

Release Notes for Cisco Transport Planner, Release 10.8.x.x

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Cisco Transport Planner Release Notes



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This Release Notes document contains information about 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 10.8 version of the *Cisco Transport Planner DWDM Operations Guide*

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

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New Features

This section highlights new features supported by CTP Release 10.8.x.x For detailed documentation of each of these features, refer to the *Cisco Transport Planner DWDM Operations Guide*.



Note

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Table 1: New Features in Cisco Transport Planner, Release 10.8.0.1

| Feature | Description |
|------------------------------------|--|
| Import Network Support on NCS 2015 | In Release 10.8.0.1, the nodes with NCS 2015 chassis can be imported onto CTP. However, the hardware support on the NCS 2015 chassis remains the same. The chassis supports only the MSTP cards and does not support the Flex cards. |

Table 2: New Features in Cisco Transport Planner, Release 10.8

| Features | Description |
|--------------------------------|---|
| Enhancement in Layout template | In Release 10.8, CTP allows you to export and upload the Layout template. You can edit the exported Layout template, and also force the node controller ports supported by CTP. Layout template supports TNC port forcing and mix of controllers in single chassis. Layout template supports the below configurations: • All the Flex configurations • SSON Configuration • Client 1+1 and PSM-OCH |

| Features | Description | |
|---|---|--|
| Support for OPT-EDFA-35 | In Release 10.8, NCS2K-OPT-EDFA-35 blade is a new optical amplifier card for the NCS ONS15454 platforms supported for Flex SW package. The card shares same HW platform architecture of the existing OPT-EDFA-xx fixed gain optical amplifier, but it includes two is amplification sections (to serve the two fiber directions at the same time). Each section has switchable gain range that allows its usage over a wide gain range. | |
| | EDFA-35 is supported for the following configurations: | |
| | • For OLA site — Supported as BST-BST and BST-PRE configuration, along with EDRA-1, EDRA-2, or RAMAN-CTP combination. | |
| | • For Terminal Site type Add-Drop— Supported along with RAMAN-CTP and COP for colored configurations. | |
| | EDFA-35 is not supported with EDFA-24 and 17 at the same site. | |
| Support for 16G-FC SM pluggable on 400G-XP-LC | From System Release 10.8, 400G-XP-LC supports ONS-QC-16GFC-LW=(SM Pluggable). | |
| 10G CWDM Optics Support Removal from CTP | From System Release 10.8, client interface 10G CWDM (ONS-SC+10G-xxxx) is not supported in 10x10G, WSE and MR - MXP cards. | |
| Support for MSTP+Flex | From System Release 10.8, CTP supports the combination of MSTP nodes and Flex nodes. To convert MSTP nodes to Flex nodes you must unlock the site and change the Node type to Flex. After converting the nodes from MSTP to Flex, all the ports properties are reset to Auto. | |
| OTNXC Support on 400G-XP-LC | 400G-XP-LC has two trunks supporting 100G and 200G modes and 10 client ports supporting a total of 400Gbps of bandwidth. From System Release 10.8, OTN switching with ODU2 granularity is supported between client to trunk and trunk to trunk. Client to client switching is not supported. In Release 10.8, only 10GE client is supported. | |
| Y-cable protection | The following cards are protected with Y-cable from System Release 10.7: | |
| | • 200G-CK-LC | |
| | • 200G-CK-LC+10X10G-LC | |

