



# CHAPTER 3

## Viewing Network 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.

### 3.1 Types of Reports

The various reports available are listed in [Table 3-1](#).

**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	—
Any-to-Any Finalized Circuits	Analyzed	Analyzed

For more information on the Bill of Materials report, see the [“2.11 Viewing a BoM” section on page 2-63](#). 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 1-19 and the “1.4.2 Loading and Unloading Networks” section on page 1-20.

## 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 Reports folder in the Project Explorer pane.

### 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**

**-Design info-**

Version	7.0.0.13
Customer name	-
Created by	kimmcc
Release	release 7.0

**-Optical results-**

	Demands	<span style="color: green;">●</span>	<span style="color: orange;">●</span>	<span style="color: red;">●</span>
Point ToPoint	0	-	-	-
P-Rings	1	-	-	-
ROADMs	0	-	-	-
Totals	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>

Detailed optical results data are available through [Optical Results Report](#)

**-Design cost info-**

Price list	MasterPriceDB
Currency	Usd
BoM total discounted	2,338,605.00
Spare total discounted	0.00
BoM + Spare total discounted	<b>2,338,605.00</b>

For a detailed report, see [Network Bill Of Material](#)

**-Messages-**

Legend		
<span style="color: blue;">i</span> Info messages	<span style="color: orange;">⚠</span> Warning messages	<span style="color: red;">✖</span> Error messages
	<span style="color: red;">⊘</span> Fatal errors	
Header	Action	Source
<span style="color: blue;">i</span> No specific anti-ASE node is required for ...		
<span style="color: blue;">i</span> Analysis ended successfully		

**: Summary**

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) Software Release is 7.0 or a later release, a single XML file is created including all the automatic node setup (ANS) parameters for all the sites in the network. If you have chosen the Per Side Installation Parameter option in the “[4.2 Editing Network Parameters](#)” task on [page 4-1](#), the installation parameters will include information about each side of the site. This file can be directly imported to a site using the NE Update feature in the Cisco Transport Planner (CTP), which uses this file to preprovision a node.

The configuration file is named as NeUpdate.xml 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 installed 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** (Only for ONS Software Release 9.4 and 9.6) Check the **Per Side Installation Parameter** check box in the Properties pane to include the side information of the sites in the NE Update XML file.
- 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 the configuration setup file.
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## 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.

The NE Update file provides details of the parameters used to provision the passive units. The passive units are individually identified using the unit ID. The unit ID starts from 1 and gets incremented with the list of passive units present in that particular NE.

Passive units are optical devices that the controller card cannot manage and that are not configurable using software. The passive units that are provisioned in the ANP are:

- DCU units
- 15216-MD-40-ODD
- 15216-MD-40-EVEN
- 15216-EF-40-ODD
- 15216-EF-40-EVEN
- 15216-MD-48-ODD
- 15216-MD-48-EVEN
- PP-MESH-4/PP-MESH-8
- 15454-PP-4-SMR patch panel

**Note**

CTP lists the passive units in Release 9.1 and later releases.

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**Note**

CTP allows you to change the Unit ID of any unit. For information on changing the unit ID, see [Step 5](#) in the “3.2.6 Viewing the Layout of Single Site” section on page 3-15.

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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	Posi...	Unit	Port #	Port ID	Port Label	Parameter	Value	Measurement Unit	Manual Set
NetworkType Metro-Core string No										
A Rack...	OPT-AMP	C	2	LINE-2-1-TX	COM TX	dwdm:Rx::Amplifier:...	1.0	dBm	No	
A Rack...	OPT-AMP	C	2	LINE-2-1-TX	COM TX	dwdm:Rx::Amplifier:Tilt	-0.0	dB	No	
A Rack...	OPT-AMP	C	6	LINE-2-3-TX	LINE TX	dwdm:Rx::Amplifier:...	Control Gain	string	No	
A Rack...	OPT-AMP	C	1	LINE-1-1-RX	COM RX	dwdm:Rx::Threshold:...	-24.0	dBm	No	
A Rack...	OSC + Combiner/S...	4	LINE-1-2-RX	LINE RX	dwdm:Rx::MinExpecte...	0.0	dB	No		
A Rack...	OSC + Combiner/S...	4	LINE-1-2-RX	LINE RX	dwdm:Rx::MaxExpecte...	0.8	dB	No		
A Rack...	OSC + Combiner/S...	4	LINE-1-2-RX	LINE RX	dwdm:Rx::Threshold:...	-5.0	dBm	No		
A Rack...	OSC + Combiner/S...	4	LINE-1-2-RX	LINE RX	dwdm:Rx::Threshold:...	-7.4	dBm	No		
A Rack...	OSC + Combiner/S...	4	LINE-1-2-RX	LINE RX	dwdm:Tx::Power:OS...	-6.5	dBm	No		
A Rack...	40 WSS	C	83	LINE-3-2-TX	COM TX	dwdm:Tx::Power:Ad...	-4.2	dBm	No	
A Rack...	40 WSS	C	84	LINE-3-2-RX	COM RX	dwdm:Rx::Power:Ad...	1.0	dBm	No	
A Rack...	40 DMX	C	1	CHAN-5-1-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	2	CHAN-5-2-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	3	CHAN-5-3-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	4	CHAN-5-4-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	5	CHAN-5-5-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	6	CHAN-5-6-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	7	CHAN-5-7-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	8	CHAN-5-8-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	9	CHAN-5-9-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	10	CHAN-5-10-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	11	CHAN-5-11-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	
A Rack...	40 DMX	C	12	CHAN-5-12-TX	N/A	dwdm:Rx::A::Power:...	-15.1	dBm	No	



Note

If a particular side does not have any demand and does not have traffic passing through that side, the ANS parameters related to that side will not be displayed in the Installation Parameters report. The NE Update XML file (in ANS tab) does not display any parameters of that side. When a side has a fiber connected, but has no demand passing through it, then the summary report displays an error stating that the installation parameters for that particular side cannot be generated. For additional information on the summary report refer to “3.2.1 Viewing the Summary Report” section on page 3-2. The warning and error messages help you identify problems with your current design. For a list of all system messages, see Appendix C, “System Messages.”

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.

**Table 3-3 Installation Parameters Report ANS View Tab Columns (continued)**

Column	Description
Position	Displays the rack, shelf number (MSM Shelf ID), and slot position of the card where the patchcord originates.
Unit	Displays the name of the card.
Port #	Displays the port number where 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.
Unit ID	Displays the unit (slot number) of the passive units in the shelf. <b>Note</b> The unit ID is not displayed for the active units.
Shelf ID	Displays the shelf identifier. <b>Note</b> The Shelf ID displays the MSM shelf ID for an MSM configuration.
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. <b>Note</b> The Equipment type lists the Fine TDCU (F TDCU) or Coarse TDCU (C TDCU) units, with the corresponding slot position.
Description	Displays the details of 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.
Unit ID	Displays the unit of the provisioning parameter.

