

# Release Notes for Cisco 1000 Series ISRs, Cisco IOS XE Everest 16.6.x

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## New Hardware and Software Features for Cisco 1100 Series ISRs Release 16.6.x

This section describes the new and modified features that are supported on the Cisco 1100 Series ISRs.

### Overview of Cisco 1100 Series Integrated Services Routers

The Cisco 1100 Series Integrated Services Routers (ISR) are powerful fixed branch routers based on the Cisco IOS XE operating system. They are multi-core routers with separate core for data plane and control plane. There are two primary models with 8 LAN ports and 4 LAN ports. Features such as Smart Licensing, VDSL2 and ADSL2/2+, 802.11ac with Wave 2, 4G LTE-Advanced and 3G/4G LTE and LTEA Omnidirectional Dipole Antenna (LTE-ANTM-SMA-D) are supported on Cisco 1100 Series ISRs.



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The following table lists the router models that belong to the Cisco 1100 Series ISRs.

Cisco 1100 Series ISRs	
C1111-8P	C1111-4P
C1111-8PLTEEA	C1111-4PLTEEA
C1111-8PLTELA	C1111-4PLTELA
C1111-8PWE	C1111-4PWE
C1111-8PWB	C1111-4PWB

Cisco 1100 Series ISRs	
C1111-8PWA	C1111-4PWA
C1111-8PWZ	C1111-4PWZ
C1111-8PWQ	C1111-4PWN
C1111-8PWN	C1111-4PWQ
C1111-8PWH	C1111-4PWH
C1111-8PWR	C1111-4PWR
C1111-8PWF	C1111-4PWF
C1111-8PLTEEAWA	C1111-4PWD
C1111-8PLTEEAWB	
C1111-8PLTEEAWA	
C1111-8PLTEEAWR	
C1111-8PLTELAWZ	
C1111-8PLTELAWN	
C1111-8PLTELAWQ	
C1111-8PLTELAWH	
C1111-8PLTELAWF	
C1111-8PLTELAWD	

C1101-4P
C1101-4PLTEP
C1101-4PLTEPWX

C1116-4P
C1116-4PLTEEA
C1116-4PWE
C1116-4PLTEEAWA

C1117-4P
C1117-4PLTEEA

C1117-4PLTELA
C1117-4PWE
C1117-4PWA
C1117-4PWZ
C1117-4PM
C1117-4PMLTEEA
C1117-4PMWE
C1117-4PLTEEAWA
C1117-4PLTEEAWA
C1117-4PLTELAWZ
C1117-4PMLTEEAWA

## System Requirements

The following are the minimum system requirements:

- Memory: 4GB DDR4
- Flash Storage: 4GB

## Determining the Software Version

You can use the following commands to verify your software version:

- For a consolidated package, use the **show version** command
- For individual sub-packages, use the **show version installed** command

## Upgrading the ROMMON Version on the Cisco 1100 Series ISR

For information about ROMMON and upgrading procedure, see the "ROMMON Overview and Basic Procedures" section in the [Hardware Installation Guide for the Cisco 1100 Series Integrated Services Routers](#).

## Feature Navigator

You can use Cisco Feature Navigator to find information about feature, platform, and software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on cisco.com is not required.

## New Hardware Features in Cisco 1100 Series ISR Release 16.6.2

The following are the new hardware features in Cisco 1100 Series Integrated Service Routers in the 16.6.2 release:

- **Cisco 1100 Series Integrated Services Routers**—The Cisco 1100 Series ISRs are fixed branched routers based on the Cisco IOS XE Everest 16.6.2 operating system, multi-core data plane. The two types of platforms of Cisco 1100 Series ISRs are High-End and Midrange service and enterprise platforms. The Cisco 1100 Series ISR Software Configuration Guide explains supported features such as Smart Licensing, VDSL2 and ADSL2/2+, WLAN, 4G LTE-Advanced, and so on.

Cisco® 1100 Series Integrated Services Routers (ISRs) with Cisco IOS® XE Software combine Internet access, comprehensive security, and wireless services (LTE Advanced 3.0 Wireless WAN and Wireless LAN), are single high-performance devices that are easy to deploy and manage. They are well suited for deployment as customer premises equipment (CPE) in enterprise branch offices, and in service provider managed-service environments.

## New Software Features in Cisco 1000 Series ISR Release Cisco IOS XE Everest 16.6.1

- **AVC and NBAR2 Support**

Cisco 1100 Series ISR devices support Cisco Application Visibility and Control (AVC) and Network-Based Application Recognition (NBAR2), beginning with Cisco IOS XE Everest 16.6.1. AVC and NBAR2 analyze network traffic and identify the applications associated with the traffic. This enables application-based network policies and application visibility.

