RPD Reset

Finding Feature Information

Your software release may not support all the features that are documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. The Feature Information Table at the end of this document provides information about the documented features and lists the releases in which each feature is supported.

Hardware Compatibility Matrix for Cisco Remote PHY Device

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

Table 1: Hardware Compatibility Matrix for the Cisco Remote PHY Device

Cisco HFC Platform	Remote PHY Device
Cisco GS7000 Super High Output Node	Cisco 1x2 / Compact Shelf RPD Software 2.1 and Later Releases
Cisco GS7000 Super High Output Intelligent Node (iNode)	Cisco 1x2 / Compact Shelf RPD Software 4.1 and Later Releases Cisco Intelligent Remote PHY Device 1x2 • PID—iRPD-1X2= • PID—iRPD-1X2-PKEY=

Note	The -PKEY suffix in the PID indicates units that enable the SCTE-55-2 Out-of-Band protocol support.

Information about RPD Reset

Starting from Cisco 1x2 / Compact Shelf RPD Software 6.1, factory reset and NVRAM reset via TLV and CLI are supported. In the factory reset, RPD restores the factory configuration and performs cold reboot. In this case, it is better for the RPD to have golden image, otherwise users need to boot the RPD manually. In the NVRAM reset, RPD clears the non-volatile configuration and performs cold reboot.

Resetting RPD

To clear the configuration, image and logs of the RPD, perform factory reset as shown in the following example:

```
R-PHY#reboot factory-reset
Warning: This action will restore the factory configuration. Are you sure you want to do
the factory reset (yes/no)?
```

To clear the non-volatile configuration of the RPD, perform NVRAM reset as shown in the following example:

```
R-PHY#reboot nv-reset
Warning: This action will clear the non-volatile configuration. Are you sure you want to
do the nvreset (yes/no)?
```

Soft-reset

Soft-reset is supported from Cisco 1x2 / Compact Shelf RPD Software 6.6 release. You can perform a soft-reset on the RPD using the RPD CLI or write TLV 40.1.1 (RpdResetCtrl to softReset(1)).

To perform soft-reset using RPD CLI, use the **reboot soft-reset** command:

```
R-PHY# reboot soft-reset
Warning: This action will perform a soft reset. Are you sure you want to do the soft reset
 (yes/no)?yes
SoftReset in 10 seconds
```

History of RPD Reset Instances

Cisco RPD supports the ResetHistory (TLV 100.3) object, which provides a record of the occurrences of a reset of an RPD. The RPD can be reset for many reasons, such as a loss of Principal Core, loss of IP connection, power failure, hardware or software failure, or reset command from CCAP Core or CLI.

This ResetHistory object provides details of the conditions that caused the RPD to reset and to assist operators with understanding why a service interruption occured. It also provides details of how much time it took for the RPD to boot its software stack and to become operational with the principal core.

Note

- If the `rebootdisable` parameter is set, the RPD does not save any record.

- If the power cycle is triggered during a reboot, the application is not notified about it. Hence, after recovery, the recovery time and the related information are saved in the latest record. New records are not generated for the power cycle reboot.

- Recovery time (recoveryTime—TLV 100.31.7)

  - softReset—The recovery time of the soft-reset is the RCP process up-time when the system becomes operational.

  - hardReset/nvReset/factoryReset—The recovery time is the system up-time when the system becomes operational.

- It stores up to 100 records.

Display or Clear Reset-History

Use the following command to show the RPD reset-history: **show reset-history**:

```
R-PHY#show reset-history
Index Type            ResetTimeStamp       RecoveryTimeStamp       RecoveryTime EventRef
1     hardReset       2020-01-13 01:42:42  2020-01-13 01:51:22     481          66070212
2     softReset       2020-01-13 01:30:18  1970-01-01 00:00:00     0            66070212
3     hardReset       2020-01-13 01:19:19  2020-01-13 01:29:26     568          66070212
4     hardReset       2020-01-13 00:57:43  2020-01-13 01:16:23     1099         66070411
5     softReset       2020-01-10 20:02:52  2020-01-11 01:11:40     18527        66070212
6     softReset       2020-01-10 20:00:30  2020-01-10 20:02:29     118          66070212
7     softReset       2020-01-10 19:57:51  2020-01-10 19:59:56     124          66070212
8     softReset       2020-01-10 19:51:30  2020-01-10 19:52:53     82           66070212
9     hardReset       2020-01-10 19:25:23  2020-01-10 19:40:51     898          66070212
10    hardReset       2020-01-10 19:19:39  1970-01-01 00:00:00     0            66070212
11    hardReset       2020-01-10 19:13:51  1970-01-01 00:00:00     0            66070212
…
R-PHY#clear reset-history
```

Use the following command to clear the RPD reset-history: **clear reset-history**:

```
R-PHY#clear reset-history
```

RPD TACACS

The RPD TACACS (Terminal Access Controller Access-Control System) feature is supported from Cisco 1x2 / Compact Shelf RPD Software V7.2 and later. The RPD TACACS feature disables local access if the server is available.

When the TACACS server can be reached from RPD, you can only access the RPD by TACACS account. Local access will be disabled, and you cannot access RPD by local account. But if the TACACS server cannot be reached, for example, due to a wrong server address, network issue, or so on, you can then access RPD by local account.

TACACS is a security protocol that provides centralized validation of users who are attempting to gain access to a router or NAS. TACACS+, a more recent version of the original TACACS protocol, provides separate authentication, authorization, and accounting (AAA) services.

```
R-PHY(config)#tacacs add-server 10.0.0.113
Server '10.0.0.113' is configured on RPD successfully.

R-PHY(config)#tacacs add-key
Please add a secret key:
Please re-enter your secret key:
Add secret key successfully.
```

User can also delete server and change the secret key.

```
R-PHY(config)#tacacs delete-server 10.0.0.112
Delete server '10.0.0.112' successfully.

R-PHY(config)#tacacs change-key
Please change secret key:
Please re-enter your secret key:
Change secret key successfully.
```

To display the configured TACACS server, use the **show tacacs-server** command as shown in the following example:

```
R-PHY#show tacacs-server
TACACS server configured:
10.0.0.113
```

Feature Information for RPD Reset

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 www.cisco.com/go/cfn 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 Reset

Feature Name	Releases	Feature Information
Factory reset support	Cisco 1x2 / Compact Shelf RPD Software 6.1	This feature was introduced on the Cisco Remote PHY Device.
Softreset support	Cisco 1x2 / Compact Shelf RPD Software 6.6	This feature was introduced on the Cisco Remote PHY Device.
RPD TACACS support	Cisco 1x2 / Compact Shelf RPD Software 7.2	This feature was introduced on the Cisco Remote PHY Device.
RPD Reset-history	Cisco 1x2 / Compact Shelf RPD Software 7.7	This feature was introduced on the Cisco Remote PHY Device.