



Other Important Information

- [Cisco RPD and Cisco cBR Version Compatibility, on page 1](#)
- [Cisco RPD Documentation References, on page 2](#)
- [Supported Transceiver Modules, on page 2](#)
- [Link Redundancy Down-Up Mode, on page 2](#)

Cisco RPD and Cisco cBR Version Compatibility

The versions of Cisco cBR-8 router and RPD must be compatible. If the versions are not compatible, the RPD remains in the **init(gp)** state. The following table provides information on the compatible Cisco cBR-8 and RPD versions:

Cisco RPD Software Version	Compatible Cisco cBR-8 software Version
Cisco 1x2 / Compact Shelf RPD Software 10.7.1	Cisco IOS XE Dublin 17.12.1x
Cisco 1x2 / Compact Shelf RPD Software 10.7	Cisco IOS XE Dublin 17.12.1x
Cisco 1x2 / Compact Shelf RPD Software 10.6.1	Cisco IOS XE Dublin 17.12.1w Cisco IOS XE Cupertino 17.9.1y1
Cisco 1x2 / Compact Shelf RPD Software 10.6	Cisco IOS XE Dublin 17.12.1
Cisco 1x2 / Compact Shelf RPD Software 10.5	Cisco IOS XE Cupertino 17.9.1x
Cisco 1x2 / Compact Shelf RPD Software 10.4	Cisco IOS XE Bengaluru 17.6.1z
Cisco 1x2 / Compact Shelf RPD Software 10.3	Cisco IOS XE Bengaluru 17.6.1x
Cisco 1x2 / Compact Shelf RPD Software 10.2	Cisco IOS XE Bengaluru 17.6.1w
Cisco 1x2 / Compact Shelf RPD Software 10.1	Cisco IOS XE Bengaluru 17.6.1

Cisco RPD Documentation References

We recommend that you view the field notices for this release to see if your software or hardware platforms are affected. If you have an account at Cisco.com, you can find the field notices at http://www.cisco.com/en/US/customer/support/tsd_products_field_notice_summary.html.

If you do not have an account at Cisco.com, you can find the field notices at http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html.



Note Cisco 1x2 / Compact Shelf RPD Software 10.x is generally available for field deployment. To ensure a smoother, faster, and successful field deployment, we recommend that you validate and qualify the software in a limited field trial.

For information on Cisco RPD, go through the following documents:

- Cisco Remote PHY Devices for Cisco 1x2/Compact Shelf RPD Software 10.x documentation
- Cisco Remote PHY Device Software Configuration Guide for Cisco 1x2/Compact Shelf RPD Software 10.x

Supported Transceiver Modules

For more information on the supported transceiver modules, see [Transceiver Module Group \(TMG\) Compatibility Matrix](#).

Link Redundancy Down-Up Mode

Starting from Cisco 1x2 / Compact Shelf RPD Software 10.3 release, Link Redundancy Down-Up Mode is supported.

RPD backhaul has three working modes:

- Link-redundancy down-up mode: you can only observe one virtual backhaul interface which always binds to active TenGigabitEthernet port. Only one TenGigabitEthernet port is up.
- Link-redundancy up-up mode: you can only observe one virtual backhaul interface which always binds to active TenGigabitEthernet port. Two TenGigabitEthernet ports are up and only one is working.
- Daisy-chain mode: works for daisy-chain topology RPD Each RPD is daisy-chained with the next RPD, and the last RPD connects to the CIN.



Note Daisy-chain mode is the default RPD backhaul mode. If you upgrade RPD from release 8.1 or lower version without mode configuration, RPD backhaul will work in daisy-chain mode.

Changing RPD backhaul mode needs hard-reset RPD to take effect.

When you enable link-redundancy down-up mode:

- Only one virtual backhaul interface VBH0 is available.
- Virtual backhaul interface always binds to active TenGigabitEthernet port. One TenGigabitEthernet port works in active mode and the other one works in standby mode.
- The first reachable TenGigabitEthernet port is the active port. The DHCP process gets the IP address and determines the active TenGigabitEthernet port.
- Link state change triggers port switchover. When the active TenGigabitEthernet port is down, VBH0 binds to the standby TenGigabitEthernet port.
- Port switch can cause 7-9 seconds traffic interruption.