For more information, see:

<https://www.cisco.com/c/en/us/products/routers/avc-control.html>

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos\\_nbar/configuration/xe-16-6/qos-nbar-xe-16-6-book.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos_nbar/configuration/xe-16-6/qos-nbar-xe-16-6-book.html)

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## New Software Features in Cisco 1100 Series ISR Release 16.6.2

The following features are supported by the Cisco 1100 Series Integrated Services Routers for Cisco IOS XE Everest 16.6.2:

- **Encrypted Traffic Analytics**

For detailed information, see the following Cisco documents:

[https://www.cisco.com/c/en/us/td/docs/routers/access/1100/software/configuration/xe-16-6/cisco\\_1100\\_series\\_swcfg\\_xe\\_16\\_6\\_x/encrypt\\_traffic\\_analytics.html](https://www.cisco.com/c/en/us/td/docs/routers/access/1100/software/configuration/xe-16-6/cisco_1100_series_swcfg_xe_16_6_x/encrypt_traffic_analytics.html)

<https://www.cisco.com/c/dam/en/us/td/docs/solutions/CVD/Campus/CVD-Encrypted-Traffic-Analytics-Deployment-Guide-2017DEC.pdf>

- **Smart Licensing** - Smart Licensing Client feature is a standardized licensing platform that simplifies the Cisco software experience and helps you to understand how Cisco software is used across your network. Smart Licensing is the next generation licensing platform for all Cisco software products.

For a more detailed overview on Cisco Licensing, go to <https://cisco.com/go/licensingguide>.

- **VDSL2 and ADSL 2/2+ - VDSL2 and ADSL2/2+ Cisco® C1100 Series Integrated Services Router** provide highly reliable WAN connections for remote sites. These interfaces offer cost-effective virtualized WAN connections in both point-to-point and point-to-multipoint designs.
- **Wireless Devices** - Wireless devices (commonly configured as access points ) provide a secure, affordable, and easy-to-use wireless LAN solution that combines mobility and flexibility with the enterprise-class features required by networking professionals.
- **Cisco 4G LTE Advanced** - Cisco 4G LTE-Advanced support the following major features: Global Positioning System (GPS) and National Marine Electronics Association (NMEA) streaming, Short Message Service (SMS), 3G/4G Simple Network Management Protocol (SNMP) MIB, SIM lock and unlock capabilities, Dual SIM, Auto SIM, NeMo, Public Land Mobile Network (PLMN) selection, IPv6, Multiple PDN, and LTE Link Recovery.
- **Process Health Monitoring** - Processes should provide monitoring and notification of their status/health to ensure correct operation. When a process fails, a syslog error message is displayed and either the process is restarted or the router is rebooted. A syslog error message is displayed when a monitor detects that a process is stuck or has crashed. If the process can be restarted, it is restarted; else, the router is restarted.
- **Environmental Monitoring** - The router provides a robust environment-monitoring system with several sensors that monitor the system temperatures. The following are some of the key functions of the environmental monitoring system: Monitoring temperature of CPUs, Motherboard, and Wifi, Recording abnormal events and generating notifications, Monitoring Simple Network Management Protocol (SNMP) traps, Generating and collecting Onboard Failure Logging (OBFL) data, Sending call home event notifications, Logging system error messages, and Displaying present settings and status.
- **SFP Auto-Failover** - When the media-type is not configured, the Auto-Detect feature is enabled by default. The Auto-Detect feature automatically detects the media that is connected and links up. If both the media are connected, whichever media comes up first is linked.
- **Cellular IPv6 Address** - IPv6 addresses are represented as a series of 16-bit hexadecimal fields separated by colons (:) in the format: x:x:x:x:x:x:x:x. Following are two examples of IPv6 addresses: 2001:CDBA:0000:0000:0000:0000:3257:9652 and 2001:CDBA::3257:9652 (zeros can be omitted).

## Entering the Configuration Commands Manually

To enter the Cisco IOS commands manually, complete the following steps:

### Before you begin

If you do not want to use the factory default configuration because the router already has a configuration, or for any other reason, you can use the procedure in this section to add each required command to the configuration.

### Procedure

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- Step 1** Log on to the router through the Console port or through an Ethernet port.
- Step 2** If you use the Console port, and no running configuration is present in the router, the Setup command Facility starts automatically, and displays the following text:
- ```
--- System Configuration Dialog ---

Continue with configuration dialog? [yes/no]:
```
- Enter no so that you can enter Cisco IOS CLI commands directly.
- If the Setup Command Facility does not start automatically, a running configuration is present, and you should go to the next step.
- Step 3** When the router displays the user EXEC mode prompt, enter the **enable** command, and the enable password, if one is configured, as shown in the following example:
- ```
Router> enable
password password
```
- Step 4** Enter config mode by entering the **configure terminal** command, as shown in the following example.
- ```
Router> config terminal
Router(config)#
```
- Step 5** Using the command syntax shown, create a user account with privilege level 15.
- Step 6** If no router interface is configured with an IP address, configure one so that you can access the router over the network. The following example shows the interface Fast Ethernet 0 configured.
- ```
Router(config)# int FastEthernet0
Router(config-if)# ip address 10.10.10.1 255.255.255.248
Router(config-if)# no shutdown
Router(config-if)# exit
```
- Step 7** Configure the router as an http server for nonsecure communication, or as an https server for secure communication. To configure the router as an http server, enter the **ip http server** command shown in the example:
- ```
Router(config)# ip http secure-server
```
- Step 8** Configure the router for local authentication, by entering the ip http authentication local command, as shown in the example:
- ```
Router(config)# ip http authentication local
```

