



Release Notes for Cisco Transport Planner, Release 9.6.0.3

Revised: 31 January 2013, OL-27529-01

Release notes contain the new features and enhancements for the Cisco Transport Planner (CTP). For detailed information regarding features, capabilities, hardware, and software introduced with this release, refer to the Release 9.6.0.3 version of the *Cisco Transport Planner DWDM Operations Guide*.

Cisco also provides Bug Toolkit, a web resource for tracking defects. To access Bug Toolkit, visit the following URL:

<http://tools.cisco.com/Support/BugToolKit/action.do?hdnAction=searchBugs>

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Software and Hardware Requirements

Before you begin to install CTP Release 9.6.0.3, you must check if your system meets the minimum software and hardware requirements. This section describes the software and hardware requirements for CTP Release 9.6.0.3.

- [Operating System Requirements](#)
- [Supported Java Runtime Environment](#)
- [Hardware Requirements](#)



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Operating System Requirements

CTP Release 9.6.0.3 runs on systems with the following operating systems:

- Microsoft Windows 2000 Professional
- Microsoft Windows XP Professional
- Microsoft Vista Business
- Microsoft Windows 7 Professional
- Linux



Note

Microsoft Windows XP Professional is the preferred operating system for CTP Release 9.6.0.3.

Supported Java Runtime Environment

CTP Release 9.6.0.3 requires that you install Java Runtime Environment Version 1.6 or Version 1.7.

You can download it from this URL:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

Hardware Requirements

CTP Release 9.6.0.3 runs on systems with the following hardware configurations:

Hardware	Minimum Requirements	Typical Requirements	Recommended Requirements
CPU	Intel Pentium Processor 800 MHz	Intel Pentium Processor 1.4 GHz	Intel Pentium Processor 1.7 GHz
Memory	512 MB RAM	1 GB RAM	2 GB RAM or more
Video Resolution	1024x768	1280x1024	1280x1024

Customizing Memory Usage for JVM

CTP Release 9.6.0.3 allows you to customize the maximum amount of memory to be used by the Java Virtual Machine (JVM). The default value of 512 MB is appropriate for use with the recommended hardware (1GB of RAM).

For hardware using less physical memory, it is recommended that you reduce the maximum amount of memory to be used by the JVM. This reduction prevents the system from using system virtual memory, which results in poorer system performance.

If you reduce the amount of memory dedicated to JVM, Cisco Transport Planner may generate an Out of Memory error in the case of a complex design, typically when designing an any-to-any traffic design with a large number of nodes. In such cases, it is recommended that you increase the memory size.

Allowing JVM to use too much memory compared to the available RAM can instead result in very low system performances due to the use of virtual memory. The following table lists the recommended settings:

System RAM	Minimum JVM Memory	Maximum JVM Memory	Suggested JVM Memory
512 MB	256 MB	450 MB	350 MB
1 GB	512 MB	900 MB	700 MB
2 GB or more	1024 MB	1800 MB	1450 MB

To change the maximum amount of memory to be used by the JVM, you need to edit the *Startup.properties* file, which is available in the directory where you saved the *ctp.jar* file during installation. Replace the default value (512 MB) with the appropriate one from the Suggested JVM Memory column of the preceding table. Save the file and restart the Cisco Transport Planner for the changes to take effect.

**Note**

The suggested memory values are for a system with fairly less load. If there are many processes running on your system, changing to the suggested memory value may not launch CTP. In such cases, reduce the JVM memory appropriately (you may reduce the memory in granularity of 100 MB) by editing the *Startup.properties* file.

Using the Bug ToolKit

Use the Bug ToolKit to view the list of outstanding and resolved bugs in CTP Release 9.6.0.3. This section explains how to use the Bug ToolKit.

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- Step 1** Go to <http://tools.cisco.com/Support/BugToolKit/action.do?hdnAction=searchBugs>. You will be prompted to log into Cisco.com. After you login, the Bug Toolkit page opens.
- Step 2** To search for a specific bug, enter the bug ID in the **Search for Bug ID** field and click **Go** in the **Search Bugs** tab.
- To search for all the bugs in a specified release, enter the following search criteria in the **Search Bugs** tab:
- Select Product Category—Select **Optical Networking**.
 - Select Products—Select **Cisco DWDM Design Tool** from the list.
 - Software Version—Select **9.6.0.3** to view the list of outstanding and resolved bugs in CTP, Release 9.6.0.3
 - Search for Keyword(s)—Separate search phrases with boolean expressions (AND, NOT, OR) to search within the bug title and details.

