# Release Notes for Cisco IOS XE SD-WAN Devices, Cisco IOS XE Release Bengaluru 17.4.x

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# Release Notes for Cisco IOS XE SD-WAN Devices, Cisco IOS XE Release Bengaluru 17.4.x

Note

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These release notes accompany the Cisco IOS XE Release Bengaluru 17.4.x, which provides Cisco SD-WAN capabilities. They include release-specific information for Cisco vSmart Controllers, Cisco vBond Orchestrators, Cisco vManage, as applicable to Cisco IOS XE SD-WAN devices.

For release information about Cisco vEdge Devices, refer to Release Notes for Cisco vEdge Devices, Cisco SD-WAN Release 20.4.x.

# What's New for Cisco IOS XE Release Bengaluru 17.4.x

This section applies to Cisco IOS XE SD-WAN devices.

Cisco is constantly enhancing the SD-WAN solution with every release and we try and keep the content in line with the latest enhancements. The following table lists new and modified features we documented in the Configuration, Command Reference, and Hardware Installation guides. For information on additional features and fixes that were committed to the SD-WAN solution, see the *Resolved and Open Bugs* section in the Release Notes.

Table 1: Cisco IOS XE Release 17.4.1a

Feature	Description
Cisco SD-WAN Getting Started	

Feature	Description
Support for Deploying Cisco Catalyst 8000V Instances for Supported Cloud Services Provider Platforms	Starting from this release, Cisco Catalyst 8000V instances can be deployed on Cloud Services Provider portals such as Google Cloud Platform, Microsoft Azure and Amazon Web Services.
Support for Managing Root CA Certificates in Cisco vManage	This feature enables you to add and manage root certificate authority (CA) certificates.
Support for Subject Alternative Name (SAN)	This feature enables you to configure subject altenative name (SAN) DNS Names or uniform resource identifiers (URIs). It enables multiple host names and URIs to use the same SSL certificate.
Upgrade the Software of Cisco ISR1100 Series Integrated Services Routers to Cisco IOS XE	This release introduces Cisco IOS XE SD-WAN support for Cisco ISR1100 Series Integrated Services Routers (Cisco ISR1100-4G, Cisco ISR1100-6G, and Cisco ISR1100-4GLTE). These devices can use either Cisco vEdge software or Cisco IOS XE SD-WAN. You can upgrade these routers from Cisco vEdge software to Cisco IOS XE SD-WAN, or vice-versa.
One Touch Provisioning: Onboard Cisco IOS XE SD-WAN Devices Using Generic Bootstrap Configuration	You can generate a generic bootstrap configuration on Cisco vManage and use this configuration to onboard multiple Cisco IOS XE SD-WAN devices. When you boot a device with the generic bootstrap configuration, the device is listed on Cisco vManage as an unclaimed WAN edge device. To complete the onboarding, claim the device on Cisco vManage and attach a device template that configures the system IP address and site ID.
Systems and Interfa	ices
Type 6 Passwords on Cisco IOS XE SD-WAN Routers	This feature allows you to use type 6 passwords that use secure reversible encryption. This encryption provides enhanced security by using more secure algorithms to encrypt your passwords. These passwords are supported for the templates detailed in .
Configure a Cellular Gateway	This feature provides templates for configuring a supported cellular gateway as an IP pass-through device.
	This release supports the Cisco Cellular Gateway CG418-E.
Cisco SD-WAN Multitenancy	With Cisco SD-WAN multitenancy, a service provider can manage multiple customers, called tenants, from Cisco vManage. In a multitenant Cisco SD-WAN deployment, tenants share Cisco vManage instances, Cisco vBond Orchestrators and Cisco vSmart Controllers. Tenant data is logically isolated on these shared resources.
Qualified Commands for Cisco IOS XE Release 17.4.1a	Starting Cisco IOS XE Release 17.4.1a, you can use additional commands in CLI Add-on feature templates.