- Step 9** Configure the vty lines for privilege level 15. For nonsecure access, enter the transport input telnet command. For secure access, enter the transport input telnet ssh command. An example of these commands follows:

```
Router(config)# line vty 0 4
Router(config-line)# privilege level 15
Router(config-line)# login local
Router(config-line)# transport input telnet
Router(config-line)# transport output telnet
Router(config-line)# transport input telnet ssh
Router(config-line)# transport output telnet ssh
Router(config-line)# exit
Router(config)# line vty 5 15
Router(config-line)# privilege level 15
Router(config-line)# login local
Router(config-line)# transport input telnet
Router(config-line)# transport output telnet
Router(config-line)# transport input telnet ssh
Router(config-line)# transport output telnet ssh
Router(config-line)# end
```

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## Open and Resolved Caveats in Cisco IOS XE Everest 16.6.x

All open and resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

This section contains the following topics:

### Using the Cisco Bug Search Tool

For more information about how to use the [Cisco Bug Search Tool](#), including how to set email alerts for bugs and to save bugs and searches, see [Bug Search Tool Help & FAQ](#).

#### Before You Begin



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**Note** You must have a Cisco.com account to log in and access the [Cisco Bug Search Tool](#). If you do not have one, you can register for an account.

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#### Procedure

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- Step 1** In your browser, navigate to the [Cisco Bug Search Tool](#).
- Step 2** If you are redirected to a Log In page, enter your registered Cisco.com username and password and then, click Log In.
- Step 3** To search for a specific bug, enter the bug ID in the Search For field and press Enter.
- Step 4** To search for bugs related to a specific software release, do the following:
- In the Product field, choose Series/Model from the drop-down list and then enter the product name in the text field. If you begin to type the product name, the [Cisco Bug Search Tool](#) provides you with a drop-down list of the top ten matches. If you do not see this product listed, continue typing to narrow the search results.

b) In the Releases field, enter the release for which you want to see bugs.

The [Cisco Bug Search Tool](#) displays a preview of the results of your search below your search criteria.

**Step 5** To see more content about a specific bug, you can do the following:

- Mouse over a bug in the preview to display a pop-up with more information about that bug.
- Click on the hyperlinked bug headline to open a page with the detailed bug information.

**Step 6** To restrict the results of a search, choose from one or more of the following filters:

Filter	Description
Modified Date	A predefined date range, such as last week or last six months.
Status	A specific type of bug, such as open or fixed.
Severity	The bug severity level as defined by Cisco. For definitions of the bug severity levels, see <a href="#">Bug Search Tool Help &amp; FAQ</a> .
Rating	The rating assigned to the bug by users of the <a href="#">Cisco Bug Search Tool</a> .
Support Cases	Whether a support case has been opened or not.

Your search results update when you choose a filter.

## Open Caveats in Cisco IOS XE Everest 16.6.9

All open bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCvt71774</a>	C1111 HSRP preempt worked even though HSRP's preempt is not configured

## Resolved Caveats in Cisco IOS XE Everest 16.6.9

All resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCvg79590</a>	Traffic passed with port unauthorized
<a href="#">CSCvs85642</a>	ISR G3 router crashes when rtp-nte DTMF packet arrives at MTP + BDI
<a href="#">CSCvw57860</a>	Duplicate entries seen in MAC filter table.

## Resolved Caveats in Cisco IOS XE Everest 16.6.8

All open and resolved bugs for this release are available in the [Cisco Bug Search Tool](#).



Caveat ID Number	Description
<a href="#">CSCvo97985</a>	path-id discovery failure with "CENT throttle check fails, throttle type:0"
<a href="#">CSCvp23112</a>	OBS: ping stop working on replacing MIP100 ->>> SIP40 >>>>>>MIP100
<a href="#">CSCvp94050</a>	cpp_bqs_srt_yoda_csr_tree_seid_initialize:1744 is not in "placed" state
<a href="#">CSCvq43550</a>	C1111-4P does not restart authentication for "clear authen session" if "authen open" the port
<a href="#">CSCvq61590</a>	ESP reload due to cpp_cp_svr exception at cpp_bqs_exponent_cnt_validate
<a href="#">CSCvq81620</a>	Router crashes with ZBF HA sync.
<a href="#">CSCvq93850</a>	Passive FTP will fail when going over NAT and either client or server are off a SM-X-ES3
<a href="#">CSCvr00983</a>	Unrecoverable Error with PVDM in 0/4 and Thule+dreamliner in 1/0 on ISR4300
<a href="#">CSCvr01454</a>	Punt fragment crash when receive EoGRE packets which have many fragments
<a href="#">CSCvr43037</a>	"sh macsec statistics int <>" and "sh macsec status interface <>" does not show output
<a href="#">CSCvr58352</a>	Prince: Keepalive pkts dropped when serial link congested with data traffic
<a href="#">CSCvr89957</a>	CFT crashed frequently
<a href="#">CSCvs28073</a>	IOS-XE memory leak seen in 16.3.7 in IOSd due to update_sn_ao_state not deleting TDL bucket.
<a href="#">CSCvs53749</a>	EVPN RMAC stale routes seen
<a href="#">CSCvs86573</a>	Connect message is never forwarded to the calling side

## Open Caveats in Cisco IOS XE Everest 16.6.8

All resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCvr89973</a>	NIM interfaces go into shutdown after router bootup.

