

# Release Notes for Cisco IOS XE Catalyst SD-WAN Devices, Cisco IOS XE Catalyst SD-WAN Release 17.6.x

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**Note** To achieve simplification and consistency, the Cisco SD-WAN solution has been rebranded as Cisco Catalyst SD-WAN. In addition, from Cisco IOS XE SD-WAN Release 17.12.1a and Cisco Catalyst SD-WAN Release 20.12.1, the following component changes are applicable: **Cisco vManage** to **Cisco Catalyst SD-WAN Manager**, **Cisco vAnalytics** to **Cisco Catalyst SD-WAN Analytics**, **Cisco vBond** to **Cisco Catalyst SD-WAN Validator**, **Cisco vSmart** to **Cisco Catalyst SD-WAN Controller**, and **Cisco Controllers** to **Cisco Catalyst SD-WAN Control Components**. See the latest Release Notes for a comprehensive list of all the component brand name changes. While we transition to the new names, some inconsistencies might be present in the documentation set because of a phased approach to the user interface updates of the software product.

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### Related References

- [Cisco Catalyst SD-WAN Control Components Compatibility Matrix and Server Recommendations](#)
- [Cisco Catalyst SD-WAN Device Compatibility](#)

### User Documentation

- [User Documentation for Cisco IOS XE Catalyst SD-WAN Release 17](#)

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## Release Notes for Cisco IOS XE Catalyst SD-WAN Devices, Cisco IOS XE Catalyst SD-WAN Release 17.6.x



**Note** To achieve simplification and consistency, the Cisco SD-WAN solution has been rebranded as Cisco Catalyst SD-WAN. In addition, from Cisco IOS XE SD-WAN Release 17.12.1a and Cisco Catalyst SD-WAN Release 20.12.1, the following component changes are applicable: **Cisco vManage** to **Cisco Catalyst SD-WAN Manager**, **Cisco vAnalytics** to **Cisco Catalyst SD-WAN Analytics**, **Cisco vBond** to **Cisco Catalyst SD-WAN Validator**, **Cisco vSmart** to **Cisco Catalyst SD-WAN Controller**, and **Cisco Controllers** to **Cisco Catalyst SD-WAN Control Components**. See the latest Release Notes for a comprehensive list of all the component brand name changes. While we transition to the new names, some inconsistencies might be present in the documentation set because of a phased approach to the user interface updates of the software product.

These release notes accompany the Cisco IOS XE Catalyst SD-WAN Release 17.6.x, which provides Cisco SD-WAN capabilities. They include release-specific information for Cisco Catalyst SD-WAN Controllers, Cisco Catalyst SD-WAN Validators, Cisco SD-WAN Manager, as applicable to Cisco IOS XE Catalyst SD-WAN devices.

### Related Releases

For release information about Cisco vEdge Devices, refer to [Release Notes for Cisco vEdge Devices, Cisco SD-WAN Release 20.6.x](#).

For release information about Cisco SD-WAN Control Components, refer to [Release Notes for Cisco SD-WAN Control Components, Cisco Catalyst SD-WAN Control Components Release 20.6.x](#)

## What's New for Cisco IOS XE Catalyst SD-WAN Release 17.6.x

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

Cisco is constantly enhancing the Cisco Catalyst 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 Catalyst SD-WAN Release 17.6.4

Feature	Description
<a href="#">Configure Disaster Recovery Alerts</a>	This feature provides support for configuring Cisco SD-WAN Manager alerts to generate an alarm and a syslog message for any disaster recovery workflow failure or event that occurs.
<a href="#">Support for NAT High-Speed Logging</a>	This feature provides the ability to enable or disable high-speed logging (HSL) of all translations by NAT.  The new <b>ip nat log translations flow-export</b> command is introduced.  You can configure NAT HSL using a device CLI or a CLI add-on template.
<a href="#">Renew Device CSR</a>	This feature allows you to reset the RSA private and public keys, and generate a CSR that uses a new key pair. In earlier releases, the generation of CSR used the existing key pair.
<a href="#">DigiCert Migration</a>	This feature enables DigiCert certificate authority server in place of Symantec certificate authority server for signing the controller device certificates on Cisco SD-WAN Control Components including Cisco SD-WAN Controller, Cisco SD-WAN Validator, and Cisco SD-WAN Manager. You can protect, verify, and authenticate the identities of organizations and domains using these certificates.

