Release Notes for Cisco Transport Planner Release 9.0

Release notes contain the new features and enhancements for the Cisco Transport Planner. For detailed information regarding features, capabilities, hardware, and software introduced with this release, refer to the Release 9.0 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

Contents

Software and Hardware Requirements

Before you begin to install *Cisco Transport Planner Release 9.0*, you must check if your system meets the minimum software and hardware requirements. This section describes the software and hardware requirements for Cisco Transport Planner Release 9.0.

- Operating System Requirements
- Supported Java Runtime Environment
- Hardware Requirements

Operating System Requirements

Cisco Transport Planner Release 9.0 runs on systems with the following operating systems:

- Microsoft Windows 2000 Professional
- Microsoft Windows XP Professional/Home Edition

Supported Java Runtime Environment

Cisco Transport Planner 9.0 requires that you install Java Runtime Environment Version 1.5.x. You can download it from the following URL:

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

Hardware Requirements

Cisco Transport Planner 9.0 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	256MB RAM	512MB RAM	1GB RAM
Video Resolution	1024x768	1280x1024	1280x1024

Customizing Memory Usage for JVM

Cisco Transport Planner Release 9.0 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 (1 GB 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 with available RAM can instead result in very low system performances due to the use of virtual memory. The following table lists the recommended settings:

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System RAM	Minimum JVM Memory	Maximum JVM Memory	Suggested JVM Memory
256 MB	128 MB	200 MB	170 MB
512 MB	256 MB	450 MB	350 MB

System RAM	Minimum JVM Memory	Maximum JVM Memory	Suggested JVM Memory
256 MB	128 MB	200 MB	170 MB
1 GB	512 MB	900 MB	700 MB
2 GB	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 (512M) with the appropriate one from the Suggested JVM Memory column of the preceding table above. Save the file and restart 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

In Cisco Transport Planner Release 9.0 and later, use the Bug ToolKit to view the list of outstanding and resolved bugs in a release. This section explains how to use the Bug ToolKit.

Step 1 Go to http://tools.cisco.com/Support/BugToolKit/action.do?hdnAction=searchBugs and click **Launch Bug Toolkit**.

You will be prompted to log in to Cisco.com.

Step 2 To search for a specific bug, enter the bug ID in the **Search for Bug ID** field and click **Go**.

To search for all the bugs in a specified release, enter the following search criteria:

- Select the Product Category—Select **Optical Networking**.
- Select Products—Select the products from the list. Press and hold the **Ctrl** key to select multiple products.
- Software Version—Select **9.0** to view the list of outstanding and resolved bugs in Cisco Transport Planner Release 9.0.
- 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—Select the severity level.
  - Status—Select **Open**, **Fixed**, or **Terminated**.

    Select **Open** to view all the open bugs. To filter the open bugs, clear the Open check box and select the appropriate suboptions that appear below the Open check box. The suboptions are New, Held, More, Open, Waiting, Assigned, Forwarded, Postponed, Submitted, and Information Required. For example, if you want to view only new bugs in Cisco Transport Planner Release 9.0, only select **New**.

To view fixed bugs, select **Fixed**. To filter fixed bugs, clear the Fixed check box and select the appropriate suboptions that appear below the fixed check box. The suboptions are Resolved or Verified.

To view terminated bugs, select **Terminated**. To filter fixed bugs, clear the Terminated check box and select the appropriate suboptions that appear below the terminated check box. The suboptions are Closed, Junked, and Unreproducible. Select multiple options as required.

– Advanced—Select the **Show only bugs containing bug details** check box to view only those bugs that contain detailed information, such as symptoms and workarounds.

– Modified Date—Select this option if you want to filter bugs based on the date on which the bugs were last modified.

– Results Displayed Per Page—Select the appropriate option from the 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. You can filter the search results based on severity, status, and/or technology.

New Features and Functionality

This section highlights new features and functionality for Release 9.0. For detailed documentation of each of these features, refer to the *Cisco Transport Planner DWDM Operations Guide*.

Common Hardware

Cisco Transport Planner Release 9.0 supports the following new hardware:

- OPT-RAMP-C Card, page 4
- OTU2_XP Card, page 5
- GE_XPE and 10GE_XPE Cards, page 5
- ADM-10G Card, page 5
- Protection Switching Module Card, page 5

OPT-RAMP-C Card

The OPT-RAMP-C card is a double-slot unit that improves unregenerated sections in long spans using the span fiber to amplify the optical signal. To achieve Raman amplification, two extra band signals called Raman wavelengths (of different wavelengths) are transmitted on the fiber in the direction opposite the payload. If the Raman signals are powerful enough and the span has the right characteristics, a distributed gain called the Raman gain is generated on the fiber, so that the apparent span loss is reduced. Raman gain values are in the range of 7 to 10 dB. The Raman effect provided by the OPT-RAMP-C card enables span-loss reduction.

