



Release Notes for Cisco cBR Series Converged Broadband Routers, Cisco IOS XE Dublin 17.12

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CHAPTER 1

What's New in Cisco cBR-8 Series Routers



- Note** Explore the [Content Hub](#), the all new portal that offers an enhanced product documentation experience.
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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 and Changed Information, on page 1](#)
- [Behaviour Changes Introduced Features, on page 9](#)

New and Changed Information

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

New Software Features in Cisco IOS XE Dublin 17.12.1y

Feature	Description
Cisco cBR Converged Broadband Routers DOCSIS Software	

Feature	Description
Channel Utilization Consistency	<p>We have enhanced docsIf31CmtsDsOfdmChanUtilization and docsIfCmtsChannelUtUtilization MIBS to calculate a rolling average utilization. The utilization calculation window is specified by the operator using the cable util-interval command.</p> <p>With this release, you can observe consistency in the Upstream and Downstream SCQAM/OFDMA Channel utilization and MIB data.</p> <p>We have also updated the output of the show controllers downstream-cable slot/subslot/port [counter rf-channel counter ofdm-channel] snmp-rolling-avg command to include the rolling average values.</p>
Support For Platform Automated Monitoring	<p>With this release, cBR-8 supports Platform Automated Monitoring (PAM), which is a system monitoring tool that is integrated with Cisco IOS XE Software image to monitor the following issues:</p> <ul style="list-style-type: none"> • Process Crashes • When StandbySUP cannot bootup <p>PAM is an IOSd-process running on the Supervisor Card (SUP) to periodically monitor the system's crash. When an RP/FP/CC crashinfo or corefile is detected, the syslog displays on the active SUP's IOSd console.</p> <p>The benefit of PAM is that you can use a script (for example, EEM) to monitor PAM and automatically submit a TAC case and share the core/crashinfo with TAC, when a crash event is detected.</p>
Upstream External PMA with Kafka	<ul style="list-style-type: none"> • In this release, Upstream External PMA is supported with Kafka. cBR8-routers publish US RxMER data automatically based on OFDMA prof-mgmt configured interval. The Publish rate can be down-sampled using the cable telemetry topic us-rxmer publish-rate command. • In this release, Receive modulation error ratio (RxMer) probe averaging is supported. RxMer Probe averaging allows the operator to specify the number of RxMer measurements to acquire per modem in a given polling interval. These results are averaged and forwarded to the TFTP server or Kafka broker as one averaged measurement per modem. <p>RxMer averaging can improve RF measurement consistency in some situations, resulting in improved modulation profile assignment.</p>
Schema version update for DOCSIS CMTS Topology service	<p>In this release, the schema version for the DOCSIS CMTS Topology service has been updated to DOCSIS-CMTS-TOPOLOGY-TYPE_3.5.1-A.3.xsd to support the latest templates for the IPDR exporter.</p>
Schema version update for DOCSIS Utilization Statistics service	<p>In this release, the schema version for the DOCSIS Utilization Statistics service has been updated to DOCSIS-CMTS-US-UTIL-STATS-TYPE_3.7-A.6.xsd to support the latest templates for the IPDR exporter.</p>

Feature	Description
Channel power width MIB Update	In this release, the received power for all the upstream channels, SCQAM and OFDMA, will be reported in 1.6MHz reference. It will also include upstream RF port basepower if configured (applicable to rphy only). The following MIBs has been enhanced: <ul style="list-style-type: none"> • DocsIf3CmtsCmUsStatusRxPower • docsIf31CmtsCmUsOfdmaChannelRxPower
Show cable modem verbose command update	With this release, the command show cable modem verbose has been updated to support functionalities with no base power and channel power upto 0 to accommodate 1.6 MHz upstream channel power conversion.

New Hardware Features in Cisco IOS XE Dublin 17.12.1y

Feature	Description
Optics	This release launches the new optics on selective hardware within the product portfolio. For details refer to the Transceiver Module Group (TMG) Compatibility Matrix . <p>Cisco 100GBASE QSFP-100G Modules</p> <p>QSFP-100G-CWDM4: The 100GBASE CWDM4 QSFP Transceiver uses the LC connector type to provide connectivity for platforms located upto 2km over SMF. This optics is supported by the following interface cards.</p> <ul style="list-style-type: none"> • SUP250 SUPPIC (Supervisor Physical Interface Card) • CBR-DPIC-2X100G (Digital Physical Interface Card)

New Software Features in Cisco IOS XE Dublin 17.12.1x

Feature	Description
Cisco cBR Converged Broadband Routers DOCSIS Software	
Enabling Line Card Redundancy When DPIC Fails	In this release, Line Card Redundancy (LCHA) triggers when Digital Physical Interface Cards (DPIC) encounters a hardware failure. This action ensures that the service is not impacted when a DPIC has a Hardware failure. This feature supports the CBR-DPIC-8X10G and CBR-DPIC-2X100G Interface Cards. <p>In previous releases, when a DPIC encounters a hardware failure, the DPIC state moves to out of service and LCHA cannot be triggered. Triggering of LCHA was based on the state of the line card.</p>

Feature	Description
Excluding Cable Modems from Downstream Resiliency Operations	<p>You can now exclude cable modems from Downstream Resiliency operations and move them to an exclusion list using the cable resiliency exclude command. Excluding cable modems ensures that RBG and NB are not used and the resiliency activity reduces. The exclusion list is stored on the SUP and you can use the show cable resiliency exclude to view the exclusion list.</p> <p>By excluding cable modems, you can manage the downstream resiliency feature better and improve CPU efficiency. The following scenarios are examples of when you can use this feature and exclude cable modems from Downstream Resiliency operations.</p> <ul style="list-style-type: none"> • Cable modems that report an excessive amount of impairment or recovery events, can be moved to the exclusion list. You can use the show cable resiliency counts command introduced in Cisco IOS XE Dublin 17.12.1x to identify which downstream channels and cable modems have the most impairments. • During planned maintenance windows, cable modems can be moved to the exclusion list.
Fast Fourier Transform (FFT) Enhancements	<p>In this release, we have optimized legacy periodical FFT for both cBR-8 and RPD which helps in reducing system memory and CPU resources. Use the cable rpd period-fft [start stop] command to start or stop RPD periodical FFT polling.</p>
Moving a DS Partial Cable Modem Back to the Original BG	<p>In this release, you can move a DS Partial cable modem back to the original BG. The cable modem remains online and does not reset or reinitialize partial service modems. The cable modem recovers to the w-online state.</p> <p>You can use this feature to recover cable modems that may send the cm-status recovery events which are not received by the cable modem.</p> <p>Cisco can provide the feature details upon request.</p>
Queue protection	<p>In this release, you can configure queue protection for Low Latency Service Flows. Use this feature to identify traffic on low latency flows that does not comply with the non-queue-building behavior and move some of them to classic flows.</p> <p>The benefit of using Queue protection is that latency is reduced for latency-critical applications that are classified to Low Latency Service Flows, that are well-behaved.</p> <p>Reducing the latency can provide more responsive gaming, faster and responsive website loads, and also provide a telepresence experience with minimum lag.</p>
RPD PTP MIB Update	<p>The MIB table (docsRphyPtpRpdClockStatusTable) is updated to capture additional clock states. This update enables you to identify PTP clock state issues by polling clock state information from the Generic Control Protocol (GCP). The MIB polling works even if the RPD is stuck in the init (clock) state.</p>