Table 2: Cisco IOS XE Catalyst SD-WAN Release 17.6.2

Feature	Description
<a href="#">Layer 7 Health Check Support for SIG Tunnels for Umbrella and zScaler</a>	This feature provides Layer 7 health check support for the SIG auto tunnels for Umbrella and Zscaler, in Cisco IOS XE Catalyst SD-WAN devices.

Table 3: Cisco IOS XE Catalyst SD-WAN Release 17.6.1a

Feature	Description
<b>Cisco Catalyst SD-WAN Getting Started</b>	
<a href="#">Quick Connect Workflow for Onboarding Cisco IOS XE Catalyst SD-WAN Devices</a>	This feature provides an alternative, guided method in Cisco SD-WAN Manager to onboard supported WAN edge devices into the Cisco Catalyst SD-WAN overlay network. As part of the Quick Connect workflow, basic day-0 configuration profiles are created, which apply to all Cisco IOS XE Catalyst SD-WAN devices, irrespective of the device model and device family. This workflow adds edge devices to the WAN transport and establishes data plane and control plane connections.  This feature is supported on Cisco IOS XE Catalyst SD-WAN devices only.
<a href="#">Cisco SD-WAN Manager Persona-based Cluster Configuration</a>	Simplifies adding Cisco SD-WAN Manager servers to a cluster by identifying servers based on personas. A persona defines what services run on a server.

Feature	Description
<a href="#">Support for Reverse Proxy with Cisco IOS XE Catalyst SD-WAN Devices and Cisco Catalyst SD-WAN Multitenancy</a>	<p>With this feature, you can deploy a reverse proxy device in your overlay network between Cisco IOS XE Catalyst SD-WAN devices and Cisco SD-WAN Manager and Cisco SD-WAN Controller. Also, this feature enables you to deploy a reverse proxy device in both single-tenant and multitenant overlays that include Cisco vEdge or Cisco IOS XE Catalyst SD-WAN edge devices.</p>
<a href="#">Support for License Management Offline Mode and Compliance Alarms</a>	<p>With this feature, you can manage Cisco Catalyst SD-WAN licenses through a Cisco SD-WAN Manager instance that is not connected to the internet. To synchronize license and compliance information between Cisco SD-WAN Manager and Cisco SSM, you must periodically download synchronization files from Cisco SD-WAN Manager and upload the files to Cisco SSM.</p> <p>This feature also introduces compliance alarms that alert you if devices in the Cisco Catalyst SD-WAN network are not yet licensed.</p>
<p><b>Cisco Catalyst SD-WAN Systems and Interfaces</b></p>	
<a href="#">RBAC for Policies</a>	<p>This feature allows you to create users and user groups with required read and write permissions for Cisco SD-WAN Manager policies. RBAC for policies provides users with the access to all the details of policies to help maximize the operational efficiency. It makes it easier to meet configuration requirements and guarantees that authorized users on the system are only given access to what they need.</p>
<a href="#">Implicit ACL on Loopback Interfaces</a>	<p>This feature allows you to configure implicit ACL on loopback interfaces.</p> <p>You can filter and manage data traffic by configuring implicit ACL on loopback interfaces instead of using the physical WAN interface. This saves public IP address space.</p>
<a href="#">Geofencing</a>	<p>This feature provides a way to restrict a device's location to an operational geographical boundary, and to identify a device's location and report any violations of the configured boundary. If the device is identified to be in violation, you can restrict network access to the device using Cisco SD-WAN Manager operational commands.</p> <p>In the CLI or a CLI template, configure geofencing coordinates for establishing the location of the device. You can also register for SMS alerts.</p>
<a href="#">Cisco Catalyst SD-WAN EtherChannel</a>	<p>This feature allows you to configure EtherChannels on Cisco IOS XE Catalyst SD-WAN devices in service-side VPN.</p> <p>An EtherChannel provides fault-tolerant high speed link, redundancy, and increased bandwidth between Cisco IOS XE Catalyst SD-WAN devices and other devices such as routers, switches, or servers connected in a network.</p> <p>You can configure EtherChannels only using the CLI device templates and CLI add-on feature templates.</p>
<a href="#">Tenant Device Forecasting</a>	<p>With this feature, a service provider can control the number of WAN edge devices a tenant can add to their overlay network. By doing so, the provider can utilize Cisco Catalyst SD-WAN control components resources efficiently.</p>