## Open Caveats in Cisco IOS XE Everest 16.6.7

All open and resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCva53392</a>	Polaris 16.3.1 : Machine and bus error failures in ESP20
<a href="#">CSCvd65197</a>	IOSd crashed when dialer disconnect the ISDN call
<a href="#">CSCve54914</a>	NDSSO vrf ha table to be populated correctly

Caveat ID Number	Description
<a href="#">CSCVe78446</a>	[1661]- Switch number is missing in stack merged logs.
<a href="#">CSCVf28977</a>	ESP Crash with FP Switchover
<a href="#">CSCVf86185</a>	NIM-SSD: Inventory of disk0 and disk1 are interchanged on Polaris 16.x
<a href="#">CSCVg23820</a>	CTS PAC download fails with VRF config on non-management interface
<a href="#">CSCVh59431</a>	Byte counters for physical interface and subinterface don't match
<a href="#">CSCVi36351</a>	standby rp crash on removing member link from port-channel
<a href="#">CSCVj55210</a>	Memory leaks at __be_PKI_keypair_name_get
<a href="#">CSCVk75838</a>	netconf/yang or telemetry retrieval of /trustsec-state/cts-rolebased-policies breaks
<a href="#">CSCVm42345</a>	Ping failing due to missing address resolution entry on the XTR
<a href="#">CSCVn39506</a>	ISIS: system crashed when we configure ISIS on the interface.
<a href="#">CSCVo70549</a>	CME SIP: BE4000 Smart Licensing - Extension Assigner temp registration uses endpoint license
<a href="#">CSCVo83960</a>	ISR1100 router reloaded at posix_twheel_process_timers_inline
<a href="#">CSCVp70211</a>	Crash when running show crypto map
<a href="#">CSCVp77521</a>	Device-tracking tracking 0.0.0.0 mask ignored after Legacy IPDT to SISF conversion
<a href="#">CSCVp89419</a>	Error messages seen when configuring "logging persistent protected" on ASR1K routers
<a href="#">CSCVp98673</a>	Inband to OOB DTMF Fails to Be Passed On CUBE If Media Inactive Comes During Digit Processing
<a href="#">CSCVq43004</a>	Need to check qfp ucode crash with RTCP traffic - chunk memory corruption in RTCP path
<a href="#">CSCVq43550</a>	C1111-4P doesn't restart authentication for "clear authen session" if "authen open" the port
<a href="#">CSCVq61590</a>	ESP reload due to cpp_cp_svr exception at cpp_bqs_exponent_cnt_validate
<a href="#">CSCVq69866</a>	HSRPv2 crash whilst retrieving group from received packet
<a href="#">CSCVq73281</a>	TLS connections in WebEx between CUBE and iCP/CUSP breaks intermittently
<a href="#">CSCVq75307</a>	Crash due to watchdog after adding a prefix-list/ Route-map entry to existing route map.
<a href="#">CSCVq78692</a>	mGRE L3VPN broken after reload
<a href="#">CSCVq81620</a>	Router crashes with ZBF HA sync.

Caveat ID Number	Description
<a href="#">CSCvq85913</a>	FlexVPN with password encryption -- after MasterKey change password in profile is not working
<a href="#">CSCvq90361</a>	NHRP process crash on using same tunnel address on multiple spokes
<a href="#">CSCvq97906</a>	"DHCPD Receive" process crash
<a href="#">CSCvr05406</a>	LISP Map-cache not updated correctly after wired Host-mobility
<a href="#">CSCvr15253</a>	Router Crashes while Parsing and Printing Voice Packet IEs
<a href="#">CSCvr17169</a>	qfp ucode crash with media monitor
<a href="#">CSCvr32292</a>	Router may crash due to segmentation fault after running EEM script