- **Advanced Options**—You can either perform a search using the default search criteria or define custom criteria for an advanced search. To customize the advanced search, select **Use custom settings for severity, status, and others** and provide the following information:
 - **Severity**—Check the check box for the severity level.
 - **Status**—Check the check box corresponding to **Open**, **Fixed**, or **Terminated**.

Select **Open** to view all the open bugs. To filter the open bugs, uncheck the **Open** check box and select the appropriate sub-options that appear below the Open check box. The sub-options are Assigned, Forwarded, Held, Information Required, More, New, Open, Postponed, Submitted, and Waiting. For example, select **New** if you want to view only new bugs in CTP Release 9.6.0.3.

Select **Fixed** to view fixed bugs. To filter fixed bugs, uncheck the **Fixed** check box and select the appropriate sub-options that appear below the Fixed check box. The sub-options are Resolved and Verified.

Select **Terminated** to view terminated bugs. To filter terminated bugs, uncheck the **Terminated** check box and select the appropriate sub-options that appear below the Terminated check box. The sub-options are Closed, Junked, and Unreproducible.

You can select multiple options as required.
 - **Advanced**—Check the **Show only bugs containing bug details** check box to view only those bugs that contain detailed information, such as symptoms and workarounds. Check the **Include only bugs available to customers** check box to view only those bugs that are customer facing.
 - **Modified Date**—Use this option to filter bugs based on the time duration within which the bugs were last modified. Select the appropriate option from the drop-down list.
 - **Results Displayed Per Page**—Select the appropriate option from the drop-down list to restrict the number of results that appear per page.

Step 3 Click **Search**. The Bug Toolkit displays the list of bugs based on the specified search criteria.

Export to Spreadsheet

The Bug ToolKit provides the following options to export bugs to a spreadsheet:

- Click **Export All to Spreadsheet** link in the Search Results page under the Search Bugs tab. Specify the file name and folder name to save the spreadsheet. All the bugs retrieved by the search will be exported.
- Click **Export All to Spreadsheet** link in the My Notifications tab. Specify the file name and folder name to save the spreadsheet. All the saved bugs in all the groups will be exported.

If you are unable to export the spreadsheet, log into the Technical Support Website at <http://www.cisco.com/cisco/web/support/index.html> for more information, or call Cisco TAC (1-800-553-2447).

New Features and Functionality

This section highlights new features and functionality supported by CTP Release 9.6.0.3. For detailed documentation of each of these features, refer to the *Cisco Transport Planner DWDM Operations Guide*.

Common Hardware

The new hardware supported by CTP Release 9.6.0.3 are:

- [100G-LC-C, 100G-ME-C, 10x10G-LC, and CFP-LC Cards, page 5](#)
- [15454-M2-FTA2 and 15454-M6-FTA2 Fan-Tray, page 6](#)
- [15454-M6-DDR and 15454-M2-DDR Deep Doors, page 6](#)
- [AR-XPE Card, page 6](#)
- [Patch Panels, page 6](#)
- [Pluggables, page 7](#)
- [TNCE and TSCE Cards, page 8](#)

100G-LC-C, 100G-ME-C, 10x10G-LC, and CFP-LC Cards

The 100G-LC-C, 100G-ME-C, 10x10G-LC, and CFP-LC cards provide a 100G DWDM solution for the Cisco ONS 15454 M2 (M2) and Cisco ONS 15454 M6 (M6) platforms. The 100G-LC-C, 100G-ME-C, 10x10G-LC, and CFP-LC cards can be configured in multiple operating modes.

The 100G-LC-C, 100G-ME-C, 10x10G-LC, and CFP-LC cards provide the following key features:

- Simplifies the integration and transport of the 100 GE, 10 GE, and Optical Transport Unit Level 4 (OTU4) interfaces and services on the enterprise or service provider optical networks.
- Provides an advanced capability to deliver 100 Gbps services, which includes protocol transparency, wavelength tunability, flow-through timing, management, and performance monitoring capabilities.
- Supports Generalized Multiprotocol Label Switching (GMPLS) circuits.
- The 100G-LC-C and 100G-ME-C cards supports feature-based licensing. The 10x10G-LC card supports count-based licenses.