Feature	Description
Migrate Multitenant Cisco Catalyst SD-WAN Overlay	This feature enables you to migrate a multitenant Cisco Catalyst SD-WAN overlay comprising shared Cisco SD-WAN Manager instances and Cisco SD-WAN Validator, and tenant-specific Cisco SD-WAN Controller to a multitenant overlay comprising shared Cisco SD-WAN Manager instances, Cisco SD-WAN Validators, and Cisco SD-WAN Controllers.
Cisco Catalyst SD-WAN Support for Carrier Supporting Carrier Connectivity	<p>The feature adds support for carrier supporting carrier (CSC) connectivity on Cisco IOS XE Catalyst SD-WAN devices.</p> <p>CSC enables you to interconnect IP or multiprotocol label switching (MPLS) networks operating at different sites over an MPLS backbone network. Using CSC requires an edge router that supports CSC functionality, called a carrier edge (CE) device, at each site. This feature enables a Cisco IOS XE Catalyst SD-WAN device to serve as a CE device, making it unnecessary to have a separate dedicated CE device at each site managed by Cisco Catalyst SD-WAN.</p>
Wireless Management on Cisco 1000 Series Integrated Services Routers	<p>This feature enables you to configure wireless LAN settings on Cisco 1000 Series Integrated Services using Cisco SD-WAN Manager.</p> <p>With Cisco SD-WAN Manager, you can automate the wireless LAN controller configuration and provide wireless connectivity without the need of another external controller to configure and manage wireless settings on the routers.</p>
Extended Visibility with Cisco Catalyst SD-WAN and Cisco ThousandEyes	<p>You can deploy Cisco ThousandEyes Enterprise agent natively as a container application on eligible Cisco IOS XE Catalyst SD-WAN devices to integrate Cisco SD-WAN Manager with Cisco ThousandEyes. You can install and activate the Cisco ThousandEyes Enterprise agent through Cisco SD-WAN Manager.</p> <p>By integrating Cisco Catalyst SD-WAN with Cisco ThousandEyes, you can gain granular insights into network and application performance with full hop-by-hop path analysis across the Internet, and isolate fault domains for expedited troubleshooting and resolution.</p>
<b>Cisco Catalyst SD-WAN Routing</b>	
Radio-Aware Routing Support	This feature enables Radio-Aware Routing (RAR) support on Cisco IOS XE Catalyst SD-WAN devices. RAR is a mechanism that uses radios to interact with the routing protocol OSPFv3 to signal the appearance, disappearance, and link conditions of one-hop routing neighbors. In a large mobile networks, connections to the routing neighbors are interrupted due to distance and radio obstructions. RAR addresses the challenges faced when merging IP routing and radio communications in mobile networks.
Redistribution of Replicated Routes to BGP, OSPF, and EIGRP Protocols	<p>This feature allows you to configure the following:</p> <ul style="list-style-type: none"> <li>- Redistribution of leaked or replicated routes between the global VRF and service VPNs for BGP, OSPF, and EIGRP protocols on Cisco IOS XE Catalyst SD-WAN device</li> <li>- OMP administrative distance option to prefer OMP routes over MPLS routes</li> <li>- VRRP tracking to track whether a leaked route is reachable</li> </ul>
<b>Cisco Catalyst SD-WAN Policies</b>	