## Resolved Caveats in Cisco IOS XE Everest 16.6.7

All resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCvd77610</a>	AAA always reports server down with non-management VRF also
<a href="#">CSCve57810</a>	Amur failing over w/o 'fail next-method' or 'no-response next method'
<a href="#">CSCvg32153</a>	"show interface port-channel" falsely reports output drops when there are no actual output drops
<a href="#">CSCvg82770</a>	evc not work under vlan on TSN platform
<a href="#">CSCvh11088</a>	Crash on OPF_CSR32_OPF_LOGIC_ERR_LEAF_INT__INT_START_OF_BURST_MARKER_ERR
<a href="#">CSCvh49874</a>	FNF monitor download to DP failed after changing netflow record
<a href="#">CSCvh79264</a>	Change the punt cause of packets whose destination is virtual IP from SUBNET_BCAST to FOR_US
<a href="#">CSCvh92659</a>	BFD flaps everytime with dynamic tunnel creation in DMVPN
<a href="#">CSCvi22263</a>	Crash when IOS is adapting shaping with Adaptive QoS over DMVPN configured
<a href="#">CSCvj00317</a>	Memory leak VOIP *MallocLite*
<a href="#">CSCvj28921</a>	High CPU due to Alignment Corrections - SMEF & IWAN
<a href="#">CSCvj72294</a>	memory leak @ CCSIP_SPI_CONTR
<a href="#">CSCvj76866</a>	Partial Power Failure in Stack Causes Interfaces to Become "shutdown"
<a href="#">CSCvj84601</a>	Called-Station-Id attribute not included in Radius Access-Request
<a href="#">CSCvk17998</a>	Rekey Timer are same for both the Server and Client

Caveat ID Number	Description
<a href="#">CSCvk51939</a>	SSS Manager Traceback observer when test MLPPP
<a href="#">CSCvk63764</a>	Driver code improvement for debug-ability of XAUI link issues
<a href="#">CSCvm10850</a>	Crash after CPUHOG in ISDN L2D SRQ Process
<a href="#">CSCvm47690</a>	Addition/Edits to numbered OG ACL using "access-list <>" command does not re-expand the ACL.
<a href="#">CSCvn00104</a>	Software crash due to memory corruption after packet trace was enabled.
<a href="#">CSCvn01507</a>	ISR not re-calculating the hash value correctly after payload change
<a href="#">CSCvn02456</a>	Router crashes when the calls doesn't establish after making 2 calls when we set "max-conn 2"
<a href="#">CSCvn03502</a>	SR: CFLOW input intf index is 0xffffffff for Service-engine DSP module interface
<a href="#">CSCvn23906</a>	DHCP Server sends Renew ACKs to Clients with 00:00:00:00:00:00 MAC in L2 frame
<a href="#">CSCvn38960</a>	pending objects seen which fp reload with OGACL config
<a href="#">CSCvn45732</a>	Device crashing if we unconfigure the NTP on the device
<a href="#">CSCvn57892</a>	High Memory utilization due to Wireless Manager IOSD process
<a href="#">CSCvn71373</a>	IOS-XE routers cannot boot due to a bootflash problem
<a href="#">CSCvn78961</a>	Subscribers cannot re-login due to CoA time-out (lite-sessions in routed mode)
<a href="#">CSCvo03458</a>	PKI "revocation check crl none" does not fallback if CRL not reachable
<a href="#">CSCvo04856</a>	DataPlane (DP) crash observed in MMOH call flow
<a href="#">CSCvo06817</a>	Router crash while executing show commands using " " (pipe) to filter the output.
<a href="#">CSCvo08740</a>	TCP 3WAY handshake fail for redirected packet using PBHK
<a href="#">CSCvo10145</a>	Memory overlay crash when using include-cui
<a href="#">CSCvo10491</a>	PnP Agent should detect image upgrade scenario and configure dialer to bring up cellular interface
<a href="#">CSCvo11786</a>	SCCP Application does not clear failed sockets leading to leak and socket pool exhaustion
<a href="#">CSCvo12745</a>	Packet drop occurs after acl permit configurations
<a href="#">CSCvo12799</a>	Call is not getting connected in Forking Re-INVITE scenario
<a href="#">CSCvo17287</a>	ASR1001-X crashed upon receiving Radius Access-Accept message
<a href="#">CSCvo21122</a>	Memory leak at hman process