Feature	Description
Registering DOCSIS 4.0 Modems as DOCSIS 3.1 Modems	<p>In this release, you can register DOCSIS 4.0 Modems as DOCSIS 3.1 Modems. On cBR-8 routers, you can register DOCSIS 4.0 Modems in D3.1 modes.</p> <p>DOCSIS 4.0 modems advertising as DOCSIS 3.1 capable during registration are included in the show cable modem docsis version d31-capable [operational not-operational] command. Such modems display more than 2 OFDM channels available in the MRC column of the command output.</p> <p>DOCSIS 4.0 modems advertising as DOCSIS 4.0 capable during registration are included in the show cable modem docsis version d40-capable [operational not-operational] command. Such modems register as DOCSIS 3.1 operational.</p>
Monitor RBG Creation Count Per Port	Use the show cable resiliency counts command in privileged EXEC mode, to display the number of RBGs created per downstream port.
SNMP RX Queuing Redesign	<p>In previous releases, SNMP RX Queuing could impact AOM to CPP downloads, resulting in slow response to changing cable conditions.</p> <p>In this release, the new design fixes these issues. SNMP RX Queuing is more responsive to cable modem flaps, more responsive to resiliency changes of bandwidth on a link in response to impairments, and so on, while using the SNMP RX queue with saturating SNMP traffic.</p>
Support for 2x4 RPD	The 2x4 RPD support is introduced for cBR-8 Converged Broadband Routers. This RPD handles up to 4 upstream ports of cBR-8, resulting in higher port utilization and improved upstream traffic handling. The new RPD continues to provide support for DOCSIS, OOB(Out-Of-Band), and pseudo-wire functions.
Upstream External PMA with SNMP/TFTP	<p>In previous releases, the operator would need to provision static OFDMA modulation profile definitions that addressed all known and anticipated plant conditions, both static and dynamic.</p> <p>In this release, the operator has the ability to allow an external Artificial Intelligence (AI) to both tune the profiles for specific plants and dynamically change modulation definitions to address dynamic plant conditions. The AI resides within an external Profile Management Application (PMA).</p>

New Hardware Features in Cisco IOS XE Dublin 17.12.1x

Feature	Description
Optics	<p>This release launches the following new optics on selective hardware within the product portfolio. For details refer to the Transceiver Module Group (TMG) Compatibility Matrix.</p> <p>Cisco 100GBASE QSFP-100G Modules</p> <ul style="list-style-type: none"> • QSFP-100G-ZR4-S: 100GBASE QSFP Transceiver, 80KM reach over SMF. This module is supported on the following interfaces. <ul style="list-style-type: none"> • SUP250 SUPPIC

New Software Features in Cisco IOS XE Dublin 17.12.1w

Feature	Description
Cisco cBR Converged Broadband Routers DOCSIS Software	
Configure the time interval between DBG unused and reclaim.	<p>In this release, you can use the cable dynamic-bonding-group reclaim-hold-interval command to configure a time interval in seconds between DBG unused and reclaim. Configuring this command has the following benefits:</p> <ul style="list-style-type: none"> • Reduces the chance of receiving the AOM download to CPP stuck or AOM download to CPP queue error messages. • Increasing the hold interval can help you avoid DBG reclaim or DBG create requests.
Configuring 10 Channels in Upstream Bonding Group (USBG)	<p>In this release, you can configure up to 10 channels (8 ATDMA and 2 OFDMA) for USBG. In addition to TLV 47, TLV 89 is also supported. Configuring 10 channels allows you to optimally use the spectrum in USBG.</p> <p>In previous releases, you can only configure 8 channels.</p>
Enhancements for LCHA Associated with DPIC Interfaces	<p>In this release, the robustness of LCHA associated with DPIC interfaces is enhanced. This enhancement decouples the downstream queue in SUP and DPIC interface datapath change during LCHA. This ensures that RPDs on the line card stay online even if the active SUP is experiencing a stuck queue event. See show platform hardware qfp active cable dpic-lcha if-name.</p>
New MIB tables for SNMP background synchronization	<p>The following MIB tables are added to the SNMP background synchronization:</p> <ul style="list-style-type: none"> • ccwbRFChannelEntry • docsIfUpstreamChannelEntry • cdxIfUpChannelExtEntry
New MIBs for OUDP doc leakage detection (DOCS-LEAK-DETECT)	<p>New MIB support helps to fetch the details of OUDP leak detect test sessions.</p> <p>The following are the new MIBs supported:</p> <ul style="list-style-type: none"> • docsLeakDetTestCapabilities • docsLeakDetTestSessionStatusTable • docsLeakDetTestSessionStatsTable • docsLeakDetTestChannelStatusTable <p>Supported MIB version: DOCS-LEAK-DETECT-MIB-2022-09-15.txt.</p>
New RPD location attributes to configure RPD's description, latitude, and longitude.	<p>You can now configure RPD's description, latitude, and longitude that helps you to track the location attributes of an RPD seamlessly.</p>

Feature	Description
ROMMON Enhancements	<p>With this release, ROMMON autoupgrade takes place when the existing ROMMON version is older than version 16.7(9r)S. Manual ROMMON upgrade continues to be supported.</p> <p>In ROMMON version 16.7(9r)S, we remove DEV key support from cBR-8 routers. You need a challenge key if you need to run an engineer-signed image.</p>
Resiliency Bonding Group (RBG) Commands	<p>In this release you can:</p> <ul style="list-style-type: none"> • Use the cable resiliency cm-max-rbg-moves command to configure the maximum number of times a CM can be moved to any RBG within the configured interval. This allows you to have better control on CM movement in a specified duration. • Use the show cable modem rbg-activity command to view CM RBG usage statistics.

