Release Notes for Cisco Cloud Native Broadband Router Version 21.2

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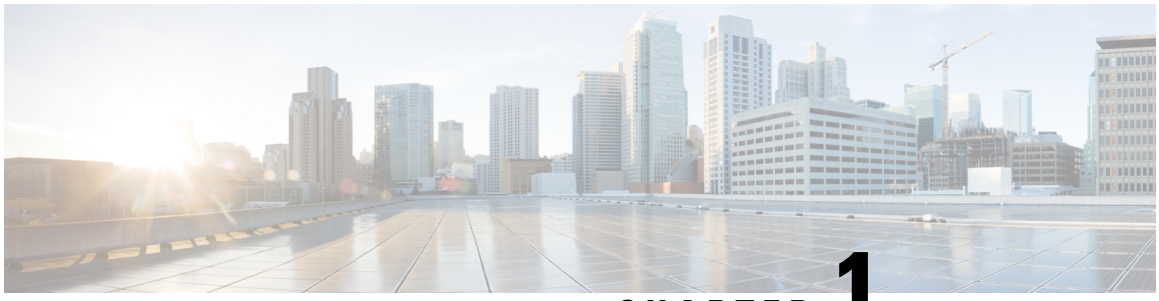


CHAPTER 1

What's New in Cisco cnBR 21.2

Note

Explore the Content Hub, the all new portal that offers an enhanced product documentation experience.

- Use faceted search to locate content that is most relevant to you.
- Create customized PDFs for ready reference.
- Benefit from context-based recommendations.

Get started with the Content Hub at content.cisco.com to craft a personalized documentation experience.

Do provide feedback about your experience with the Content Hub.

Cisco is continuously enhancing the product with every release and this section covers a brief description of key features and enhancements that were added. It also includes links to detailed documentation, where available.

• New Software Features in Cisco cnBR 21.2, on page 1

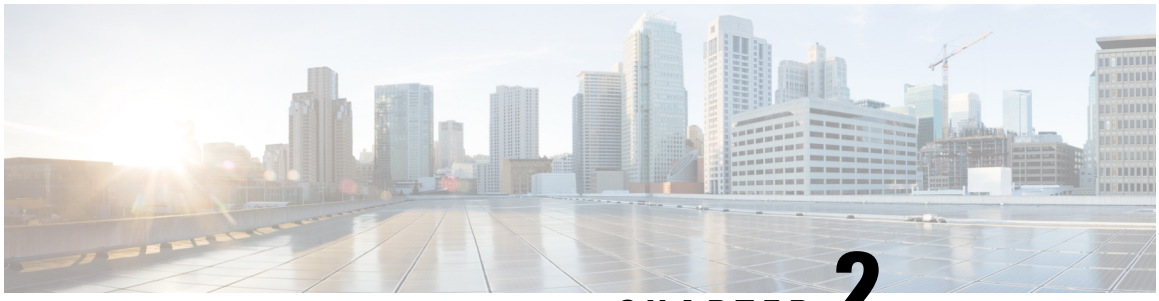
New Software Features in Cisco cnBR 21.2

Cisco cnBR 21.2 supports a range of improved menu options, flexible licensing capabilities, virtualized network management microservices, intuitive diagnostic utilities, maintenance tools, and operational improvements as well. The new changes are:

Feature	Description
Cisco Cloud Native Broadband Router User's Guide, Release 21.2	
Bare Metal support	Cisco cnBR 21.2 provides for a simplified deployment and configuration, through the Bare Metal support. With the introduction of Bare Metal support, all the required software and applications for Cisco cnBR and Cisco Operations Hub installation are provided in a single release package. This eliminates any dependency on external software repositories.
Smart Licensing	From Cisco cnBR 21.2, the Smart Licensing workflows have been simplified. Device Registration, Permanent License Reservation, Specific License Reservation, and returning license reservations are now simple GUI driven workflows.

