

Release Notes for Cisco ASR 1000 Series, Cisco IOS XE Gibraltar 16.12.1a

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Find all the information you need about this release—new features, known behavior, resolved and open bugs, and related information.



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New and Enhanced Software Features for Cisco IOS XE Gibraltar 16.12.1a



Note When you upgrade from one IOS XE release to another, you may see `%Invalid IPv6 address error` in the console log file. To rectify this error, enter global configuration mode, and re-enter the missing IPv6 alias commands and save the configuration. The commands will be persistent on subsequent reloads.

New and Enhanced Features for Cisco IOS XE Gibraltar 16.12.1a

- [Unclassified MAC Initiator with IANA](#)—ISG IPv6 sessions are based on the unclassified MAC address of the subscriber. If you use DHCPv6 for IPv6 addresses, ISG creates subscriber sessions based on DHCPv6 packets with the IANA option.
- [Online Diagnostics](#) —The online diagnostics contain tests to check different hardware components and to verify status of the software process and interfaces. The online diagnostics tests detect problems in areas such as hardware components, software process, and interfaces.
- [IPv6 Prefix for VxLAN Static Route](#)—IPv6 over IPv6 and IPv6 over IPv4 encapsulation is introduced for VxLAN tunnels. The VxLAN tunnels that operate at more than 10 Gbps now has the following encapsulations :
 - IPv6 over IPv4
 - IPv6 over IPv6

- IPv4 over IPv6
- IPv4 over IPv4
- **Bridge-Domain Virtual IP Interface**—The Bridge-Domain Virtual IP Interface (VIF) now connects multiple Bridge Domain Interfaces (BDI) with a single BD instance so that each IP subnet within an L2 network can be associated with a single VRF.
- **IPv6 support for Encrypted Traffic Analytics**—Encrypted Traffic Analytics (ETA) uses passive monitoring, extraction of relevant data elements, and supervised machine learning with cloud-based global visibility. ETA is now extended to IPv6 addresses to identify malware communications in encrypted traffic.
- Support for Federal Information Processing Standards (FIPS)—Federal Information Processing Standards (FIPS) are publicly announced standards developed by the United States Federal Government for use in computer systems by non-military government agencies and government contractors. Ensure to configure devices to use only FIPS approved algorithms (even though devices prevent the use of non-FIPS compatible algorithms in the FIPS mode) because some functionalities may fail in the FIPS mode if the device attempts to use non-FIPS compliant algorithms.
- **QSFP-100G-SM-SR on EPA-QSFP-1X100GE**
- **EVC with MACSec**—The Ethernet Virtual Circuit (EVC) support on MACsec and MKA feature provides the functionality to detect EVC and to bring up the physical interface that matches the EVC criteria. With this functionality, users can transport layer 2 traffic from multiple enterprises over a WAN link and independently secure their traffic with MACsec over EVC.
- **SISF support for multiple IA_NA and IA_PD**—For Switch Integrated Security Features (SISF)-based device tracking, support has been added for multiple IA_NA and IA_PD. When SISF analyzes a DHCPv6 packet, it examines the IA_NA (Identity Association-Nontemporary Address) and IA_PD (Identity Association-Prefix Delegation) components of the packet, and extracts each IPv6 address contained in the packet, enabling SISF and any components that depend on SISF to be aware of all IPv6 addresses assigned to each network device.
- **Detailed error reporting of invalid commands in NETCONF session**—Added the netconf detailed-error command, which adds helpful return codes to the network configuration protocol (NETCONF) output if an invalid command is executed in a NETCONF session.
- **BGP Support for TCP-AO**—On a secure control plane, BGP uses Message Digest 5 (MD5) algorithm as the authentication mechanism. It uses TCP API to configure the keychain on a TCP connection. When authentication is enabled, any Transmission Control Protocol (TCP) segments belonging to BGP are exchanged between peers, verified and accepted only if authentication is successful.
- **Cisco Discovery Protocol over IPv6 Tunnels**—The Cisco Discovery Protocol (CDP) delivers traffic through GRE IPv6 tunnels from other protocols and allows routing of IPv6 packets between private networks across public networks with globally routed IPv6 addresses.
- **PFS for GETVPN**—If a Group Member (GM) is compromised, an attacker may access saved long-term keys and messages. With Perfect Forward Secrecy (PFS) for GETVPN, the attacker cannot use the keys and messages to obtain the keys of past or future sessions. Thus, the attacker cannot obtain keys to decrypt recorded or future communication.
- **TCP Authentication Option**—TCP Authentication Option (TCP-AO) replaces TCP MD5, TCP-AO protects long-lived TCP connections against replays using stronger Message Authentication Codes

(MACs) than TCP MD5. TCP-AO is resistant to collision attacks, and provides algorithmic agility and support for key management.

- **TCP-AO Support for SXP**—CTS SXP peers exchange IP-SGT bindings over a TCP connection. TCP Authentication Option (TCP-AO) enables you to guard against spoofed TCP segments in CTS SXP sessions between the peers.
- **Web User Interface** —Supports an embedded GUI-based device-management tool that provides the ability to provision the router, simplifies device deployment and manageability, and enhances user experience. The following features are supported on Web User Interface from Cisco IOS XE Gibraltar 16.12.1a:
 - Viewing File Manager
 - Configuring Trustsec
 - Monitoring Trustsec Statistics
- **Yang Data Models**—For the list of Cisco IOS XE YANG models available with this release, navigate to <https://github.com/YangModels/yang/tree/master/vendor/cisco/xe/16121/BIC> Revision statements embedded in the YANG files indicate if there has been a model revision. The README.md file in the same GitHub location highlights changes that have been made in the release
- **Multi-SA Support for SVTI**—You can define and associate an Access Control List (ACL) with an SVTI to select traffic between specific source and destination proxies. By associating the ACL, you are modifying the default configuration that uses a single any-any traffic selector and for every non-any-any traffic selector, IPSec SAs are created so that multiple SAs can be attached to an SVTI.
- **Show tech ospf**—You can specify a vrf-instance with the **show tech-support ospf** command so that the following commands are executed for the specified VRF:
 - **show ip route summary**
 - **show ip route ospf**
- **Syslog Messages for excessive tmpfs usage**—Two new syslog messages are generated to alert excess memory consumption by tmpfs.

PLATFORM-3-TMPFS_WARNING is generated when the tmpfs memory usage exceeds 40% of the total DRAM capacity.

PLATFORM-3-TMPFS_CRITICAL is generated when the tmpfs memory usage exceeds 50% of the total DRAM capacity.
- **Show command updates for SRTP Rollover Counter (ROC)**—The output of the following commands is enhanced to display SRTP ROC information.
 - **show voip fpi calls**
 - **show voip fpi stats**
 - **show voip rtp connections**



Note The last supported release for Cisco ASR 1000 Series 20-Gbps Embedded Services Processor (ASR1000-ESP20) is IOS XE release 16.12.x.

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.1a

About the Cisco Bug Search Tool

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.