New Hardware Features in Cisco IOS XE Dublin 17.12.1w

Feature	Description
Optics	<p>This release launches the following new optics on selective hardware within the product portfolio. For details refer to the Transceiver Module Group (TMG) Compatibility Matrix.</p> <p>Cisco 100GBASE QSFP-100G Modules</p> <ul style="list-style-type: none"> • QSFP-100G-DR-S: QSFP-100G-DR-S: 100GBASE DR QSFP Transceiver, 500m over SMF. This module is supported on the following interfaces. <ul style="list-style-type: none"> • SUP250 SUPPIC • DPIC100

New Software Features in Cisco IOS XE Dublin 17.12.1

Feature	Description
Ability to configure IPv6 Querier Robustness Variable value in MLD queries.	<p>This feature fine-tunes the MLD robustness variable, and specifies the retransmission count of MLD packets to minimize the impact of packet loss on a subnet.</p> <p>You can increase the robustness variable on a congested network to increase the number of times that packets are resent.</p>
Ability to enable packet classifier in compliant with DOCSIS spec.	<p>You can now enable the packet classifier that is provisioned already to be compliant with the DOCSIS spec. This helps to match the IPv4 type of service (ToS) or IPv6 Traffic Class (TC) value range as per the DOCSIS spec.</p>

Feature	Description
Enhancements to Factory Reset	<p>You can use the factory-reset all secure command to reset the router and securely clear the files that are stored in both bootflash and SSD. This command performs sanitization and clears all the user data from eUSB, SSD, ROMVAR, and ACT2.</p> <p>With this release, the factory-reset all secure command is more secure and performs better sanitization.</p> <ul style="list-style-type: none"> • factory-reset all • factory-reset all secure • show usb-devices summary • show hdd-devices summary
Multiple Bulk Data Transfer support	<p>You can now configure multiple BDTs for the following:</p> <ul style="list-style-type: none"> • For TFTP in CM-MAC and Other trigger modes. PNM BDT (DocsPnmBulkDataTransferCfgTable) MIB extends support from one TFTP server address to three. • Guestshell in IPv4 for all UTSC modes.
Multiple Spectrum Acquisition Circuits on a single port	<p>You can now configure two Spectrum Acquisition Circuits on a single port.</p>
PNM BDT MIB Updates	<p>In this release, PNM BDT MIB (docsPnmBulkDataTransferCfg) can support both OFDMA RxMER and UTSC. (UTSC has three trigger modes: Freerun, other, and CM-MAC.) The docPnmBulkDestIpaddr object (UTSC CM-MAC) is also supported.</p>
Support for 262144 L2TP sessions	<p>The maximum number of L2TP sessions is increased from 131072 to 262144. The benefit of having more L2TP sessions is that it enables better support for large-scale RPD deployments.</p> <p>Note:</p> <p>System logs are created when the number of sessions get close 262144. Configure the memory chunk siblings threshold 20000 command, to eliminate system logs.</p> <p>The rate-limit warning is logged when L2TP session number is greater than 262144.</p>
Entropy Source Update	<p>In this release, CPU Jitter entropy source is implemented in cBR-8 SUP IOSd. Entropy is collected periodically and mixed from two sources which are Intel CPU RDRAND and ACT2. The output of the show crypto entropy status includes this entropy source information. A new command show cable entropy status is introduced to display the status of the Entropy sources.</p>

Feature	Description
Support for DOCSIS 3.1 Battery Reduction Mode	<p>You can configure channel bonding downgrade for cable modems in battery backup mode by using the cable reduction-mode mta-battery command in global configuration and interface configuration mode</p> <p>In this release, you can configure the scqam-primary keyword for the cable reduction-mode mta-battery command. Use the SCQAM primary channel in battery backup mode when the modem is with OFDM primary channel. This option is disabled by default.</p> <p>Note: For DOCSIS 3.1 battery mode, the inter-op testing with real CM is limited due to CM limitation. Most of the testing was run by simulation.</p>
Low Latency DOCSIS Histogram Support	Low Latency DOCSIS (LLD) Histograms can now be configured and statistics collected via CLI and new MIBS. This provides visibility into how Active Queue Management (AQM) is managing average latencies on LLD-configured modems.
Support for Smart Transport	Smart Transport provides a new transport protocol from the cBR-8 to the Smart Licensing server, and replaces Smart Call-Home
Support for the Configuration of 4 OFDM Channels	In this release, you can configure 4 OFDM Channels per Service Group (SG) on cBR-8 routers. 2Gx1G Service Tiers are supported by configuring 4 OFDM channels in each downstream (DS) SG. This feature is supported on KOBOL-R and Cylon-R line cards.
Updates for Active Queue Management(AQM)	In this release, AQM is updated to include Immediate AQM, where Explicit Congestion Notification can be sent to the sender to control the latency of the queue. Also included in 17.12.1 is queue coupling, which ensures fairness between the classic and low-latency queues in an ASF.
Updates for Aggregate Service Flow (ASF) Provisioning	You can also use the AQP Expansion procedure to provision ASFs. There are no ASF TLVs present in the REG-REQ. A constituent SF TLV is present and specifies an AQP in the sub-tlv [24/25].4. The cBR-8 router performs an AQP table lookup based on this AQP name and provisions the ASF and constituent SFs from the AQP table entry.
UTSC CM-MAC for third-party RPD	cBR-8 now supports the suitable spectrum acquisition circuit and sends the related spectrum acquisition circuit index for the CM-MAC trigger mode. The UTSC CM-MAC works with the Cisco RPD and third-party RPD.

New Hardware Features in Cisco IOS XE Dublin 17.12.1

There are no new hardware features in the Cisco IOS XE Dublin 17.12.1 release for Cisco cBR-8 series routers.

Behaviour Changes Introduced Features

Modified Software Features in Cisco IOS XE Dublin 17.12.1y

There are no modified software features in the Cisco IOS XE Dublin 17.12.1y release for Cisco cBR-8 series routers.