Feature	Description
<a href="#">SLA Class Support Enhancement</a>	This feature is an enhancement to support more than six SLA classes per policy on Cisco IOS XE Catalyst SD-WAN device devices.
<a href="#">Application-aware Routing and Data Policy SLA Preferred Colors</a>	This feature provides different behaviors to choose preferred colors based on the SLA requirements when both application-aware routing policy and data policies are configured.
<a href="#">Flexible NetFlow Enhancement</a>	This feature enhances Flexible NetFlow to collect type of service (ToS), sampler ID and remarked DSCP values in netflow records. This enhancement provides the flexibility to define flow record fields to customize flow records by defining flow record fields. The ToS and remarked DSCP fields are supported only on IPv4 records. However, the sampler ID field is supported for both IPv4 and IPv6 records.
<b>Cisco Catalyst SD-WAN Security</b>	
<a href="#">Unified Security Policy</a>	This feature allows you to configure a single unified security policy for firewall and UTD security features such as IPS, Cisco URL Filtering, AMP, and TLS/SSL.  Having a single unified security policy simplifies policy configuration and enforcement as firewall and UTD policies can be configured together in a single security operation rather than as individual policies.
Authentication Types	The authentication types supported from Cisco IOS XE Catalyst SD-WAN Release 17.6.1a differ from the authentication types supported in Cisco IOS XE Catalyst SD-WAN Release 17.5.1a and earlier releases. For a Cisco IOS XE Catalyst SD-WAN device running Cisco IOS XE Catalyst SD-WAN Release 17.5.1a or earlier, if you have configured authentication types using the Cisco Security feature template, you must update the the authentication types in the template after you upgrade the device software to Cisco IOS XE Catalyst SD-WAN Release 17.6.1a or later.  To update the authentication types, do the following: <ol style="list-style-type: none"> <li>1. From the Cisco SD-WAN Manager menu, choose <b>Configuration &gt; Templates</b>.</li> <li>2. Click <b>Feature Templates</b>.</li> <li>3. Find the <b>Cisco Security</b> template to update and click ... and click <b>Edit</b>.</li> <li>4. Click <b>Update</b>. Do not modify any configuration.</li> </ol> Cisco SD-WAN Manager updates the <b>Cisco Security</b> template to display the supported authentication types.
<b>Cisco Catalyst SD-WAN Cloud OnRamp</b>	

Feature	Description
<a href="#">Support for Cloud OnRamp for SaaS Probing through VPN 0 Interfaces at Gateway Sites</a>	<p>Cloud OnRamp for SaaS tests the performance of (probes) routing paths to find the best routing path for specific cloud application traffic. Using the best routing path for the traffic of a cloud application optimizes the performance of the application.</p> <p>This feature enables Cloud OnRamp for SaaS to probe through VPN 0 interfaces at gateway sites as part of determining the best path to use for the traffic of specified cloud applications. This extends the best path probing to include more of the available interfaces connected to the internet.</p> <p>Using this feature, Cloud OnRamp for SaaS can probe interfaces at a gateway site, whether they use service VPNs (VPN 1, VPN 2, and so on) or the transport VPN (VPN 0). This is helpful when a branch site connects to the internet, exclusively or in part, through a gateway site that uses a VPN 0 interface to connect to the internet.</p>
<a href="#">Cloud onRamp for SaaS over SIG Tunnels</a>	<p>This feature allows you to connect to Cloud onRamp for SaaS by means of a SIG tunnel.</p> <p>Cloud onRamp for SaaS over SIG tunnels provides you secure access to the SaaS applications, and the capability to automatically select the best possible SIG tunnel for accessing the SaaS applications.</p>
<a href="#">Routing Traffic Flow to a Virtual Hub Firewall or a Local Firewall</a>	<p>This feature enables you to route Microsoft Azure Virtual WAN hub traffic to a firewall on a local branch router, or direct local branch traffic to an Azure secured virtual hub, to be subject to the security policies of the Azure Firewall Manager.</p>
<a href="#">Cisco Catalyst SD-WAN and Google Service Directory Integration and Support for Cloud State Audit and Cloud Resource Inventory</a>	<p>With the integration of Google Service Directory with the Cisco Catalyst SD-WAN solution, you can discover your applications in the Google cloud using Cisco SD-WAN Manager. You can use the discovered applications to define application-aware routing policies in Cisco SD-WAN Manager.</p> <p>The Audit feature in Cisco SD-WAN Manager is now extended to Google Cloud integration. Use this option to ensure that the states of the objects in Google Cloud stay in sync with Cisco SD-WAN Manager state.</p> <p>Cloud Resource Inventory in Cisco SD-WAN Manager retrieves a detailed list of your cloud objects, their identifiers, the timestamps when such objects were created, and so on.</p>
<a href="#">Cisco SD-WAN Manager Support for Monitoring Multicloud Services</a>	<p>This feature enables you to monitor your multicloud network using the Cisco SD-WAN Manager UI.</p>
<a href="#">Cisco Catalyst SD-WAN Cloud Interconnect with Megaport: Interconnects to Google Cloud and Microsoft Azure</a>	<p>You can deploy a Cisco Catalyst 8000v Edge Software (Cisco Catalyst 8000V) instance as the interconnect gateway in the Megaport fabric and connect an Cisco Catalyst SD-WAN branch location to the interconnect gateway. From the interconnect gateway, you can create software-defined interconnects to Google Cloud VPCs, or Microsoft Azure VNets or Virtual WANs to link your branch location to the cloud resources through the Megaport fabric.</p>