Resolved Bugs for Cisco IOS XE Gibraltar 16.12.1a

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

Caveat ID Number	Description
CSCua57391	isdn cause-location command support for switch-type primary-ntt
CSCva76745	show running-config format with DHCP pool results in a reload
CSCvb87675	BGP event crash@bgp_afpriv_imp_is_imported_path
CSCvh73576	config revert Rollback visible in console and locks up config from VTY
CSCvh92659	BFD flaps everytime with dynamic tunnel creation in DMVPN
CSCvi26188	Watchdog crash within mgcpapp_free_sys_event_Q event dequeue loop after running 'cmm-manager config'
CSCvi86071	Crash seen after configuring SCP path under archive
CSCvj28921	High CPU due to Alignment Corrections - SMEF & IWAN

Caveat ID Number	Description
CSCvk27129	The requirement to shutdown dialer interface before its deletion causes an issue for vManage
CSCvk71047	Router fails to reserve necessary ports for VPN traffic (UDP 500 & 4500) for ISAKMP
CSCvk75838	netconf/yang or telemetry retrieval of /trustsec-state/cts-rolebased-policies breaks
CSCvm07353	Router may crash when a SSH session is closed after configure TACACS
CSCvm10850	Crash after CPUHOG in ISDN L2D SRQ Process
CSCvm25921	Signaling interface inactive on "show snmp mib ifmib ifindex de" on IOS 16.6.3
CSCvm46362	ASR1000 node in HA pair might crash due to punt-keepalive failures
CSCvm75066	MPLSoVPN: Change behavior of default route in NHRP. Must insert 0.0.0.0/0 instead of /32
CSCvm91642	MACsec SAP 128 Bits doesn't work with network-essentials license
CSCvm94112	DSM-3-INTERNAL: Internal Error : No DSM handle provided traceback on TDM voice gateway
CSCvm94788	Device reloads when applying #client <IP> vrf Mgmt-vrf server-key 062B0C09586D590B5656390E15
CSCvm96960	ASR1001-X throwing: ETH_SPA_MAC-3-SPI4_ERROR: SIP0/1: Marvel MAC
CSCvn00104	Software crash due to memory corruption after packet trace was enabled.
CSCvn03502	SR: CFLOW input intf index is 0xffffffff for Service-engine DSP module interface
CSCvn09468	Netconf shows each overwrite of cts role-based sgt-map command
CSCvn17073	ARP HA and other clients sync together causing high cpu on CBR
CSCvn23906	DHCP Server sends Renew ACKs to Clients with 00:00:00:00:00:00 MAC in L2 frame
CSCvn24992	Add support for DHCP "utilization" CLI in Cisco-IOS-XE-dhcp YANG model
CSCvn27449	PBR doesn't work for dialer intf when it doesn't have fixed ip address
CSCvn37237	ASR1002-HX crashed after huge traffic is transmitted over it
CSCvn44400	Login banner does accept banners over 238 characters
CSCvn45150	telsh: socket -server open <port> allows multiple bindings in IOS-XE
CSCvn45732	Device crashing if we unconfigure the NTP on the device
CSCvn49351	Async line not visible in show run and show int brief output but visible in show line output
CSCvn51557	Negating dialer watch-list command without alternating the entered CLI command.

Caveat ID Number	Description
CSCvn52019	Crashed while checking condition debug
CSCvn53969	Memory leak in SMD process due to AAA Idle-timer not being freed
CSCvn54470	ASR1006X linecard down after Active RP3 OIR
CSCvn56017	Crash while processing ISIS updates when DiffServ-TE is enabled
CSCvn56579	MQIPC memory corruption resulting dot1x/MAB not working for wired clients
CSCvn57165	Static Nat fails to translate SIP Trying L7 header
CSCvn57771	3850 sending hostname as NAS-ID
CSCvn57892	High Memory utilization due to Wireless Manager IOSD process
CSCvn58922	With 3 KS in COOP, overlapping KSSID range is not detected
CSCvn59020	Modified EIGRP timers on Virtual-Template put all associated Vi interfaces into passive mode
CSCvn59626	NTP template attach fails with a non default vrf and source interface configured
CSCvn60318	After reload, standby can't join stack due to crash in rbm_request_new()
CSCvn61479	16.11:ASR1k:ESP-X: Lisp mroute verification failed for eid vrf.
CSCvn63084	The WS-C3850-48XS stack crashes due to LACP
CSCvn63309	VRF Associated to an interface is not considered as associated with pim sparse-mode configurations
CSCvn66258	ASR1000-2T+20X1GE interface speed change from 100 to 1000 after switchover
CSCvn67837	TCP port takes 4 minutes to get released after it is closed
CSCvn67870	Reorder ip nat configuration - to be placed after ip http configuration
CSCvn68370	C3PL (Cisco Common Classification Policy Language) changes for CSCvn56365 AppNav-XE WAAS issues
CSCvn68893	ASR1000 Process = TUN ETHER Thread crash
CSCvn70066	ASR1000 Crash on device when SNMP walk is done while configuring QoS on interface.
CSCvn71041	TACACS group server is not seen, when "transport-map type console test" is configured.
CSCvn71505	Incorrect Bandwidth Calculation for Priority Level 2 on 100 gig Interface
CSCvn72208	RP3 Punt Interface May Drop Traffic Due to VLAN Filter Hardware
CSCvn72973	Device is getting crashed on the "cts role-based enforcement"

Caveat ID Number	Description
CSCvn74807	Cisco TrustSec crash while processing CoA update
CSCvn76107	Static NAT configs missing in netconf get-config
CSCvn76837	DMVPN Phase 2 shortcut triggered from a spoke behind PAT may end up in stuck DNX state
CSCvn77783	class-attributes support in ISG radius proxy scenario
CSCvn78113	Tunnel PMTUD not being aged out after PMTUD ager timer expires
CSCvn78203	Router crashed when printing logs while constructing rekey packets (GETVPN)
CSCvn78349	FlexVPN with password encryption - keyring aaa LIST password 6 xxxxx encrypted again upon reload
CSCvn78961	Subscribers cannot re-login due to CoA time-out (lite-sessions in routed mode)
CSCvn81585	%CTS-3-SAP_MANUAL_PMKID_MISMATCH: PMKID Mismatch when primary switch failover in a 6 switch stack
CSCvn82063	Input CRC counter increasing on Tengi interface.
CSCvn82245	EIGRP session is not coming up if the dynamic PBR is applied on interface
CSCvn83172	Router reloads on 'show track' command when there is track object for deleted serial sub-interface.
CSCvn84682	AAA Common Criteria writes password in cleartext to configuration on change
CSCvn85422	Int index is 0 for the Cellular interface in the exported flow
CSCvn86400	SISF-3-INTERNAL: Internal error, Cannot create binding entry -Process= "SISF Main Thread"
CSCvn87990	Showing wrong release version in 'show eigrp plugins'
CSCvn99748	Client can not get DHCP address again when the Client's ARP entry remained
CSCvo00585	Split DNS in case of UDP query to WAN interface IP via LAN interface
CSCvo00664	SUP reload after running the command " show plat hard qfp act infr bqg debug qmrt_dump "
CSCvo00968	Radius attr 32 NAS-IDENTIFIER not sending the FQDN.
CSCvo01298	Correction to Quick RP3 recovery after the Punt Path XAUI link goes down
CSCvo01504	%QFPOOR-4-TOP_EXMEM_USER reports negative memory allocation
CSCvo03458	PKI "revocation check crl none" does not fallback if CRL not reachable
CSCvo05751	Polaris : Changes for sending vlan attrs in access request

Caveat ID Number	Description
CSCvo06817	Router crash while executing show commands using ' ' (pipe) to filter the output.
CSCvo08132	BUILT-IN-2T+20X1GE - VLAN bytes and packets counters are frozen.
CSCvo09059	"no autostate" will auto add after re-configure svi interface
CSCvo10145	Memory overlay crash when using include-cui
CSCvo11361	Priority queueing on port-channel interfaces causes frame re-ordering.
CSCvo11786	SCCP Application does not clear failed sockets leading to leak and socket pool exhaustion
CSCvo12745	Packet drop occurs after acl permit configurations
CSCvo15201	IPSLA IPv6 ICMP Probe is showing status as OK with no IPv6 connectivity
CSCvo17287	ASR1001-X crashed upon receiving Radius Access-Accept message
CSCvo17528	Reload initiated via SNMP on IOS-XE causes a crash
CSCvo17738	Cellular interface lte Network Selection Mode switches to manual
CSCvo18177	IPv4 routes on the global routing table learnt via BGP refreshes upon adding or removing a VRF
CSCvo18415	Unable to remove "logging source-interface <if-name>" command on 3850
CSCvo19395	Router crashes when removing a crypto map
CSCvo19984	Class map containing no-match result-type method dot1x none never results in success
CSCvo20934	FMAN crash due to Flexible Netflow (fnf)
CSCvo23199	SDA:16.9.2S - Arp issue during wired host mobility
CSCvo25785	Crash on an LNS router in process ACCT Periodic Proc
CSCvo26034	Replace all BGP/route-map communities in "set community" array with <edit-config> "replace" operatio
CSCvo27553	PKI incorrect fingerprint calculation during CA authentication
CSCvo29096	SRTE ODN: After removing "mpls traffic-eng router-id loopback" OSPF not adv links in TE opaque LSA
CSCvo30329	Router crashing after upgrade due to Crypto commands "Block overrun at 284B2160 (red zone 000110DF)"
CSCvo30641	Traceback: Error seen after tunnel flap: DATACORRUPTION-1-DATAINCONSISTENCY
CSCvo31617	16121: ISIS local-LFA repair path has no label causing high convergence