Modified Hardware Features in Cisco IOS XE Dublin 17.12.1y

There are no modified hardware features in the Cisco IOS XE Dublin 17.12.1y release for Cisco cBR-8 series routers.

Modified Software Features in Cisco IOS XE Dublin 17.12.1x

There are no modified software features in the Cisco IOS XE Dublin 17.12.1x release for Cisco cBR-8 series routers.

Modified Hardware Features in Cisco IOS XE Dublin 17.12.1x

There are no modified hardware features in the Cisco IOS XE Dublin 17.12.1x release for Cisco cBR-8 series routers.

Modified Software Features in Cisco IOS XE Dublin 17.12.1w

There are no modified software features in the Cisco IOS XE Dublin 17.12.1w release for Cisco cBR-8 series routers.

Modified Hardware Features in Cisco IOS XE Dublin 17.12.1w

There are no modified hardware features in the Cisco IOS XE Dublin 17.12.1w release for Cisco cBR-8 series routers.

Modified Software Features in Cisco IOS XE Dublin 17.12.1

There are no modified software features in the Cisco IOS XE Dublin 17.12.1 release for Cisco cBR-8 series routers.

Modified Hardware Features in Cisco IOS XE Dublin 17.12.1

There are no modified hardware features in the Cisco IOS XE Dublin 17.12.1 release for Cisco cBR-8 series routers.



CHAPTER 2

Caveats

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Caveat List

This chapter describes open severity 1 and 2 caveats and select severity 3 caveats.

The *Open Caveats* section lists open caveats that apply to the current release and may apply to previous releases. A caveat that is open for a prior release and is still unresolved applies to all future releases until it is resolved.

The bug IDs are sorted alphanumerically.

The *Caveats* section includes the bug ID and a short description of the bug. For details on the symptoms, conditions, and workaround for a specific caveat you must use the Bug Search Tool.



Note Starting with 17.6.1a Release Notes, the Open and Resolved Caveats include common software items that may affect the Cisco cBR-8 product. The Open and Resolved Caveats include generic IOS-XE 17.9.1 software items in addition to Cisco cBR-8 items.

Resolved Caveats for Cisco IOS XE Dublin 17.12.1y

Identifier	Headline
CSCwe12147	cbr8 enhancement: implement automatic recovery of US ch stuck in UMP Failure

Identifier	Headline
CSCwi70553	Generating VIDMAN core file on active sup after the LED reload operation.
CSCwi62553	static LB cannot balance when config dynamic WB, rcc-template and legacy WB under mac-domain
CSCwj42964	Two SUPs run different images, can reach SSO if boot stby-SUP twice
CSCwi69834	OpSim: 'cable managed fiber-node' not always deleted from 'interface CableX/Y/Z'
CSCwi62034	LLD: Some Parameters Cannot Be Configured for US AQP
CSCwj54381	PNM UTS capture MIB UtscCfgWindow default value 4 not align the spec rectangular 2
CSCwi12835	cBR8 - ndf/ndr issue after LCHA event
CSCwh01662	cBR8 packets going through RXQ may cause attn-sync failure
CSCwj41660	AQM configured on static service flows with dynamic service flow create/delete unexpected reload
CSCwi61872	docsIfCmtsChannelUtUtilization MIB refresh for US SCQAM and OFDMA Channels less than 30 secs

Open Caveats for Cisco IOS XE Dublin 17.12.1y

Identifier	Headline
CSCwj56450	netconf-yang doesn't work after perform ISSU from 17.06.1z1 to 17.12.1y
CSCwi38218	Incorrect output counter with show interface bundle'
CSCwj69389	Observed sup unexpected reload after remove the logical edge device
CSCwc44477	Random Multicast groups stopped working after upgrading to 17.3.1x from 16.7.4
CSCwi21760	LED core file is observed when script performing sup switchover(sso)
CSCwi44532	cBR-8 - Trustpoint missing in crypto library
CSCwj80783	State info on show platform software kman R0 kafka stats is very difficult to relate to Node Names
CSCwj80789	show platform software kman R0 database broker_tbl displays partial info
CSCwj83026	SNMP PNM RxMER data length is incorrect in OSSI File when pnm-rxmer-intercept enabled

Open Caveats for Cisco IOS XE Dublin 17.12.1x

Identifier	Headline
CSCwi62553	static LB cannot balance when config dynamic WB, rcc-template and legacy WB under mac-domain
CSCwi62034	LLD: Some Parameters Cannot Be Configured for US AQP
CSCwf69010	Few dvb tier sessions are pending/off state after LCHA along with sequence of operations.

Resolved Caveats for Cisco IOS XE Dublin 17.12.1x

Identifier	Headline
CSCwi47716	cBR-8 - LC High CPU due to BIPC connection flap
CSCwh63169	cBR8 Admission Control missing from Wideband interfaces on 1 linecard
CSCwi10780	OFDMA: Add command to control use of delay queue for Equalization Probes
CSCwi55579	cBR-8 - Supervisor crash after line card reload
CSCwi07444	ISSU with patch file failed with error sed: character class syntax is [[:space:]], not [:space:]
CSCwh34129	2 OFDMA channel are allowed to have the same frequency range
CSCwh94982	If RPD reported the location before with different value, need to update the DB
CSCwh95891	rpdc location config removed unexpectedly and stale db entry left after replacing or delete RPD-ID
CSCvw17802	CBR8 unexpected reload when handling classifier
CSCwi59289	Add software reset enhance for kobol-r PLL3 NMI issue
CSCwi04178	OFDMA: re-implement 50 ms equalization probe delay with delay queue fix.
CSCwi10780	OFDMA: Add command to control use of delay queue for Equalization Probes
CSCwh49964	Change TLV 100.24.2.2 to 4 bytes
CSCwh70860	Deleting Packet Data for Second DBC-REQ, while handling the re-transmitted DBC-RSP for the first DBC
CSCwh77694	CBR SUP unresponsive due to dropping low priority injects from IOS to CPP
CSCwh92987	RPHY ofdma rfch status still AdminUP/OperUP with freq range from valid to invalid change

Open Caveats for Cisco IOS XE Dublin 17.12.1w

Identifier	Headline
CSCwh89354	memory leaks are observed on SUP
CSCwh26336	Free buffer pool 0 is at 0 percent low level - cdman FPA
CSCwh01662	cBR8 packets going through RXQ may cause attn-sync failure
CSCwh70860	Deleting Packet Data for Second DBC-REQ, while handling the re-transmitted DBC-RSP for the first DBC
CSCwh63169	cBR8 Admission Control missing from Wideband interfaces on 1 linecard