Caveat ID Number	Description
<a href="#">CSCvo36031</a>	WSMA crash formatting show command output
<a href="#">CSCvo46138</a>	Stuck CPP Thread while processing H323 packet
<a href="#">CSCvo46405</a>	qfp ucode crashed with sRTP traffic - chunk memory corruption
<a href="#">CSCvo47376</a>	Cisco REST API Container for IOS XE Software Authentication Bypass Vulnerability
<a href="#">CSCvo55194</a>	After RSP switchover label imposition was not programmed in Software on APS standby router
<a href="#">CSCvo57768</a>	NetFlow issue 3850 switch not sending TCP flags
<a href="#">CSCvo58098</a>	CTS PACS not downloading to the devices
<a href="#">CSCvo61610</a>	FXS - no busy tone is generated on remote-onhook condition with call pickup scenario
<a href="#">CSCvo65415</a>	ASR1k crashes by handling DHCP packet
<a href="#">CSCvo66216</a>	IPSec-Session count in "show crypto eli" reaches max causing VPN failure
<a href="#">CSCvo70504</a>	Missing Calling-Station-ID in Accounting Ticket for Web-Tal locations
<a href="#">CSCvo71721</a>	When sending account-logon ISG do not reply with ACK nor NACK.
<a href="#">CSCvo73897</a>	[SDA] [PI changes] No audio during first few seconds of voice call between 2 Fabric Edge
<a href="#">CSCvo73954</a>	ASR1001-HX: Excessive pause frames (IEEE802.3x compliant) affect traffic on other interfaces
<a href="#">CSCvo74486</a>	IOS-XE ACL port information preserved after encapsulation
<a href="#">CSCvo87827</a>	Crash when polling IPForwarding MIB
<a href="#">CSCvo90060</a>	Wrong label programming leading to traffic drop
<a href="#">CSCvo92514</a>	SDP attribute list corruption causes voice gateway crash
<a href="#">CSCvo94211</a>	Traffic stops flowing on Xconnect tunnel when upgraded to 16.9.2
<a href="#">CSCvp08353</a>	Add ERROR message over IOS console when HSPRDA TCAM region gets full
<a href="#">CSCvp10711</a>	Hierarchical QoS stops working on GRE tunnel if dest route flaps between 2nd tunnel and physical int
<a href="#">CSCvp24405</a>	Router crash after adding macsec reply-protection command on an interface
<a href="#">CSCvp24911</a>	SRTP ROC Stress: CPP crash with 6000+ concurrent calls - g729
<a href="#">CSCvp24981</a>	When FQDN used for APN, IOS DNS resolves FQDN to IP, but GTP stays in DNS pending and IP 0.0.0.0
<a href="#">CSCvp25052</a>	ISR4K: Router crash due to twice memory release

Caveat ID Number	Description
<a href="#">CSCvp27220</a>	Tail drops on IPSLA sender when using scaled udp-jitter probes
<a href="#">CSCvp31779</a>	Router Running IOS-XE 16 Crashes when Stopping EPC with ACL
<a href="#">CSCvp32910</a>	CHUNKBADROOTCHUNKPTR: Bad root chunk pointer in chunk header post SSO - ASR1K
<a href="#">CSCvp33578</a>	Crash at the moment of deleting a DVTI
<a href="#">CSCvp34230</a>	CUBE HA - Global bind is removed during interface flap
<a href="#">CSCvp38317</a>	MGCP GW doesn't reset SSRC/ROC on receiving MDCX with new IP/port/SDP parameter for SRTP call.
<a href="#">CSCvp38424</a>	On-Prem DMVPN fails to establish a dynamic tunnel between Spoke nodes.
<a href="#">CSCvp38852</a>	[SDA] 1st ARP getting dropped due to stale SISF IP-MAC binding
<a href="#">CSCvp39597</a>	Crashes with GRE tunnels configured with QoS over Multilink Frame-relay interfaces
<a href="#">CSCvp42709</a>	ISR44xx NO_PUNT_KEEPALIVE kernel crash due to CP drivers stuck punt and IPC rings
<a href="#">CSCvp47006</a>	QoS counter didn't generate at ASR1001-X
<a href="#">CSCvp47723</a>	ISR4K CME no way audio on calls across E1/PRI, reboot resolves for sometime
<a href="#">CSCvp48213</a>	CSR1000v loses ssh/telnet connectivity on AWS and is unable to ping Elastic IP
<a href="#">CSCvp56596</a>	ISR4K crashes after voice register reset command is applied
<a href="#">CSCvp56737</a>	Counters of interfaces are reporting inexistent peaks
<a href="#">CSCvp59848</a>	ASR1001-x crash while configuring policy-map
<a href="#">CSCvp63616</a>	Crash due to too many DSPs
<a href="#">CSCvp65151</a>	CPP Stuck thread when processing IPv6 traffic
<a href="#">CSCvp67530</a>	Corrupt free block of memory with high availability config for Session Initiation Protocol
<a href="#">CSCvp69393</a>	Router crashes after snmpget to OID related to NHRP
<a href="#">CSCvp70443</a>	isdn cause-location command support for switch-type primary-ntt
<a href="#">CSCvp72220</a>	crash at sisf_show_counters after entering show device-tracking counters command
<a href="#">CSCvp72379</a>	ip dns primary command does not get removed
<a href="#">CSCvp74674</a>	QoS fails to apply to tunnel2 when underlying tunnel1 reachability change
<a href="#">CSCvp77100</a>	ASR1k: Crypto Engine remains in stuck state post dataplane crash

