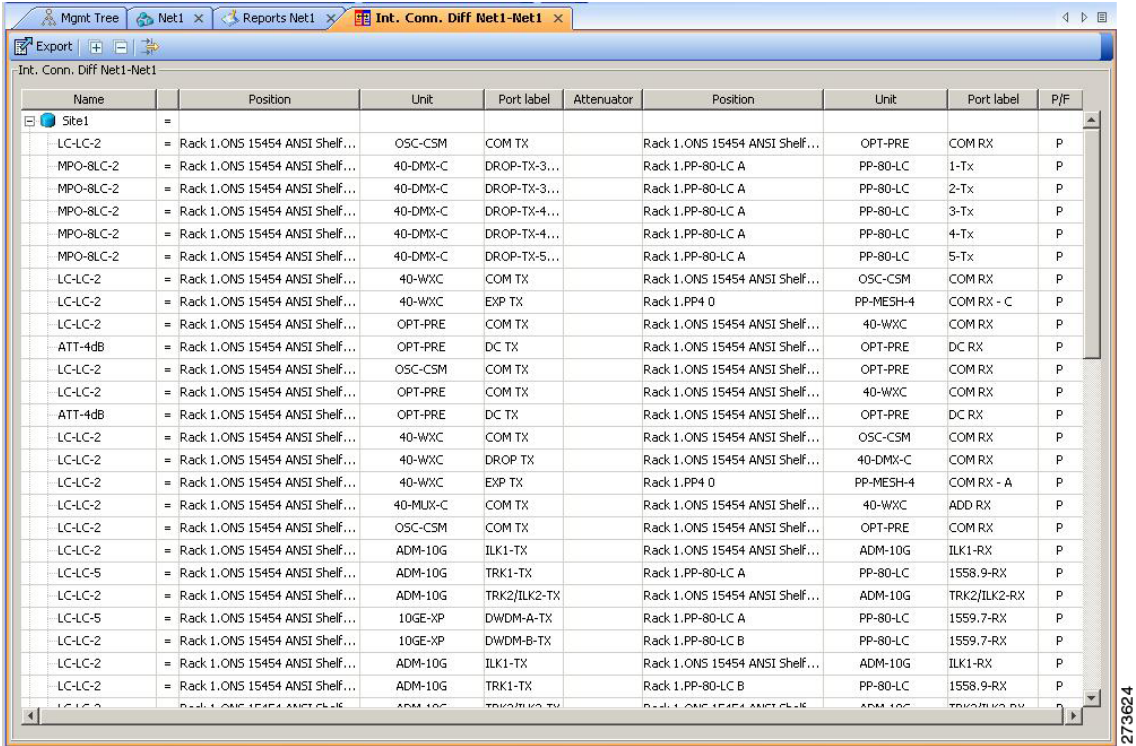
Column Label	Description
Name	Displays the name of the site and equipment.
Difference Summary (not labeled)	Indicates a difference exists between the two network BoMs: = (equal sign)—Indicates that no difference exists between the two networks. ≠ (not equal sign)—Indicates that the item is present on both networks, but the number per network is different. 1—Indicates that this item is present in the first network but not in the second network. 2—Indicates that this item is present in the second network but not in the first network.

**Table 3-16 BoM Diff Report Columns (continued)**

Column Label	Description
PID	Displays the ID string of the product. To view a PID, click on the plus (+) sign by the equipment name to expand it.
Quantity	Displays the number of specific products in the BoM. If the networks have a different quantity, Cisco Transport Planner displays both numbers in red in the following format: <i>first-network-quantity/second-network-quantity.</i>
Unit Price	Displays the price for each unit. To view a unit price, click on the plus (+) sign by the equipment name to expand it.
Total Price	Displays the total price of the products before applying the discount. If the networks have a different quantity, Cisco Transport Planner displays both numbers in red in the following format: <i>first-network-total price/second-network-total-price.</i>
Discounted Total Price	Displays the total price of the products after applying the discount. If the networks have a different quantity, Cisco Transport Planner displays both numbers in red in the following format: <i>first-network-discounted-total-price/second-network-discounted-total-price.</i>

Figure 3-19 shows the Installation Parameters Diff report.

**Figure 3-19 Installation Parameters Diff Report**



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Table 3-17 describes the columns in the Installation Parameters Diff report. Click a column to sort the table information by that column.