Resolved Caveats for Cisco IOS XE Dublin 17.12.1w

Identifier	Headline
CSCwf81087	OUUDP: show cable oudp-leak-detect test-sessions not showing 2-digit rfch correctly
CSCwh51285	cBR-8 line card reload - LCHA BPI isidkey assign incorrect, v17.6.1z
CSCwh89302	BIPC down when SUP IOS CPU High
CSCwh56244	modems DBC during stby LC booting failed ping after LCHA
CSCwf90009	cbr8 LLD CM drop-policy changes from PIE to TAIL_DROP unexpectedly
CSCwf06216	refine 1588 time jump threshold
CSCwh01330	Update min-bw-req 0 0 to ensure the min MAP size is at least 64B with 4 IEs
CSCwh49283	Mismatch for DSG tunnel DSID between SUP and LC on certain mac-domains
CSCwh48807	cBR-8 LC Crash Packet pointer pak in cdman process corrupted
CSCwh54873	Standby LC continues reboot after LCHA and reload LC
CSCwd75787	VIDEO: Video process excessive cpu when L3 WAN failure while multicast source switching
CSCwf59850	after shutdown/no shutdown MD and SUPHA, CM downstream traffic block
CSCwf69351	[17.12.1] show cable modem <mac> ver i Online - cminstp->total_online_time' not synced over LCHA
CSCwf97834	StandbySUP reload after write or copy run start
CSCwh55217	LLD CM Fails to Come Online when Performing AQP Expansion with Identical AQP and SCN Names

Identifier	Headline
CSCwf29330	Secondary SUP reload twice while performing ISSU from 17.9.1y to 17.12.1
CSCwf83643	CCF Throughput Step-Down Observed with High Speed SFs, software workaround.
CSCwh72364	CBR8 // 17.9.1y // SNMP request for RPHY LatencyLastVal shows zero
CSCwh13286	On a RHY setup, before adding exclusion band requires shutting down all the OFDMA channels

Open Caveats for Cisco IOS XE Dublin 17.12.1

Identifier	Headline
CSCwe92069	docsIf31CmtsCmRegStatusUsProfileIucList will return all channels in MD when modem assigned subset
CSCwf76924	cbr8 downstream performance drop caused by ToS range change
CSCwf22103	SRv6 not working on 1712_THROTTLE image
CSCwf60272	All video session lost on a single LED from one linecard with "VDMAN_IPC_FLOW_CONTROL" errors
CSCwd75787	VIDEO: Video process excessive cpu when L3 WAN failure while multicast source switching
CSCwh03865	Drop policy given an invalid scheduling queue/wred 0/0 -Traceback=1#b2262001573a0a77095872b84ebf6
CSCwf97834	SUP 5 reload(CBR-CCAP-SUP-160G) during change in PIC RF frequencies.
CSCwf69010	Few dvb tier sessions are pending/off state after LCHA along with sequence of operations.

Resolved Caveats for Cisco IOS XE Dublin 17.12.1

Identifier	Headline
CSCwd86228	cBR-8 Enhance driver log output of adm1266 to suppress useless message
CSCwd83290	D31 ipdr - UsOfdmaProfileStatus template missing entries for some CMs in setup with 200+modems
CSCwe70788	OUUDP reserved bandwidth is not shown after LCHA
CSCvu68909	DSG not working on MAC domain after remove/add RPD with OPS config and mismatch between SUP and LC

Identifier	Headline
CSCwe72875	OUUDP has duplicate "ACTIVE" state sessions after LCHA
CSCwe88741	Downstream Controller is using the DEPI Unicast instead of using a v6 multicast address.
CSCwe04403	ICMTS OFDMA Ether-trap generated log file with no file limit and getting too big
CSCwe28432	Supervisor reload due to abnormal TLV of upstream channel response
CSCwe54152	OFDMA: Change to downgrade to partial modem when invalid RxMER data (all 0xFFs) is received
CSCwd73296	Disallow standby SUP bootup if it runs different image with Active SUP under non-ISSU state
CSCwe73266	Some DS-JIB channels stuck after LCHA due to channels were disabled in JIB
CSCwe94717	RBG interfaces lose "no snmp trap link-status" config
CSCwc17414	Bulk sync failure seen during ISSU upgrade from 17.6.1z to 17.9.1
CSCwe04707	RPHY: GCP KA timeout always defaulting to 16 seconds when interval is set to 4
CSCwe24159	docsPnmCmtsUsOfdmaRxMerEntry memory leak in IOSd
CSCwe23605	"no snmp trap link-status" line is removed from the interface Wideband-CableX/X/X.x
CSCwe78523	OFDMA: Change output of "show cable modem <modem> prof upstream verb graph" to start at start SC.
CSCwe65945	cBR-8 // 17.6.1x // rf-channel power-adjust inconsistency
CSCwd83662	stby sup crash during modify aux core
CSCwe90443	Multiple IOMD_BULK_SYNC_TRACKER messages being received on system
CSCwd51884	Changes to OFDM DS Controller-Profile can potential Config cmd-line corruption on large scale system
CSCwe11072	CBR8: 'scm partial-mode ofdma' lists all upstream partial modems (D3.0 and D3.1)
CSCwe61182	cBR8 - Continuous printing of log message CABLE IOSD Port Error
CSCwe30064	cBR-8 No L2 multicast traffic on a single mcast group in a single SG on a single Wideband Interface
CSCwe93934	SPECSVL IPC busy in cdman
CSCwd82679	OPS RBG WB interface loses RF config after SUP SO
CSCwe00625	BGSYNC_ERR:snmp_bg_sync_handle_packet:paramset expected data_size:140, but process len 236
CSCwe13912	cBR8 ARP-autoreply may generate excessive error messages when modems flap

Identifier	Headline
CSCwe65419	LC memory leak @ ubr_uct_copy_ofdma_sband_a2a & ubr_uct_copy_mslot_mod_group_a2a
CSCwe06946	OUUDP: OFDMA ctrlr-profile rapid shut/no-shut can block modem participation in test session
CSCwe51191	Cable linecard crash Reason: integer divide by zero
CSCwe93623	OFDMA: Current IUC doesn't match Recommended IUC after modem reset with OUUDP sess and fix verb data
CSCwe61130	NVRAM Trusted CA certificates fail to load after upgrade to 17.6.1x; modems to become rejected
CSCwe31388	CBR linecard unexpected reload in PKTIO thread
CSCwd08687	Intermittent issue with LACP failure
CSCwe78495	Active LC crashed after LC switchover with OUUDP enabled
CSCwf04631	cBR8 - CLI "test platform hardware slot r0 oir remove" resets LC0
CSCwe73438	cable socket connection print error log
CSCwe86939	remove dependency on "service internal" for "cable us-scheduler bwr-drop ..."
CSCwe44525	PNM: docsPnmCmtsUtscCapab returns invalid output through SNMP
CSCwe12317	CLC0 in booting state while CLC3 showing low watermark logs Slot0 downloaded configuration for slot3
CSCwd83462	duplicate PNM Sessions will be send to RPD for each connected Core

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: Customer Visible

Viewing 1 - 25 of 132 results Sort by Export Results to Excel

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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.