Caveat ID Number	Description
CSCvo36031	WSMA crash formatting show command output
CSCvo36188	Crash at NAT clear
CSCvo36948	Router crash when running show aaa user all command
CSCvo36969	Crash during SSO config sync
CSCvo38655	16.11.1-systest: Segmentation fault : CEF bgrnd process with DUT reload with Sw to Rtd port
CSCvo41815	When roaming to another AP, services received from RADIUS are not applied to the session
CSCvo41879	Interface is not joined to mcast map-notify after reload
CSCvo42105	IOS-XE DHCP server creates option 125 with invalid format
CSCvo43597	Dot1x Users MAc address not present on the correct Vlan after SSO
CSCvo46127	MaxSusRate is not working with service class
CSCvo47436	IOSXE - firewall corrupts half open list
CSCvo47655	SDA-FHR not registering multicast source with RP
CSCvo47866	Crash at Process = SCCP Auto Config
CSCvo49876	SISF not honoring 1 IPv4-to-MAC rule when DHCP ACK comes from a different VLAN (via Relay)
CSCvo51252	AirOS Parity : Local to Radius Fallback failing for Webaut and TACACS for 9800
CSCvo58098	CTS PACS not downloading to the devices
CSCvo58118	CTS Environment-data is not getting refreshed on the device
CSCvo58195	HSRP VIP is not reachable locally
CSCvo58854	ASR1000/16.9.2 - Duplicate entries in dangling list
CSCvo61610	FXS - no busy tone is generated on remote-onhook condition with call pickup scenario
CSCvo61772	"ip nat translation port-timeout" limited to overflows after reaching 16bit
CSCvo61914	GC NAT unable to detect dns packet
CSCvo65415	ASR1000 crashes by handling DHCP packet
CSCvo66216	IPSec-Session count in "show crypto eli" reaches max causing VPN failure
CSCvo70504	Missing Calling-Station-ID in Accounting Ticket for Web-Tal locations
CSCvo71381	dot1x dynamic voice assignment failure after data domain auth such

Caveat ID Number	Description
CSCvo71445	MACSEC license is not being consumed for sub-interfaces
CSCvo71721	When sending account-logon ISG do not reply with ACK nor NACK.
CSCvo73205	Identity policy won't update after config changes.
CSCvo73897	[SDA] [PI changes] No audio during first few seconds of voice call between 2 Fabric Edge
CSCvo73954	ASR1001-HX: Excessive pause frames (IEEE802.3x compliant) affect traffic on other interfaces
CSCvo74486	IOS-XE ACL port information preserved after encapsulation
CSCvo75992	tcl_fw_stats in FMAN logs errors
CSCvo76021	L3VNI:VPNv4 routes are not imported into BGP-EVPN upon reload/SSO while VPNV6 routes are imported
CSCvo83945	Ping failure on Port-channel sub interface when is using EVC in main port channel
CSCvo87488	GetCACaps is using wrong CA-IDENT when using enrollment profiles
CSCvo87827	Crash when polling IPForwarding MIB
CSCvo94211	Traffic stops flowing on Xconnect tunnel when upgraded to 16.9.2
CSCvp00271	Read and Write lock fix for ACL cache
CSCvp03655	Observing 100% CPU utilization for sessmgrd
CSCvp05070	Overlay BGP down when configured "ip nhrp server-only"
CSCvp09091	When sourcing Radius from loopback in VRF, auth right out of boot up might fail
CSCvp10711	Hierarchical QoS stops working on GRE tunnel if dest route flaps between 2nd tunnel and physical int
CSCvp10830	Client with VNID override on roaming gets into authorization failure due to vlan 0
CSCvp14338	LISP: "flood" configuration broken under "instance / service ethernet" submode
CSCvp16606	sdwan isr receiving any SOO changes AD to 252
CSCvp16730	Incoming ESP packets with SPI value starting with 0xFF are dropped due to Invalid SPI error
CSCvp19568	L2VPN - Xconnect - filtering of LDP targeted hellos using ACL not working
CSCvp20770	Nas Identifier not sent in Accounting Packet
CSCvp21680	Delay on sub interface doesn't match physical interface causing issues for routing
CSCvp23796	"no cts role-based enforcement " is not honored and enforcement continues to happen

Caveat ID Number	Description
CSCvp24981	When FQDN used for APN, IOS DNS resolves FQDN to IP, but GTP stays in DNS pending and IP 0.0.0.0
CSCvp25052	ISR4K: Router crash due to twice memory release
CSCvp27220	Tail drops on IPSLA sender when using scaled udp-jitter probes
CSCvp30475	ASR1000: VLAN counter mismatch on sub-interfaces
CSCvp32910	Bad root chunk pointer in chunk header post SSO - ASR1000
CSCvp38317	MGCP GW doesn't reset SSRC/ROC on receiving MDCX with new IP/port/SDP parameter for SRTP call.
CSCvp38424	On-Prem DMVPN fails to establish a dynamic tunnel between Spoke nodes.
CSCvp46197	GETVPN suite-B does not work on ASR1006x router
CSCvp46381	static nat which has been deleted is shown when show ip nat translation
CSCvp47792	VG3x0 - groundstart voice-port configuration removed after reload
CSCvp49863	Incomplete arp in management interface
CSCvp56737	Counters of interfaces are reporting inexistent peaks
CSCvp62811	Engine keyword missing after "show utd engine standard statistics url-filtering"
CSCvp63616	Crash due to too many DSPs
CSCvp66049	%DATACORRUPTION-1-DATAINCONSISTENCY: due to PMIPv6
CSCvp66443	HTTP Client inside IOS-XE incorrectly reports "Invalid IP address in Hostname" for legal IP address
CSCvp66980	ISG : Changes in circuit-id and remote-id are not reflected after roaming
CSCvp70211	Crash when running show crypto map
CSCvp70443	isdn cause-location command support for switch-type primary-ntt
CSCvp70707	Should provide a repair path for the Strict SID even when the repair path is NOT a TI-LFA
CSCvp71303	Router crashes when "tod-clock revertive" command is executed
CSCvp72220	crash at sisf_show_counters after entering show device-tracking counters command
CSCvp72379	ip dns primary command does not get removed
CSCvp73344	Standby crash during ISSU
CSCvp75121	Ucode crash when PfRv3 and IPv6 monitor are configured on the same tunnel with IPv6 VRF configured

Caveat ID Number	Description
CSCvp77100	ASR1000: Crypto Engine remains in stuck state post dataplane crash
CSCvp81102	IPsec SA installation fails with simultaneous negotiations despite fix for CSCve08418
CSCvp85916	Crash when "show running" is used
CSCvp87488	no login on-success log CLI does not persist across device reloads
CSCvp92334	Crash after Media monitor look up.
CSCvp95070	"encr aes 256" config removed from CDB & invisible to netconf/yang and restconf
CSCvq18793	NIM-2FXS/4FXOP crashing due to DSP failed to reply properly
CSCvq20005	SRMS tries to build a snapshot when there are no SIDs
CSCvq39840	CiscoFlashFile - Get-Next request takes longer time for last file on directory.