Feature	Description
<a href="#">Cisco Catalyst SD-WAN Cloud Interconnect with Equinix</a>	You can deploy a Cisco Cloud Services Router 1000V (Cisco CSR 1000V) instance as the Interconnect Gateway in the Equinix fabric and connect an SD-WAN branch location to the Interconnect Gateway. From the Interconnect Gateway, you can create software-defined interconnects to an AWS cloud onramp or another interconnect gateway in the Equinix fabric.
<b>Cisco Catalyst SD-WAN AppQoE</b>	
<a href="#">DRE Profiles</a>	This feature provides the flexibility to use resources for DRE based on your connection requirements by applying profiles such as S, M, L, and XL.  Apply DRE profiles using the AppQoE feature template in Cisco SD-WAN Manager.
<a href="#">UCS-E Series Server Support for Deploying Cisco Catalyst 8000V</a>	This feature lets you deploy Cisco Catalyst 8000V instances, on supported routers, using the UCS-E series blade server modules. With this feature, the supported routers can be configured as integrated service nodes, external service nodes, or hybrid clusters with both internal and external service nodes.
<a href="#">Enhanced Troubleshooting for AppQoE</a>	This release introduces additional show commands to verify and troubleshoot issues in AppQoE features. A few existing show commands for AppQoE have also been enhanced.  - show sdwan appqoe error recent - show sdwan appqoe status - show sdwan appqoe flow closed (command modified to include the keyword error) - show sslproxy status (command output modified)
<b>Cisco Catalyst SD-WAN Monitor and Maintain</b>	
<a href="#">Generate System Status Information for a Cisco SD-WAN Manager Cluster Using Admin Tech</a>	This feature adds support for generating an admin-tech file for a Cisco SD-WAN Manager cluster. The admin-tech file is a collection of system status information intended for use by Cisco Catalyst SD-WAN Technical Support for troubleshooting.  Prior to this feature, Cisco Catalyst SD-WAN was only able to generate an admin-tech file for a single device.
<a href="#">View Generated Admin-Tech Files at Any Time</a>	This feature adds support for viewing generated admin-tech files whenever the admin-tech files are available on a device.  You can view the list of generated admin-tech files and then decide which files to copy from your device to Cisco SD-WAN Manager. You can then download the selected admin-tech files to your local device, or delete the downloaded admin-tech files from Cisco SD-WAN Manager, the device, or both.



Feature	Description
<a href="#">Additional Real Time Monitoring Support for Routing, License, Policy, and Other Configuration Options</a>	<p>This feature adds support for real time monitoring of numerous device configuration details including routing, license, policy, Cloud Express, Cisco SD-WAN Validator, TCP optimization, SFP, tunnel connection, license, logging, and Cisco Umbrella information. Real time monitoring in Cisco SD-WAN Manager is similar to using <b>show</b> commands in the CLI of a device.</p> <p>There are many device configuration details for Cisco SD-WAN Manager. Only a subset of the device configuration details is added in Cisco IOS XE Release 17.6.1a and Cisco vManage Release 20.6.1.</p>
<a href="#">Manage Data Collection for Cisco Catalyst SD-WAN Telemetry</a>	<p>This feature allows you to disable data collection for Cisco Catalyst SD-WAN telemetry using Cisco SD-WAN Manager.</p> <p>Data collection for telemetry is enabled by default.</p>
<a href="#">Network-Wide Path Insight in Cisco SD-WAN Manager Enhancements</a>	<p>This feature provides enhancements to network-wide path insight tracing, including additional filters and options for traces, DNS domain discovery, and new displays for application flows, trace views, and app trends.</p>
<a href="#">On-Demand Troubleshooting</a>	<p>This feature lets you view detailed information about the flow of traffic from a device. You can use this information to assist with troubleshooting.</p>
<a href="#">Security Parameters Index in the show crypto ipsec sa Command</a>	<p>This feature qualifies the show crypto ipsec sa command for use in Cisco SD-WAN Manager CLI template and modifies the information displayed about Security Parameters Index (SPI) on the supported routers.</p>
<a href="#">Production Change Management in Audit Logs</a>	<p>This feature adds support to include template and policy configuration details in audit logs. You can view the current and previous configuration details for any action in Cisco SD-WAN Manager.</p>
<a href="#">DPI Statistics</a>	<p>This feature lets you view detailed information about the flow of traffic from a device.</p>
<p><b>Cisco Catalyst SD-WAN Forwarding and QoS</b></p>	
<a href="#">Per-VPN QoS</a>	<p>When a Cisco IOS XE Catalyst SD-WAN device receives traffic belonging to different VPNs from the branch network, you can configure a QoS policy to limit the bandwidth that can be used by the traffic belonging to each VPN or each group of VPNs.</p>
<p><b>Cisco Catalyst SD-WAN SNMP</b></p>	
<a href="#">Support for Cisco Catalyst SD-WAN Traps</a>	<p>This feature adds support for receiving the following SNMP trap notifications:</p> <ul style="list-style-type: none"> <li>• Certificate expiration notification on Cisco IOS XE Catalyst SD-WAN devices and Cisco vEdge devices.</li> <li>• Health monitoring notifications on Cisco vEdge devices, Cisco SD-WAN Validator, Cisco SD-WAN Controller, and Cisco SD-WAN Manager.</li> </ul>