Feature	Description
Support for OOB Services	This release of Cisco cnBR supports passing OOB signals through an RPD using the SCTE 55-1 and SCTE 55-2 standards. It also supports NDF and NDR protocols for the same purpose.
Out-of-band Services Configuration	You can create and update OOB configuration templates, and save them to each RPD when you add or edit an RPD.
Profiles and Templates	From Cisco cnBR 21.2 onwards, you easily provision your detailed and repetitive tasks. The configuration needs and provisioning requirements for growing networks are complex, and Cisco cnBR offers a simplified data model, commonly known as Profiles and Templates, to enable ease of network operations. You can now easily automate a range of commonly performed tasks, such as configuring Remote PHY Device, establishing connections with cnBR clusters and other networking entities, and also bringing Cable Modems online.
Support for NDF and NDR	The NDF supports FM broadcast, DAB+ broadcast, and OOB signals. NDF digitizes the analog portion of the DS and sends it to the RPD, where it recreates the original analog portion. Whereas, NDR digitizes the analog portion of the US and sends it to the CMTS, where it recreates the original analog portion at the headend. It supports legacy OOB signals. In addition, Cisco cnBR provides SNMP support for NDF and NDR.
Support for DHCPv6 client link-layer address (RFC 6939)	This support provides the client's link-layer address in the DHCPv6 messages which are sent towards the server.
Support for 48 downstream channels per Service Group	From Cisco cnBR 21.2, DS scale has been increased to 48 SC-QAM DS channels per SG. You can configure a total of 48 SC-QAM channels and 2 OFDM channels per SG. This increase in scale of DS channels per SG allows for increased DS bandwidth as well as decreased load on each DS channel.
Support for 2 OFDM Blocks	This feature increases the support for OFDM Blocks to 2. This increase allows for up to 384 MHz of OFDM bandwidth per Service Group.
Downstream and upstream channel utilization live graphs	Downstream and upstream channel utilization live graphs are added in the traffic throughput section of the service group dashboard. You can view the utilization of the downstream and upstream channels under the service group in these live graphs.
Multiple NIC configuration on the Cisco Operations Hub for cable modem data	You can configure multiple NIC on the Cisco Operations Hub cluster that connects to CIN network, allowing the Cisco Operations Hub to poll cable modem data such as SNR and TX/RX power.
Login Banner Messages	You can create and display a message that appears as a banner on the Cisco Operations Hub login page.

Feature	Description
New dashboard home page and left navigation menu	Metrics & Dashboards page in the cnBR Manager has been renamed Dashboards and promoted to a top level Cisco Operations Hub main menu item. The Dashboards home page has been updated to include a list of Suggested and Recently viewed dashboards. Additionally, the left navigation menu on the Dashboards page has been streamlined to improve usability.
CM State History	Cisco cnBR 21.2 provides for improved access to information on online and offline Cable Modems. The Download CSV option allows you to download information on one Cisco cnBR cluster at a time. You can alternatively use the Cable Modem State History dashboard for historical information.
Customize Dashboards	You can customize Cisco cnBR and Cisco Operations Hub dashboards to analyze and visualize your data the way you want to. You can use the real-time data or the historical data for this purpose.
Kibana Queries and Data Visualization	You can create Kibana queries, retrieve data, and then customize how you want to present the queried data in Cisco cnBR.
Modem type column	Modem type column is added in the Cable Modem List table of the Cable Modem List dashboard. It shows the DOCSIS version of the cable modem.
RPD Reset	From Cisco cnBR 21.2 onwards, you can reboot the RPD operations using the RPD Reset button. Note that by using the RPD Reset option, existing services are affected.



CHAPTER 2

Caveats

- Open Caveats for Cisco cnBR 21.2, on page 5
- Resolved Caveats for Cisco cnBR 21.2, on page 6
- Cisco Bug Search, on page 6