Feature	Description	
Jumbo Frames Support	Jumbo Frames are supported for 1 GE interfaces on Cisco IOS XE SD-WAN devices. Starting Cisco IOS XE Release 17.4.1a, the MTU can range from 576 through 9216 bytes on these 1 GE interfaces.	
Routing		
Ability to Match and Set Communities during BGP to OMP Redistribution	This feature enhances the implementation of match and set clauses for redistribution from BGP to OMP and vice versa on Cisco IOS XE SD-WAN devices. You can redistribute the routes from a BGP into an OMP routing process, using the redistribute command in router configuration mode. The route-maps are defined locally on each device to manipulate communities. The following commands are updated:	
	route-map	
	advertise bgp route-map bgp-to-omp	
	redistribute omp route-map omp-to-bgp	
Policies		
Policy Matching with ICMP Message	This feature provides support for a new match condition that you can use to specify a list of ICMP messages for centralized data policies, localized data policies, and Application-Aware Routing policies.	
	For information on matching ICMP messages in a centralized data policy, see Match Parameters - VPN List.	
	For information on matching ICMP messages in a localized data policy, see Match Parameters.	
	For information on matching ICMP messages in an Application-Aware Routing policy, see Structural Components of Policy Configuration for Application-Aware Routing.	
Traffic Redirection to SIG Using Data Policy	With this feature, while creating a data policy, you can define an application list along with other match criteria and redirect the application traffic to a Secure Internet Gateway (SIG).	
Enhanced Policy Based Routing for Cisco SD-WAN	This release extends Enhanced Policy Based Routing (ePBR) to Cisco SD-WAN. ePBR is a protocol-independent traffic-steering mechanism that routes traffic based on flexible policies for traffic flows. You can create ePBR policies using CLI add-on templates in Cisco vManage.	
Per-class Application-Aware Routing	This feature enahances the capabilities of directing traffic to next-hop addresses based on the SLA definitions. These SLA definitions along with the policy to match and classify traffic types can be used to direct traffic over specific Cisco SD-WAN tunnels. The SLA definition comprises of values of loss, latency and jitter, which are measured using the BFD channel that exists between two TLOCs.	

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Feature	Description		
FNF Support for IPv6 and Cache Size Modification	This feature enables export of packet to external collector over IPv6 transport on Cisco IOS XE SD-WAN devices and provides the visibility of IPv6 network traffic. If you want to monitor IPv4 and IPv6 traffic together, this feature enables you to modify the cache size on the data plane. Cisco Flexible NetFlow (FNF) is a technology that provides customized visibility into network traffic. In Cisco SD-WAN, FNF enables exporting data to Cisco vManage which makes it easy for the customers to monitor and improve their network.		
Security			
Support for Rule Sets	This feature allows you to create sets of rules called rule sets. Rule sets are a method to create multiple rules that have the same intent. You can also re-use rule sets between security policies.		
Configure Port-Scanning Detection Using a CLI Template	This feature lets you configure port-scanning detection and apply a severity level (low, medium, or high) for identifying and classifying potential attacks using a CLI template.		
IPSEC/GRE Tunnel Routing and Load-Balancing Using ECMP	This feature allows you to use the SIG template to steer application traffic to Cisco Umbrella or a Third party SIG Provider. The application traffic is steered to a SIG based on a defined data policy and other match criteria.		
	This feature also allows you to configure weights for multiple GRE/IPSEC tunnels for distribution of traffic over multiple tunnels. Equal-cost multi-path (ECMP) routing and load balancing is supported on multiple GRE/IPSEC tunnels.		
TCP Optimization			
Support for Multiple, External AppQoE Service Nodes	This feature allows you to configure multiple AppQoE service nodes that are external to the intercepting edge routers or AppQoE service controllers. It extends AppQoE support to edge routers in which AppQoE can't run as an integrated service node. This feature also allows AppQoE to scale, where integrated AppQoE has limitations on the throughput and number of connections. The ability to configure multiple AppQoE service nodes help meet the scale and throughput requirements of large enterprise sites, such as data centers.		
Cloud OnRamp			
Azure Government Cloud Support for Cisco IOS XE SD-WAN Devices	This feature allows you to configure the Cisco Catalyst 8000V devices on Microsoft Azure Government Cloud. With these cloud devices now supported on Microsoft Azure Government Cloud, Government Cloud customers can use the same advanced routing and security benefits, which are already available on Azure public cloud.		
AWS Government Cloud Support for Cisco IOS XE SD-WAN Devices	Starting from this release, Cisco Catalyst 8000V devices are supported on AWS Government Cloud.		