Feature	Description
<a href="#">Cisco Catalyst SD-WAN MIBs</a>	The following Cisco Catalyst SD-WAN MIBs are introduced on Cisco IOS XE SD-WAN devices: CISCO-SDWAN-APP-ROUTE-MIB.my CISCO-SDWAN-BFD-MIB.my CISCO-SDWAN-OPER-SYSTEM-MIB.my CISCO-SDWAN-POLICY-MIB.my CISCO-SDWAN-SECURITY-MIB.my
<b>Cisco Catalyst SD-WAN Commands</b>	
<a href="#">show platform software memory</a>	This feature adds support for displaying memory information for specified Cisco Catalyst SD-WAN processes.
<a href="#">NAT Serviceability Enhancement</a>	This feature is used to display configured and operational data specific to NAT.

## New and Enhanced Hardware Features

### New Features

- Support for UCS-E module—This feature adds a UCS-E template in Cisco SD-WAN Manager 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 SD-WAN Manager](#).




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

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- Support for Cisco IR1101 Integrated Services Router Rugged—Cisco Catalyst SD-WAN capability can now be enabled on Cisco IR1101 Integrated Services Router Rugged. The following notes apply to this support:
  - Controller devices (Cisco SD-WAN Validator, Cisco SD-WAN Controller, and Cisco SD-WAN Manager) 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 Catalyst SD-WAN support on the Cisco IR1101 Integrated Services Router Rugged requires Cisco IOS-XE Catalyst SD-WAN 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 Catalyst SD-WAN 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

- Cisco IOS XE Catalyst 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 Cisco SD-WAN Analytics login credentials that are stored locally get erased on upgrading the software, and you cannot access the Cisco SD-WAN Analytics service directly through Cisco SD-WAN Manager. 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.
- Starting from Cisco IOS XE Catalyst SD-WAN Release 17.5.1a, the **table** keyword is added to all show sdwan commands for which the output needs to be displayed in a tabular format. Using **| tab** is restricted for all Cisco Catalyst SD-WAN commands starting from Cisco IOS XE Catalyst SD-WAN Release 16.11.x.
- Starting from Cisco IOS XE Catalyst SD-WAN Release 17.6.3a, the upgrade considerations are updated for auto-negotiation support. For more information on this, see [Upgrade Considerations](#).

## 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 Catalyst SD-WAN Release 17.6.8a

#### Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.8a

Identifier	Headline
<a href="#">CSCwk19970</a>	Cisco IOS XE Catalyst SD-WAN device URLF is unable to detect TLS SNI with "TLS1.3 hybridized Kyber support" enabled on the browser.

### Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.7

#### Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.7

Identifier	Headline
<a href="#">CSCwd42523</a>	Same label is assigned to different VRFs

## Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.6a

### Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.6a

Bug ID	Description
<a href="#">CSCwh87343</a>	Cisco IOS XE Software Web UI Privilege Escalation Vulnerability

## Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.6

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 Catalyst SD-WAN Release 17.6.6

