



CTP System

CTPView Server Release Notes

Release 3.1

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CTPView Server Release 3.1

Release Overview

These *Release Notes* accompany Release 3.1 of the CTPView Server software. They describe the enhancements as well as known issues with the software. CTPView software is compatible with Juniper Networks CTP1000- and CTP2000-series platforms running CTPOS version 5.1 or earlier.

If the information in these *Release Notes* differs from the information found in the published documentation set, follow these *Release Notes*. These *Release Notes* include the following sections:

- Required Files on page 5
- Installation on page 6
- Overview on page 6
- New Features on page 6
- Enhancements on page 7
- Known Issues on page 7

You can also find these release notes on the Juniper Networks Technical Publications CTP documentation Web page, which is located at <http://www.juniper.net/techpubs/hardware/ctp/>.

Required Files

See *CTP Hardware, Installation, and Software Configuration Guide, Chapter 6, Installing the Software and Configuring Security Settings*, for help in choosing the correct upgrade archive file:

- `ctpview_fc4_complete_3.1R1_080616.tgz`
- `web_fc4_3.1R1_080616.tgz`

Installation

See *CTP Hardware, Installation, and Software Configuration Guide, Chapter 6, Installing the Software and Configuring Security Settings*, for installation instructions. This document is included on CD with each new server, or you can download it from the Juniper Networks Technical Publications CTP documentation Web page.

Overview

CTPView release 3.1 continues to integrate the changes related to the new CTP bundle-centric method described in *Chapter 3, Software Configuration* of the *CTP Hardware, Installation, and Software Configuration Guide*.

The changes described below are visible only when the CTPView software is connected to a CTP node that is running CTPOS 5.0 or higher. Connecting the CTPView software with a node that has a pre-5.0 release installed results in the same CTPView display, content, and operations as CTPView release 2.6.

CTPOS releases 5.0R1 through 5.0R2 are not supported by CTPView. You must install version 5.0R3 or later on CTP nodes that want to manage or query through CTPView 3.1.

New Features

This section describes features new to this release.

Port Mirroring

Port mirroring enables you to mirror traffic to a third port. The packet generated from the source is sent to an assigned destination and to another port whether it is on the local node or remote node.

Currently, port mirroring is supported only on CTP bundles. Other bundle types may be supported in the future.

Up to 10 tails are allowed for each type of port mirroring, source, and destination. Each tail is identified by a remote IP address and a remote CID. An existing tail may be modified by changing only its remote CID, remote IP address, or both. A new tail must have both the remote IP address and the remote CID entered before submitting the configuration.

Bundles using port mirroring must have direct drive disabled. When a bundle configuration is submitted that has a port mirroring component, the CTPView software enforces the direct drive rule when the node is configured to the new settings.

You must be logged into CTPView as an administrator to see the port mirroring parameters.

Port mirroring is configured on the Bundle Configuration page. Starting in the Directory frame under Bundles, click **Configuration**. Select an existing CTP bundle or add a new one, and then expand the port mirroring boxes by selecting Source Port Mirroring or Destination Port Mirroring options.

Combined Circuit Emulation and Layer 2 Bridging

Layer 2 bridging is now supported on a port-by-port basis. Ports on the same node can be used for circuit emulation or layer 2 bridging. In the previous release, every port had to be configured for circuit emulation.

In layer 2 bridging mode, packets are extracted from the line on the serial interface. This is in contrast to circuit emulation mode where every bit on the serial interface is received (regardless of content) and formed into packets.

Expand the blue bar at the top of the PBS/Bridge Configuration page to view all available ports and a summary of their configurations. Click the conversion buttons in that port's row in the summary table to convert a port between PBS and Bridge mode.

Clicking elsewhere on a port row refreshes the page and displays all configuration options for the selected ports, and you can make changes.

Changes to the configuration fields are not transmitted to the connected node or saved until you click **Submit** located at the top of the configuration table. After the new configuration is sent to the connected node, the page refreshes with the new port configuration. Review the settings to ensure the new configuration is accurate.

Enhancements

See *CTPView Server Enhancements* for more enhancements made to the software.

Known Issues

There are no known issues.

CTPView Server Enhancements

The following enhancements and changes have been made to CTPView.