Open Bugs for Cisco IOS XE Gibraltar 16.12.1a

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

Caveat ID Number	Description
CSCva53392	Polaris 16.3.1 : Machine and bus error failures in ESP20
CSCvd75992	3650: pnp profile config causes line console config to be copied over to vty after "show run"
CSCvg68226	Excluding cisco802TapMIB or ciscoTap2MIB should not require Lawful Intercept licence
CSCvo46253	BGP Oper model rpc reply error with aggregate bgp ipv6 route.
CSCvo56553	ASR1000: RP3 crash due to punt-keepalive failures
CSCvo67036	ASR1000 routers crashed when TCM received an illegal command from the ucode
CSCvp08353	Add ERROR message over IOS console when HSPRDA TCAM region gets full
CSCvp16862	EVPN Prefix import Count/Limit show incorrectly
CSCvp27139	Async lines configuration is not retrievable over netconf
CSCvp30081	BGP looped update among 3 peers
CSCvp38407	"Radius-server attribute 31" command broken on LNS when LAC sends Remote-Id string
CSCvp47006	QoS counter didn't generate at ASR1001-X
CSCvp53001	ASR1001-HX: bay1 1G link stays up when Rx cable of remote end is removed
CSCvp69393	Router crashes after snmpget to OID related to NHRP

Caveat ID Number	Description
CSCvp79485	DMVPN - Packet is encapsulated but not encrypted going out DMVPN tunnel
CSCvp89419	Error messages seen when configuring "logging persistent protected" on ASR1K routers
CSCvp91554	16.12.1 SIT: UNIX-EXT-SIGNAL: Segmentation fault and Memory related crash during SXP bringup
CSCvp96086	Additional display for incorrect profile with reset on backoff :
CSCvp97235	Crash while BGP was updating rib table
CSCvq00263	Device crashed @ radius_io_stats_timer_handler due to dynamic-author
CSCvq01379	Revert the changes of CSCvo75201 in rel21
CSCvq09061	.py file check is not done while registering the policy and the error is seen
CSCvq18004	BGP evpn table and vrf table out of sync
CSCvq18328	SSH: host_key->name is not null after reload which prevents SSH from starting up
CSCvq19808	Egress shaping on port-channel sub-intf tail dropping traffic long before rate
CSCvq20685	ESP40 crash in CGN mode after apply "ip nat setting mode cgn"
CSCvq23869	ASR 1000 sub-interface counters wrong.
CSCvq25297	BRI leased line can't come up automatically after remove/insert one side's cable
CSCvq25320	Get-Config using NETCONF interrupted if authenticated with TACACS+
CSCvq26821	shaper of the internal crypto interface is incorrectly programmed
CSCvq29953	IP SLA react for packetloss and successivepacketloss do not set \$_ipsla_react_type in EEM
CSCvq31129	AppNav: Optimization failed with Asymmetrical traffic, VRF, FNF and NBAR
CSCvq31871	Router crashes with ZBF HA sync.
CSCvq33073	OBS : PE ignores IGP metric while advertising the MED value to CE
CSCvq33994	BGP YANG oper address-family fails with vpnv4-unicast
CSCvq34054	BGP updates missing ISIS advertising-bits when redistribute level-1 is applied
CSCvq35581	Unable to configure half duplex on cEdge
CSCvq35925	The switch crashes when processing a 'unknown' message from 'PKISSL read mqipc'.
CSCvq36130	Router is on Bootloop after QoS configuration.
CSCvq36179	Interfaces with 'shutdown' configuration in UP state
CSCvq36984	Netconf-yang service not starting properly

Caveat ID Number	Description
CSCVq39840	CiscoFlashFile - Get-Next request takes longer time for last file on directory.
CSCVq40443	"Clock: inserting leap second" message doesn't output on NTP client when leap second inserted
CSCVq42239	F0: fman_fp unexpectedly crashed with exmem chunk alloc
CSCVq42607	Delay during vrf aware bgp address-family configuration over netconf
CSCVq44860	Static routing redistribution under RIP with route-map is not working after reload
CSCVq45088	ASR 1000 BDI not working properly for packet fragmentation - very small fragments are getting dropped
CSCVq46526	DMVPN Spoke to Spoke traffic fails when Tunnel initiated by Tunnel IP to tunnel IP pings.
CSCVq48438	ASR1000: ucode crash @ uidb_subblock_lookup__output_nat_sb
CSCVq49000	Supervisor reloaded due to cpp_cp_svr process crashing
CSCVq58144	cpp_cp_svr crash in cpp_bqs_rm_yoda_select_sch_exponent
CSCVq58237	Supervisor reload due to cpp_cp_svr crash.
CSCVq61062	mip crash reloading the router

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.2s

Resolved Bugs for Cisco IOS XE Gibraltar 16.12.2s

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

Caveat ID Number	Description
CSCvt03982	IOS-XE NAT - protect customer data

Open Bugs for Cisco IOS XE Gibraltar 16.12.2s

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

Caveat ID Number	Description
NA	There are no open caveats in 16.12.2s

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.3

Resolved Bugs for Cisco IOS XE Gibraltar 16.12.3

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



Note In Cisco IOS XE Release 16.12.3, the semantic version number for the YANG models is not updated and is therefore not accurate. However, this limitation does not impact the functionality of the YANG models

Caveat ID Number	Description
CSCvq33563	AFW_application_process triggers a crash with voice conference
CSCvq44603	ISR 4000 Reloads Unexpectedly, Crashing in the "IP NAT Ager" Process
CSCvq80928	CME/BE4K SNR: Crash when config changes are made while SNR call is active
CSCvr15127	ASR 1000/ISR 4000 Calls fade to no-way audio due to media inactivity detection after 20 minutes
CSCvr17670	ISR G3, ASR 1000 crash after VoIP AAA test
CSCvr24316	Router crashes due to Segmentation Fault when 'ccb' gives a NULL Pointer
CSCvr39932	IPSEC install failed IPSEC_PAL_SA shows "unexpected number of parents"
CSCvr41433	Unexpected reboot when copying anchorspi context from parent to child.
CSCvr48349	ESP ucode crashed when running NAT with bpa (CGN)
CSCvr61217	GetVPN-ISR4461// Getvpn traffic is failing with Transport mode with all the versions.
CSCvr76534	ISR 4000 : Crash seen at Process Exec
CSCvr87906	ISR 4461: Large un-fragmented IPSEC packets cause router to crash
CSCvr90926	CUBE is updating the resolved IP only after the REGISTER expires
CSCvr93969	C9800:ISSU: wncd crash@ crypto_engine_pk_crypto during ISSU downgrade scenario
CSCvr96597	IOS-XE crash after doing a SCEP enrollment
CSCvr99034	ISR 4000 router crash during updating the OpenDNS bypass allowed list
CSCvs04194	Process = Exec crash seen on dmap longevity testbed with clear cry sa peer several times
CSCvs08681	Crash triggered with IPv6, IPv4, PPPoE, PortChannel and NAT
CSCvs13960	IWAN High CPU and Memory
CSCvs25682	GETVPN: IpsecInvalidSA drops are seen on ESP200X/ESP100X after %LOGGER-6-DROPPED: message
CSCvs29535	IWAN crash related to DCA channel
CSCvs47682	Router crashed on removing trustpoint on dspfarm profile

Caveat ID Number	Description
CSCvs55066	ISR 4000 only: MGCP status remains Down and does not register with CUCM after a reboot or power cycle
CSCvs60195	ASR 1000 ucode crash after too many locks in ZBF pair setup
CSCvs70052	ALG with NAT trigger a crash when a DNS writeback occurs
CSCvs71952	IOS-XE ZBFW Crash When Exceeding Half-Open Session limit

Open Bugs for Cisco IOS XE Gibraltar 16.12.3

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

Caveat ID Number	Description
CSCvj26197	Update statistics from Oecteon viptela code to platform
CSCvm75074	Correct the severity level of logs generated by smart-agent
CSCvp60827	Delay of 30 sec while creating a new config file for phone using tftp.
CSCvp70459	IOS: Prevent crypto ACL change if already mapped with crypto map configuration
CSCvp93108	ISR4k Crash seen in skinny_unreserve_xcode_stream on 16.9
CSCvq00617	CME Crash with call to shared line when 1 setup leg is NULL
CSCvq43004	Need to check qfp ucode crash with RTCP traffic - chunk memory corruption in RTCP path
CSCvq65366	Cube might crash when sending a SIP message over TLS
CSCvq69866	HSRPv2 crash whilst retrieving group from received packet
CSCvq76305	ASR 900 autoRP listener functionality issue
CSCvq84990	Remove show ip/ipv6 access-list from syncfd-<ewlc-SIT>17.1-Observed Traceback followed by IOSD crash
CSCvq87063	getvpn suiteb:KS sends delete payload to gm's while scheduled rekey after primary KS dead/readded
CSCvq91046	ASR 1000 crash in NAT code when processing PPTP traffic
CSCvr24434	yang missing for "ipv6 locator reachability minimum-mask-length 128 proxy-etr-only"
CSCvr25074	power event detected when connect with switch module
CSCvr28935	IOS crash in DHCPd Receive with Unnumbered interfaces
CSCvr39868	Unexpected reload when issueing show ip mroute vrf <vrf> verbose
CSCvr41932	17.1.1 - Memory leak @ SAMsgThread.