**Table 3-5** *Installation Parameters Report PP View Tab (continued)*

Column	Description
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. <b>Note</b> The TDCU compensation parameter and the corresponding wavelength value is displayed.
Value	Displays the installation parameter value. <b>Note</b> The TDCU wavelength value is displayed.

**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, pluggables, Multi-Shelf Management (MSM), and passive inventory units.

**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-WSS-C	EXP TX		Rack 1.ONS 15454 ANSI Shelf...	40-WSS-C	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-WSS-C	EXP TX		Rack 1.ONS 15454 ANSI Shelf...	40-WSS-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-WSS-C	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-WSS-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-WSS-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-WSS-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-WSS-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-WSS-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-WSS-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-WSS-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...	OSC-C5M	COM TX		Rack 1.ONS 15454 ANSI Shelf...	40-WSS-C	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-WSS-C	COM TX		Rack 1.ONS 15454 ANSI Shelf...	OSC-C5M	
LC-LC-2	Rack 1.ONS 15454 ANSI Shelf...	40-WSS-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-WSS-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-WSS-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-WSS-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-WSS-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-WSS-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 three 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 sections:
  - **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.
- **MSM Connections**—To view patchcord connections related to multi-shelf management and passive inventory.

**Step 4** Click **Patchcord Installation**, **SW Provisioning** or **MSM Connections**.

Table 3-6 lists the columns in the Internal Connections Details window and their descriptions. Click a column 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. In the MSM Connections tab this column indicates the name of the cable used in the connection.
Unit Type-1	(MSM Connections subtab only) Displays the source unit. The source unit can be MS 100T card, Shelf Ethernet switch or an M6 chassis.
Position-1	Displays the rack, shelf, and slot position of the card from which the patchcord originates. In the MSM Connections subtab, this displays the position of the source unit.
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.
Id-1	(MSM Connections subtab only) Displays the source unit ID.
Port label-1	Displays the name of the port. In the MSM Connections subtab this displays the name of the port from which the cable is connected.
W/P	Displays whether the port is a working or a protected 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).
Unit Type-2	(MSM Connections subtab only) Displays the destination unit. The destination unit can be MS 100T card, Shelf Ethernet switch or an M6 chassis.
Position-2	Displays the rack, shelf, and slot position of the card where the patchcord terminates. In the MSM Connections subtab, this displays the position of the destination unit.
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.
Id-2	(MSM Connections subtab only) Displays the destination unit ID.
Port Label-2	Displays the name of the port. In the MSM Connections subtab this displays the name of the port to which the cable is connected.
P/F	Displays whether the connection relates to a present or forecast circuit.

**Step 5** 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 6** 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**

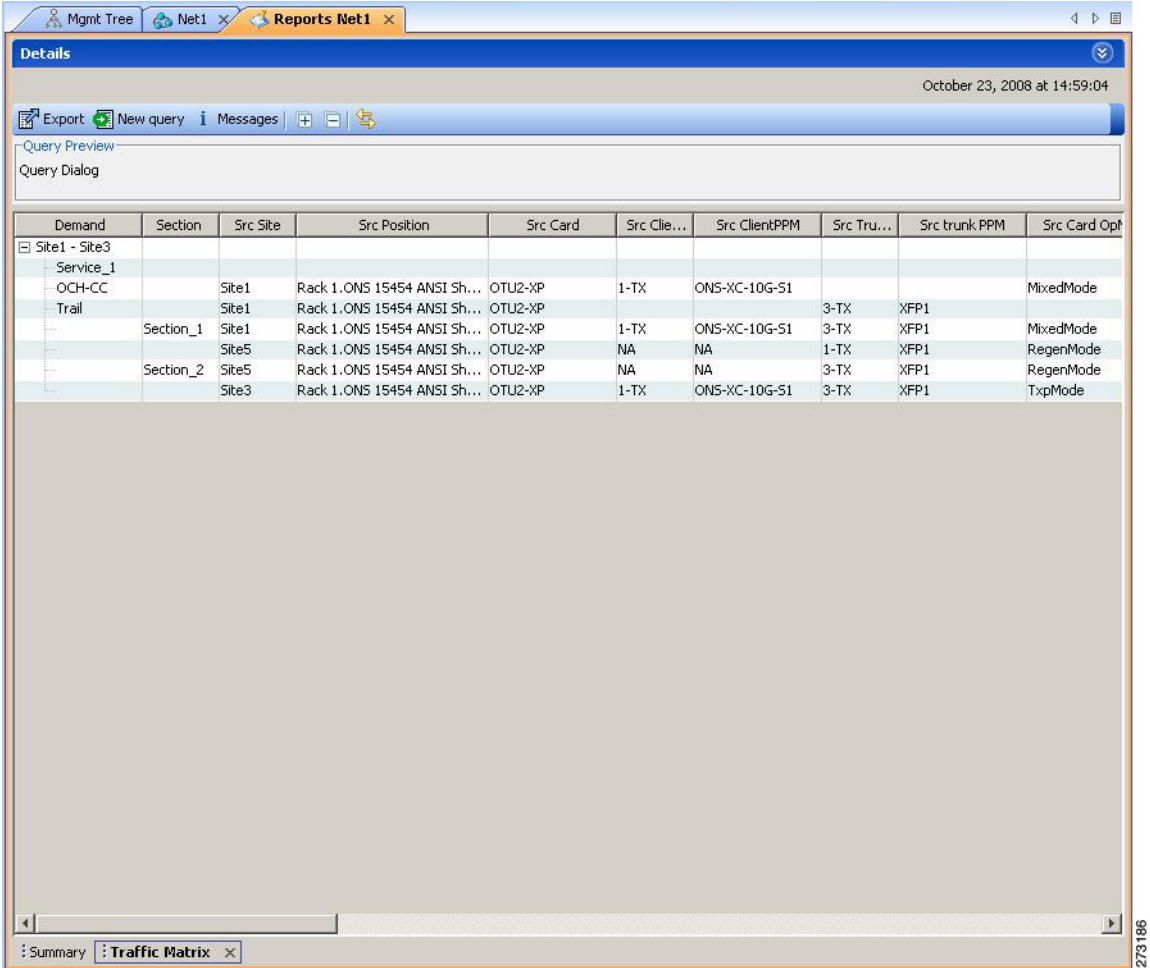
P-Ring			
Service			
	Och-CC		
	+	Trail	
		+	Section 1
		+	Section 2
	+	Trail	
		+	Section
	+	Trail	
		+	Section

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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



**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.
Src Position	Displays the rack, shelf ID, 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.