Feature	Description	
Application Feedback Metrics for Office 365 Best Path Selection on Cisco IOS XE SD-WAN Devices	This feature adds new metrics as inputs to the best-path selection algorithm for Office 365 traffic. The new inputs include best-path metrics from Microsoft Cloud Services. The feature also provides a new page for viewing detailed logs of the input data used by the best path algorithm.	
Automated Integration of Azure Virtual WAN and Cisco SD-WAN	This feature enhances Cloud OnRamp integration with Microsoft Azure by allowing Cisco Catalyst 8000V Edge Software (Cisco Catalyst 8000V) to be deployed inside the Azure Virtual WAN Hub instead of deploying it in transit VNets. It also automates the Cisco SD-WAN fabric connection to Azure Virtual WAN Hub through Cisco Catalyst 8000V. The connectivity between inter-region Azure Virtual WAN Hubs is also supported. In addition, you can convert the Azure virtual WAN hubs created using Cisco vManage into secured hubs by deploying Azure firewall inside them. However, secured virtual hubs can only be configured using the Microsoft Azure portal.	
Integration of Cisco SD-WAN and Azure Virtual WAN Hub Using Azure Portal	As part of the integration of Cisco SD-WAN with Azure Virtual WAN, you can also use the Azure portal to upload bootstrap configuration files for Cisco Catalyst 8000V instances. These instances can then be used to create a virtual WAN hub using the Azure portal.	
Support for Cisco Cloud Services Platform, CSP-5456 (Cloud onRamp for Colocation)	Starting from this release, Cisco CSP-5456 is supported on the Cloud onRamp for Colocation solution. The CSP-5456 offers a higher capacity of 56 cores, which maximizes the placement of VNFs in service chains.	
Support for Cisco Catalyst 8000V Devices (Cloud onRamp for Colocation)	Starting from this release, Cisco Catalyst 8000V devices are now supported as a validated VNF in the Cloud onRamp for Colocation solution.	
Onboarding CSP Device with Day-0 Configuration Using USB Drive (Cloud onRamp for Colocation)	This feature enables you to onboard CSP devices by loading the Day-0 configuration file to a USB drive. Use this onboarding option when you can't access the Internet to reach the Plug-and-Play Connect server.	
Monitor and Maintain		
Ethernet Connectivity Fault Management Support on Cisco IOS XE SD-WAN Devices	Starting from this release Cisco SD-WAN supports the Ethernet Connectivity Fault Management functionality on Cisco IOS XE SD-WAN devices. This feature helps to monitor the Carrier Ethernet Network links.	

Feature	Description		
Binary Trace for Cisco SD-WAN Daemons	Binary trace enhances the troubleshooting of Cisco SD-WAN daemons. Binary tr logs messages from the daemons in a binary format. Messages are logged faster in binary format, improving the logging performance, and use lesser storage space the in the ASCII format. The binary trace CLI allows you to set the debug levels for additional process modules compared to the <b>debug</b> command.		
	From Cisco IOS XE Release 17.4.1a, binary trace is supported for the following Cisco SD-WAN daemons:		
	• fpmd		
	• ftm		
	• ompd		
	• vdaemon		
	• cfgmgr		
Cisco SD-WAN Con	nmand Reference Guide		
Crypto Utilization in Show Platform Resources Command	This feature adds information about crypto utilization to the <b>show platform resources</b> command on the supported routers.		
High Availability Co	High Availability Configuration Guide		
Disaster Recovery for a 6 Node Cisco vManage Cluster	This feature provides validated support for disaster recovery for a 6 node Cisco vManage cluster.		

## **New and Enhanced Hardware Features**

#### **New Features**

 Support for UCS-E module—This feature adds a UCS-E template in Cisco vManage for configuring Cisco Unified Computing System (UCS) E-Series servers. For related information, see Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine and Configuring Devices using vManage.



**Note** Currently, backplane interfaces are not supported for UCS-E module. Only external connectivity is supported.

- Support for Cisco IR1101 Integrated Services Router Rugged—Cisco SD-WAN capability can now be enabled onCisco IR1101 Integrated Services Router Rugged. The following notes apply to this support:
  - Controller devices (Cisco vBond orchestrators, Cisco vManage NMSs, and Cisco vSmart controllers) must run Cisco SD-WAN Release 19.2 or later.
  - The default topology is full mesh, but the hub and spoke topology is often used for IoT applications.

- Cisco SD-WAN support on the Cisco IR1101 Integrated Services Router Rugged requires Cisco IOS-XE Release 16.12.
- The Cisco IR1101 Integrated Services Router Rugged has four fixed switch-ports. Make sure to select the correct template.
- The CLI template is not currently supported.
- Starting from Cisco IOS-XE Release 16.12.1, Cisco IR1101 Integrated Services Router Rugged has dual LTE support with LTE extension module.
- We recommend using up to 50 BFD sessions for scaling.