Caveat ID Number	Description
CSCvr61879	"static ip addresses not configured for the list" message
CSCvr76593	Memory leak in CC-API_VCM and CCSIP_SPI_CONTROL
CSCvr80334	Pubd process on the controller goes down, managed by DNA-C 1.3.2
CSCvr85094	Enabling Telemetry can cause router to crash.
CSCvr91021	SESM Policy-Interface on ISG ignoring Radius Requests on port 1812
CSCvs00961	Memory leak under CCSIP_UDP_SOCKET / MallocLite
CSCvs05043	ESP40 crash in CGN mode after apply "ip nat setting mode cgn" and "no shut" interface
CSCvs10266	Cat9K/16.11.1c/SDA- Ingress QOS Service Policy not applying to interface
CSCvs13561	Post SSO, if service template is getting downloaded and switch crashes, client is stuck in authc
CSCvs17812	GETVPN generated core upon RP switchover, cpp_cp crashed
CSCvs18780	SR Labels not installed in forwarding plane when there are multiple sources for the prefix SID
CSCvs30865	rLFA for LDP causes loss of MPLS traffic after RSP switchover
CSCvs48777	9800-L has crashed on Smart Licensing
CSCvs53749	EVPN RMAC stale routes seen
CSCvs54855	Catalyst 9300 Wrong implementation of CBQOS MIB
CSCvs56255	Crash on BGP NSAP address-family when adding CLNS next-hop route-map
CSCvs56586	While upgrading the IOS-XE version from 16.9.2 to 16.9.4 , smart licensing registration was lost
CSCvs58945	Missing constraints and PRCs lead to broken model
CSCvs59402	Random IPSEC drops on ESP200 with esp-gcm transform set
CSCvs64107	Memory Leak in IPv6 ND Process
CSCvs66432	SISF installing target IP of an ARP request when sent with src 0.0.0.0
CSCvs74389	User cannot login in GUI if present in both local database and AAA server
CSCvs75268	OSPF process crash due to chunk corruption in Flood DB
CSCvs75958	ISR4331/K9 Dialer cannot make calls suddenly
CSCvs80225	RAR: RFC5578 does not work in 16.12 and later

Caveat ID Number	Description
CSCvs81736	heavily oversubscribing the EGRESS interface IPv6 priority traffic is "silently" being dropped
CSCvs85642	4331 16.9.4 QFP ucode crash due to null derefence
CSCvs96732	SDWAN cEdge VRRP fail recovery take 10-15 mins for OMP tracking, with prefix list tracking no output
CSCvs98578	ISR 4221 router with NIM switch module MAB/Dot1x does not start
CSCvt00422	Updating an existing ZBFW policy requires a detach/re-attach to push successfully
CSCvt01186	Interface does down when "l2vpn xconnect" command is removed

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.4

Resolved Bugs for Cisco IOS XE Gibraltar 16.12.4

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



Note In Cisco IOS XE Release 16.12.4, the semantic version number for the YANG models is not updated and is therefore not accurate. However, this limitation does not impact the functionality of the YANG models

Caveat ID Number	Description
CSCvg79330	enable platform ipsec control plane conditional debug might cause FP/QFP IPsec outbound SA leak
CSCvh24730	PfRv3: Crash while Printing the Same TCA Message
CSCvn06203	"logging origin-id ip" seen as 0.0.0.0 in the logs when used with VRF or Management port
CSCvp33578	Crash at the moment of deleting a DVTI
CSCvp88044	Performance Monitor crash
CSCvq20936	CUBE router crashed due to memory corruption in subscription control block
CSCvq62065	SIP phone paging party hears own voice
CSCvq87063	getvpn suiteb:KS sends delete payload to gm's while scheduled rekey after primary KS dead/readded
CSCvq90342	PIM process crashed during clear arp-cache
CSCvq91046	ASR 1000 crash in NAT code when processing PPTP traffic
CSCvr05193	IOS PKI Intermittently SubCA fails to rollover

Caveat ID Number	Description
CSCvr05504	Dialer interface counter does not correlate to the counter of interfaces bounded to
CSCvr12455	KPML dialing fails after CSCvq20936 commit
CSCvr37717	VSS Experiences Unexpected Reboot Due to PIM process
CSCvr39868	Unexpected reload when issuing show ip mroute vrf <vrf> verbose
CSCvr41932	17.1.1 - Memory leak @ SAMsgThread.
CSCvr42504	ping is not working on port-channel after router reload
CSCvr66463	With CRL fetch failed, stuck at Failed to send the request. There is another request in progress
CSCvr76593	Memory leak in CC-API_VCM and CCSIP_SPI_CONTROL
CSCvr85094	Enabling Telemetry can cause router to crash.
CSCvr98154	Out of IDs in webauth module resulted crash due to memory leak
CSCvs08368	FlexVPN Hub Memory Leak in AAA process when IKEv2 sessions are being established
CSCvs11971	With should-secure traffic is getting blocked when mka moves to init state during key rollover
CSCvs28073	IOS-XE device has memory leak in linux_iosd-imag
CSCvs29412	x509 SSH authentication incorrect UPN value selected
CSCvs30625	SRTP - RTP Crash on ASR with GCM Ciphers
CSCvs30865	rLFA for LDP causes loss of MPLS traffic after RSP switchover
CSCvs42498	NAT Alias not created for some configuration when using application redundancy
CSCvs45107	AnyConnect fails to reconnect when original session expires
CSCvs56255	Crash on BGP NSAP address-family when adding CLNS next-hop route-map
CSCvs56559	show crypto pki server shows wrong expire certificate date
CSCvs61652	Router crash upon receiving a BGP L3VPN route with a color extended community to be imported in EVPN
CSCvs66432	SISF installing target IP of an ARP request when sent with src 0.0.0.0
CSCvs68349	16.12.3 ZBFW- Firewall stats file for vmanage not generated for inspect/drop traffic
CSCvs70206	CUBE DNS cache clear should be limited only to the matched connection id
CSCvs74389	User cannot login in GUI if present in both local database and AAA server

Caveat ID Number	Description
CSCvs75505	Cisco IOS XE SD-WAN Software Command Injection Vulnerability
CSCvs75868	esg:destination overwhelmed messages are seen on sending high rate TCP traffic leading to iosd crash
CSCvs80225	RAR: RFC5578 does not work in 16.12 and later
CSCvs86218	Config save prompt on reload even after saving config when configured via ZTP
CSCvs91526	Memory leak present after BMP BGP server is enabled
CSCvs92848	Crash due to DHCP relay
CSCvs96344	ASR 1000 : OIR after clock set doesn't save the time in RTC(recommit of CSCvr27554)
CSCvt01186	Interface does down when "l2vpn xconnect" command is removed
CSCvt01532	SD-WAN router running 16.10.3 crashes with cpp_cp_svr fault
CSCvt02567	bgp crash @ bgp_db_ipstr2address when get bgp neighbor via bgp-oper yang
CSCvt04864	cpp_cp_svr fault and fman_fp_image fault on ASR 1002-X routers running 16.12.2r
CSCvt09354	Active RP running Polaris crash when standby running 3.X inserted
CSCvt10151	Multiple Cisco Products Snort HTTP Detection Engine File Policy Bypass Vulnerability UTD
CSCvt10462	BgpBackwardTransition was sent when peer device links up
CSCvt12245	16.12.3 ZBFW-Mismatch in firewall stats between the device and vmanage
CSCvt19472	ASR 1000 crash at SSS manager sss_info_get_next_elem()
CSCvt19873	ASR 1000:Router stops forwarding traffic with MPLS TE & FRR when member link of port-channel is shut
CSCvt21373	unexpected reload in CPP ucode forced by nat 514 .
CSCvt33018	MACsec 128/256 XPN on 40g/100g, stop passing traffic for one of AN and interface link flap seen
CSCvt33028	Part of double encapsulated frames dropped with TunnelDecapTooManyTimes code reason
CSCvt33799	Virtual address not reachable: "mac:0000:0c07:xxxx download to DP failed" for HSRP / VRRP over BDI.
CSCvt36887	ASR1002-HX crashing with IPSEC+QoS+DPI+FNF+NAT+ZBFW profile - half open list corrupted
CSCvt38466	SNMP TIMETICKS difference between sysUpTime vs ipslaEtherJAggStatsStartTimeId
CSCvt40021	Omp-tag is not being set via route-map configuration under bgp