| Features | Description | | |
|---|--|--|--|
| SSON | To enable SSON feature, you must upgrade the design to Release 10.7 or Release 10.8. In Release 10.7 or 10.8, you can Convert Non-SSON to SSON for a network in Design and Upgrade mode. The following are the configurations that support SSON: | | |
| | SMR-20 Directional colorless with 6-AD-CFS, Evolved Mesh Off, 2MPO-ADP and MPO-16LC unit. | | |
| | • SMR-20 Contentionless config with 16-AD-CCOFS, Evolved Mesh ON, Splitter Cable(MPO16to2MPO8cable), MPO-16LC Unit, Mesh Type- DEG5 and UPG4. | | |
| | Note For SSON nets, 400G-XP-LC card is made as default for 100GE, OTU4, 10GE, OTU2 services along with 16G-FC. Path forcing is applicable either for Standalone MCH or for MCG. Regeneration is only supported on Standalone MCH. | | |
| | Note Central wavelength assignment depends on the spectrum required for the demand. Need to force even wavelength for demands with even number of slices and odd wavelength for demands with odd number of slices. Hence, if network analysis fails with 'spectrum couldn't be assigned error' for wavelength x, try forcing 'x+1' or 'x-1' wavelength from the list. For protected MC demands, it is strongly recommended not to force central wavelength. Keep wavelength auto and CTP automatically assigns the right wavelength. | | |
| 0.1 GHz Carrier Wavelength Support for SSON networks | From System Release 10.8, CTP supports 0.1GHz granularity for carrier wavelength assignment for dual carrier MC and MCG. | | |
| GDT Daisy Chain | Effective from CTP Release 10.7, MF10-6RU Fiber Shuffle uses second USB 3.0 expansion on the faceplate, so that 2x NCS2K-MF10-6RU can be daisy chained. | | |
| | GDT Daisy Chain can be enabled on Site level. It can be updated in Upgrade as well, without unlocking the entire site. In CTP Release 10.7, only one MF10-6RU unit can be daisy chained. It default, legacy behavior is retained. | | |
| Support for new pluggables | The following pluggables are supported with NCS2K-400G-XP-LC card from System Release 10.7: | | |
| | • ONS-QSFP28-LR4 — This pluggable is supported for OTU4 client. | | |
| | • QSFP-100G-SM-SR— This pluggable is supported for 100G client. | | |
| | • QSFP-40G-SR4 — This pluggable is supported for 10G client. | | |
| | Note In 10.7 Beta, 8x10G-FO unit was wrongly supported with QSFP-40G-SR4 pluggable. The issue is fixed in 10.8. For existing networks, just reanalysis of network in lock mode fixes the issue. | | |
| Support for OTU4 service type on 400G-XP-LC | From System Release 10.7, OTU4 service type is supported on 400G-XP-LC with Client 1+1 protection. | | |
| Support for 2xOTU4 service with 200G-CK-LC+MR-MXP | From System Release 10.7, OTU4 is supported with 200G-CK-LC+MR-MXP combination in 200MXP opmode. | | |
| | SR-1 (CPAK-100G-SR10) and (LR-1 (CPAK-100G-LR4) pluggable is supported for OTU4 client. | | |

| Features | Description |
|----------------------------------|---|
| Support for 2x10G +2x40G | From System Release 10.7, 2x10G +2x40G service type is supported with 200G-CK-LC + MR-MXP |
| service with 200G-CK-LC + MR-MXP | The following pluggables are supported for 200G-CK-LC + MR-MXP: |
| | • 10G |
| | • SR-1 (ONS-SC+-10G-SR) |
| | • LR-1 (ONS-SC+-10G-LR) |
| | • DWDM (ONS-SC+-10G-C) |
| | • DWDM (ONS-SC+-10GEPXX.X) |
| | • 40G |
| | SR-1 (QSFP-40G-SR4). |
| | LR-1 (QSFP-40G-LR4) . |
| PSM-OCH support on 400G-XP-LC | From System Release 10.8, the 400G-XP-LC card supports trunk based PSM protection (PSM-OCH) on the CFP2 port in Muxponder mode for all the supported trunk rates and service types. |
| Regen Support on 400G-XP-LC | 400G-XP-LC has two trunks supporting 100G and 200G modes and 10 client ports supporting a total of 400Gbps of bandwidth. From System Release 10.8. Regeneration is supported between trunk ports. |

Performing Software Updates in CTP

CTP enables you to update the CTP software automatically or manually.