Identifier	Headline
<a href="#">CSCwd45508</a>	Cisco IOS XE Catalyst SD-WAN device does not form BFD across serial link when upgrading from 17.3.3 to 17.6.x
<a href="#">CSCwf61793</a>	Traceback during policy changes.
<a href="#">CSCwe93905</a>	NAT ALG is changing the Call-ID within SIP message header causing calls to fail.
<a href="#">CSCwe43341</a>	TLS control-connections down, traffic from control component dropped with SdwanImplicitAclDrop.
<a href="#">CSCwb65396</a>	C1116-4P: cli template push fails with error: 'Error: on line 48: line-mode single-wire line 0'.
<a href="#">CSCwd48781</a>	Cisco IOS XE Catalyst SD-WAN device ASR1k crashed due to critical process expd fault.
<a href="#">CSCwf38166</a>	CPP Ucode crash when Multicast traffic and UTD is enabled together on the same Cisco IOS XE Catalyst SD-WAN device.
<a href="#">CSCwf38281</a>	Misprograming during policy changes.
<a href="#">CSCwe58264</a>	TLOC down post IOS XE to Cisco SD-WAN OS Nutella migration when enterprise cert used.
<a href="#">CSCwc68069</a>	RTP packets not forwarded when packet duplication enabled, no issue without duplication feature.
<a href="#">CSCvz79493</a>	AOM pending for OG LKUP handles on MT.
<a href="#">CSCwe04065</a>	The "advertise aggregate" command is lost on device after upgrade.
<a href="#">CSCwe23276</a>	Change in the IPsec integrity parameters breaks the connectivity.
<a href="#">CSCwb90252</a>	Automatically freeing up filesystems stale image or recovered folder (lost+found).
<a href="#">CSCvy53031</a>	Inconsistent behavior found when adding tunnel source config to virtual-template interface.

Identifier	Headline
<a href="#">CSCwd44586</a>	Cisco IOS XE Catalyst SD-WAN device - Login banner config is changed after upgrade to 17.6.3a
<a href="#">CSCwf49597</a>	Traffic is getting dropped with "SdwanDataPolicyDrop" with TunnelReason : MATCHED_NONE.
<a href="#">CSCwe18058</a>	Unexpected reload with IPS configured on 17.6.3a
<a href="#">CSCwe73993</a>	Cisco IOS XE Catalyst SD-WAN device might reload during overlay session entry removal.
<a href="#">CSCwe24567</a>	Cisco IOS XE Catalyst SD-WAN device router happened rebooting suddenly due to ftdm fault.
<a href="#">CSCwe85421</a>	Cisco IOS XE Catalyst SD-WAN device BFD Session Down with interface flap.
<a href="#">CSCwf26771</a>	Invalid L4 Header drop due to multiple encap.
<a href="#">CSCwe64991</a>	Cisco SD-WAN Manager reporting abnormal latency & jitter parameters.
<a href="#">CSCwf95095</a>	Intermittent BFD session flaps on Cisco IOS XE Catalyst SD-WAN device service side interface.
<a href="#">CSCwe15537</a>	Cisco IOS XE Catalyst SD-WAN device : After the vpn list change, the DP, AAR and CLFOWD polices stopped working on the routers.
<a href="#">CSCvy23366</a>	C8300-2N2S + UCSE: Kernel crash on C8300-2N2S with UCSE module.
<a href="#">CSCwe09341</a>	TLOC down post Cisco SD-WAN OS to IOS XE Nutella migration when enterprise cert used.
<a href="#">CSCwe81991</a>	The fugazi crash with qfp-ucode-fugazi in Catalyst 8500L Edge Platform at @posix_mempool_prime_cache.
<a href="#">CSCwe49684</a>	Cisco IOS XE Catalyst SD-WAN device BFD sessions keeps flapping intermittently.

#### Open Bugs for Cisco IOS XE Release 17.6.6

Identifier	Headline
<a href="#">CSCwe90501</a>	CSR1000v upgrade fails from 17.3.4a to Cisco Catalyst 8000v 17.6.5 due to "advertise aggregate" with vrf.
<a href="#">CSCwj31354</a>	Cisco IOS XE Release 17.6.6   Template push failure due to service timestamps
<a href="#">CSCwb74384</a>	Cisco IOS XE Catalyst SD-WAN device: confd_cli high CPU utilization after executing "show sdwan app-route stats".
<a href="#">CSCwe70642</a>	AAR overlay actions are applied to DIA traffic.
<a href="#">CSCwf94294</a>	Misprograming during vpn-list change under data policy.