Caveat ID Number	Description
CSCvt46779	Route export not working as desired during failover testing
CSCvt47898	Cisco 9800 reloads when processing AVC or FNF
CSCvt49705	Device Crash observed with NAT and once there is traffic from outside
CSCvt50461	cEdge crashes after the push of a template for Umbrella
CSCvt51433	Process sessmgrd crash due to clear radius sg-stats command.
CSCvt57181	Leaf sends packets to a wrong BVI MAC of ASR GOLF routers
CSCvt58616	L2VPN Crash @ Process = XC Mgr
CSCvt58858	Incorrect CEF programming for local SVI
CSCvt60979	1731: ODN Policy for Global prefix still UP even after withdrawing global routes
CSCvt65588	FlexVPN IKEv2 Tunnel route removed after establishing new IKEv2 SA to another peer
CSCvt70639	Device reload due to tunnel flapping
CSCvt85954	IWAN routers ISR4K unexpected reload multiple times
CSCvt89337	Incorrect Source IP when resolving DNS
CSCvt90424	CRC increasing on down int Te0/0/20
CSCvt94577	Incorrect CEF entry for LISP action signal-fwd
CSCvt98034	BGP communities: changes to route-map which sets BGP communities discards existing communities
CSCvu00069	CLI addition to tune MSRP timers
CSCvu11115	IOS-XE MTP Fails to Interwork DTMF RFC2833 from Payload 100 to Payload 101
CSCvu21761	RAR: PADG and PADC are not being consumed properly. PPPoE session statistics are not matching.
CSCvu22003	vManage FW dashboard doesn't show all matched applications
CSCvu34009	Calls going through T1 are rejected with "no dsps found" Analog/TDM Hairpin calls
CSCvu35345	AVB: msrp stream fails to re-establish after mcast addr change
CSCvu43248	%IP-4-DUPADDR: Duplicate address issue at NAT-HSRP ISR4k router
CSCvu52218	Router crashes frequently on NBAR

Open Bugs for Cisco IOS XE Gibraltar 16.12.4

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

Caveat ID Number	Description
CSCUw75352	ASR 1000-lisp:Standby RP complains when eid-table removed from Active RP
CSCUx68415	ASR 1000: lisp instance are not operational with vrf Deletion error
CSCVp60827	Delay of 30 sec while creating a new config file for phone using tftp.
CSCVq55323	Getting below error while pushing template:<bad-command>no license smart enable</bad-command>
CSCVq84990	Remove show ip/ipv6 access-list from syncfd-<ewlc-SIT>17.1-Observed Traceback followed by IOSD crash
CSCVq87541	Synchronization of running configuration failed to Netconf running datastore due to bfd min_rx
CSCVq95106	netconf <edit-config> merge is not working properly
CSCVr09310	vManage should be able to work with cEdge banners in the same way as with vEdges
CSCVr24434	yang missing for "ipv6 locator reachability minimum-mask-length 128 proxy-etr-only"
CSCVr28935	IOS crash in DHCPd Receive with Unnumbered interfaces
CSCVr91021	SESM Policy-Interface on ISG ignoring Radius Requests on port 1812
CSCVs61402	CFLOW_INSERT ABORT errors continue to increment
CSCVt00228	DDNS triggers a crash when an update is sent to delete an entry
CSCVt04814	CPP crash due to a long QoS Policy and Class name
CSCVt16988	Existing configuration on a cEdge could not be modified by a new template
CSCVt32383	ASR1000 RP2 upgrade fails from 16.9.4 to the 16.9.5
CSCVt50050	BGP next-hop is unexpectedly set to self in confederation scenario
CSCVt51568	Unexpected Reload due to Sessmgr
CSCVt64551	Crash when configuring eBGP
CSCVt68348	Unexpected reload when using "show radius server-group all" or "show aaa server"
CSCVt73592	missing/corrupt IOS-XE PKSC10 format
CSCVt76844	ASR1002-X ESP crash in multikey_hash_ager_tw_timer_to()
CSCVt79205	ASR1001-X: 'show environment' is no longer monitoring R0 voltage sensors
CSCVt82613	IOS-XE: ACL on Management Interface ignoring ICMP-Type information.
CSCVt89441	IOS-XE device crashed with CGD shared memory corruption freed by FMAN-FP
CSCVt98883	Cisco-IOS-XE-policy yang model incomplete support for match access-group

Caveat ID Number	Description
CSCvu01690	CPUHOGS produced while executing the command - client fireall access-list ?
CSCvu04665	CUBE keeps sending REINVITES to peer legs leading to high CPU and eventually crashes.
CSCvu08116	RP failed after show ip cef command was executed
CSCvu16200	Router May Crash When a SSH session is Closed After a TACACS Configuration Change (Part 2)
CSCvu20040	LTE module unresponsive after test cellular command.
CSCvu25765	EPC not working with netflow enabled.
CSCvu26585	"req plat software trace archive" fails with "STORAGE_TARGET: unbound variable Operation failed"
CSCvu27953	Crash due to a segmentation fault in the "IPsec background proc" process
CSCvu31425	DHCP Offer is going out on the same PMIP tunnel that received it.
CSCvu31813	ASR 1000 - valid Vendor Specific TLV dropped for invalid header length
CSCvu36476	memory corruption in IOMEM in polaris 16.11.1
CSCvu40093	Crash when tearing down a PPPoE client session
CSCvu42109	Traceback: Standby RSP3 reloads "HSCF Failed to sync private-config"
CSCvu47079	Memory leak in "VTEMPLATE bkrnd" process leading to isis_delete_isisidb
CSCvu47707	ASR 1001-X in Partial Collection Failure
CSCvu52322	CBR8: do not drop malformed dhcp option 125 packets
CSCvu57372	ASR1000 - 16.9.4 - PLATFORM_INFRA-5-IOS_INTR_OVER_LIMIT +TB when sessions at scale
CSCvu57706	CUBE fails to send calls with below error after updating IOS to 16.9.5 Error (Resource busy)
CSCvu58791	RADIUS not sent for 802.1x

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.5

Resolved Bugs for Cisco IOS XE Gibraltar 16.12.5

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

Caveat ID Number	Description
CSCuv97577	Mishandling of dsmpSession pointer causes a crash

Caveat ID Number	Description
CSCvq68154	EIGRP IPv6: "show ipv6 protocols" might cause a crash when a route-map is used as a distribute list
CSCvq90361	NHRP process crash on using same tunnel address on multiple spokes
CSCvr77583	New IP/PPPoE subscribers not reachable after port-channel reduced to single member link
CSCvs94927	Crash in dbal_tunnelmgr_tunnel_notify_dst_close, with tls tunnel
CSCvt00228	DDNS triggers a crash when an update is sent to delete an entry
CSCvt04814	CPP crash due to a long QoS Policy and Class name
CSCvt12819	PI - Loopback IP are advertised with local-label instead of imp-null
CSCvt18190	Router crash when doing show bgp ipv6 unicast summary'
CSCvt51568	Unexpected Reload due to Sessmgr
CSCvt62112	Physical policy cannot be clean up with QoS policy in suspended mode on PPPoE Dialer
CSCvt76844	ASR1002-X ESP crash in multikey_hash_ager_tw_timer_to()
CSCvt79205	ASR1001-X: show environment is no longer monitoring R0 voltage sensors
CSCvt82613	IOS-XE: ACL on Management Interface ignoring ICMP-Type information.
CSCvt99461	Remove duplicate license keyword from show platform software license command
CSCvu00800	Unexpected reload when UC wsapi CLI is enabled.
CSCvu04665	CSCvu04665: CUBE keeps sending REINVITES to peer legs leading to high CPU and eventually crashes.
CSCvu08116	RP failed after show ip cef command was executed
CSCvu16200	Router May Crash When a SSH session is Closed After a TACACS Configuration Change (Part 2)
CSCvu26585	"req plat software trace archive" fails with "STORAGE_TARGET: unbound variable Operation failed"
CSCvu40093	Crash when tearing down a PPPoE client session
CSCvu62273	CLI should be auto-upgraded from "tacacs-server" cli to newer version while upgrading
CSCvu65488	SSH/SCP does not work from vManage to cEdges in MT setup
CSCvu66723	Evaluation of CVE-2020-10188 - Cisco IOS XE Persistent Telnet
CSCvu77962	ASR 1000 / 16.9.4c / MKA control traffic not forwarded out on L2VPN