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

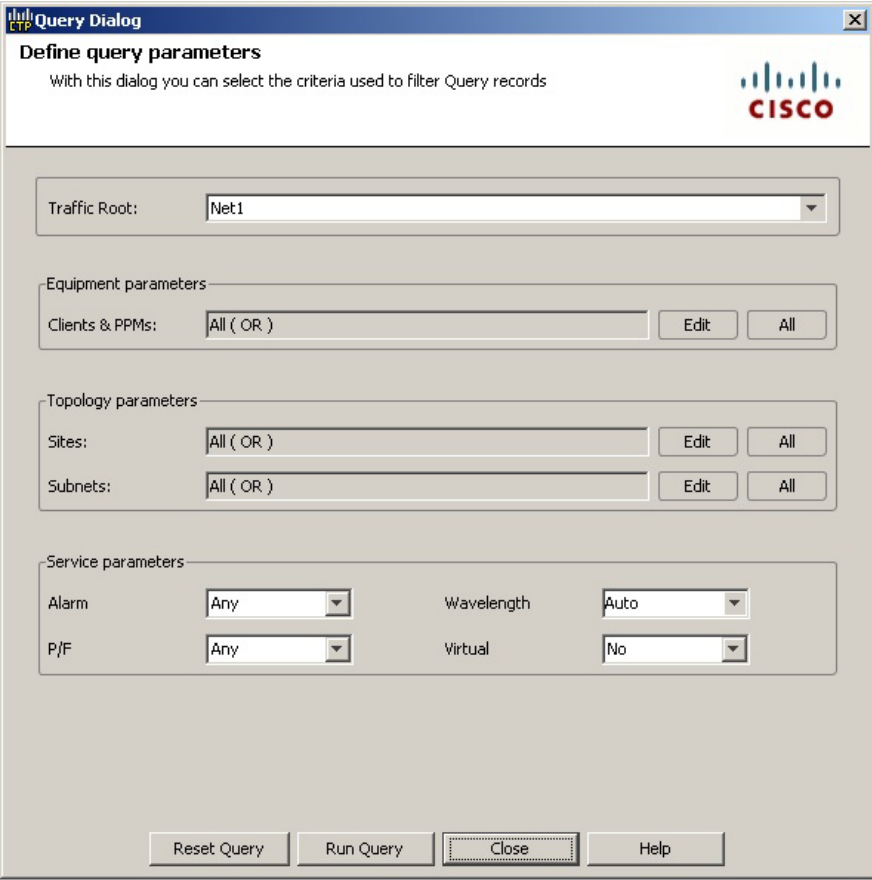
Column Label	Description
Src Client Port	Displays the port for the source of the optical channel; for example, 1-RX.
Src Client PPM	Displays the pluggable port modules for the source port; for example ONS-XC-10G-S1.
Src Trunk Port	Displays the trunk port for the source of the optical channel; for example, 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
Src Colorless	Displays if the section is colorless capable at the source side.
Src Omni-dir	Displays the label of the omnidirectional side that the section uses from the source side of the demand. If the section does not use any omnidirectional side from the source side, then it displays None.
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. 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.
Dst Colorless	Displays if the section is colorless capable at the destination side.
Dst Omni-dir	Displays the label of the omnidirectional side that the section uses from the destination side of the demand. If the section does not use any omnidirectional side from the destination side, then it displays None.
Cl. Serv. Type	Displays the client service type of the demand; for example, OC-48.

Table 3-7 Traffic Matrix Tab Columns (continued)

Column Label	Description
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.
Wavelength (Wavelength No.)	Displays the wavelength value of the optical channel. Also, displays the serial number of the wavelength in the wavelength band. The alphabet “e” besides the wavelength serial number represents that it is an “even” wavelength in the C-band.
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



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- 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.
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.

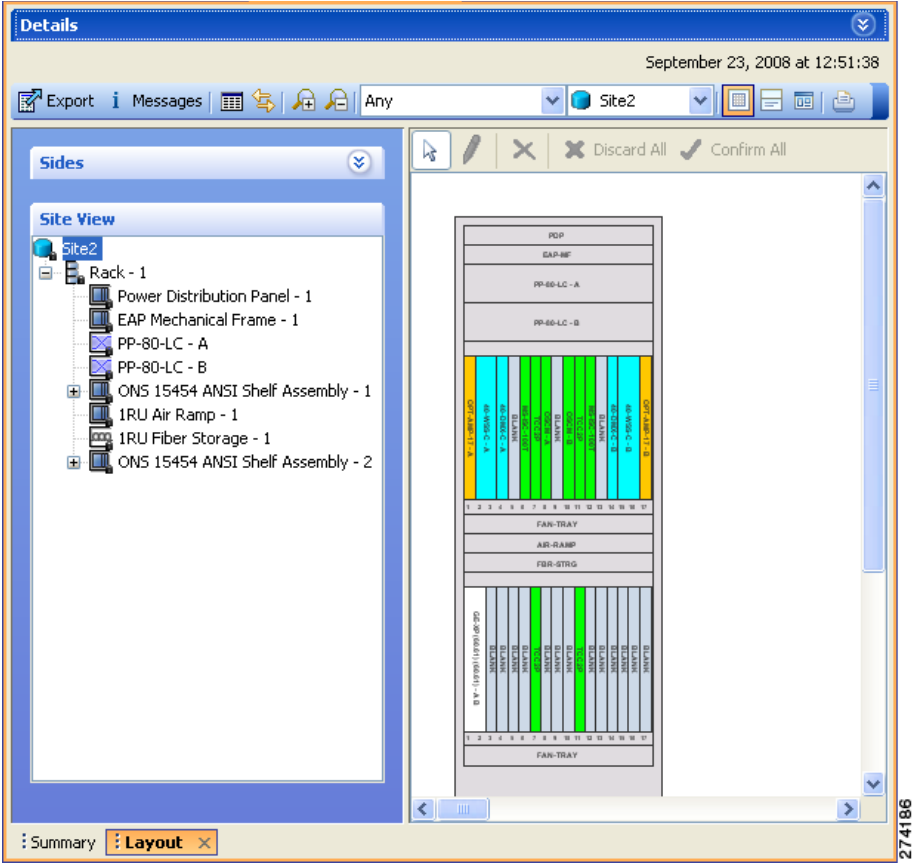
- Step 5** Complete one of the following tasks, as needed:
- Click **Run Query**. The window closes, and the query results appear in the Traffic Matrix tab (see [Figure 3-6](#)). The parameters of the query appear in the horizontal area just below the button bar.
  - Click **Reset Query** to clear your 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 Viewing the Layout of Single Site

Use the following procedure to view a graphical representation of the layout for a single site in an analyzed network. Additionally, you can modify the MSM Shelf ID for Multi Shelf Management Configuration.