Differences between networks appear in red and in the following format:  
*baseline-network-value/final-network-value.*

**Table 3-17 Installation Parameters Diff Report Columns**

Category	Description
Name	Displays the name of the site.
(Diff Summary)	Indicates a difference exists between the two network BoMs: = (equal sign)—Indicates that no difference exists between the two networks. ≠ (crossed-out equal sign)—Indicates that the item is present on both networks, but the number per network is different. 1—Indicates that this item is present in the first network but not in the second network. 2—Indicates that this item is present in the second network but not in the first network.
Side	Displays the node interface: T (terminal), E (east), or W (west).
Position	Displays the rack, shelf, and slot position of the card from which the patchcord originates.
Unit	Displays the name of the card.
Port #	Displays the port number from which the patchcord originates.
Port ID	Displays the port ID.
Port Label	Displays the name of the port.
Parameter	Displays the name of the parameter to be set, such as RX Power Low.
Value	Displays the name of the value to be set.
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 CTC interface.

Figure 3-3 shows the Internal Connections Diff report.

Figure 3-20 Internal Connections Diff Report

Name	Position	Unit	Port label	Attenuator	Position	Unit	Port label	P/F
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	OSC-CSM	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	COM RX	P
MPO-8LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-3...		Rack 1.PP-80-LC A	PP-80-LC	1-Tx	P
MPO-8LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-3...		Rack 1.PP-80-LC A	PP-80-LC	2-Tx	P
MPO-8LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-4...		Rack 1.PP-80-LC A	PP-80-LC	3-Tx	P
MPO-8LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-4...		Rack 1.PP-80-LC A	PP-80-LC	4-Tx	P
MPO-8LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	DROP-TX-5...		Rack 1.PP-80-LC A	PP-80-LC	5-Tx	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-WXC	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OSC-CSM	COM RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-WXC	EXP TX		Rack 1.PP4 0	PP-MESH-4	COM RX - C	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	COM TX		Rack 1.ONS 15454 ANSI Shelf...	40-WXC	COM RX	P
ATT-4dB	= Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	DC TX		Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	DC RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	OSC-CSM	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	COM RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	COM TX		Rack 1.ONS 15454 ANSI Shelf...	40-WXC	COM RX	P
ATT-4dB	= Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	DC TX		Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	DC RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-WXC	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OSC-CSM	COM RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-WXC	DROP TX		Rack 1.ONS 15454 ANSI Shelf...	40-DMX-C	COM RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-WXC	EXP TX		Rack 1.PP4 0	PP-MESH-4	COM RX - A	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	40-MUX-C	COM TX		Rack 1.ONS 15454 ANSI Shelf...	40-WXC	ADD RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	OSC-CSM	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OPT-PRE	COM RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	ILK1-TX		Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	ILK1-RX	P
LC-LC-5	= Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	TRK1-TX		Rack 1.PP-80-LC A	PP-80-LC	1558.9-RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	TRK2/ILK2-TX		Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	TRK2/ILK2-RX	P
LC-LC-5	= Rack 1.ONS 15454 ANSI Shelf...	10GE-XP	DWDM-A-TX		Rack 1.PP-80-LC A	PP-80-LC	1559.7-RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	10GE-XP	DWDM-B-TX		Rack 1.PP-80-LC B	PP-80-LC	1559.7-RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	ILK1-TX		Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	ILK1-RX	P
LC-LC-2	= Rack 1.ONS 15454 ANSI Shelf...	ADM-10G	TRK1-TX		Rack 1.PP-80-LC B	PP-80-LC	1558.9-RX	P

Table 3-18 lists the columns in the Internal Connections Diff report and their descriptions. Click a column to sort the table information by that column.

Differences between networks appear in red and in the following format: *baseline network value/final network value*.

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**Table 3-18 Internal Connections Tab Columns**

Column Name	Description
Name	Displays the name of the site. On the SW provisioning view subtab, this column indicates whether the connection should be manually set using the CTC interface or removed.
Difference Summary (not labeled)	Indicates a difference exists between the two network BoMs: = (equal sign)—Indicates that no difference exists between the two networks. ≠ (not equal sign)—Indicates that the item is present on both networks, but the number per network is different. 1—Indicates that this item is present in the first network but not in the second network. 2—Indicates that this item is present in the second network but not in the first network.
Position	Displays the rack, shelf, and slot position of the card from which the patchcord originates.
Unit	Displays the name of the card.
Port label	Displays the name of the port.
Attenuator	When indicated, this is the product ID of the bulk attenuator to be equipped on this connection. It also reports when an internal attenuator must be placed between the DC-TX and DC-RX ports on the preamplifier (when no DCU is equipped).
Position	Displays the rack, shelf, and slot position of the card where the patchcord terminates.
Unit	Displays the name of the card.
Port Label	Displays the name of the port.
P/F	Displays whether the connection relates to a present (P/F) or forecast (F) circuit.