Caveat ID Number	Description
CSCvu80611	cpp_cp_svr_ledp crash seen during SIT Regression
CSCvu95121	Static NAT outside breaks locally generated TCP/UDP traffic
CSCvu98042	High memory usage after enabling tunnel interface with "mpls nhrp" configured leading to crash
CSCvu99616	Snort initiate reset and Failed to load - Real websites in Browser
CSCvv02239	SRST router reload unexpectedly
CSCvv03229	Crash in sre_dp_traverse_dfa_legacy as SIP invite messages crosses a GRE Tunnel
CSCvv03800	ASR-1002X lost all configuration after upgrade from 16.12 to 17.3
CSCvv05893	CUBE router crashed due to memory corruption in subscription control block
CSCvv11423	Remote EID space prefix not installed in CEF when overlapping prefix exists as Local EID
CSCvv11443	Assertion Failed in MFIB causes Catalyst 9500 Switch to crash
CSCvv13970	ASR-1000: Tracebk at be_data_inconsistency_error_with_original_ra seen with latest images
CSCvv14026	Unexpected Reload after running 'show voice dsp' command while an ISDN Call Disconnects
CSCvv14263	Day 0 Config Bringup after Power OFF/ON C1121X-8PLTEP
CSCvv14490	Media inactivity detection getting triggered before timer expiry
CSCvv15313	CUBE shouldnt crash when receiving an REINVITE with stun parameters and stun is not configured
CSCvv16874	Catalyst Switch: SISF Crash due to a memory leak
CSCvv17560	BMP BGP server can lead to CPUHOG and crashes
CSCvv17937	Dynamic insertion/deletion of DTMF interworking fails for midcal negotiation w/REINVITE consumption
CSCvv20380	Removing and Adding Bulk ACL leads to Tracebacks and Error-Objects
CSCvv26538	Crash due to a NULL pointer while bringing down PPPoE sessions.
CSCvv39429	The Cisco Catalyst 9800 Series Wireless Controller crashes when CPP threads get stuck
CSCvv47691	Reload: IOS-XE router crashing due to DN mismatch
CSCvv50570	WNCD crashed after mab failed to allocate memory
CSCvv53948	LIG causes Map-Cache entry to override RIB

Caveat ID Number	Description
CSCvv55435	ASR1001-X fcmd crash: ftm_tunnel_sla_tunnels_get_object
CSCvv58056	Large ACLs may be partially loaded into hardware resulting in unexpected drop
CSCvv64319	bgp crash in bgp_show_network_detail, bgp_imp_find_imported_path_topo
CSCvv73691	PMTU Discovery may negotiate an incorrect MTU on IOS-XE SDWAN routers
CSCvv75649	Large tcp stream fails DNS translation
CSCvv79273	Router may crash when using Stateful NAT64
CSCvv79428	Having H323 and SIP protocol configured on Voice Gateway can cause crash
CSCvv84345	ASR 1000 Crash on configuring IP NAT inside source list under VRF
CSCvv88621	GETVPN: All GM will crash when Primary KS recovers its COOP role after network outage
CSCvv93925	ASR 1000 crash when ACL deleted following object-group modification
CSCvv98273	Policy-map on a per session QoS is not shaping the traffic as expected
CSCvv98828	SRTP traffic created a HW loop and the QFP crashed.
CSCvv99800	ASR 1000 FMANFP crashes during bootup with memory corruption
CSCvw02527	ASR 1000 NAT66 communication failure when change the NAT66 prefix configuration.
CSCvw06719	"platform ipsec reassemble transit" tail-drops unencrypted IPv4 Fragments with specific payload
CSCvw09486	Router might crash after apply a class-map in input direction with bandwidth percentage
CSCvw20165	INTRED: Crash seen on BNG+NAT setup with scaled pools and "max-entries all-host" limit being hit
CSCvw34157	APPNAV CFT Crashes
CSCvw39383	CPP ucode crash with fw_base_flow_create
CSCvw40079	ASR 1000 Crashes in ipv6 mgd timer code when removing vrf config
CSCvw47640	ASR 1000 doing KS role for GETVPN is sending malformed rekey packets
CSCvw51976	Bulk-sync failure due to PRC mismatch causes C3k continuous reload
CSCvw59276	erspan classify ucode crash
CSCvw68171	Duplicate Bytes & Packet when Q in Q is configured

Open Bugs for Cisco IOS XE Gibraltar 16.12.5

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

Caveat ID Number	Description
CSCuw75352	ASR 1000-lisp:Standby RP complains when eid-table removed from Active RP
CSCux68415	ASR 1000: lisp instance are not operational with vrf Deletion error
CSCvp60827	Delay of 30 sec while creating a new config file for phone using tftp.
CSCvr28935	IOS crash in DHCPd Receive with Unnumbered interfaces
CSCvr91021	SESM Policy-Interface on ISG ignoring Radius Requests on port 1812
CSCvs37027	Standards-based IKE Support for Transport IPSec (cEdge) has Implicit ACL
CSCvt35987	Incorrect guard logic between LISP and CEF
CSCvt81979	ASR IOS-XE SDWAN router bfd sessions not coming up if BGP routing is not providing a local next hop.
CSCvt89441	IOS-XE device crashed with CGD shared memory corruption freed by FMAN-FP
CSCvt97326	ASR 1000: harddisk usage is always zero in "show platform resource" for consolidated platforms
CSCvu26741	Punt-Keepalive crash with lsmpl_lo_drv and container app traffic.
CSCvu52322	CBR8: do not drop malformed dhcp option 125 packets
CSCvu57706	CUBE fails to send calls with below error after updating IOS to 16.9.5 Error (Resource busy)
CSCvv05895	ASR1001-X: Issue a cpld reset instead of reboot in kcrash
CSCvv74550	Memory leak in Session Manager Daemon (sessmgrd) by WEBAUTH
CSCvv78055	VTY leaks in CWMP
CSCvv94743	Data Plane fails over L2TPv3 while disabling VLAN limit restrictions with ASR1002-HX
CSCvw11488	Enabling cts enforcement on policy applying FIA on all interfaces
CSCvw13682	L3 connected lite session not coming up , stuck in data-plane(qfp)
CSCvw16816	IOS-XE device fails to install new IPSec SAs
CSCvw27787	NBAR not able to recognize application in a capwap-tunnel
CSCvw50191	[CFD] All APs (1,900+ APs) suddenly lost site assignment from Inventory and are unpositioned on maps
CSCvw51738	ISR4K - NIM-ES2 module soft-reload leads to a memory leak in iomd
CSCvw51810	Disruption of IP communication due to AUTH_DRIVEN_DROP on uplinks when flapping downlink ports