- Step 1** In the Project Explorer pane, click the **NtView Name** tab and click the desired site.
- Step 2** In the Tasks Pane, click **Layout**. The Layout tab appears, as shown in [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, double-click the site in the network to display in the layout report.

**Step 4** In the Site view in the left pane, right-click a rack and choose **Expand** to view a list of all shelves and cards in the rack.



**Note** Alien shelves are displayed only in the layout reports.

- Step 5** To modify the unit ID of any unit:
- a. Double-click the unit. The Details dialog box appears.
  - b. Update the unit ID and press **Enter**.

CTP allows you to set the same unit ID for PP mesh across all the sites (maximum value is 96). To do this, go to [Step 6](#). Else, go to [Step 7](#).

- Step 6** To change the unit ID of the PP mesh:
- a. Double-click any PP mesh unit. The Details dialog box appears.
  - b. Update the unit ID as required (for example, 1) and press **Enter**. The PPMesh Unit ID Conflict dialog box appears indicating that if there is an identical unit ID in any other unit, then a swapping will take place.
  - c. Click **Yes** to proceed. The PPMesh unit ID All Sites dialog box appears.
  - d. To apply the swapping in all sites, click **Yes**. The PPMesh Report dialog box appears.



- e. To view the report summarizing all the unit ID changes, click **Yes**.

**Step 7** To modify the ANSI/ETSI MSM Shelf ID configuration:

- a. Double-click the shelf assembly. The Details dialog box appears.
- b. Update the MSM Shelf ID and click **Enter**.



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**Note** The valid values of shelf IDs range from 1 to 50 for Multi Shelf Integrated or External Switch with M6 as node controller and M12 as node controller with TCC3 card. The valid values of shelf IDs range from 1 to 30 for Multi Shelf Integrated or External Switch with M12 as node controller with TCC2P card.

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- c. Close the Details dialog box.

The MSM shelf ID is updated in the Layout report, Traffic Matrix report, Installation parameters report, and the NE Update file.



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**Note** For the MSM Shelf ID to be updated across all the reports, ensure you close and reopen all the reports.

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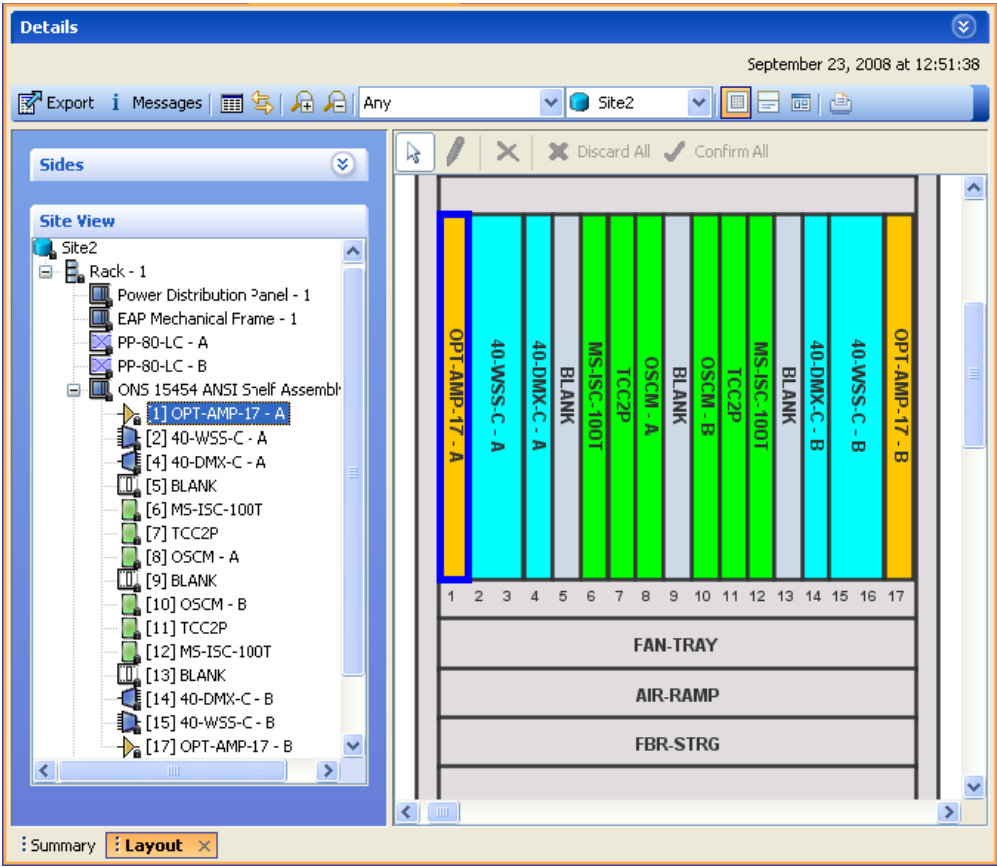
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**Note** You can modify the MSM Shelf ID if you have selected the Shelf Management Type as either Multi Shelf Integrated Switch or Multi Shelf External Switch.

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**Step 8** 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 9** 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:

- Type—Displays the type of pluggable port module.
- 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.
- Wavelength—Displays the wavelength value.
- 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.

