Introduction

This release notes contain information about downloading and installing Cisco 1x2 / Compact Shelf RPD Software 3.1.1 and its maintenance releases. It also provides new and changed information, hardware support, limitations and restrictions, and caveats for Cisco 1x2 / Compact Shelf RPD Software 3.1.1 and its maintenance releases.

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 on Cisco.com, you can find field notices at http://www.cisco.com/en/US/customer/support/tsd_products_field_notice_summary.html .

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

Note Cisco 1x2 / Compact Shelf RPD Software 3.1.1 is generally available for field deployment. However, we recommend that you validate and qualify Cisco 1x2 / Compact Shelf RPD Software 3.1.1 in a limited field trial with your specific network configuration requirements in order to ensure a smoother, faster, and successful field deployment.

This chapter includes the following sections:

System Requirements

These sections describe the system requirements for Cisco 1x2 / Compact Shelf RPD Software and its maintenance releases:

Memory Requirements for Cisco 1x2 / Compact Shelf RPD Software 3.1.1

Note   Memory is not configurable for the Cisco Remote-PHY device.

Table 1: Memory Recommendations for the Cisco Remote-PHY Device

Feature Set	Cisco RPHY Processor	Software Image	Fixed Memory	Runs From
CISCO RPHY 3.1.1	NXP LS1043A	RPD-V3-1-1.itb.SSA	1G Bytes	Bootflash:

Hardware Supported

For detailed information about the hardware supported in Cisco 1x2 / Compact Shelf RPD Software and its maintenance releases, see:

http://www.cisco.com/c/en/us/td/docs/cable/cbr/installation/guide/b_cbr_how_and_what_to_order.html.

Determining the Software Version for Cisco 1x2 / Compact Shelf RPD Software 3.1.1

To determine the version of the Cisco 1x2 RPD software running on your Cisco Remote-PHY Device, log in and enter the **show version** EXEC command:

```
R-PHY#show version
Cisco RPD Software, version v3.1.1, build by rpd-release, on 2018-01-05 05:33:00
Branch information:
        RPD branch: (detached from RPD_V3_1_1_20180105)
        OpenRPD branch: (detached from RPD_V3_1_1_20180105)
        SeresRPD branch: (detached from RPD_V3_1_1_20180105)
```

Note   System image file name for a factory installed image is */bootflash/RPD-V3.1_hardware_certificate.itb.rel.sign.SSA*. System image file name for a Secure Software Download(SSD) from the Cisco software download page is */bootflash/RPD-V3-1-1.itb.SSA.act*.

New and Changed Information

The following sections list the new hardware and software features supported on the Cisco cBR Series Converged Broadband Routers in this release:

New Software Features in Cisco 1x2 / Compact Shelf RPD Software 3.1.1

Remote PHY DVB Video on Demand

The Digital Video Broadcasting (DVB) protocol for encrypting video services as defined in the ETSI TS 103 197 DVB Simulcrypt specification has been implemented on the line card for DVB R-PHY on Cisco cBR-8.

Remote PHY Switched Digital Video

The Switched Digital Video (SDV) services are supported for the MPEG video subsystem on the Cisco Remote PHY Device. It consists of Multicast IP Packet based video streams that are managed as "Video Sessions". The Cisco Remote PHY Device supports both Any Source Multicast (ASM) and Source Specific Multicast (SSM) sessions.

- For ASM, the input is identified by the group IP address.

- For SSM, the input is identified by the source and group IP address pair.

In both cases, the UDP ports are ignored. Both ASM and SSM can co-exist but cannot overlap in a group IP address. Hence, for a group IP address, either a single ASM, or one or more SSM can be used.

Remote PHY QAM profile

A QAM profile describes the common downstream channel modulator settings, referred to as physical layer parameters. This includes QAM symbol rate, interleaver-depth, spectrum-inversion, and annex.

RPHY IPV6 Support

The CableLabs' MHAv2 standards requires CCAP Core and RPD must support both IPv4 and IPv6, which means the Remote PHY Signaling between the CCAP Core and RPD is able to run on both IPv4 and IPv6 networks.

Modified Software Features in Cisco 1x2 / Compact Shelf RPD Software 3.1.1

There are no modified software features for Cisco 1x2 / Compact Shelf RPD Software 3.1.1 release.

Integrated Software Features in Cisco 1x2 / Compact Shelf RPD Software 3.1.1

There are no integrated features in Cisco 1x2 / Compact Shelf RPD Software 3.1.1 release.

New Hardware Features in Cisco 1x2 / Compact Shelf RPD Software 3.1.1

There are no new hardware feature for Cisco 1x2 / Compact Shelf RPD Software 3.1.1 release.

MIBs

To locate and download MIBs for selected platforms, Cisco IOS XE releases, and feature sets, use Cisco MIB Locator found at the following URL:

http://tools.cisco.com/ITDIT/MIBS/servlet/index

To access Cisco MIB Locator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to cco-locksmith@cisco.com. An automatic check verifies that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password is e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions found at this URL:

http://tools.cisco.com/RPF/register/register.do

MIBs in Cisco 1x2 / Compact Shelf RPD Software 3.1.1

There are no new MIBs in the Cisco 1x2 / Compact Shelf RPD Software 3.1.1 release.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see What's New in Cisco Product Documentation.

To receive new and revised Cisco technical content directly to your desktop, you can subscribe to the What's New in Cisco Product Documentation RSS feed. The RSS feeds are a free service.