



# Cisco Remote PHY Shelf 7200 Device Operations and Debugging

This document describes the operations and debugging of the Cisco Remote PHY Shelf 7200.

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## Hardware Compatibility Matrix for Cisco Remote PHY Shelf 7200



**Note** Unless otherwise specified, the hardware components introduced in a given Cisco Remote PHY Shelf 7200 Software Release are supported in all subsequent releases.

*Table 1: Hardware Compatibility Matrix for the Cisco Remote PHY Shelf 7200*

| Cisco CMTS Platform   | Cisco Remote PHY Shelf 7200  |
|---|--|
| Cisco cBR-8 Converged Broadband Router with Cisco IOS XE Gibraltar 16.10.1 and Later Releases | Cisco Remote PHY Shelf 7200 Software 1.1 and Later Releases<br>Cisco Remote PHY Shelf 7200 <ul style="list-style-type: none"><li>• PID—HA-RPHY</li></ul> |

## Information about RPD Operations and Debugging

The operators might need secure remote access to the RPD for activities such as setting up the RPD before the installation, maintenance, or troubleshooting. The RPD supports Secure Shell (SSH) server that allows secure access to the RPD.

## Prerequisites for RPD Operations

The following prerequisites are applicable for debugging or checking RPD operations:

- RPD has established GCP connection with the CCAP-core, and RPD IP address is retrievable from CCAP-core.
- RPD is assigned an IP address through the DHCP process, and the IP address is retrievable from the DHCP server.

## How to Access and Debug RPD



**Note** To know more about the commands referenced in this module, see the [Cisco IOS Master Command List](#).

To access RPD, log into RPD using your username and password.

## Debugging RPD

Use the following procedure to debug RPD:

1. Disable RPD auto reboot by setting the reboot hold.

```
R-PHY# set reboot hold
```

2. Collect the show CLI output.

For RPD online issues, check which status is failed. You can check the following outputs:

- show provision all
- show provision history
- show dhcp
- show tod
- show ptp clock 0 config
- show ptp clock 0 state

For modem online issue, check ds/us config and l2tp session.

You can collect the following outputs:

- show downstream channel configuration
- show downstream channel counter dps (show multiple times)
- show downstream depi configuration
- show upstream channel configuration <port number> <channel number>
- show upstream iuc counter <port number> <channel number> (show multiple times)

- show upstream map counter <port number> <channel number> (show multiple times)
- show upstream uepi configuration
- show l2tp tunnel
- show l2tp session

3. Enable RPD auto reboot, after collecting all logs and CLI output.

```
R-PHY#clear reboot hold
```

## Debugging Cisco Smart PHY 7200

Collect the show CLI outputs to debug Cisco Smart PHY 7200:

- To display eeprom information of the FCC, use the **show diag eeprom** command in privileged EXEC mode.
- To display alarm, sensor, fan, FCC, and power related information, use the **show group environment** command in privileged EXEC mode.
- To display information about the PTP clock of the line card, use the **show ptp clock** command in privileged EXEC mode.
- To view the sync state of the PTP clock, use the **show tgc-clock** command in privileged EXEC mode.
- To view your RPHY diagnostics, use the **show platform diag** command in privileged EXEC mode.
- To display Cisco Remote-PHY devices (RPD) of all groups, use the **show cable rpd group** command in privileged EXEC mode.
- To display eRPD related information, use the **show erpd** command in privileged EXEC mode.
- To view virtual LAN configuration on your Remote PHY Shelf 7200 device, use the **show trunk vlan** command in privileged EXEC mode.
- To display event logging information and messages of the Cisco Remote PHY Devices (RPD), use the **show cable rpd event** command in privileged EXEC mode.
- To display information on the software upgrade, use the **upgrade control** command.
- To view port mapping and link redundancy details, use the **show running-config** command in privileged EXEC mode.
- To display the operation status of link redundancy, use the **show link-redundancy** command in privileged EXEC mode.

For detailed information about the commands and sample outputs, see the Cisco Remote PHY Shelf 7200 Command Reference Guide.

## Feature Information for RPD Operations and Debugging

Use Cisco Feature Navigator to find information about the platform support and software image support. Cisco Feature Navigator enables you to determine which software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to the <https://cfng.cisco.com/> link. An account on the Cisco.com page is not required.



**Note** The following table lists the software release in which a given feature is introduced. Unless noted otherwise, subsequent releases of that software release train also support that feature.

*Table 2: Feature Information for RPD Operations and Debugging*

| Feature Name                 | Releases                                 | Feature Information   |
|------------------------------|--|---|
| RPD Operations and Debugging | Cisco Remote PHY Shelf 7200 Software 1.1 | This feature was introduced on the Cisco Remote PHY Shelf 7200. |