- Encryption—Displays whether the traffic is encrypted or not.
- Step 10** Click **Close** to close the Details dialog box.
- Step 11** To filter the layout display, choose one of the following from the drop-down list:
- All—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 12** 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 13** 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**. If you want to export the layout report for multiple sites, see [“3.2.7 Exporting the Layout Report for Multiple Sites”](#).
- Step 14** 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 15** To close the Layout report, click the **X** in the upper right corner of the tab.
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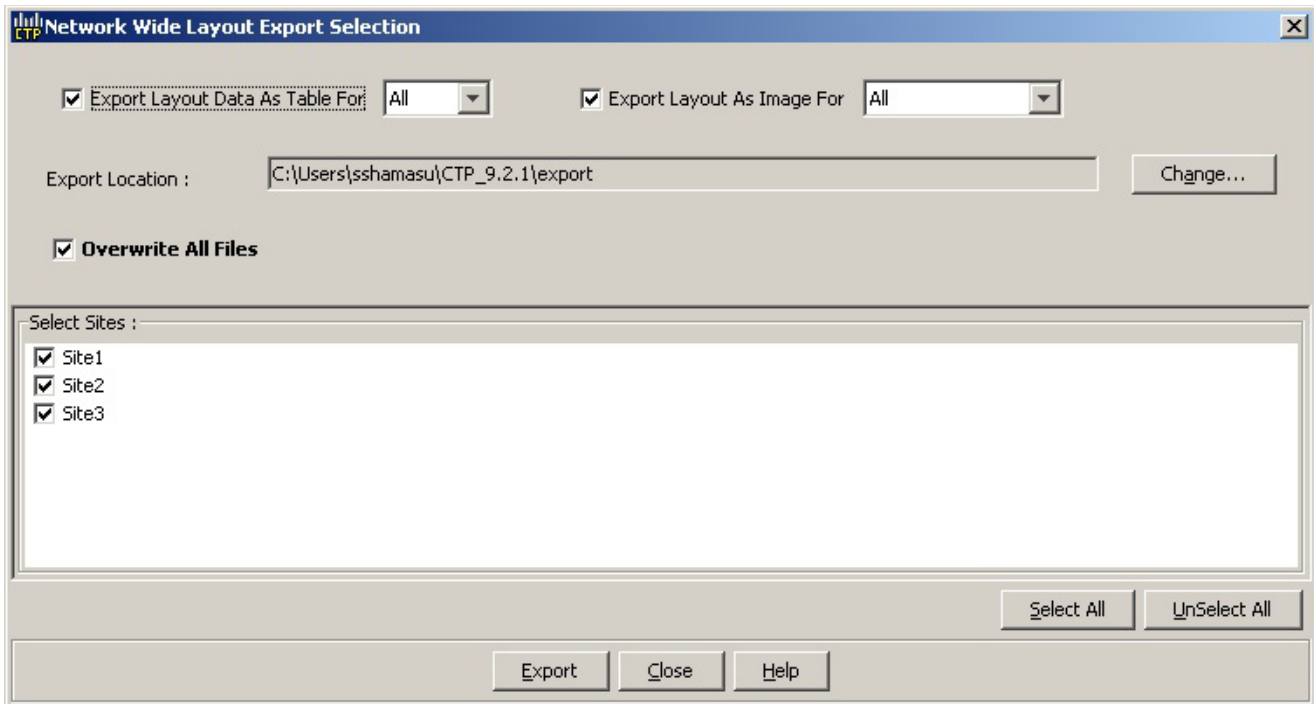
## 3.2.7 Exporting the Layout Report for Multiple Sites

Use the following procedure to export the layout report of multiple sites in an analyzed network:

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- Step 1** In the Project Explorer pane, navigate to the Reports folder and click **Layout**. In the Details window, click the **Network Wide Layout Export** button.
- The Network Wide Layout Export Selection dialog box opens. ([Figure 3-10](#)).

Figure 3-10 Network Wide Layout Export Selection



**Step 2** In the Network Wide Layout Export Selection window, complete the following:

- Export Layout Data As Table For — Select to export the layout report of the selected sites in .xls format. Select the options from the drop-down list:
  - All—Exports the layout report of the present and forecasted equipments of a site.
  - Present— Exports the layout report of the equipments present in a site.
 The .xls file lists the following information:
  - The different cards used and slots where the cards are placed.
  - Maximum and average power consumption of the equipment.
  - Unit weights of the equipment.
- Export Layout As Images For—Select to export the layout report of the selected sites in JPEG format. The .jpg file provides a graphical representation of the site layout. Select the options from the drop-down list:
  - All—Exports the layout report of the present and forecasted equipments of a site.
  - Present—Exports the layout of the equipments present in a site.
  - Locked and Unlocked—Exports the layout of the equipments (in JPEG format) that are locked and/or unlocked in a site. Additionally, the layout report provides links of the cards or shelves movement.
  - Alarmed — Exports the report of the equipments that has alarms.
- Export Location—Specify the filename and the desired folder to save the export data.
- Overwrite All Files— Overwrites the existing exported reports.
- Select Sites— Select the sites to fetch the report.

- Step 3** Click **Export**. The Network Wide Layout Summary window opens.  
The summary page displays the location where the exported files are available for the selected sites.



**Note** The layout report of the sites are saved as separate files (.jpg and .xls) with the site label as the file name.

## 3.2.8 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 3-16). 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 3-11).

**Figure 3-11 Power Consumption**

Name	Position	Description	Max power consumption (W)
Rack	Rack - 1		181.00
Power Distribution Panel	Shelf - 1		0.00
EAP Mechanical Frame	Shelf - 1	Ethernet Adapters Panel Mechanical Frame	0.00
ONS 15454 ANSI Shelf	Shelf - 1	15454 5A HD NEBS3 ANSI w/ RCA and Ship Kit	181.00
OSC-CSM	Slot 1	ONS 15454 Combiner and Separator with OSC Module	27.00
AD-1C	Slot 2	ONS 15454 OADM - 1 Chn - 100GHz - 1558.17	25.00
TXP_MR_10E_y	Slot 3	15454 10G Multi-Rate Transponder - EFEC- Full C-Band Tunable	42.00
Blank	Slot 4	Empty slot Filler Panel	0.00
Blank	Slot 5	Empty slot Filler Panel	0.00
MS-ISC-100T	Slot 6	MultiShelf Management Integrated Switch Card	0.00
TCC2P	Slot 7	Timing Communications Control Two Plus, I-Temp	30.00
Blank	Slot 8	Empty slot Filler Panel	0.00
Blank	Slot 9	Empty slot Filler Panel	0.00
Blank	Slot 10	Empty slot Filler Panel	0.00
TCC2P	Slot 11	Timing Communications Control Two Plus, I-Temp	30.00
MS-ISC-100T	Slot 12	MultiShelf Management Integrated Switch Card	0.00
Blank	Slot 13	Empty slot Filler Panel	0.00
Blank	Slot 14	Empty slot Filler Panel	0.00
Blank	Slot 15	Empty slot Filler Panel	0.00
Blank	Slot 16	Empty slot Filler Panel	0.00
OSC-CSM	Slot 17	ONS 15454 Combiner and Separator with OSC Module	27.00
1RU Air Ramp	Shelf - 1	ONS 15454 Air Ramp / Baffle for the ANSI Chassis	0.00
1RU Fiber Storage	Shelf - 1	Fiber Storage Shelf	0.00

Table 3-9 describes the information in the columns of the Layout Table report.

**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.

**Table 3-9** *Layout Table (Power Consumption) Columns (continued)*

Column Label	Description
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. Enter the name of the file and navigate to the desired folder. Click **Save**.

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

## 3.2.9 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 3-12](#)).

**Figure 3-12** Link Availability Report

Group	Serv. Circuit	P/F	DWDM Card Type	Protection	Cl. Serv. Type	Source	Destination Side	Link Availability
P-Ring	Service_1	P/F	OTU2-XP	P-Ring	10G-FICON	Site1.B	Site3.A	0.999842
P-Ring	Service_1	P/F	OTU2-XP	P-Ring	10G-FICON	Site3.B	Site1.A	0.999899

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.
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 3-14). 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.