Port Selection

The Port Selection page is accessed from the blue connection box at the top of the Directory frame on the left of the main CTPView window. Click to open this page in the main frame.

Port Selection Section

The scope for this area of control has been reduced with the introduction of the bundle-centric concept of defining circuits. For this release the page's presentation is unchanged but the process of choosing which circuits (bundles) to display has been transferred to the individual content pages.

This process is not complete in this release, but does include the Bundle Configuration and Runtime Query pages. The Statistics page (Plots) still relies on the selections made here to determine which graphs are displayed.

To assist you in associating the new bundle numbers with their attached ports, an expanding table has been added to this page that maps port numbers to bundle numbers. Mousing over the blue bar at the top of the page opens the table. Ports that are not attached to a bundle are not shown.

Type Selection Section

You must be logged into the CTPView software as an administrator to change the port mode.

Before switching ports between CE and PBS modes, you must detach the selected port from any bundle. You detach the port on the Bundle Change Status page by deleting the appropriate bundle from the CTP node. To open this page, click **Change Status** in the Directory frame.

If you try to change a port's mode while it is still attached to a bundle, a pop-up warning appears and you are prevented from performing the operation.

Previous Port Configuration Page and Related Port-Centric Pages

In previous releases, these pages were accessed from the Directory frame by links under Port. Page headings were labeled Configuration, Change Status, Query, Runtime Query, and Diagnostics.

New Functionality

Pages have been replaced with versions that comply with the new bundle-centric method of circuit designation. See the following sections for descriptions of their new functions and current limitations.

Bundle Configuration

You must be logged into the CTPView software as an administrator to see the Bundle Configuration page. Starting in the Directory frame under Bundles, click **Configuration**. Two blue bars are displayed at the top of the page. Mousing over each bar expands them, allowing you to:

- Add a new bundle to the node.
- Reconfigure an existing bundle.

Adding a New Bundle

Follow the directions displayed. Select a bundle number, select a port number from the menu for the bundle type you wish to create (CTP, SAToP, CESoPSN), and click the bundle type button. The range of allowed bundle numbers is 0 to 63.

Once created, a bundle-port pairing cannot be modified directly. The bundle must be deleted and then a new bundle created with the desired pairing. You delete a bundle from the Change Status page.

Only available bundle numbers and appropriate port numbers for the indicated bundle types are displayed in the drop-down selection menus. An empty drop-down menu indicates that there are no more available ports for the bundle type.

Reconfiguring an Existing Bundle

Display the current configuration of a bundle by clicking on the appropriate row in the table displaying existing bundles. If the table is collapsed, mouse over the second blue bar to open it.

After the page refreshes, the current configuration for the selected bundle and its attached port are displayed. Where appropriate, a drop-down menu or text field is displayed that enables you to insert new values for this bundle/port's configuration. Configuration is subject to the restrictions for the selected option as indicated under the option name and as described in the *CTP Hardware, Installation, and Software Configuration Guide*.

Changes to the configuration fields are not transmitted to the connected node or saved until you click **Submit** located at the top of the configuration table. After the new configuration is sent to the connected node, the page refreshes with the new bundle configuration. Review the settings to ensure the new configuration is accurate.

The list of options displayed may change depending on your choice for new option values. When the current value of a configuration option is made invalid by the change in a second option's configuration, a new value is inserted to update the invalid value. This new value is visible and may be changed if other valid configuration values are available.

There are four option fields that, when changed, force the browser to re-render the page. This causes a slight, but noticeable, delay before the page is updated (0.5-1.5 seconds). The fields are: Port I/F Mode, Port Serial Encoding, Port I/F Type, and Port Clock Cfg.

Bundle Change Status

Starting in the Directory frame under Bundles, click **Change Status**. You must be logged into CTPView as an administrator to see this page. You can perform these operations to existing bundles:

- Activate
- Disable
- Delete
- Reset

Previously, this page offered the same operations but the display was based on the node's physical ports. Now these functions are associated with bundles.

Bundle Query

Starting in the Directory frame under Bundles, click **Query**. All users have access to this read-only page, which displays the same information as the Bundle configuration page. However, you cannot change bundle configurations or add new bundles.