OTU2_XP Card

The OTU2_XP card is a four-port, XFP-based, multirate (OC-192/STM-64, 10GE, 10G FC) Xponder for the ONS 15454 ANSI and ETSI platforms. All the ports are ITU-T G.709 compliant and support 40 channels (wavelengths) at 100-GHz channel spacing in the C-band (that is, the 1530.33 nm to 1561.42 nm wavelength range). G.709 framing and forward error correction (FEC) encoding can be independently enabled on each port, while the enhanced FEC (E-FEC) encoding is available only on ports 3 and 4. Both client and trunk ports are XFP pluggable. The client port supports SR, IR2, LR2, and ZR XFPs and the trunk port supports DWDM XFPs. Depending on which port acts as a client or trunk port, the OTU2_XP card operates in five different configurations:

- Dual Transponder—OTU2-XP-Txp (2 x 10G transponder)

- Dual Regenerator—OTU2-XP-Regen (2 x 10G standard regenerator with enhanced [FEC (E-FEC)] only on one port)

- Single Regenerator—OTU2-XP- Single Regen (1 x 10G E-FEC regenerator with E-FEC on two ports)

- Protected Transponder—OTU2-XP- Splitter (1 x 10G splitter protected transponder)

- Mixed Mode—OTU2-XP- Mixed (1 x 10G transponder and 1 x 10G standard regenerator)

GE_XPE and 10GE_XPE Cards

The GE_XPE and 10GE_XPE cards are enhanced versions of the GE_XP and 10GE_XP cards, which are Gigabit Ethernet (GE) XPonders for the ONS 15454 ANSI and ETSI platforms. The cards are designed for bulk GE_XPE and 10GE_XPE point-to-point transport over 10GE LAN PHY wavelengths for Video-on-Demand (VOD) or for broadcast video across protected 10GE LAN PHY wavelengths.

ADM-10G Card

The ADM-10G card is available both as a single-card and double-card (ADM-10G peer group) configuration. In a single-card configuration, port 18 must be configured as a trunk interface (OC-192/STM-64 or OTU2 payload). In a double-card configuration (ADM-10G peer group), port 18 must be configured as an ILK2 interface.

The card supports path protection/SNCP on client and trunk ports for both single-card and double-card configurations. The card does not support path protection/SNCP between a client port and a trunk port. Path protection/SNCP is supported only between two client ports or two trunk ports. The card supports client-to-client hairpinning, that is, creating of circuits between two client ports for both single-card and double-card configurations.

Protection Switching Module Card

The Protection Switching Module (PSM) card provides splitter protection features at the optical level. In the transmission (TX) section of the PSM card, the signal received on the common receiving port is duplicated by a hardware splitter on both the working and protect transmitting ports. In the receiving (TX) section of the PSM card, a switch is provided to select one of the two input signals (on working and protect receiving ports) to be transmitted through the common transmitting port.

The card can be deployed in any of the following configurations:

- Channel Protection (PSM-OCH)—The PSM COM ports are connected to the TXP/MXP trunk ports.

- Multiplex Protection (PSM Section)—The PSM is equipped between the MUX/DMX stage and the amplification stage.

- Path Protection (PSM Line)—The PSM W and P ports are connected directly to the external line.

New Software Features and Functionality

The following new software features and functionality are added for Release 9.0:

- Availability of a CTP.exe installer (on Windows) and CTP.bin installer (on Linux) for installation of CTP
- Availability of context-sensitive help for CTP
- Supports manually regenerating optical signals
- Supports quick network analysis using the Run quick analysis option
- Displays weight of all the units for a node or for the complete network
- Displays a warning when a network design contains an alien DWDM client
- Supports setting the height of racks, rack parameters, the number of shelves, and the number of extra shelves
- Supports force of MXP, TXP, or XP cards in the nodes
- Supports force of different icon colors for node types, amplifier types, and fiber types
- Enforces rack placement rules
- Supports creation of network elements (NEs) after the network analysis. Each site contains an NEs folder in which NEs are placed
- Supports running of CTP on a Solaris or Linux server, allowing the user to connect to it from a desktop or a laptop; network analysis is carried out on the server

Related Documentation

Release-Specific Documents

- *Cisco Transport Planner DWDM Operations Guide, Release 9.0*
- *Release Notes for Cisco Transport Planner 9.0*

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.

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.