Open Caveats for Cisco cnBR 21.2

Caveat ID Number	Description
CSCvu83104	After Power outage, the cnBR is having issues with PTP pods sync and RPDs with late maps or no maps
CSCvw83313	No UGS US throughput if EMTA has PHS enabled
CSCvx49463	cnBR REST API returns 401 Unauthorized after UCS reboot
CSCvx77870	[voice] Arris 402p failed to ping after SG moves
CSCvx77873	48 SC-QAMs configured as Primary causes the CMs to fall offline and never recover
CSCvx81685	Cisco DPQ3212 failed to ping after UCS reloads
CSCvx85084	[voice] voice dropped with vswitch crash
CSCvy73075	Fail to ping D3.1 CMs after OFDM config is applied on DP successful
CSCvy77172	License consumption is not updated after deleting RPD
CSCvy79288	OOB-DS configs via Opshub API is not reflected in RPD
CSCvy79292	OPSHUB: OOB-DS :Duplicate entry of the channel ID is appended in RPD configs
CSCvy80627	redis cluster leader failure after 2 UCS Reload
CSCvy81922	D2.0 CMs dropped offline after usscheduler and vswitch restart
CSCvy82627	IPDR : Channels 48 and above are not exported to collector
CSCvy84288	Not getting any logs under auto-deploy-lo file while deploying the operations hub and cnBR

Caveat ID Number	Description
CSCvy86613	No data is displayed on OpsHub after fresh deployment
CSCvy88266	CM becomes unreachable after reboot one UCS
CSCvy88538	It takes an extra 13 min for one DP pod becomes ready after UCS reload
CSCvz00752	usschedular keeps crash after run reboot_ccmts due to "Failed to connect to vswitch"

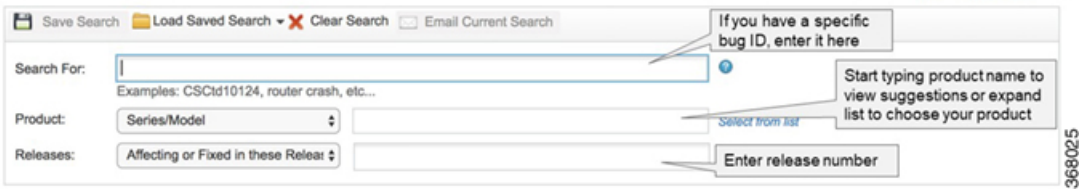
Resolved Caveats for Cisco cnBR 21.2

Caveat ID Number	Description
CSCvx81709	Audit log shows username field empty
CSCvx85079	[voice] making new calls failed after UCS reloads due to CMs being stuck at DbcInProgress and caused
CSCvx85128	Getting home page of Operations Hub while going to the edit mode of Cable Modem Basic Info panel und
CSCvx85151	RPD Add Operations with Video Services Fails when selected port is Downstream 1 (DS-1)
CSCvx86135	Default entitlements blocked when cmts-cp-mgmt-service is not ready
CSCvx86438	Failed to move SGs from Operations Hub for the first time after fresh deployement
CSCvx87009	The ranging pod wrongly mark down the upstream during startup
CSCvx87423	Video QAM: Operations Hub UI should support IPv6 format for the Source ID and Group ID fields.
CSCvx87738	cmts-entitlements service does not restart after config map update.

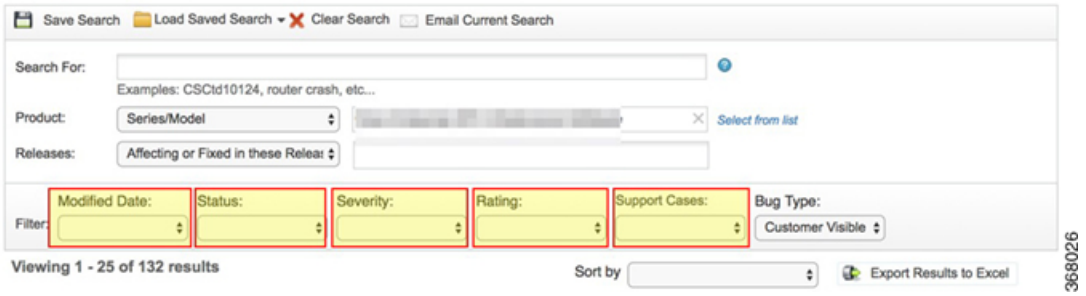
Cisco Bug Search

Use the Cisco Bug Search Tool to access open and resolved bugs for a release.

The tool allows you to search for a specific bug ID, or for all bugs specific to a product and a release.



You can filter the search results by last modified date, bug status (open, resolved), severity, rating, and support cases.