Caveat ID Number	Description
<a href="#">CSCvp84831</a>	name-ip_address mapping is bypassed when the ip domain command is configured on Cisco C1111X Router
<a href="#">CSCvp86216</a>	Router ucode crash with NAT with interface flap
<a href="#">CSCvp87488</a>	no login on-success log CLI does not persist across device reloads
<a href="#">CSCvp92334</a>	Crash after Media monitor look up.
<a href="#">CSCvp96418</a>	ISR4k BRI ping failure with WIC-1B-S/T-V3 with ISDN 128 leased line
<a href="#">CSCvp99884</a>	CUBE not passing History-Info header in 181 Call is being forwarded
<a href="#">CSCvq00263</a>	Device crashed @ radius_io_stats_timer_handler due to dynamic-author
<a href="#">CSCvq02003</a>	ASR1002-X High Platform CPU for process mcpecc-lc-ms
<a href="#">CSCvq02215</a>	ASR1K-X WATCHDOG crashes while printing to console
<a href="#">CSCvq04828</a>	VRF aware reverse DNS lookup not working
<a href="#">CSCvq10660</a>	ASR1006-X: cpp_cp_svr: QFP0.0 CPP Driver LOCKDOWN encountered due to previous fatal error
<a href="#">CSCvq10663</a>	NAT SIP Contact Header changed to port 512
<a href="#">CSCvq12723</a>	DPDK: Performing Shut/No-Shut with traffic running can cause packets to silently drop on TX
<a href="#">CSCvq18793</a>	NIM-2FXS/4FXOP crashing due to DSP failed to reply properly
<a href="#">CSCvq19808</a>	Egress shaping on port-channel sub-intf tail dropping traffic long before rate
<a href="#">CSCvq23869</a>	ASR 1k sub-interface counters wrong.
<a href="#">CSCvq25297</a>	BRI leased line can't come up automatically after remove/insert one side's cable
<a href="#">CSCvq29575</a>	Voice gateway crash due to segmentation fault in process CCSIP_DNS
<a href="#">CSCvq30306</a>	IOSXE: IOMD / TDL leak seen with tdl_response_xcode_stat_side_t
<a href="#">CSCvq31129</a>	AppNav: Optimization failed with Asymmetrical traffic, VRF, FNF and NBAR
<a href="#">CSCvq32736</a>	ARM - Marvell 7040 SoC Hardware Erratum - Kernel Driver Fix
<a href="#">CSCvq36130</a>	Router is on Bootloop after QoS configuration.
<a href="#">CSCvq39121</a>	ISR4k crash during packet inspection due to stuck thread
<a href="#">CSCvq45088</a>	asr1k BDI not working properly for packet fragmentation - very small fragments are getting dropped
<a href="#">CSCvq49000</a>	Supervisor reloaded due to cpp_cp_svr process crashing

Caveat ID Number	Description
<a href="#">CSCVq50202</a>	Class-attributes duplicated after EAP reauthen. in ISG radius proxy scenario
<a href="#">CSCVq57205</a>	Recording failures with XMF media forking and SIP preservation timer
<a href="#">CSCVq57862</a>	cable-detect command not reflecting proper status in Analog ports on IOS-XE platforms
<a href="#">CSCVq58144</a>	cpp_cp_svr crash in cpp_bqs_rm_yoda_select_sch_exponent
<a href="#">CSCVq58237</a>	Supervisor reload due to cpp_cp_svr crash.
<a href="#">CSCVq58265</a>	ASR1K BGP PIC Repair path broke after link flap
<a href="#">CSCVq58378</a>	Crash after exiting RADIUS server configuration mode.
<a href="#">CSCVq58520</a>	after reload dial-peers with ports that have the 'signal did' command show operational state none
<a href="#">CSCVq72560</a>	More connections are getting passthrough with reason SNG_OVERLOAD
<a href="#">CSCVq74418</a>	connectivity is broken on ingress-replication L2DP/VXLAN
<a href="#">CSCVq75610</a>	IWAN router crash after upgrading to 16.3.8
<a href="#">CSCVq92102</a>	VG450: SCCP crashing router while shutdown the process
<a href="#">CSCVq98949</a>	ASR1000-RP3: Punt Keepalive Failure (Punt LINK DOWN) or RP FREEZE

## Open Caveats in Cisco IOS XE Everest 16.6.6

All open and resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCvk15062</a>	Modification to ZBFW access-lists do not reflect in TCAM
<a href="#">CSCvn01507</a>	ISR not re-calculating the hash value correctly after payload change
<a href="#">CSCvo60849</a>	Crash noticed when routes are getting imported twice(from vpnv4 to vrf to evpn) with route churn
<a href="#">CSCvo62122</a>	IOS-XE Router may crash when attempting to Fragment Corrupted IPv4 Packet
<a href="#">CSCvo66216</a>	IPSec-Session count in "show crypto eli" reaches max causing VPN failure
<a href="#">CSCvo74486</a>	IOS-XE ACL port information preserved after encapsulation
<a href="#">CSCvp03110</a>	After Configuring a New VRF Routes Are Not Imported From WAN Into l2vpn EVPN For Unrelated VRF
<a href="#">CSCvp05946</a>	TSN: Umbrella not working when umbrella in and out are configured on SVI