CHAPTER 3

Supported Packages and System Requirements

- [Memory Requirements, on page 19](#)
- [Supported Hardware, on page 20](#)
- [Determining the Software Version for Cisco IOS XE Dublin 17.12.1y, on page 20](#)
- [Determining the Software Version for Cisco IOS XE Dublin 17.12.1x, on page 21](#)
- [Determining the Software Version for Cisco IOS XE Dublin 17.12.1w, on page 22](#)
- [Determining the Software Version for Cisco IOS XE Dublin 17.12.1, on page 23](#)
- [Determine Firmware Support, on page 24](#)

Memory Requirements

The following table displays the memory recommendations for the Cisco cBR-8 routers with Cisco IOS XE Dublin 17.12.1y feature sets.

Table 1: Memory Recommendations for the Cisco cBR-8 Routers with Cisco IOS XE Dublin 17.12.1y

Feature Set	Cisco cBR-8 Route Processor	Software Image	Recommended Flash Memory	Recommended DRAM Memory	Runs From
CISCO IOS-XE universalk9	Cisco cBR-8 (CBR) Processor	cbrsup-universalk9.17.12.1y.SPA.bin	8G	48G	Harddisk
CISCO IOS-XE CLC K9	Cisco cBR-8 (CYLONS) Processor	cbrsup-universalk9.17.12.1y.SPA.bin	8G	16G	Supervisor
CISCO IOS-XE Kobol-R	Cisco cBR-8 (Kobol-R) Processor	cbrsup-universalk9.17.12.1y.SPA.bin	8G	64G	Supervisor

Supported Hardware

For detailed information about the hardware supported in Cisco IOS XE Dublin 17.12.1y and its maintenance releases, see: [How and What to Order](#).

Cisco announced September 18, 2020, as the end-of-sale date for the Cisco cBR-8 Leoben1 based DOCSIS line cards (CBR-LC-*-16U30) and SUP60 (CBR-CCAP-SUP-60G).

For further information regarding end-of-sale and end-of-life announcements, see <https://www.cisco.com/c/en/us/products/video/cbr-series-converged-broadband-routers/eos-eol-notice-listing.html>.

Determining the Software Version for Cisco IOS XE Dublin 17.12.1y

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show version EXEC** command:

```
Router#show ver
Load for five secs: 80%/8%; one minute: 63%; five minutes: 72%
Time source is NTP, 09:49:35.258 CST Fri Apr 26 2024
Cisco IOS XE Software, Version 17.12.01y
Cisco IOS Software [Dublin], cBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version 17.12.1y,
RELEASE SOFTWARE (fc4)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2024 by Cisco Systems, Inc.
Compiled Wed 24-Apr-24 09:18 by mcpre
```

```
Cisco IOS-XE software, Copyright (c) 2005-2024 by cisco Systems, Inc.
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documentation or "License Notice" file accompanying the IOS-XE software,
or the applicable URL provided on the flyer accompanying the IOS-XE
software.
```

```
ROM: 17.15(1r)S
```

```
CST-CBR8-SongJiang uptime is 1 day, 1 hour, 25 minutes
Uptime for this control processor is 1 day, 1 hour, 30 minutes
System returned to ROM by SSO Switchover at 08:15:30 CST Thu Apr 25 2024
System restarted at 08:27:30 CST Thu Apr 25 2024
System image file is "harddisk:cbrsup-universalk9.17.12.01y.SPA.bin"
Last reload reason: Reload Command
```

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A summary of U.S. laws governing Cisco cryptographic products may be found at:
<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to
export@cisco.com.

Smart Licensing Status: REGISTERED/OUT OF COMPLIANCE

Cisco cBR-8 (CBR) processor (revision CBR) with 14430954K/6147K bytes of memory.
Processor board ID FXS2023Q4TA
80 Gigabit Ethernet interfaces
32768K bytes of non-volatile configuration memory.
50331648K bytes of physical memory.
7649279K bytes of eUSB flash at bootflash:
117155287K bytes of SATA hard disk at harddisk:.

Configuration register is 0x1822

Router#

Determining the Software Version for Cisco IOS XE Dublin 17.12.1x

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show version EXEC** command:

```
Router#show ver
Load for five secs: 63%/7%; one minute: 40%; five minutes: 43%
Time source is NTP, 06:01:37.333 PDT Wed Oct 26 2022
Cisco IOS XE Software, Version 17.12.01x
Cisco IOS Software [Dublin], cBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version 17.12.1x,
  RELEASE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2022 by Cisco Systems, Inc.
Compiled Thu 20-Oct-22 19:21 by mcpre
```

```
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documentation or "License Notice" file accompanying the IOS-XE software,
or the applicable URL provided on the flyer accompanying the IOS-XE
software.
```

```
ROM: 16.7(8r)S
```

```
CST_RPHY_LS uptime is 4 days, 1 hour, 2 minutes
Uptime for this control processor is 3 days, 7 hours, 30 minutes
System returned to ROM by SSO Switchover at 22:27:19 PDT Sat Oct 22 2022
System restarted at 22:36:45 PDT Sat Oct 22 2022
System image file is "harddisk:cbrsup-universalk9.17.12.01x-FC3.SPA.bin"
Last reload reason: redundancy force-switchover
```

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A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wvl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Smart Licensing Status: UNREGISTERED/EVAL MODE

Cisco cBR-8 (CBR) processor (revision CBRVE) with 14445324K/6147K bytes of memory.
 Processor board ID FXS2024Q7DJ
 64 Gigabit Ethernet interfaces
 16 Ten Gigabit Ethernet interfaces
 4 Hundred Gigabit Ethernet interfaces
 32768K bytes of non-volatile configuration memory.
 50331648K bytes of physical memory.
 7649279K bytes of eUSB flash at bootflash:.
 234365527K bytes of SATA hard disk at harddisk:.