Save Search
Load Saved Search
Clear Search
Email Current Search
Search For:
Examples: CSCtd10124, router crash, etc...
Product:
Series/Model
Select from list
Releases:
Affecting or Fixed in these Releas
Filter:
Modified Date:
Status:
Severity:
Rating:
Support Cases:
Bug Type:
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Viewing 1 - 25 of 132 results
Sort by
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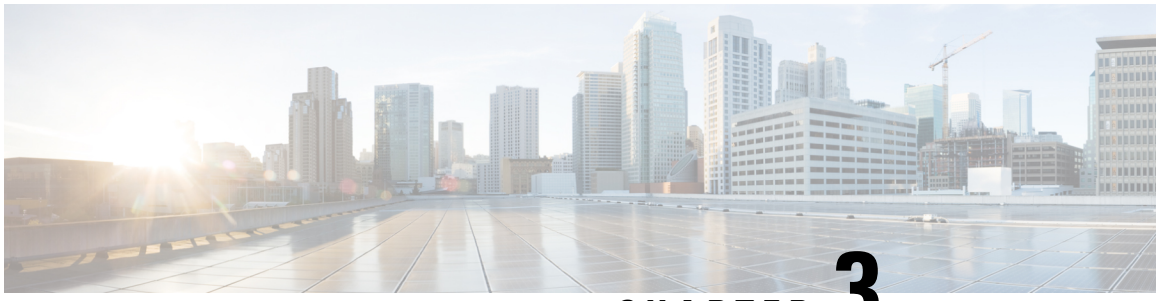


CHAPTER 3

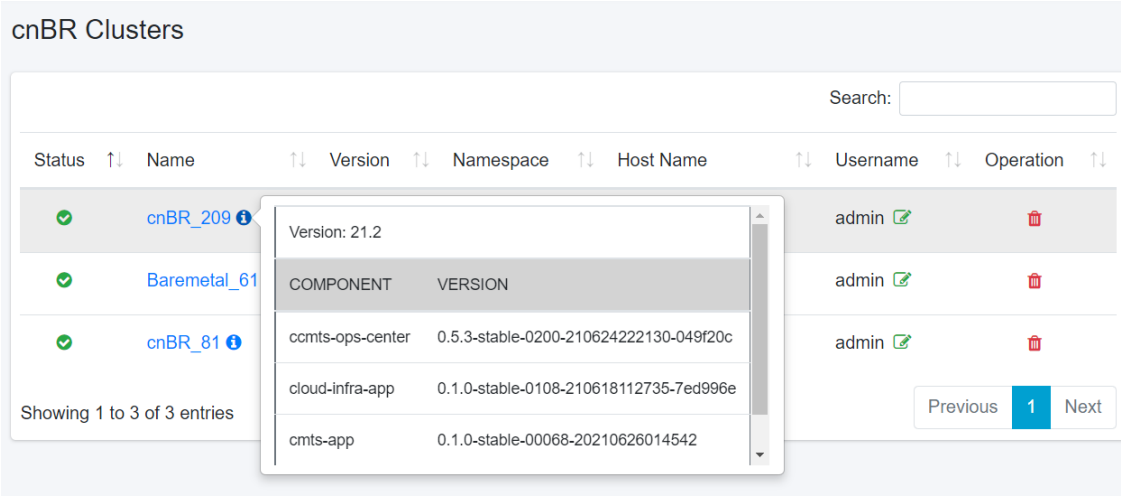
Supported Packages and System Requirements

- Determining the Software Version for Cisco cnBR 21.2, on page 9

Determining the Software Version for Cisco cnBR 21.2

You can view the version of the Cisco cnBR components by using the following methods:

- To view the version of the Cisco cnBR cluster component, do the following:
  1. On the Cisco Operations Hub menu, click **cnBR Manager** > **cnBRs**. The cnBR Clusters pane displays all the available cnBR clusters.
  2. On the Cisco cnBR clusters that are listed, click the **i** icon next to the cluster name. Information about the cnBR cluster component and the version is displayed.



- To view the version of the Cisco cnBR and Cisco Operations Hub, do the following:
  1. Click the Help Menu. The help menu is represented by the lifebuoy icon on the top-right of the Cisco Operations Hub.
  2. Click **About**. Information on the Cisco Operations Hub version is displayed.