## 3.2.10 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 3-13](#)).



Figure 3-13 Optical Results Tab

Name	Srv Demand	Protect	SOL	EOL	SE	P/F	Source	Src Colorless	Src Omni-dir	Destination	Dst Colorless
OCH Link - 1	PointToPoint/Site...	Unprotected	●	●	●	P	Site3.C	No	None	Site4.A	No
DWDM Trunk - Far End			●	●	●	P	Site4.A	No	None	Site3.C	No
DWDM Trunk - Near End											
Section		Unprotected									

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.
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.

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

Column Label	Description
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.
Single-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.
Multi-channel NLE Status	Displays the status of the multiple channel 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.
Wavelength (Wavelength No.)	Displays the wavelength value of the optical channel. Also, displays the serial number of the wavelength in the wavelength band. The alphabet “e” besides the wavelength serial number represents that it is an “even” wavelength in the C-band.
P/F	Displays the present/forecast services indication.
Source	Displays the name of the source site and side; for example, Site 1-E.
Src Colorless	Displays if the section is colorless capable at the source side.
Src Omni-dir	Displays the label of the omnidirectional side that the section uses from the source side of the demand. If the section does not use any omnidirectional side from the source side, then it displays None.
Destination	Displays the name of the destination site and side; for example, Site 1-E.
Dst Colorless	Displays if the section is colorless capable at the destination side.
Dst Omni-dir	Displays the label of the omnidirectional side that the section uses from the destination side of the demand. If the section does not use any omnidirectional side from the destination side, then it displays None.
Span (km)	Displays the total span length (source -> destination) for this path in kilometers.
Src Tx Type	Displays the type of DWDM unit or pluggable port module used at the source of the specific OCH Trail. The class of the DWDM unit is also displayed.
Dst Tx Type	Displays the type of DWDM unit or pluggable port module used at the destination of the specific OCH Trail. The class of the DWDM unit is also displayed.
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.

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

Column Label	Description
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.
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.
Residual CD [ps/nm]	Displays the total dispersion value of the circuit. This total is the difference between the sum of CD robustness of the source and destination transponders, and the sum of fiber dispersion and dispersion compensation due to DCU units in the circuit.
CD Robustness [ps/nm]	Displays the chromatic dispersion robustness of the receiver.
RX atten	Displays the attenuation at the input of the receiver.
TX atten	Displays the attenuation at the output 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.
Min GB[GHz]	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 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 3-14](#)). 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.
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.

## 3.2.11 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.

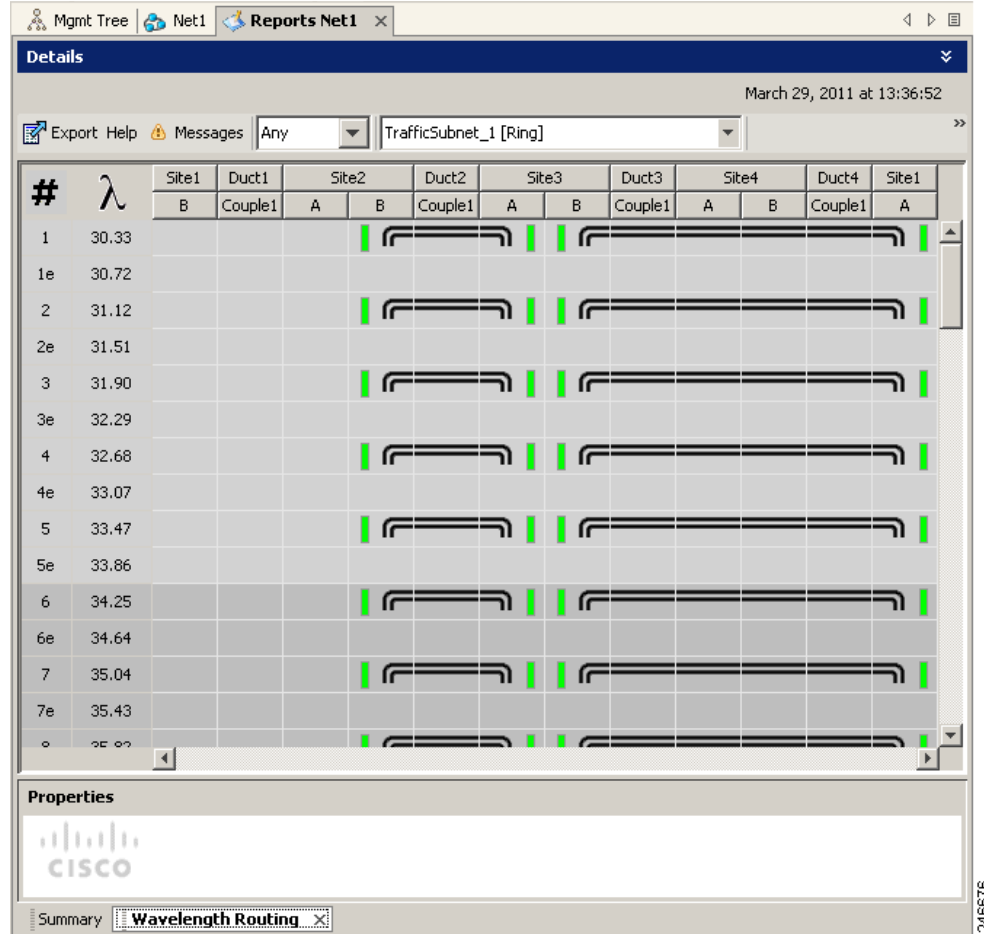
**Step 2** In the Tasks Pane, click **Wavelength Routing**. The Wavelength Routing tab appears ([Figure 3-14](#)). Each wavelength supported by the platform is represented by a row.



**Note**

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

Figure 3-14 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](#).

Figure 3-15 Point-to-point Demand

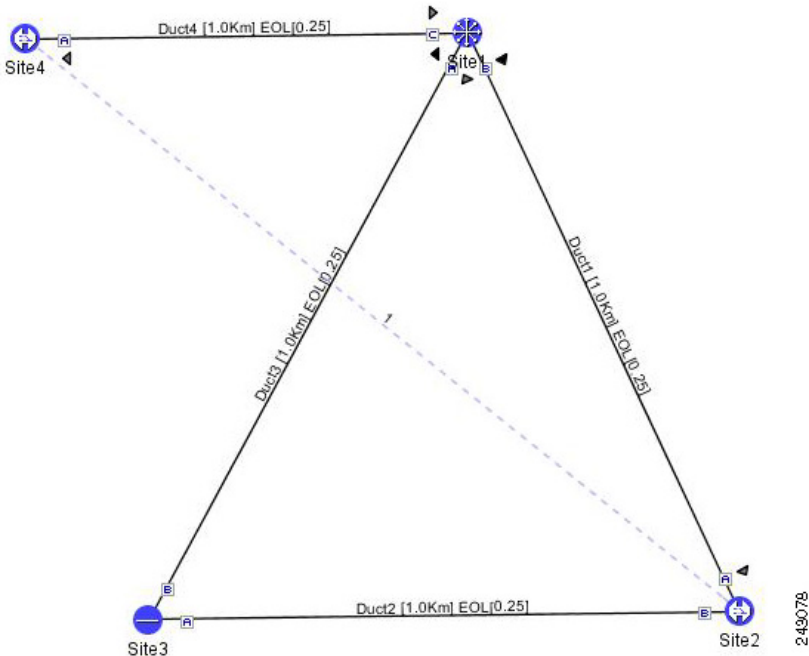


Table 3-14 lists and explains the circuit icons present in the routing map

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.