Performing Automatic Software Updates in CTP

This section explains how to perform an automatic software update.

Procedure

- Step 1 When CTP is launched, it checks for the latest software update automatically. If available, the following dialog box appears: Online Update Available, Would you like to Update CTP? Click Yes.
- **Step 2** The Software Update Dialog box appears listing the applicable software updates. Select the required software update and click **Apply**.
- **Step 3** The Update Successful message appears. Click **OK**.

Note The Update dialog box appears every time CTP is launched until the software update is applied.

Performing Manual Software Updates in CTP

Contact the Cisco Sales/Account team to get the software update files.

This section explains how to perform a manual software update.

Procedure

- **Step 1** In the CTP Help menu, go to **Help Check updates**. The update CTP dialog box appears.
- Step 2 Click Browse.
- **Step 3** Select the .upz update file and click **OK**.
- **Step 4** The Software Update Dialog box appears listing the applicable software updates. Select the required software update and click **Apply**.
- **Step 5** The Update Successful message appears. Click **OK**.
- **Step 6** Delete the cache and restart CTP.

Performing Software Update Rollback

CTP allows rollback of software updates. A single rollback moves the CTP software to the previous state (prior to the software update). For example, if there are two updates applied one by one—Update 1 and Update 2, after the first rollback, CTP removes Update 2 and retains Update 1. Further rollbacks are needed if multiple updates are present.

This section explains how to perform a rollback.

Procedure

- **Step 1** Press **R** while CTP is launching. The CTP launch is interrupted to perform a software rollback.
- **Step 2** Click **Yes** to confirm software rollback. The rollback successful dialog box appears.

Note

- Delete CTP Cache before and after applying update. Procedures about deleting cache are mentioned in the CTP Operations Guide. Take a backup of the required files (User preferences, CTP Design Files (.mpz), NeUpdate File, Alien Files, and so on) before deleting CTP cache.
- Automatic Update can be performed only when you are connected to the Cisco network. If
 you are not on a Cisco network, try to connect to Cisco VPN first. Otherwise, the software
 update file should be manually provided by a Cisco representative and manually updated.
- Changes caused by the software update is applicable even if the CTP Cache is deleted after the update. To remove an update, follow the rollback procedure mentioned in the previous section.
- Multiple rollbacks are not supported in this release. Re-install CTP if required.
- In the Java Control Panel, set the Java security to medium and mention the CTP installation directory in the Exception Site List (if there are issues with the rollback). If the screen is unresponsive, end CTP process and restart CTP.
- For MAC, force quit the process and restart CTP (if there are issues with the rollback).
- After uninstallation, delete all the files under the directory where CTP is installed manually.
 - Default location on Windows OS: C:\Program Files\Cisco\CTP10.8.
 - Default location on Mac OS: Applications/CiscoCTP10.8.

Software and Hardware Requirements

Before you begin to install CTP Release 10.9, you must check if your system meets the minimum software and hardware requirements.

This section describes the software and hardware requirements for CTP Release 10.9.

Operating System Requirements

CTP Release 10.8 runs on systems with the following operating systems:

- · Microsoft Windows 10 Professional
- Microsoft Windows 7 Professional
- Linux
- Apple Mac OS (up to X El Capitan).



Note

Microsoft Windows 10 Professional is the preferred operating system for CTP Release 10.8.

Supported Java Runtime Environment

CTP Release 10.8 requires that you install one of the following Java Runtime Environment versions:

- Java 1.7
- Java 1.8

Hardware Requirements

CTP Release 10.8 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 | 1024 MB RAM | 1 GB RAM | 2 GB RAM or more |
| Video Resolution | 1024x768 | 1280x1024 | 1280x1024 |

Customizing Memory Usage for JVM

CTP Release 10.8 allows you to customize the maximum amount of memory to be used by the Java Virtual Machine (JVM). The default value of 1024 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 |
|--------------|--------------------|--------------------|----------------------|
| 1024 MB | 256 MB | 450 MB | 350 MB |
| 1 GB | 512 MB | 900 MB | 700 MB |
| 2 GB or more | 512 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 (1024 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.