Configuration register is 0x2

Router#

Determining the Software Version for Cisco IOS XE Dublin 17.12.1w

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show version EXEC** command:

```
Router#show ver
Load for five secs: 63%/7%; one minute: 40%; five minutes: 43%
Time source is NTP, 06:01:37.333 PDT Wed Oct 26 2022
Cisco IOS XE Software, Version 17.12.01w
Cisco IOS Software [Dublin], cBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version 17.12.1w,
  RELEASE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2022 by Cisco Systems, Inc.
Compiled Thu 20-Oct-22 19:21 by mcpre
```

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```
ROM: 16.7(8r)S
```

```
CST_RPHY_LS uptime is 4 days, 1 hour, 2 minutes
Uptime for this control processor is 3 days, 7 hours, 30 minutes
System returned to ROM by SSO Switchover at 22:27:19 PDT Sat Oct 22 2022
System restarted at 22:36:45 PDT Sat Oct 22 2022
System image file is "harddisk:cbrsup-universalk9.17.12.01w-FC3.SPA.bin"
Last reload reason: redundancy force-switchover
```

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If you require further assistance please contact us by sending email to export@cisco.com.

```
Smart Licensing Status: UNREGISTERED/EVAL MODE
```

```
Cisco cBR-8 (CBR) processor (revision CBRVE) with 14445324K/6147K bytes of memory.
Processor board ID FXS2024Q7DJ
64 Gigabit Ethernet interfaces
16 Ten Gigabit Ethernet interfaces
4 Hundred Gigabit Ethernet interfaces
32768K bytes of non-volatile configuration memory.
50331648K bytes of physical memory.
7649279K bytes of eUSB flash at bootflash:.
234365527K bytes of SATA hard disk at harddisk:.
```

```
Configuration register is 0x2
```

```
Router#
```

Determining the Software Version for Cisco IOS XE Dublin 17.12.1

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show version EXEC** command:

```
router#show version
Load for five secs: 54%/5%; one minute: 65%; five minutes: 66%
Time source is NTP, 22:52:28.192 PDT Tue Jul 25 2023
Cisco IOS XE Software, Version 17.12.01
Cisco IOS Software [Dublin], CBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version 17.12.1,
RELEASE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
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Compiled Tue 25-Jul-23 15:49 by mcpre
```

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ROM: 16.7(8r)S

```
router uptime is 1 hour, 3 minutes
Uptime for this control processor is 1 hour, 10 minutes
System returned to ROM by reload at 21:37:36 PDT Tue Apr 25 2023
System restarted at 21:48:58 PDT Tue Aug 25 2023
System image file is "harddisk:cbrsup-universalk9.17.09.01y.SPA.bin"
Last reload reason: Reload Command
```

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A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wvl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Smart Licensing Status: REGISTERED/OUT OF COMPLIANCE