Bundle Runtime Query

In the Directory frame under Bundles, click **Runtime Query**. All users have access to this page. The page displays configuration and runtime information on a per bundle basis, not port. Only active bundles are displayed.

Select which bundles to display from the expandable menu bar located at the top of the page. You can select up to 64 bundles. After selecting the bundle rows you want to display, click **Display Selected Bundles**.

Bundle Diagnostics

In the Directory frame under Bundles, click **Diagnostics**. All users have access to this page and the linked utilities. The main Diagnostics page serves as a portal to open three utilities that assist you in evaluating CTP circuit operations and troubleshoot CTP connection problems. These utilities are:

- CTP Traceroute
- Bit Error Rate Test (BERT)
- Network Interface Configuration (NIC)



NOTE: These utilities are currently disabled in the software.

Node Maintenance

You must be logged into CTPView as an administrator to see this page. In the Directory frame under Node, click **Maintenance**. You can choose from a variety of utilities.

Archive Configuration Commands

The Save Port Configuration button is disabled when the CTPView system is connected to a CTP node running CTPOS 5.0 or greater due to the introduction of bundles. It will return in a later release.

Reports

Only information from CTP nodes running pre-5.0 CTPOS software appear in reports available from this page (View Network Host Reports). This page will include post-5.0 nodes in a later release.

AutoSwitch

In the Directory frame under System, click **Bundle Configuration** or **Bundle Query**. At the top of the new page, click the **AutoSwitch** tab.

Only users logged into CTPView as an administrator can see the Bundle Configuration link, and only they have the ability to modify the current configuration.

AutoSwitch settings are now tied to bundles. The individual settings themselves have not changed, but now each row in the AutoSwitch display represents a bundle configured on the local CTP node. You cannot preassign AutoSwitch values to a circuit before you create a bundle on the Bundle Configuration page.

Network Statistics

In the Directory frame under Statistics, click either **Custom**, which enables you to plot statistics of any CTP node in the CTPView network, or click **Preset**, which enables you to quickly select and display statistical plots for the currently connected CTP node. All users have access to these pages.

The Statistics pages are functional, but are still tied to the pre-5.0 port-centric selection method of identifying circuits. Using these pages requires you to make circuit selections based on port numbers, not bundle numbers. Only the port numbers selected on the Port Selection page are displayed on the Preset page.

To help you map bundle IDs to port numbers, there is an expandable table at the top of both Statistics pages that displays a summary of the current bundle circuits of the connected CTP node.

Network Monitoring

In the Directory frame under Network, click **Monitoring**. All users have access to this page, but only users logged into CTPView as an administrator are allowed to reconfigure any setting on the page.

The Network Monitoring page is operational. However, like the Network Statistics pages, it still uses a port-centric display for identifying CTP circuits. Because this page covers all CTP nodes in the network designated for monitoring, the table that maps port numbers to bundle IDs is not provided.

The status of a port that is not attached to a bundle is displayed as Disabled.

The Network Monitoring feature is functional on a mixed network of CTP systems running both pre-5.0 and post-5.0 versions of CTPOS code. To maintain this general capability, a few features on this page have been modified or disabled. These features are accessed by clicking a node or port button in the main body of the page. The features are still available in their full form when accessed from the Directory frame of the main CTPView window.

Runtime Query

When the runtime query feature is run from the network monitoring page, only the port information is displayed. No bundle information is included.

Dbase Query (Configuration Query)

This feature has been temporarily removed.

Flash Card

When a configuration change is made through the CTPView software to a CTP system, the modification is saved only in RAM on the CTP system until the CTP system receives a command to write the change to its CompactFlash drive or on a normal shutdown.

To avoid unnecessary write cycles to the CompactFlash, CTPView software uses a timer set to a 5-minute interval. When called, a CTPView script checks for unsaved changes in the CTP system's RAM and only then sends a command for the CTP system to save the changes to the CTP system's CompactFlash. When there are unsaved changes in RAM, a manual override link appears in the CTPView Directory frame under Flash Card.

The timer and the script executing the write-to-flash commands to the CTP nodes are run by the CTPView server itself, without relying on your browser. The check interval remains at 5 minutes and is not adjustable.

Commands are only sent to CTP nodes that have unsaved configuration changes in their RAM. The manual override link is still available in the CTPView Directory frame.