## Resolved Caveats in Cisco IOS XE Everest 16.6.6

All resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCvb87675</a>	BGP event crash@bgp_afpriv_imp_is_imported_path
<a href="#">CSCvg23363</a>	Virtual-access interface MTU wrongly set when using ipsec ipv4
<a href="#">CSCvh57657</a>	NAT MIB not populated when using traditional NAT
<a href="#">CSCvh77984</a>	Router shows "Flash disk quota exceeded" during the reload, but it still has 60% of free memory left
<a href="#">CSCvk32822</a>	QoS stats process crash
<a href="#">CSCvk62792</a>	IKE Fragmentation payload incorrectly marked as critical
<a href="#">CSCvm06270</a>	ICMP unreachables are not sent to the client on C1117 platform
<a href="#">CSCvm17883</a>	Standby switch crashes when adding a host name to an object-group
<a href="#">CSCvm51112</a>	"clear crypto sa vrf MyVrf" triggers crash after updating pre-shared-keys
<a href="#">CSCvm56670</a>	ACL dropping packets after updating it - %CPPEXMEM-3-NOMEM
<a href="#">CSCvm64865</a>	[EIGRP] a summary route is updated by an external route
<a href="#">CSCvm75066</a>	MPLSoVPN: Change behavior of default route in NHRP. Must insert 0.0.0.0/0 instead of /32
<a href="#">CSCvm76452</a>	IPSec background crash while sending SNMP trap
<a href="#">CSCvn02419</a>	Device running IOS-XE 16 Polaris Sees Crash When Performing NAT ALG on FTP Packet
<a href="#">CSCvn18790</a>	Cube crash with %SDP-3-SDP_PTR_ERROR
<a href="#">CSCvn23226</a>	NHRP process is crashing
<a href="#">CSCvn27449</a>	PBR doesn't work for dialer intf when it doesn't have fixed ip address
<a href="#">CSCvn36359</a>	CUBE doesn't forward INVITE with "midcal-signalling passthru media-change" during a video escalation
<a href="#">CSCvn56017</a>	Crash while processing ISIS updates when DiffServ-TE is enabled
<a href="#">CSCvn59020</a>	Modified EIGRP timers on Virtual-Template put all associated Vi interfaces into passive mode
<a href="#">CSCvn77783</a>	class-attributes support in ISG radius proxy scenario
<a href="#">CSCvn83172</a>	Router reloads on 'show track' command when there is track object for deleted serial sub-interface.

Caveat ID Number	Description
<a href="#">CSCvo00585</a>	Split DNS in case of UDP query to WAN interface IP via LAN interface
<a href="#">CSCvo03743</a>	zbfw with ip sla icmp echos builds tcp syn session
<a href="#">CSCvo24170</a>	Crash due to chunk corruption in ISIS code
<a href="#">CSCvo27553</a>	PKI incorrect fingerprint calculation during CA authentication
<a href="#">CSCvo62584</a>	DHCP discover packets were being dropped at firewall since UDP source port as 0.

## Open Caveats in Cisco IOS XE Everest 16.6.5

All open and resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

**Table 1: Open Caveats**

Caveat ID Number	Description
<a href="#">CSCvg03519</a>	16.6.1A: TSN router crashed with pppoe session after changing encapsulation on peer
<a href="#">CSCvg24729</a>	TSN: GLC-GE-100FX V02, the link can not up when configure "media-type sfp".

**Table 2: Resolved Caveats**

Caveat ID Number	Description
<a href="#">CSCvm06270</a>	ICMP unreachable are not sent to the client on C1117 platform.

## Resolved Caveats in Cisco IOS XE Everest 16.6.5

All resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Caveat ID Number	Description
<a href="#">CSCvk52512</a>	C1100 router stops forwarding traffic when doing bulk configurations on device via telnet
<a href="#">CSCvj74614</a>	ISR1111-4P Ping issue between LAN inetrface and directly connected switch.
<a href="#">CSCvm63888</a>	Recommit of CSCvj74614 in throttle v166 ISR1111-4P Ping issue between LAN inetrface.

## Open and Resolved Caveats for Cisco IOS XE Everest 16.6.1

All open and resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

**Table 3: Open Caveats**

Caveat ID Number	Description
<a href="#">CSCvg03519</a>	16.6.1A: TSN router crashed with pppoe session after changing encapsulation on peer

Caveat ID Number	Description
<a href="#">CSCvg24729</a>	TSN: GLC-GE-100FX V02, the link can not up when configure "media-type sfp".

Table 4: Resolved Caveats

Caveat ID Number	Description
<a href="#">CSCve31171</a>	16.6.1A: TSN router crashed with pppoe session after changing encapsulation on peer
<a href="#">CSCvg17891</a>	GETVPN suite-B does not work on TSN routers

## Related Documentation

### Cisco IOS Software Documentation

The Cisco IOS XE Everest 16.x software documentation set consists of Cisco IOS XE Everest 16.x configuration guides and Cisco IOS command references. The configuration guides are consolidated platform-independent configuration guides organized and presented by technology. There is one set of configuration guides and command references for the Cisco IOS XE Everest 16.x release train. These Cisco IOS command references support all Cisco platforms that are running any Cisco IOS XE Everest 16.x software image.

See [http://www.cisco.com/en/US/products/ps11174/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps11174/tsd_products_support_series_home.html)

Information in the configuration guides often includes related content that is shared across software releases and platforms.

Additionally, you can use Cisco Feature Navigator to find information about feature, platform, and software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on cisco.com is not required.

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#### Cisco Bug Search Tool

[Cisco Bug Search Tool](#) (BST) is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.