```
Cisco cBR-8 (CBR) processor (revision CBRVE) with 14445086K/6147K bytes of memory.
Processor board ID FXS2024Q7DJ
64 Gigabit Ethernet interfaces
16 Ten Gigabit Ethernet interfaces
4 Hundred Gigabit Ethernet interfaces
32768K bytes of non-volatile configuration memory.
50331648K bytes of physical memory.
7649279K bytes of eUSB flash at bootflash:.
234365527K bytes of SATA hard disk at harddisk:.
```

Configuration register is 0x2

router#

Determine Firmware Support

This section describes firmware that is supported for the Cisco cBR-8 Converged Broadband Routers.

For more information, see the [Install and Upgrade Guides](#).



Note If you want to upgrade to one of the Supervisor CPLD versions mentioned in the table, the chassis must have Cisco IOS XE Bengaluru 17.6.1a or later.

Table 2: Firmware Packages and Versions Supported in Cisco IOS XE Dublin 17.12.1y

Internal Name	Component Name	Required Minimum Version	Command
Supervisor CPLD	CBR-CCAP-SUP-160G CPLD	16052011 19071712 (optional)	show platform
	CBR-CCAP-SUP-250G CPLD	170724E0 190717E1 (optional)	show platform
Supervisor ROMMON	CBR-CCAP-SUP-160G ROMMON and CBR-CCAP-SUP-250G ROMMON	16.7(9r)s	show platform
Line Card CPLD	CBR-CCAP-LC-40G CPLD	00000026	show platform diag
DOCSIS 3.1 downstream module Micro	CBR-CCAP-LC-40G Gemini2 Micro	3.1A	show platform diag
DOCSIS 3.1 downstream module FPGA	CBR-CCAP-LC-40G Gemini2 Apollo	4.484F	show platform diag
DPIC Uboot and FPGA	CBR-DPIC-8X10G Firmware	00010001	show platform diag
DPIC 100G Uboot and FPGA	CBR-DPIC-2X100G Firmware	00020006	show platform diag
RF-PROT-PIC Firmware	CBR-RF-PROT-PIC Firmware	00000721	show platform diag

Upgrade Cisco cBR-8 to the minimum supported firmware revisions for the Cisco IOS XE Dublin 17.12.1y



CHAPTER 4

Other Important Information

- [Feature Support](#), on page 27
- [Cisco cBR-8 Software Compatibility](#), on page 27
- [MIBs](#), on page 28
- [Supported Transceiver Modules](#), on page 29
- [Best Practice Manual of Procedure for Cisco IOS XE Dublin 17.12.1 Upgrade](#), on page 29
- [Mapping CBR-DPIC-8X10G 10-Gigabit Ethernet Interface to downstream controllers](#), on page 29
- [Cisco cBR-8 Documentation References](#), on page 30

Feature Support

Cisco IOS XE software is packaged in feature sets that consist of software images that support specific platforms. The feature sets available for a specific platform depend on which Cisco IOS XE software images are included in a release. Each feature set contains a specific set of Cisco IOS XE features.



Caution

Cisco IOS XE images with strong encryption (including, but not limited to 168-bit [3DES] data encryption feature sets) are subject to U.S. government export controls and have limited distribution. Strong encryption images to be installed outside the United States are likely to require an export license. Customer orders may be denied or subject to delay because of U.S. government regulations. When applicable, the purchaser or user must obtain local import and use authorizations for all encryption strengths. Please contact your sales representative or distributor for more information, or send an e-mail to export@cisco.com.

Cisco cBR-8 Software Compatibility

The Cisco cBR-8 software must be compatible with Cisco RPD and SmartPHY software. Otherwise the RPD remains in the **init(gcp)** state. The following table provides details of the compatible software versions:

Cisco cBR-8 Software Version	Compatible Cisco RPD Software Version	Compatible SmartPHY Software Version
Cisco IOS XE Dublin 17.12.1y	Cisco 1x2 / Compact Shelf RPD Software 10.7.1	SmartPHY v24.1.1

Cisco cBR-8 Software Version	Compatible Cisco RPD Software Version	Compatible SmartPHY Software Version
Cisco IOS XE Dublin 17.12.1y	Cisco 1x2 / Compact Shelf RPD Software 10.7	SmartPHY v24.1.1
Cisco IOS XE Dublin 17.12.1x	Cisco 1x2 / Compact Shelf RPD Software 10.7	SmartPHY v23.3
Cisco IOS XE Dublin 17.12.1w	Cisco 1x2 / Compact Shelf RPD Software 10.6	SmartPHY v23.3
Cisco IOS XE Dublin 17.12.1	Cisco 1x2 / Compact Shelf RPD Software 10.6	SmartPHY v23.2

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:

<https://mibs.cloudapps.cisco.com/ITDIT/MIBS/servlet/index>

New and Changed MIB Information in Cisco IOS-XE Dublin 17.12.1y

New and Changed MIB Information in Cisco IOS-XE Dublin 17.12.1x

New and Changed MIB Information in Cisco IOS-XE Dublin 17.12.1w

In Cisco IOS XE Dublin 17.12.1w, Cisco proprietary MIB table CISCO-CABLE-PNM-MIB is introduced to support multiple SAC capture.

New and Changed MIB Information in Cisco IOS-XE Dublin 17.12.1

This section provides information regarding new and updated MIBs in the Cisco IOS XE Cupertino 17.12.1 release for Cisco cBR-8 series routers.

- **PNM BDT MIB Updates:** Starting with Cisco IOS XE Dublin 17.12.1, PNM BDT MIB (docsPnmBulkDataTransferCfg) can support both OFDMA RxMER and UTSC. (UTSC has three trigger modes: Freerun, other, and CM-MAC). The **docPnmBulkDestIpaddr** object (UTSC CM-MAC) is also supported.
- **Multiple Bulk Data Transfer Support:** You can now configure multiple BDTs. PNM BDT (DocsPnmBulkDataTransferCfgTable) MIB extends support from one TFTP server address to three.
- **Low Latency DOCSIS Histogram Support:** In this release, DOCS-QOS3-MIB is updated for configuring and polling histogram statistics. The new OIDs supported are docsQos3ServiceClassEntry, docsQos3SfLatencyHistCfgEntry, and docsQos3SfLatencyStatsEntry.

Supported Transceiver Modules

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

Best Practice Manual of Procedure for Cisco IOS XE Dublin 17.12.1 Upgrade

See the *Upgrading the Cisco cBR Converged Broadband Routers for Cisco IOS XE Dublin 17.12* document at the [Install and Upgrade Guides](#) page.

Mapping CBR-DPIC-8X10G 10-Gigabit Ethernet Interface to downstream controllers

Starting from Cisco IOS XE Bengaluru 17.6.1a, when you configure the RPD with CBR-CCAP-LC-G2-R, note that the CBR-DPIC-8X10G 10-Gigabit Ethernet Interface to downstream controllers mapping has changed.

Following are the new mapping values:

10-Gigabit Ethernet Interface	Downstream Controller
<slot>/1/0 ~ 1	0..7
<slot>/1/2 ~ 3	8..15
<slot>/1/4 ~ 5	16..23
<slot>/1/6 ~ 7	24..31

The mapping changes are also for valid downstream-video controllers.



Note The mapping changes does not apply to the CBR-DPIC-2x100G.

The previous mapping values are:

10-Gigabit Ethernet Interface	Downstream Controller
<slot>/1/0 ~ 3	0..15
<slot>/1/4 ~ 7	16..31

Ensure that you have correctly configured the mapping to avoid error logs and error messages. Following is an example of a wrong manual configuration:

```
Router(config)#cab rpd test1
```

```

Router(config-rpd)#core-interface tenGigabitEthernet 8/1/0
Router(config-rpd-core)#rpd-ds 0 downstream-cable 8/0/9 profile 0
For RPD aaaa.bbbb.aaaa, DPIC TE interface Te8/1/0 and DS controller 9 mismatch, TE interface
Te*/1/0 can only be associated with DS controller */*/0~7, configuration failed.
Router(config-rpd-core)#rpd-ds 0 downstream-video 8/0/9 profile 1
For RPD aaaa.bbbb.aaaa, DPIC TE interface Te8/1/0 and Video controller 9 mismatch, TE
interface Te*/1/0 can only be associated with Video controller */*/0~7, configuration failed.
Router(config-rpd-core)#

```

Following is an example of a bootup error message:

```

*Jun 10 15:53:29.108 CST: %CBR-3-TE_CONTROLLER_MISMATCH: For RPD aaaa.bbbb.aaaa, DPIC TE
interface Te8/1/0 and DS controller 9 mismatch, TE interface Te*/1/0 can only be associated
with DS controller */*/0~7, configuration failed.

```

```

*Jun 10 15:53:29.110 CST: %CBR-3-TE_CONTROLLER_MISMATCH: For RPD aaaa.bbbb.aaaa, DPIC TE
interface Te8/1/0 and Video controller 9 mismatch, TE interface Te*/1/0 can only be associated
with Video controller */*/0~7, configuration failed.

```

Cisco cBR-8 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 IOS XE Cupertino 17.12.1 is generally available for field deployment. However, we recommend that you validate and qualify Cisco IOS XE Cupertino 17.12.1 in a limited field trial with your specific network configuration requirements. This process ensures a smoother, faster, and successful field deployment.

For information on Cisco cBR-8, go through the following links:

- [Cisco cBR-8 Documentation for Cisco IOS XE](#)
- [Cisco cBR-8 DOCSIS Software Configuration Guide](#)