CTP provides an option to force 100G-LC-C and 100G-ME-C cards along with ASR with CFP/CXP pluggables on the cards. Bundles will be placed for the pluggables and cables connecting to the DWDM Client card.

100G-LC-C Card and 100G-ME-C Card

The 100G-LC-C and 100G-ME-C cards are tuneable DWDM trunk cards supported on M2 and M6 platforms. These cards transport 100 GE LAN-PHY and OTN OTU4 over a 50-GHz spaced, 50-GHz stabilized, ITU-compliant wavelength. The cards are tunable on 96 wavelength channels spaced at 50-GHz over the entire C-band. The client port supports a standard CXP format pluggable that is compliant with a 100G-BASESR10 LAN PHY or OTU4 equivalent interface.

CTP provides FEC mapping for the 100G DWDM line cards (100G-LC-C and 100G-ME-C cards) as follows:

- GFEC is mapped as FEC
- HG-FEC (7% overhead) is mapped as EFEC
- UFEC (20% overhead) is mapped as HG FEC

10x10G-C Card

The 10x10G-LC card is a DWDM client card supported on the M2 and M6 platforms. This card provides 10 Gbps services to support the 100G-LC-C and 100G-ME-C cards.

CFP-LC Card

The CFP-LC card is a client card supported on the M6 platform. This card provides 100 Gbps services to support 100G DWDM wavelengths generated by the 100G-LC-C and 100G-ME-C cards.

15454-M2-FTA2 and 15454-M6-FTA2 Fan-Tray

The 15454-M2-FTA2 and 15454-M6-FTA2 are the next generation fan-trays that provide increased air flow for better cooling. It is necessary to install the FTA2 in the shelf if it is populated with 100G-LC-C, 100G-ME-C, 10x10G-LC, and CFP-LC cards.

15454-M6-DDR and 15454-M2-DDR Deep Doors

The 15454-M6-DDR and 15454-M2-DDR deep doors for M6 and M2 provide additional space in front of the shelf to accommodate cables that do not fit inside the standard door.

AR-XPE Card

The Any Rate Xponder Enhanced (AR-XPE) card, supported on M2 and M6 platforms provides a high degree of flexibility for the multiservice aggregation transport of a variety of signals and interfaces into enterprises or metropolitan area (metro) and regional service provider networks. The card supports a bandwidth of up to 20 Gbps. The AR-XPE card can be configured to function in multiple operating modes. The cards are equipped with pluggables for client and trunk port options, and offer several configurations. The criterion used to select a specific operating mode is defined by the network level design. The Cisco Transport Planner helps by choosing the appropriate operating mode. The card aggregates a mix of client SAN services (FICON, ESCON, ISC3-STP, and Fiber Channel), Ethernet (GE, FE), OCn/STM-n (OC3/STM-1, OC12/STM-4, and OC48/STM-16), OTU1, and video (SD-SDI, HD-SDI, and 3G-SDI) into a 10 Gbps signal on the trunk side.

Patch Panels

CTP supports the following units:

- ONS 15216-EF-40-ODD/EVEN
- ONS 15216-MD-48-ODD/EVEN
- ONS 15216-MD-48-CM

Cisco ONS 15216-EF-40-ODD and 15216-EF-40-EVEN Patch Panels

The ONS 15216-EF-40-ODD= and ONS 15216-EF-40-EVEN= units are the Cisco ONS 15216 40 channels 100GHz spaced multiplexer/demultiplexer exposed faceplate (EF) patch panels that operate on the odd or even ITU grid respectively. The ONS 15216-EF-40 patch panel can combine 40 channels of ITU wavelengths spaced at 100 GHz to a denser DWDM signal and separate the combined signal to 40 channels of ITU wavelengths spaced at 100 GHz.

Cisco ONS 15216-MD-48-ODD and 15216-MD-48-EVEN Patch Panels

The ONS 15216-MD-48-ODD= and ONS 15216-MD-48-EVEN= units are the Cisco ONS 15216 48 channels 100GHz spaced multiplexer/demultiplexer exposed faceplate patch panels that operate on the odd or even ITU grid respectively.