## Important Notes, Known Behavior, and Workaround

- From Cisco SD-WAN Release 20.4.1.1, Microsoft Azure environment is supported for deploying Cisco SD-WAN controllers (Cisco vBond orchestrator, Cisco vSmart controller, and Cisco vManage). The support is limited to Cisco SD-WAN cloud-based deployments only.
- Cisco IOS XE SD-WAN devices with the SFP-10G-SR module do not support online insertion and removal (OIR) of this module.
- Cisco vManage Release 20.3.1 implements a hardened security posture to comply with FedRamp guidelines. As a result, your vAnalytics login credentials that are stored locally get erased on upgrading the software, and you cannot access the vAnalytics service directly through Cisco vManage. In this case, log in to vAnalytics using this URL: https://analytics.viptela.com. If you can't find your vAnalytics login credentials, open a case with Cisco TAC support.

# **Cisco vManage Upgrade Paths**

For information about Cisco vManage upgrade procedure, see Upgrade Cisco vManage Cluster.

Starting Cisco	Destination Version					
vManage Version	19.2.x	20.1.x	20.3.x	20.4.x		
18.x/19.2.x	Direct Upgrade	20.1.X Direct Upgrade	<b>20.3.X</b> Check disk space• If the disk space is m than 2GB: Direct Upg• If the disk 	20.4.x    ce*  Step upgrade through 20.3    aore		
			the second secon	an or equal to B. Use the quest nms nfiguration-db agnostic mmand to check e data base size. is is applicable ly for upgrades devices running sco vManage elease 20.1.1 and er.		

Starting Cisco vManage Version	Destination Version						
	19.2.x	20.1.x	20.3.x		20.4.x		
20.1.x	Not Supported	Direct Upgrade	Direct Up	pgrade	Direct Upg	grade	
			For cluster procedure request r configure upgrade	er upgrade e**: nms ation-db	For cluster procedure <sup>3</sup> request ni configurat upgrade	upgrade **: ns tion-db	
			Note	We reco the data in the di than or o 5GB. U request configu diagnos commar the data This is a only for of devic Cisco vi Release later.	nNotend base size sk is less qual to se the nms ration-db stic d to check base size. upplicable upgrades es running Manage 20.1.1 and	We reco the data in the di than or of 5GB. Us request configu diagnos commar the data This is a only for of devic Cisco vl Release later.	mmend base size sk is less equal to se the nms ration-o tic d to cheo base size pplicabl- upgrade es runnir Manage 20.1.1 ar
20.3.x	Not Supported	Not Supported	Direct Uj	pgrade	Direct Upg	grade	
20.4.x	Not Supported	Not Supported	Not Supp	orted	Direct Upg	grade	

\*To check the free disk space using CLI,

- 1. Use the vshell command to switch to vshell
- 2. In vshell, use the df -kh | grep boot command
- \*\*Cluster upgrade must be performed using CLI
  - Use the following command to upgrade the configuration database. This must be done on one node only in the cluster:

request nms configuration-db upgrade



We recommend the data base size in the disk is less than or equal to 5GB. Use the request nms configuration-db diagnostic command to check the data base size. This is applicable only for upgrades of devices running Cisco vManage Release 20.1.1 and later.

• Enter login credentials, if prompted. Login credentials are prompted if all vManage server establish control connection with each other. After a successful upgrade, all configuration-db services are UP across the cluster and the application-server is started.

# **Resolved and Open Bugs**

#### 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.

## **Bugs for Cisco IOS XE Release 17.4.2**

This section details all fixed and open bugs for this release. These bugs are available in the Cisco Bug Search Tool

Bug ID	Description
CSCvw88098	Cisco IOS XE SD-WAN device crashes while running web traffic testing with security features enabled
CSCvw93490	CSR1000v crashing frequently with Critical software exception error.
CSCvx22995	On-demand tunnel is not setup with AAR SLA class and CXP feature enabled
CSCvx58099	C8500-12X4QC does not send logs to Cisco vManage when harddisk is not installed
CSCvx94798	SDWAN BFD is not re-establishing after network flap
CSCvv92064	App-aware policy need to be honored when queuing is not set by localized policy
CSCvw11607	Crash in DSP causing an mcpcc-lc-ms core file
CSCvw68171	Duplicate Bytes & Packet when Q in Q is configured
CSCvw91956	Router reload due sdwan nbar init process
CSCvx82128	Cisco IOS XE SD-WAN device object-group is not in sync between IOS and Confd.
CSCvs08693	VPN label is changing upon vEdge reboot
CSCvx61152	vSmarts crashing due to OOM after upgrade to 20.4.1.1
CSCvy10840	Cisco vManage available entropy exhaustion on some setup