Table 3-14 Circuit Icons in a Routing Map

Component	Description
	Indicates the side of the site through which the demand exits the subnet. For example, in <a href="#">Figure 3-15</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.
	Indicates an omnidirectional side.
	Indicates the omnidirectional side of a regeneration site where the demand terminates.
	Indicates an omnidirectional demand.
	Indicates a colorless demand.
	Indicates a colorless omnidirectional demand.
	Indicates an optical bypass site.

[Table 3-15](#) describes the columns in the Wavelength routing tab.

**Table 3-15 Wavelength Routing Tab Columns**

Column Label	Description
#	Displays the serial number of the wavelength in the wavelength band. The alphabet “e” besides the wavelength serial number represents that it is an “even” wavelength in the C-band.
$\lambda$	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 multidegree site with PP-MESH-4.
A, B, C, D, E, F, G, and H	Represents a multidegree 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.

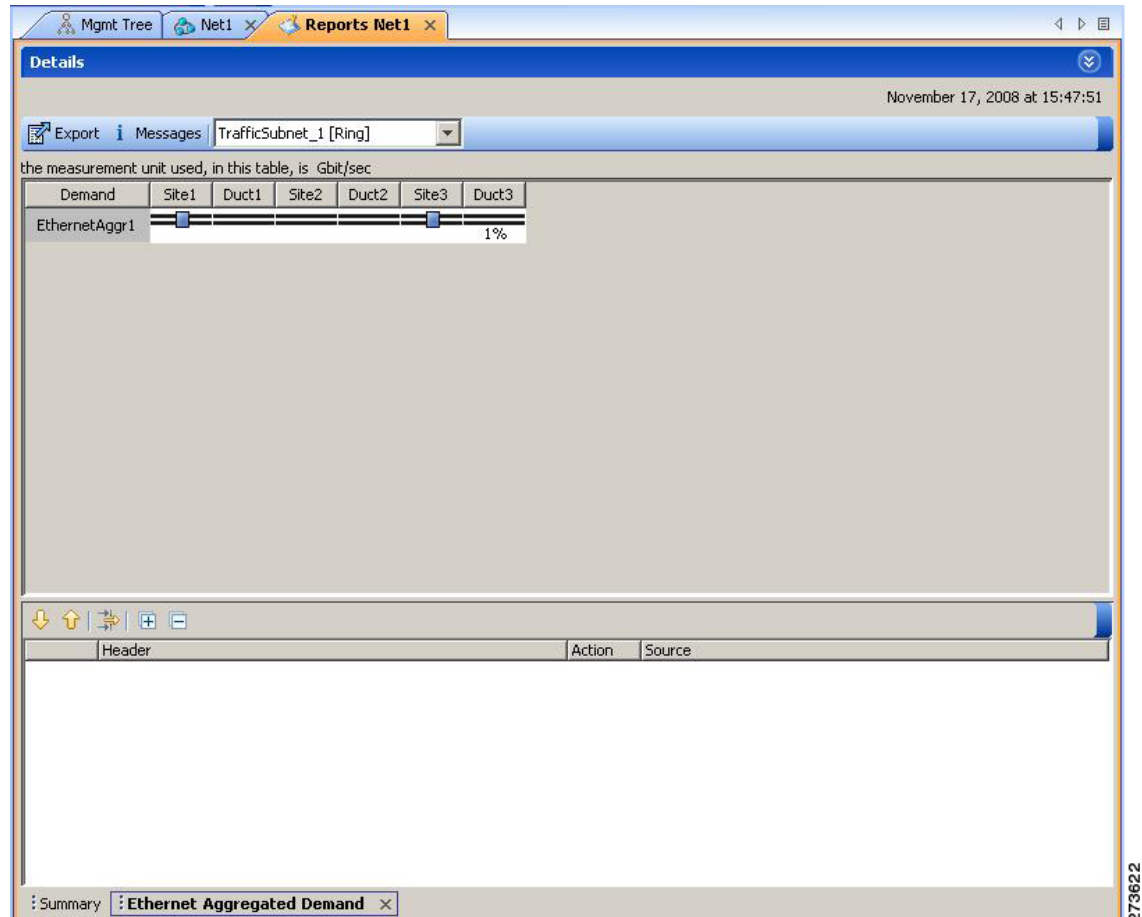
## 3.2.12 Viewing the Ethernet Aggregated Demand Report

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 3-16).