Cisco ONS 15216-MD-48-CM

The ONS 15216-MD-48-CM interfaces between the following units:

- 15216-MD-40 ODD/EVEN units and 80 channels of wavelengths
- 15216-EF-40 ODD/EVEN units and 80 channels of wavelengths
- 15216-MD-48 ODD/EVEN units and 96 channels of wavelengths

Pluggables

CTP supports the following pluggables:

- ONS-CXP-100G-SR10 on 100G-LC-C and 100G-ME-C cards.
- ONS-SC+-10G-ER, ONS-SC+-10G-LR, ONS-SC+-10G-SR, ONS-SC+-10G-ZR, ONS-SC+-10G-30.3 through ONS-SC+-10G-61.4, ONS-SC+-10GEP-30.3 through ONS-SC+-10GEP-61.4, ONS-SC+-10G-CU-1, ONS-SC+-10G-CU-3, ONS-SC+-10G-CU-5, ONS-SC+-10G-CU-7, and ONS-SC+-10G-C on 10x10G-LC card.
- ONS-CC-100G-LR4, ONS-CC-100GE-LR4, ONS-CC-40G-LR4, ONS-CC-40G-FR, CFP-40G-SR4, and CFP-100G-SR10 on CFP-LC card.
- ONS-XC-10G-96C on ADM-10G, AR_XP, AR_MXP, GE_XP, GE_XPE, 10GE_XP, 10GE_XPE, OTU2_XP, 40G CP-DQPSK MXP, 40G CP-DQPSK ME MXP, 40G DQPSK MXP, and 10G-XR cards.
- ONS-SI-622-SR-MM, ONS-SI-GE-ZX, ONS-SI-2G-L1, ONS-SI-2G-L2, ONS-SI-2G-L2, ONS-SI-2G-S1, ONS-SI-2G-S1, ONS-SI-622-I1, ONS-SI-155-L2, ONS-SI-155-SR-MM, ONS-SE-ZE-EL, ONS-SI-100-FX, ONS-SI-100-LX10, ONS-SI-155-I1, ONS-SE-Z1, ONS-SE-GE-BXD, ONS-SE-GE-BXU, ONS-SE-4G-SM, ONS-SE-155-1510, ONS-SE-200-MM, ONS-SC-2G-xx.x, ONS-XC-10G-EPxx.x, ONS-SE-2G-xxxx, ONS-SI-GE-SX, ONS-SI-GE-LX, ONS-XC-8G-MM, ONS-XC-8G-MM, ONS-XC-10G-SR-MM, ONS-XC-10G-S1, ONS-XC-10G-C, ONS-XC-10G-xxxx, ONS-XC-8G-SM, ONS-SC-2G-37.4, ONS-SC-2G-45.3, ONS-SC-2G-53.3, ONS-SC-HD3GV-TX, ONS-SC-HD3GV-RX, ONS-SI-155-L1, ONS-SI-622-L1, ONS-SI-622-L2, ONS-SE-100-BX10U, ONS-SE-100-BX10D, ONS-SC-4G-xx.x, and ONS-SC-2G-xxxx on AR-XPE card.
- CTP supports importing SFP+ pluggables from the Sherpa tool.

TNCE and TSCE Cards

CTP supports TNCE and TSCE cards on M2 and M6 platforms.

TNCE

The TNCE card combines the functions of multiple cards such as TCC2P, OSCM, ISC, and AIC-I cards. The card has a similar look and feel to TCC2/TCC2P/TCC3 cards.

On the M6 shelf, the TNCE card can be provisioned in slots 1 and 8 and on the M2 shelf, the card can be provisioned in slot 1. The TNCE card must be provisioned as a master and slave on the M6 shelf, and as a stand-alone card on the M2 shelf.

The TNCE card performs the following functions:

- Acts as node controller and shelf controller.
- Supports two optical service channels (OSC) through two small-form factor pluggable (SFP) ports.
- Performs all the system-timing functions for the M2 and M6 shelf assemblies.
- Supports multishelf management of up to 50 shelves including the node controller.
- Provides 4 GB of non-volatile database storage (IDE Compact Flash Module) for communication, provisioning, and system control.
- Monitors both the AC/DC supply voltage inputs on the M6 shelf. The M2 shelf has single power supply.
- Provisions customer-defined (environmental) alarms and external controls on the M6 shelf.
- Supports all the alarms supported by the TCC2P and AIC-I cards.