#### **Resolved Bugs for Cisco IOS XE Release 17.4.2**

#### **Open Bugs for Cisco SD-WAN Release 17.4.2**

Bug ID	Description
CSCvy44563	cpp-mcplo-ucode crash due to stuck thread with extranet route leaking between vpns
CSCvw84883	DDNS feature triggers crash on 16.X/17.X releases due to memory corruption

#### **Bugs for Cisco SD-WAN Controller Release 20.4.1.2**

This section details all fixed and open bugs for this release. These are available in the Cisco Bug Search Tool through the Resolved Bug Search.

Bug ID	Description	
CSCvw50857	Frequent crashes/kernel panics on vEdge 100 models	
CSCvx49472	Policy Template push failure from Cisco vManage 20.4.1.1 to 17.2	
CSCvx52311	Order of DNS entries fails with <bad-element>dns-server-list</bad-element>	
CSCvx57151	Update button stops working after adding DHCP option	
CSCvx60393	Directory ownership changed after reload/upgrade	
CSCvx66814	Container logs seen growing unbounded without log rotation	
CSCvx80910	Devices goes "Out-of-sync" and can't re-push template with security policy and fail with "bad-cli"	

## **Resolved Bugs for Cisco SD-WAN Controller Release 20.4.1.2**

#### **Bugs for Cisco IOS XE Release 17.4.1b**

This section details all fixed and open bugs for this release. These bugs are available in the Cisco Bug Search Tool

#### **Resolved Bugs for Cisco IOS XE Release 17.4.1b**

Bug ID	Description
CSCvw17655	vEdge DPI for MS Teams does not work well
CSCvw24872	vmanage DHCP option 150 not allow multiple ip address
CSCvw41778	Fragmented packets may be dropped inbound on tunnel of cEdge with service-side NAT configuration
CSCvw49402	PPPoE config on Gig interface failed , vManage not handling ip mtu and mtu correctly
CSCvw76649	vManage 6 Node CLuster on Azure takes 2 mins to login to vManage UI.
CSCvw86437	Slowness in viewing ty policy, list & editing security policy.
CSCvw86827	Mapping for AWS TGW does not start when Azure vWAN mapping exists

Bug ID	Description
CSCvw91717	after upgrading to from 17.3.2 to 17.4.1, the device loses control connections
CSCvw97278	20.4 policy name restrictions may break existing templates on upgrade
CSCvx09069	Increase process wait timeout for configdb upgrade
CSCvx16493	cEdge stuck in INIT state with vSmart
CSCvx26834	vManage misconfigures cEdge ebgp-multihop which causes BGP BFD down
CSCvv84956	20.4 template push on ISR4451 failing with VRRP config
CSCvw03627	vManage template/policy push performance optimizations needed
CSCvw23740	In a cluster, an App server starting dependency should check a cluster, not just local service
CSCvw89415	BFD for BGP doesn't work on cEdge ASR1k
CSCvx07652	statsdb container crashes on 20.4 128GB azure vmanage
CSCvx23764	Template deattach got stuck after upgrade to 20.4 IR
CSCvw88048	Speed test initiated from ISR1k failed

### **Open Bugs for Cisco SD-WAN Release 17.4.1b**

Bug ID	Description
CSCvw36009	vBond/vSmart Upgrade Failed and Rollback due to Upgrade confirm not received
CSCvx36668	vManage admin tech failing intermittently
CSCvx38058	vBond kernel panic seen on reload

## Bugs for Cisco IOS XE Release 17.4.1a

This section details all fixed and open bugs for this release. These bugs are available in the Cisco Bug Search Tool

## **Resolved Bugs for Cisco IOS XE Release 17.4.1a**

Bug ID	Description
CSCvq63465	Drop cEdge requirement for dot1Q subinterface MTU to be 4 Bytes less than main interface
CSCvs75489	New Password is asked even when the Template used a non default admin Password
CSCvt28539	explicit acl needed for cellular intf for control connection bringup
CSCvt45700	[17.2.1]:policy service path and tunnel path commands stop working after reload