Caveat ID Number	Description
CSCvw52144	Functional: C9300 pki related crash while trying a swim upgrade from DNAC
CSCvw52574	ASR 1000 configured with 'no ip unreachable' sending ICMP Type 3 Code 13
CSCvw57860	Duplicate entries seen in MAC filter table.
CSCvw67366	ASR -1002-X: Punt keepalive crashed due to bqs related interrupt
CSCvw70009	ASR 1000: fman_rp crash seen on 16.9.X when "show platform software nat RP active logging" is run
CSCvw70262	cEdge directly-connected routes missing from routing table
CSCvw71866	Memory corruption cause we expected a free block - allocated by ldap_perform_start_tls
CSCvw71941	QFP crash in cpp_ess_tc_tgt_if_fm_edit_helper
CSCvw74921	APPNAV CFT crash on ISR
CSCvw79166	ASR 1000 400GB SSD Drive appearing as 20GB
CSCvw81274	Opflex generated Route Distinguisher is not globally unique on ASR1k
CSCvw81572	Multiple crashes cpp_cp_svr and qfp-ucode on 16.12.4
CSCvw83094	ASR 1000 cpp_cp crash w/hierarchical QoS on tunnel interface and source subinterface
CSCvw84883	DDNS feature triggers crash on 16.X/17.X releases due to memory corruption
CSCvw89147	Crash at the moment of calculating tcp header
CSCvw90699	The BFD sessions between cEdge routers are down due to IN_US_V4_PKT_SA_NOT_FOUND_SPI
CSCvw91361	Crash when issuing "show crypto isakmp peers config"
CSCvw94372	ASR 1000 fails to install rekey causing traffic drop
CSCvw97866	APPNAV SMU for CSCvt76844 and CSCvw34157
CSCvw99128	Memory Leak in IOS_EVENTQ_DB mounted on /tmp/rp/tdldb

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.6

Resolved Bugs for Cisco IOS XE Gibraltar 16.12.6

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

Caveat ID Number	Description
CSCvf05845	Virtual-PPP interface stats counter is not incrementing for L2TP client initiated VPDN tunnelling

Caveat ID Number	Description
CSCvo41609	GETVPN: Clearing members on Key Server causing rekey processing failure on GMs
CSCvw04866	17.4: EFT Customer having issues while upgrading cEdges from vManage
CSCvw33113	Unexpected reload in NHRP when access to an invalid memory region
CSCvw48943	crypto ikev2 proposals are not processed separately
CSCvw84042	IOS-xe does not correlate indices properly with cellular radio band output
CSCvw94166	IKE should have a mechanism to alert or mitigate resource exhaustion due to QM flooding
CSCvw94538	Rollover certification generation is not consistent on SUBCA
CSCvw96342	handle the NULL ACL template in fman rp shim layer
CSCvx11389	NAT TCP Load Balancing not working on IOS XE
CSCvx32670	Wrong reload reason reflected after a power outage.
CSCvx72682	[DMM/SLM test issue] CFM crash when using physical port, DMM/SLM doesn't work on EVC
CSCvx77674	A router may crash when processing an NHRP packet
CSCvx83301	"insufficient resources" NHRP-ERROR while receiving small rate of NHRP Resolution Requests/second
CSCvy16531	VG400 ENVIRONMENTAL-1-ALERT: RPM: fan1, Location: P2, State: Warning, Reading: 3240 RPM
CSCvy24571	Static NAT conflicts/overwrites with Port-forwarding

Open Bugs for Cisco IOS XE Gibraltar 16.12.6

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

Caveat ID Number	Description
CSCvj26197	Update statistics from Oecteon vjptela code to platform
CSCvp33081	Traceback: fman process generates core during ESP100 bootup
CSCvr14313	ASR1002-HX: not able to initialize hw crypto-engine with non-sdwan image
CSCvt35181	GD- Ucode crashed observed at tw_timer_m40_tick ()
CSCvt97326	Cisco 1000 Series ASR: hddisk usage is always zero in "show platform resource" for consolidated platforms
CSCvv05895	ASR1001-X: Issue a cpld reset instead of reboot in kcrash

Caveat ID Number	Description
CSCvv94743	Data Plane fails over L2TPv3 while disabling VLAN limit restrictions with ASR1002-HX
CSCvw62284	ASR1000 ISG: Crash when processing DHCP Request
CSCvw67366	ASR1002-X: Punt keepalive crashed due to bqs related interrupt
CSCvx08118	ASR1001-X: Bug to further address CSCvt08179 : QFP crash due to hardware interrupt
CSCvx32807	False positive alarm: IOSXE_RP_ALARM-6-INFO: ASSERT CRITICAL Fan Tray Bay 1 Fan Tray Module Missing
CSCvx51502	Cisco 1000 Series ASR platform crashes when applying a hierarchical QoS policy on the tunnel interface
CSCvx86894	WS-C3850-24XS-S 16.12.5 High CPU during DNAC-Resync is causing timeout error for SNMP walk.
CSCvy23400	MC-LAG feature cannot preserve administratively shut down sub-interfaces
CSCvy57681	Unexpected reboot of IOS-XE Router in BQS QM @ cpp_qm_proc_rt_commit
CSCvy92331	MC-LAG feature on standby device, Subinterface shouldnt change status to UP during ADMIN NO SHUT
CSCvz11362	ASR fails to install rekey causing traffic drop
CSCvz14893	ASR1002-HX running 16.12.5 SDWAN image crashed due segmentation fault in cpp_ipsec_spd
CSCvz28950	DMVPN phase 2 connectivity issue between two spokes
CSCvz42684	Functional : [Shockwave-Patch] : ip helper-address global x.x.x.x is not pushed to FIAB device

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.7

Resolved Bugs for Cisco IOS XE Gibraltar 16.12.7

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

Caveat ID Number	Description
CSCvz57415	128.0.0.0/2 is installed into CEF as unusable on a PETR after EID-Prefix is removed.
CSCvy79950	Cannot force the switch to ask for option 12 to be assigned from the DHCP server
CSCvz24267	Static NAT entry is injecting a route to Null0
CSCvz69851	CSR: Missing iid_certs for AWS invite-only regions
CSCwa36699	Prefetch CRL Download Fails

Resolved and Open Bugs for Cisco IOS XE Gibraltar 16.12.8

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

Table 1: Resolved Bugs for Cisco IOS XE Gibraltar 16.12.8

Caveat ID Number	Description
CSCvy91615	Open SSH Vulnerability for IOS-XE platforms.
CSCwb08932	Standby switch crashed due to SISF BT MAC MOV.
CSCvz77313	Catalyst switch reload due to SFF8472.
CSCwa27659	Virtual VRRP IP address unreachable from the BACKUP VRRP.
CSCwa82143	%SYS-2-INTSCHED: 'may_suspend' disabled -Process= "HSRP IPv4" log generate during boot up.
CSCwb26335	RSP3:Err reading data from table dmi-general: Could not get boolean val for feature.side_effect_sync.
CSCwb96964	Catalyst 3850 crashes on creating telemetry subscription.
CSCvw60355	DHCPv6: Memory allocation of DHCPv6 relay option results in crash.
CSCwb24680	LLDP System Description not correctly seen in ISE.
CSCvz80171	SIP call fails egress dial-peer uses "session server-group" and "sip options-keepalive".

ROMmon Release Requirements

For more information on ROMmon support for Route Processors (RPs), Embedded Services Processors (ESPs), Modular Interface Processors (MIPs), and Shared Port Adapter Interface Processors (SIPs) on Cisco ASR 1000 Series Aggregation Services Routers, see <https://www.cisco.com/c/en/us/td/docs/routers/asr1000/rommon/asr1000-rommon-upg-guide.html>

Related Documentation

- [Release Notes for Previous Versions of ASR 1000 Series Aggregation Services Routers](#)
- [Hardware Guides for Cisco ASR 1000 Series Aggregation Services Routers](#)
- [Configuration Guides for ASR 1000 Series Aggregation Services Routers](#)
- [Command Reference Guides for ASR 1000 Series Aggregation Services Routers](#)
- [Product Landing Page for ASR 1000 Series Aggregation Services Routers](#)
- [Datasheet for ASR 1000 Series Aggregation Services Routers](#)

- [Upgrading Field Programmable Hardware Devices for Cisco ASR 1000 Series Routers](#)
- [Cisco ASR 1000 Series Aggregation Services Routers ROMmon Upgrade Guide](#)
- [Field Notices](#)
- [Deferral Notices](#)
- [Cisco Bulletins](#)

