Upgrading to Cisco Remote PHY for Cisco 1x2 / Compact Shelf RPD Software 4.1.2

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Upgrading RPD and cBR-8 Router

The following scenarios are supported in upgrading the RPD and cBR-8 router.

cBR-8 original version	RPD original version	RPD state before upgrade	cBR-8 upgrade version	RPD upgrade version	RPD state after upgrade
Lower than 16.8.1d	Lower than 4.1.2	online	16.8.1d	4.1.2	online
Lower than 16.8.1d	Lower than 4.1.2	init(gcp)	16.8.1d	4.1.2	online

Note In order for the RPD goes online, the versions of the cbr-8 and the RPD must be matched, that is, IOS XE 16.6.x works with RPD 2.x, IOS XE 16.7.x works with RPD 3.x, and IOS XE 16.8.x works with RPD 4.x. If the versions are not matched, RPD is then in the init(gcp) state.

Before you begin

Before upgrading the system, make sure the following requirements are met:

- Download two files from the following Cisco.com Software Center URL:

  https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842

  - IOS XE Software Version 16.8.1d: **cbrsup-universalk9.16.08.01d.SPA.bin**
  - RPD V4.1.2: **RPD-V4-1-2.itb.SSA**

- Console access for both SUPs are required.

Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_8.html.

Step 1 Copy Cisco IOS XE Fuji 16.8.1d package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.16.08.01d.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.16.08.01d.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS XE Fuji 16.8.1d package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.08.01d.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.08.01d.SPA.bin
```

Step 3 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Copy Cisco RPD V4.1.2 image package to TFTP server that RPDs can reach to.

Step 6 Verify current RPD software version.

```
show cable rpd sw-version
```

Step 7 Upgrade all RPDs image to V4.1.2 via SSD from cBR-8.

```
cable rpd all ssd <tftp_server_ip> tftp <rpd_V4.1.2_file_path>
```

Note **all** command is not suggested in large scale RPD deployment. If customer has too many RPDs, it is recommended to upgrade the RPD per LC or per OUI.

Step 8 Verify RPD SSD status, should be in downloading status.

```
cable rpd all ssd status
```

Step 9 Verify that all RPDs will start downloading new image then drop offline after a while.

```
cable rpd all ssd status
show cable rpd
```

Step 10 Configure the chassis to boot the system with Cisco IOS XE Fuji 16.8.1d image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.08.01d.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

Step 11 Reload and bring up the cBR-8 router.

```
Reload
```

Step 12 Adjust RPD type/max-carrier/base-power based on real scenario if necessary. If you upgrade Compact Shelf from Cisco IOS XE 16.5.x or 16.6.x to 16.7.x or later releases, you need to change RPD type to shelf (by default the type is Node), and adjust related base-power per requirement.

Step 13 Check all RPDs have been upgraded to new version 4.1.2 and come online succesfully.

```
show cable rpd
show cable rpd sw-version
```

What to do next

These **show** commands may be useful in the verification test:

- **show version**
- **show platform**
- **show platform diag**
- **show environment**
- **show environment power**
- **show platform hardware slot P <0-5> mcu status**
- **show facility-alarm status**
- **show redundancy**
- **show redundancy line card all**
- **show ip ospf neighbor**
- **show cable modem voice**
- **show cable calls**
- **show cable licenses all**
- **show inventory**
- **show log**

- **show cable rpd**
- **show cable modem summary total**
- **show cable rpd lcha**
- **show running**
- **show tech**

Upgrading RPD Only

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All RPDs are in init(gcp), init(clock), or online state.
- Download new image file from the following Cisco.com Software Center URL:
  https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842
  - RPD V4.1.2: **RPD-V4-1-2.itb.SSA**

Step 1 Copy Cisco RPD V4.1.2 image package to TFTP server that RPDs can reach to.

Step 2 Verify current RPD software version.

```
show cable rpd sw-version
```

Step 3 Upgrade all RPDs image to V4.1.2 via SSD.

```
cable rpd all ssd <tftp_server_ip> tftp <rpd_V4.1.2_file_path>
```

Note **all** command is not suggested in large scale RPD deployment. If customer has too many RPDs, it is recommended to upgrade the RPD per LC or per OUI.

Step 4 Verify RPD SSD status, should be in downloading status.

```
cable rpd all ssd status
```

Step 5 Verify that all RPDs will start downloading new image then drop offline after a while.

```
cable rpd all ssd status
show cable rpd
```

You can also use **cable rpd slot <slot_num> ssd status** to check upgrade status for each line card.

Step 6 Check all RPDs have been upgraded to new version 4.1.2 and come online succesfully.

```
show cable rpd
show cable rpd sw-version
```

What to do next

These **show** commands may be useful in the verification test:

- **show version**
- **show platform**
- **show platform diag**
- **show environment**
- **show environment power**
- **show platform hardware slot P <0-5> mcu status**
- **show facility-alarm status**
- **show redundancy**
- **show redundancy line card all**
- **show ip ospf neighbor**
- **show cable modem voice**
- **show cable calls**
- **show cable licenses all**
- **show inventory**
- **show log**
- **show cable rpd**
- **show cable modem summary total**
- **show cable rpd lcha**
- **show running**
- **show tech**

Upgrading cBR-8 Router Only

The following scenarios are supported in upgrading the cBR-8 router.

cBR-8 original version	RPD version	RPD state before upgrade	cBR-8 upgrade version	RPD state after upgrade
Lower than 16.8.1d	4.1.2	init(gcp)	16.8.1d	online

Before you begin

Before upgrading the system, make sure the following requirements are met:

- Download new image file from the following Cisco.com Software Center URL:

  https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842

  - IOS XE Software Version 16.8.1d: **cbrsup-universalk9.16.08.01d.SPA.bin**

- Console access for both SUPs are required.

Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_8.html.

Step 1 Copy Cisco IOS XE Fuji 16.8.1d package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.16.08.01d.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.16.08.01d.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS XE Fuji 16.8.1d package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.08.01d.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.08.01d.SPA.bin
```

Step 3 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Configure the chassis to boot the system with Cisco IOS XE Fuji 16.8.1d image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.08.01d.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

Step 6 Reload and bring up the cBR-8 router.

```
Reload
```

Step 7 Adjust RPD type/max-carrier/base-power based on real scenario if necessary. If you upgrade Compact Shelf from Cisco IOS XE 16.5.x or 16.6.x to 16.7.x or later releases, you need to change RPD type to shelf (by default the type is Node), and adjust related base-power per requirement.

Step 8 Check all RPDs are online successfully with version 4.1.2.

```
show cable rpd
show cable rpd sw-version
```

What to do next

These **show** commands may be useful in the verification test:

- **show version**
- **show platform**
- **show platform diag**
- **show environment**
- **show environment power**
- **show platform hardware slot P <0-5> mcu status**
- **show facility-alarm status**
- **show redundancy**
- **show redundancy line card all**
- **show ip ospf neighbor**
- **show cable modem voice**
- **show cable calls**
- **show cable licenses all**
- **show inventory**
- **show log**
- **show cable rpd**
- **show cable modem summary total**
- **show cable rpd lcha**
- **show running**
- **show tech**