Note

Do not install the TNCE and TSCE cards in the same shelf. Downgrade procedures from TNCE to TSCE cards are not supported.

TSCE

The TSCE card combines the functions of multiple cards such as TCC2P, ISC, and AIC-I cards. The card has a similar look and feel to TCC2/TCC2P/TCC3 cards.

On the M6 shelf, install TSCE cards in slots 1 and 8. On the M2 shelf, install the stand-alone TSCE card in slot 1. The TSCE card is provisioned as master and slave on the M6 shelf, and as a stand-alone card on the M2 shelf.

The TSCE card performs the following functions:

- Acts as a shelf controller.
- Performs all the system-timing functions for the M2 and M6 shelves.
- Supports multishelf management with support for up to 30 shelves including the node controller.
- Provides 4 GB of non-volatile database storage (IDE Compact Flash Module) for communication, provisioning, and system control.
- Monitors both the supply voltage inputs on the M6 shelf. An alarm is generated if one of the supply voltage inputs has a voltage out of the specified range. The M2 shelf has single power supply.
- Provisions customer-defined (environmental) alarms and external controls on the M6 shelf.
- Supports all the alarms supported by the TCC2P and AIC-I cards.

Software Features

The new software features of Cisco Transport Planner, Release 9.6.0.3 are listed in [Table 1](#).

Table 1 *New Features in Cisco Transport Planner, Release 9.6.0.3*

Features	Description
AR-MXP and AR-XP card enhancements	Support for 10GE LAN-PHY service type.
ASR Bundles	CTP allows you to view the components of the BoM for 100G ASR demands as a single bundle. This is applicable for both ASR 1-port and 2-port demands.
BoM reports	Enhancements made to the BoM report: <ul style="list-style-type: none"> The exported BoM report contains a new tab called SalesforceBoM. Formulae have been added to the exported BoM to automatically update the fields in the excel sheet when the unit discount or the quantity of the unit is updated. All the software PIDs of similar category and their corresponding controller cards are placed adjacent to each other in the BoM.
DCU card movement	DCU cards can be swapped within the same shelf, between shelves in the same rack, or between shelves in different racks in analyzed or upgrade analyzed networks.
Java 1.7	Support for Java 1.7.
Multiple selection in Project Explorer and Network View	CTP provides an option to select multiple items in the Project Explorer pane and the Network View. You can edit the properties that are common to the selected items in the Properties pane.
Multishelf management extension	<ul style="list-style-type: none"> CTP supports a maximum of 50 shelves, including the node controller shelf, in a multishelf configuration when TNC, TNCE, TSC, TSCE, or TCC3 card is used as node controller. CTP supports a maximum of 5 shelves, including the node controller shelf, in a multishelf configuration when TCC2P card is used as node controller.
OCHNC Circuits	CTP allows you to import and export OCHNC circuits during Bi-Directional communication with the network element.
Optical results report	The optical results report has the following enhancements: <ul style="list-style-type: none"> The class of the interface along with the interface type is displayed in the Src Tx Type and the Dst Tx type columns. The CD robustness column has been added.
OSMINE layouts	Support for OSMINE layouts. OSMINE rules for R9.2.1 and R9.6.0.x layouts are provided.
Per Side XML Installation Parameter	CTP allows you to include side information of each site in the NE Update XML file. This is a Beta feature.

Features	Description
Persistence of wavelength GUI options	The wavelength GUI options and the hide/show network details are saved in the cache and persist until the cache is deleted.
PP Mesh Unit ID	CTP allows you to set the same unit ID for PP mesh across all the sites. If there is an identical unit ID in any other unit, it is swapped with the unit ID of the PP mesh.
Restricted support for R8.5	Supports only release upgrades of networks created using software R8.5.
Upgrade copy enhancements	A tooltip is displayed when a network is selected for a copy, upgrade, release upgrade, install, or upgrade to design operation.
Wavelength usage information	Displays the percentage of wavelength usage using different colors. This option is available in the network view.
WSON PID property	Displays the WSON PIDs in the BoM when the WSON checkbox is checked.

Related Documentation

Cisco Transport Planner DWDM Operations Guide, Release 9.6.0.3.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

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