Bug ID	Description
CSCvt50136	ASR1k - all Platform : Observing IpFragErr for EMIX traffic with basic IPSEC config
CSCvt81979	ASR IOS-XE SDWAN router bfd sessions not coming up if BGP routing is not providing a local next hop.
CSCvu46417	ASR1k crash when doing a FIB lookup
CSCvu53340	Template push is failing as vManage is trying to disable link recovery for cellular controller.
CSCvu72391	Default route missing for second TLOC during script run, and control connection get stuck
CSCvu80611	cpp_cp_svr_ledp crash seen during SIT Regression
CSCvv09538	[SIT] Ramanos lost control and crashed after attaching device template
CSCvv14263	Day 0 Config Bringup after Power OFF/ON   C1121X-8PLTEP
CSCvv21398	sdwan multicast cEdge rpf failure even with unicast route present in rib and omp
CSCvv29416	CLI template push for banner login <> configuration fails on cedge
CSCvv40754	Backward compatibility issue for model between vManage version 20.3 and device version 17.2
CSCvv42381	[DyT]: TTM not updating link routes and omp routes are not getting updated
CSCvv64271	IOS-XE SD_WAN router crashed after upgrade to 17.3.1a
CSCvv67689	cEdge data-policy breaks SRST media stream with default-action accept or accept in sequence
CSCvv73691	PMTU Discovery may negotiate an incorrect MTU on XE SDWAN routers
CSCvv73826	BFD sessions flap after multiple control connection flaps to the vSmart Polaris side commit
CSCvv75771	XE SDWAN router crash due to system memory exhaustion caused by FTM memory growth
CSCvv87062	SDWAN 17.2.1/17.4.1 - cEdge router may restart after pushing multiple traffic data policies together
CSCvv60179	TSN: AAA Server Down issue using type 6 password

## Open Bugs for Cisco IOS XE Release 17.4.1a

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Bug ID	Description
CSCvv21200	SDWAN17.3- "NAT" Ping fails for packets originated from router - Reason packets drop "Ipv4NoRoute"

Bug ID	Description
CSCvv39559	After enable FEC and FNF with 100K flow per seconds for 40mins, C8500 crashes
CSCvv50783	IPSEC tunnels to AWS TGW failing when VPN tunnel doesn't allow all traffic
CSCvv58652	O365 CoR-SaaS shows random losses
CSCvv58786	Connected route is not imported into OMP database unless flap interface with C8KV platform
CSCvv69702	4451 : FTMD crash @ bfdmgr_session_get_from_record_index with traffic soak
CSCvw01038	[cEdge/CSR1kv] IPv6 Underlay, IPv6 fragmented but packet size is smaller than MTU
CSCvw01238	Enable AES encryption on cEdge and encrypt umbrella and zscaler secret/password
CSCvw02548	tunnel interface remains up even when the physical interface not have IP address
CSCvw16091	vEdge/cEdge - rekey timer expires, but tunnels stay up
CSCvw30618	Not all OMP routes getting installed
CSCvw41778	Fragmented packets may be dropped inbound on tunnel of cEdge with service-side NAT configuration
CSCvw46210	Bfd session stuck in invalid state
CSCvw46258	Intra-zone ZBFW policy does not apply on hardware level
CSCvw46753	After reload cEdge cellular interfaces in shutdown state are brought up
CSCvw52661	crash. seen during sh plat sof sdwan fo next-hop overlay id 0xf8000090
CSCvw54383	DPI flow telemetry generated by IOS-XE, for some flows tunnel identifiers are missing
CSCvw58543	Traceroute from Service VPN to remote Service VPN not showing the correct Hops
CSCvw61731	ASR-1K router is not programming correct next-hop for the destination prefix.
CSCvw62005	cEdge: IP MTU and MTU misconfiguration
CSCvw63896	Promethium: Box crashed at cpp_bfd_sdwan_stats_modify during longevity testing
CSCvw70262	cEdge directly-connected routes missing from routing table
CSCvw72021	nat pool config using sub-interfaces does not work after reload
CSCvw74035	Broadcast packets dropped even with "ip network-broadcast" and "ip directed-broadcast" configured

# **Controller Compatibility Matrix and Server Recommendations**

For compatibility information and server recommendations, see Cisco SD-WAN Controller Compatibility Matrix and Server Recommendations.

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## Supported Devices

For device compatibility information, see Cisco SD-WAN Device Compatibility.

## **Related Documentation**

- Release Notes for Previous Releases
- Software Installation and Upgrade for Cisco IOS XE Routers
- Software Installation and Upgrade for vEdge Routers
- Field Notices
- Recommended Releases
- Security Advisories
- Cisco Bulletins

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