Configure RPD Backhaul Mode

You can configure RPD backhaul mode in two different ways:

- Use **backhaul daisy-chain|link-redundancy** command to configure RPD backhaul mode between daisy-chain mode and link-redundancy mode.

```
R-PHY>enable
R-PHY#configure terminal
R-PHY(config)#backhaul link-redundancy down-up
Enable link redundancy plus mode [UP/DOWN]
Please Reload to Take effect.
R-PHY(config)#end
R-PHY#
```

```
R-PHY>enable
R-PHY#configure terminal
R-PHY(config)#backhaul link-redundancy up-up
Enable link redundancy mode [UP/UP]
Please Reload to Take effect.
R-PHY(config)#end
R-PHY#
```

```
R-PHY>enable
R-PHY#configure terminal
R-PHY(config)#backhaul daisy-chain
Enable daisy chain mode
Please Reload to Take effect.
R-PHY(config)#end
```

Daisy-chain mode is the default RPD backhaul mode. You can restore RPD to daisy-chain mode by using the **no backhaul link-redundancy {down-up|up-up}** command.

```
R-PHY>enable
R-PHY#configure terminal
R-PHY(config)#no backhaul link-redundancy down-up
Restore daisy chain mode
Please Reload to Take effect.
R-PHY(config)#end
R-PHY
```

```
R-PHY>enable
R-PHY#configure terminal
R-PHY(config)#no backhaul link-redundancy up-up
Restore daisy chain mode
Please Reload to Take effect.
```

```
R-PHY(config)#end
R-PHY
```

- Use VendorSpecificExtension TLV BackhaulLinkMode (TLV 21.18) to configure RPD backhaul mode.

Attribute Name	Type	Access	Type Constraints	Units	TLV Type	TLV Value Field Length
Mode	UnsignedByte	Read Write	automatic(0) daisy-chain(1) ether-ring(2) link-redundancy up-up(3) link-redundancy down-up(4)		21.18.1	1

Mode: TLV 21.18.1. This attribute represents the configuration of the RPD backhaul interface mode. Currently we support only daisy-chain(1) mode, link-redundancy up-up(3) mode, and link-redundancy down-up(4) mode.

Verify RPD Backhaul Mode

To verify the status of the backhaul interface, use the **show interface info** command as shown in the following example:

```
R-PHY#show interface info
Backhaul configured as Link Redundancy UP/DOWN
Backhaul 0: BH-UP
Backhaul 1: BH-UP
=====
vbh0      Link encap:Ethernet HWaddr BA:DB:AD:13:2B:C2
          inet6 addr: fe80::b8db:adff:fe13:2bc2/64 Scope:Link
          inet6 addr: 2001:3:140:50::2/64 Scope:Global
          UP BROADCAST RUNNING MULTICAST MTU:2350 Metric:1
          RX packets:21625527 errors:0 dropped:0 overruns:0 frame:0
          TX packets:10837720 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:2148943462 (2.0 GiB) TX bytes:1214490776 (1.1 GiB)
```

To check the RPD link-redundancy information, history, and status, use the commands as shown in the following example:

```
R-PHY#show redundancy
Redundant System Information :
-----
Current system uptime:          7430.45 seconds
Switchovers Counter:           6
Last switchover reason:        BH 1 Down

R-PHY#show redundancy history
Mode   Reason   BH-Intf  Date                uptime
LRED   BH 0 Down BH 1       Tue Jan 11 03:33:46 2022 5648.342s
LRED   BH 1 Down BH 0       Tue Jan 11 03:37:11 2022 5853.383s
LRED   BH 0 Down BH 1       Tue Jan 11 03:42:24 2022 6166.342s

R-PHY#show redundancy status
Initial Active: BH 0
```

Current Active: BH 1
Last switchover: 6166.342s Tue Jan 11 03:42:24 2022