Related Topics

Variables for CTP

Critical Bug Fixes in Release 10.8.0.1

The following critical issues have been resolved in Release 10.8.0.1:

Table 3:

| Bug Number | Headline | Description |
|------------|--|--|
| CSCvg69877 | 10GE with SFP+ not to be allowed with Raman COP | 10GE with SFP+ pluggable is not supported with Raman-COP card. For networks already analyzed, an error message is displayed upon re-analysis. It is recommended to remove the Raman-COP card or the pluggable for successful analysis. |
| CSCvi04516 | OSNR calculation is wrong in presence of Layer-2 SMR | OSNR calculation is corrected for layer-1 and layer-2 contentionless demands with the SMR-20 card in logo effective calculation. |
| CSCvi52992 | SC-LC cables used in pluggable card XFP | SC-LC cables were used instead of LC-LC cables for the following pluggables. |
| | | • ONS-XC-10G-EP-XX.X |
| | | • ONS-SC+-10G-XX.X |
| | | • ONS-XC-10G-C |
| | | • DWDM-XFP |
| | | Re-analyze the network to get the correct cables. |
| CSCvi54963 | EXP TX values are not present for SMR card. | EXP TX values are not present for the SMR card. Re-analyze the network to get correct connections and installation parameters. |
| CSCvi48795 | OTNXC: 100G Bandwidth license not getting calculated | 100G client bandwidth license is not added for 100G trunk mode for 400G-XP-LC card with OTN-XC . Re-analyze the network to get the correct license PIDs. |
| CSCvi37660 | AC2 power supply is exported as AC in layout template export | AC2 power supply is exported as AC power supply in layout template. Re-analyze the network with AC2 power supply to get the correct layout template. |

| Bug Number | Headline | Description |
|------------|-----------------------|---|
| CSCvi99001 | Network Import issues | Network Import Support is added for the following patch panels: |
| | | • MD-48-CM |
| | | MD ODD/EVEN with exact slot position |

Cisco Bug Search Tool

Use the Bug Search Tool (BST) to view the list of outstanding and resolved bugs in CTP Release 10.8.

BST, the online successor to Bug Toolkit, is designed to improve the effectiveness in network risk management and device troubleshooting. The tool allows partners and customers to search for software bugs based on product, release, and keyword, and aggregates key data such as bug details, product, and version. The tool has provision to filter bugs based on credentials to provide external and internal bug views for the search input.

The BST is available at https://tools.cisco.com/bugsearch/. For more information on BST, see Bug Search Tool Help.

Search Bugs in BST

Follow the instructions below to search bugs specific to software release 10.9 in BST.

Procedure

- **Step 1** Go to https://tools.cisco.com/bugsearch/. You will be prompted to log into Cisco.com. After you login, the Bug Search Tool page opens.
- **Step 2** To search for a specific bug, enter the bug ID in the **Search For** field and click **Enter**.
- **Step 3** To search for all the bugs in CTP 10.9 enter the following parameters:
 - Search For—Enter Cisco TransportPlanner in the text box.

Or

Click Select from List and choose Optical Networking > Network Design > Cisco TransportPlanner.

- Releases—Enter the appropriate release number.
- Show Bugs—Select Affecting or Fixed in these Releases.

Step 4 Press Enter.

Note

- By default, the search results include bugs with all severity levels and statuses, and bugs that were modified during the life cycle of the bug. After you perform a search, you can filter your search results to meet your search requirements.
- An initial set of 25 search results is shown in the bottom pane. Drag the scroll bar to display the next set of 25 results. Pagination of search results is not supported.

Related Documentation

Cisco Transport Planner DWDM Operations guide, Release 10.8

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:

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