



## **Upgrading guide for Cisco Remote PHY for Cisco 1x2 / Compact Shelf RPD Software 3.1.1**

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## CHAPTER

# 1

# Upgrading to Cisco Remote PHY for Cisco 1x2 / Compact Shelf RPD Software 3.1.1

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## Upgrading RPD and cBR-8 Router

### Before You Begin

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

- All RPDs are online.
- 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 16.7.1: **cbrsup-universalk9.16.07.01.SPA.bin**
  - RPD V3.1.1: **RPD-V3-1-1.itb.SSA**
- Console access for both SUPs are required.



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**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\\_7.html](https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_7.html).

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**Step 1** Copy Cisco IOS-XE Fuji 16.7.1 package to bootflash: and stby-bootflash:.

**copy <location>/cbrsup-universalk9.16.07.01.SPA.bin bootflash:**

**copy <location>/cbrsup-universalk9.16.07.01.SPA.bin stby-bootflash:**

**Step 2** Verify Cisco IOS-XE Fuji 16.7.1 package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.07.01.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.07.01.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 V3.1.1 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 V3.1.1 via SSD from cBR-8.

```
cable rpd all ssd <tftp_server_ip> tftp <rpd_V3.1.1_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 16.7.1 image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.07.01.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 max-carrier and type, re-apply rpd-ds base-power for each RPD, save and backup current running-config.

```
cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpds 0 base-power ?
<20-22> Base Channel Power Value in dBmV
```

```
cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
    <37-46> Base Channel Power Value in dBmV

cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
cBR8#copy running-config bootflash:post-upgrade.cfg
```

**Step 13** Check all RPDs have been upgraded to new version 3.1.1 and come online successfully.

```
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 V3.1.1: **RPD-V3-1-1.itb.SSA**



**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\\_7.html](https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_7.html).

**Step 1** Copy Cisco RPD V3.1.1 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 V3.1.1 via SSD from cBR-8.

```
cable rpd all ssd <tftp_server_ip> tftp <rpd_V3.1.1_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 3.1.1 and come online successfully.

```
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

## Before You Begin

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

- All RPDs are in `init(gcp)` state.
- 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 16.7.1: **cbrsup-universalk9.16.07.01.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\\_7.html](https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_7.html).

**Step 1** Copy Cisco IOS-XE Fuji 16.7.1 package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.16.07.01.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.16.07.01.SPA.bin stby-bootflash:
```

**Step 2** Verify Cisco IOS-XE Fuji 16.7.1 package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.07.01.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.07.01.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 16.7.1 image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.07.01.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 max-carrier and type, re-apply rpd-ds base-power for each RPD, save and backup current running-config.

```
cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpd-ds 0 base-power ?
<20-22> Base Channel Power Value in dBmV

cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
<37-46> Base Channel Power Value in dBmV

cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
```

```
cBR8#copy running-config bootflash:post-upgrade.cfg
```

**Step 8** Check all RPDs are online successfully with version 3.1.1.

```
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**





## CHAPTER 2

# Downgrading from Cisco Remote PHY for Cisco 1x2 / Compact Shelf RPD Software 3.1.1

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- [Downgrading RPD Only, page 11](#)
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## Downgrading RPD and cBR-8 Router

### Before You Begin

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

- All RPDs are online.
- 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 16.6.2: **cbrsup-universalk9.16.06.02.SPA.bin**
  - RPD V2.1: **RPD-V2.1\_20170725011837.itb.rel.sign.SSA** or RPD V2.2: **RPD-V2-2.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\\_7.html](https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_7.html).

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**Step 1** Copy Cisco IOS-XE Everest 16.6.2 package to bootflash: and stby-bootflash:.

**copy <location>/cbrsup-universalk9.16.06.02.SPA.bin bootflash:**

**copy <location>/cbrsup-universalk9.16.06.02.SPA.bin stby-bootflash:**

**Step 2** Verify Cisco IOS-XE Everest 16.6.2 package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.06.02.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.06.02.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 V2.x 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 V2.x via SSD from cBR-8.

```
cable rpd all ssd <tftp_server_ip> tftp <rpd_V2.x_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 Everest 16.6.2 image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.06.02.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

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

```
Reload
```

**Step 12** Check all RPDs have been upgraded to new version 2.x and come online successfully.

```
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**

# Downgrading RPD Only

## Before You Begin

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

- All RPDs are in `init(gcp)` 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 V2.1: **RPD-V2.1\_20170725011837.itb.rel.sign.SSA** or RPD V2.2: **RPD-V2-2.itb.SSA**



**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\\_7.html](https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_7.html).

**Step 1** Copy Cisco RPD V2.x image package to TFTP server that RPDs can reach to.

**Step 2** Verify current RPD software version.

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

**Step 3** Downgrade all RPDs image to V2.x via SSD from cBR-8.

```
cable rpd all ssd <tftp_server_ip> tftp <rpd_V2.x_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
```

**Step 6** Check all RPDs have been downgraded to version 2.x and come online successfully.

```
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**

## Downgrading cBR-8 Router Only

### Before You Begin

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

- All RPDs are in init(gcp) state.
- 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 16.6.2: **cbrsup-universalk9.16.06.02.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\\_7.html](https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_7.html).

**Step 1** Copy Cisco IOS XE Everest 16.6.2 package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.16.06.02.SPA.bin bootflash:  
copy <location>/cbrsup-universalk9.16.06.02.SPA.bin stby-bootflash:
```

**Step 2** Verify Cisco IOS XE Everest 16.6.2 package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.06.02.SPA.bin
```

```
verify /md5 stby-bootflash:cbrsup-universalk9.16.06.02.SPA.bin
```

**Step 3** Backup current running config to bootflash:

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

**Step 4** Check system status prior to downgrade. 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 Everest 16.6.2 image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.06.02.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

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

```
Reload
```

**Step 7** Check all RPDs are online successfully with version 2.x.

```
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**