Cisco Operations Hub

Operations Hub 21.2

COMPONENT	VERSION
opshub-data-ops-center	opshub-ops-center-0.5.3-stable-0113-210624222226-41ff839
opshub-data-opshub-infra-app	opshub-infra-app-0.1.0-stable-0087-210623165712-a9b6662

cnBR Manager 21.2

COMPONENT	VERSION
cnbrmanager-data-ops-center	cnbrmanager-ops-center-0.5.3-stable-0011-210624222256-da73ef5
cnbrmanager-data-cnbrmanager-app	cnbrmanager-app-0.1.0-stable-00047-20210630113428

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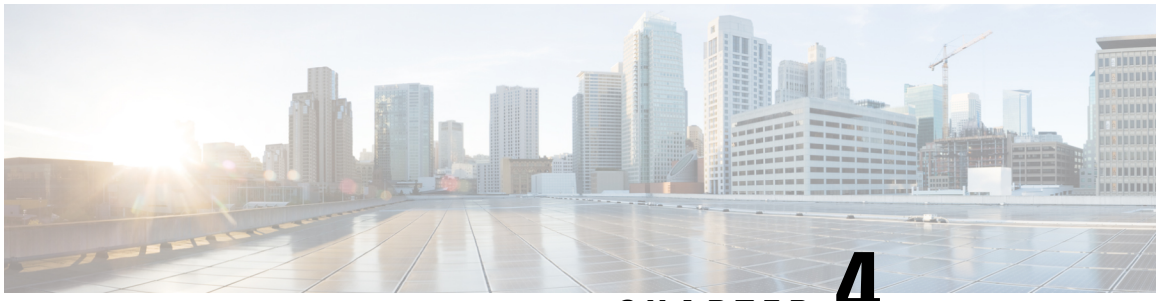

CHAPTER 4

Other Important Information

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- Third-Party Tools Integration, on page 11
- Cisco cnBR Router Documentation References, on page 12
- Contact Cisco Support, on page 12

Cisco cnBR and Cisco Remote PHY Devices Version Compatibility

The versions of Cisco cnBR and RPD must be compatible. The following list provides information on the compatible Cisco cnBR and Cisco RPD versions:

- For Cisco cnBR 21.2, the supported RPD version is 9.5. You can download it from this page.

Browser Support

For the Cisco cnBR, the Cisco Operations Hub functionality is supported for the following browser versions:

- Mozilla Firefox 88 and later
- Google Chrome 90 and later
- Microsoft Edge 90 and later

Third-Party Tools Integration

Cisco cnBR provides integration with the following third-party tools:

- **Viavi XPERTrak**: For upstream spectrum capture.

  Validated Versions:

  - Viavi XPERTrak: 3.1, Build:91

- Viavi RCI: 1.5.13

Following steps are required in Viavi XPERTrak for successful modeling of cnBR in XPERTrak:

1. Locate cmts_class_factory.csv file in /cfg folder XPERTrak installation directory.
2. Add the following lines to the end of file cmts_class_factory.csv.

```
3.0,Cisco,Cloud +CMTS,true,Cisco_31_Cmts,CiscoCBR8,ciscoRciNodeInfo
3.1,Cisco,Cloud +CMTS,true,Cisco_31_Cmts,CiscoCBR8,ciscoRciNodeInfo
```

3. Restart XPERTrak.
4. Re-sync the CMTS.

- **Incognito MAP**: For channel and service (MAC Domain) utilization reports using the IPDR interface.

  Validated Versions:

  - MAP: 6.5.1

Cisco cnBR Router Documentation References

For information on Cisco cnBR, go through the following:

- Cisco Cloud Native Broadband Router User's Guide, Release 21.2
- Cisco Cloud Native Broadband Router Operations Hub REST API Guide, Release 21.2

Contact Cisco Support

You can choose to open a ticket for any Cisco cnBR that you might encounter.

Complete the folloowng steps to contact Cisco Support:

1. On the Cisco cnBR Cisco Operations Hub, click the **Help Menu** icon > **Contact Support**.
2. Follow the Support Case Manager wizard to open a new case for your problem.