**Figure 3-16 Ethernet Aggregated Demand Tab**



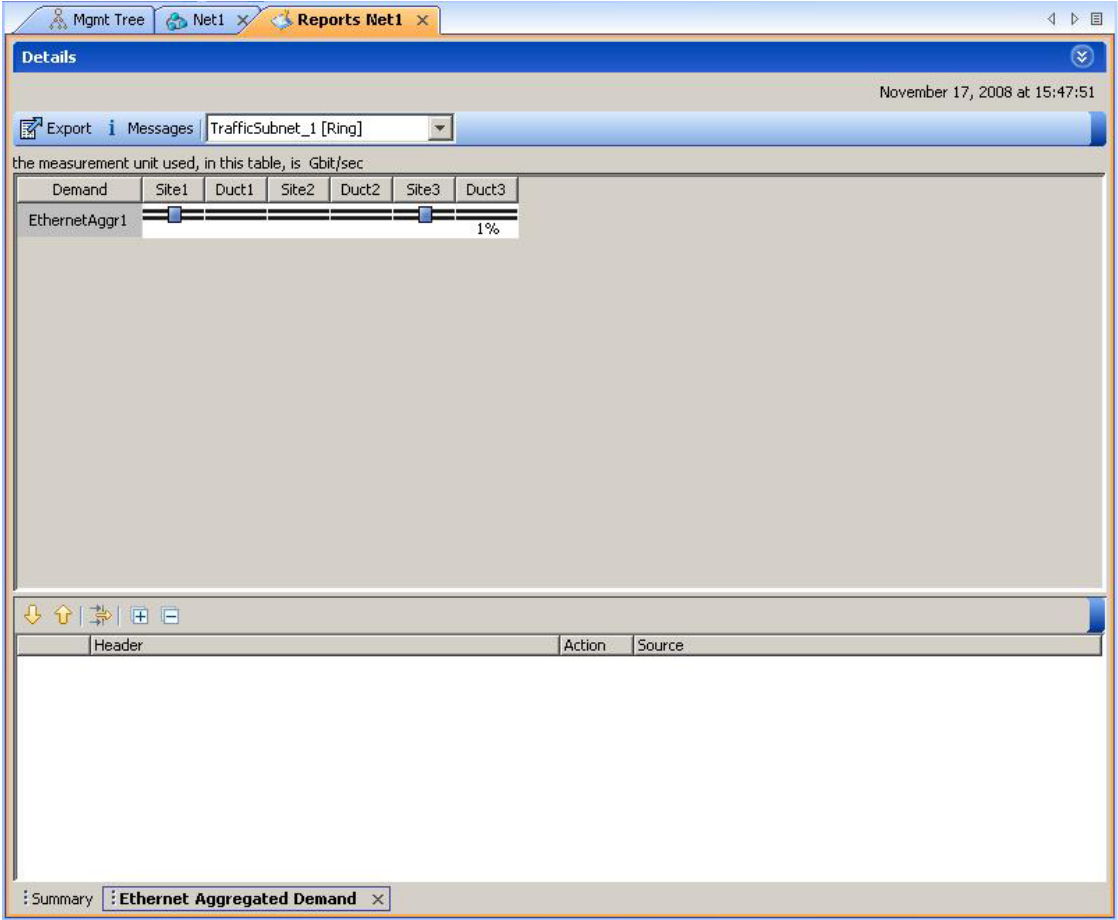
273622

### 3.2.13 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 3-17).

Figure 3-17 TDM Aggregated Demand Tab



### 3.2.14 Viewing Any-to-Any Finalized Circuits

To view the Any-to-Any (A2A) Finalized Circuits report:

- Step 1** Click the Mgmt Tree tab and right-click the analyzed network.
- Step 2** Choose A2A Finalized Circuits from the drop-down list.

The A2A Finalized Circuits tab appears.

The A2A Finalized Circuits tab allows to edit or delete any Any-to-Any finalized ROADM demand (see “2.7.7 Creating a ROADM Demand” task on page 2-28).

Table 3-16 describes the columns in the A2A Finalized Circuits tab.

**Table 3-16 A2A Finalized Circuits Tab Columns**

Column Label	Description
Name	Displays the name of the site.
Wavelength	Displays the wavelength value of the optical channel. Also, displays the serial number of the wavelength in the wavelength band. The alphabet “e” besides the wavelength serial number represents that it is an “even” wavelength in the C-band.
From Loc	Displays the site and side where the demand originates.
To Loc	Displays the site and side where the demand terminates.
Signal Rate	Displays the signal rate.
Equipment	Displays the card type.
Notes	Allows to add notes or comments.
Finalized On	Displays the date when the demand was finalized.

## 3.2.15 Viewing Report Differences

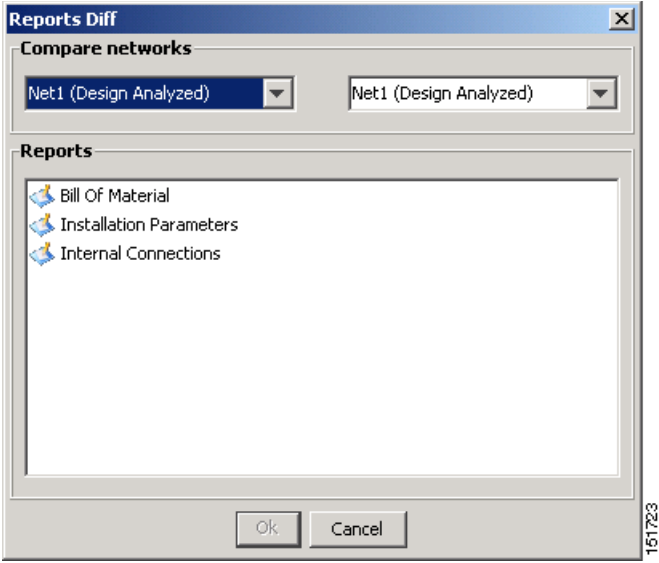
You can compare the BoM, Internal Connections, and Installation Parameters reports for two networks. This is useful to see the differences between a baseline network and an Install or Upgrade network.

- 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 3-18](#) shows the Reports Diff dialog box as it appears when at least two analyzed networks exist in a project.

Figure 3-18 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 3-19 on page 3-37) For a description of the columns, see Table 3-17 on page 3-38.
  - Installation Parameters—(Figure 3-20 on page 3-39) For a description of the columns, see Table 3-18 on page 3-39.
  - Internal Connections—(Figure 3-3 on page 3-9) For a description of the columns, see Table 3-19 on page 3-41.
- Step 4** Click **OK**.  
 Figure 3-19 shows the BoM Diff report.

Figure 3-19 BoM Diff Report

The screenshot shows the MetroPlanner interface with a 'BoM Diff Report Net1-Net6' window. The window is divided into two panes for 'Net1' and 'Net6'. Below these panes is a table titled 'BoM Diff Report Net1-Net6' with the following data:

Name	PID	Quantity	Unit Price	Total Price	Disc
ONS 15454 OADM - 1 Chn - 100GHz - 1558.17	15454-AD-1C-58.1	1	20,000.00	20,000.00	20,000.00
ONS 15454 OADM - 2 Chs - 100GHz - 1554.13 - 1554.94	15454-AD-2C-54.1	1	30,000.00	30,000.00	30,000.00
ONS 15454 OADM - 4 Chs - 100GHz - 58.17-58.98-59.79-60.61	15454-AD-4C-58.1	1	40,000.00	40,000.00	40,000.00
Transponder	=	5		157,000.00	157,000.00
PPM	=	5		15,695.00	15,695.00
Mech Unit	≠	22/18		11,715.00/7,845.00	11,715.00
Common Unit	≠	6/4		38,000.00/29,000.00	38,000.00
SW License	≠	6/3		7,980.00/3,990.00	7,980.00
Opt Common Unit	=	2		18,000.00	18,000.00
Amplifier	=				
ONS 15454 Optical Pre-Amplifier Module	15454-OPT-PRE	1	22,000.00	22,000.00	22,000.00

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

**Table 3-17 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.
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 3-20 shows the Installation Parameters Diff report.

Figure 3-20 Installation Parameters Diff Report

Table 3-18 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 3-18 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.

**Table 3-18** *Installation Parameters Diff Report Columns (continued)*

Category	Description
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.

Table 3-19 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*.



**Table 3-19 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.