Identifier	Headline
<a href="#">CSCwh39906</a>	Cisco IOS XE Catalyst SD-WAN device: confd_cli may cause high CPU. Parent PID of "confd_cli" containing "show ip fib".
<a href="#">CSCwh37671</a>	The configuration crashed impacting all Cisco IOS XE Catalyst SD-WAN device functionality.
<a href="#">CSCwf43470</a>	Cisco IOS XE Catalyst SD-WAN device : Traceroute not working with NAT pool configuration.
<a href="#">CSCwc19362</a>	Solution : The crash during overnight longevity on Catalyst 8500 Edge Platform (ACE) and ASR1001-HX.
<a href="#">CSCwe27241</a>	The nbar classification error with custom app-aware routing policy.
<a href="#">CSCwh30423</a>	After upgrade of the Cisco Catalyst 8000V to 17.6.4 sometimes template push is failing with error access denied.
<a href="#">CSCvz71647</a>	Optimization of sdwan_process_dp_in and sdwan_process_dp_out features in cpp dp.
<a href="#">CSCwa19332</a>	Fragmented packets getting dropped unexpectedly when second fragment packet no translate.
<a href="#">CSCwb74821</a>	Cisco IOS XE Catalyst SD-WAN device: unexpected behavior due to unstable power source.
<a href="#">CSCwd20182</a>	[SIT] : When firewall is enabled , speedtest with iperf server configured on vpn 0 fails.
<a href="#">CSCwd71586</a>	The BFD sessions flapping on an interface with SYMNAT may lead to IPSec crash.
<a href="#">CSCwb39206</a>	To Enable VFR CLI in SD-WAN mode.
<a href="#">CSCwf45486</a>	OMP to BGP redistribution leads to incorrect AS_Path installation on chosen next-hop.
<a href="#">CSCwf73123</a>	BFD timers reverting back to default value after negotiating correctly.

## Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.5a

### Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.5a

Bug ID	Description
<a href="#">CSCwh87343</a>	Cisco IOS XE Software Web UI Privilege Escalation Vulnerability

## Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.5

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 Catalyst SD-WAN Release 17.6.5**

Identifier	Headline
<a href="#">CSCwd47940</a>	Cisco IOS XE Catalyst SD-WAN device: PMTU Discovery is not working after interface flap
<a href="#">CSCwd25368</a>	Cisco IOS XE Catalyst SD-WAN devicePolicyDual: Traffic not getting dropped as per the policy configured
<a href="#">CSCwd12955</a>	NAT translation is not correctly sent to hub router from branch when SSNAT and UTD are configured
<a href="#">CSCwb62474</a>	[SIT] Cisco IOS XE Catalyst SD-WAN device may crash when doing Cisco Catalyst SD-WAN speedtest with WAN flapping
<a href="#">CSCwc23077</a>	Firewall drop seen stating "FirewallL4" seen on Cisco IOS XE Catalyst SD-WAN device
<a href="#">CSCwc79847</a>	Router Crashed   Last reload reason: Critical process ftmd fault on rp_0_0 (rc=134))
<a href="#">CSCwc96444</a>	Cisco IOS XE Catalyst SD-WAN device router is not programming correct next-hop for unicast prefix with multicast config present
<a href="#">CSCwc89328</a>	Cisco IOS XE Catalyst SD-WAN device Might Reboot when vEdge Supporting Explicit IV joins SD-WAN Network
<a href="#">CSCwd06118</a>	IKEv2 Cert-based IPSEC not working between IOS-XE and AWS
<a href="#">CSCwc52538</a>	Cisco Catalyst SD-WAN flows are not distributed and load-balanced evenly and consistently
<a href="#">CSCwd70300</a>	Route-map not getting effect when its applied in OMP for BGP routes (check WORKAROUND in Summary)
<a href="#">CSCwc72569</a>	Template push failed on 17.6.4 with 'service internal' error.
<a href="#">CSCwd45894</a>	Cisco Catalyst SD-WAN ACL TCAM not in sync with configuration
<a href="#">CSCvz96954</a>	17.6: Route-map not getting effect when its applied in OMP for BGP routes
<a href="#">CSCwd34573</a>	Sparrow crashed: fman_fp_image: QFP0.0 CPP Driver LOCKDOWN encountered due to previous fatal error
<a href="#">CSCwc77003</a>	Prefix through hub not intalled in FIB, with OD Tunnels, seeing drops due to FirewallPolicy
<a href="#">CSCwc79145</a>	Throughput degrades when Local TLOC specified in Data Policy goes down
<a href="#">CSCwd14061</a>	FTM is shooting up high and stuck in loop with the function ftm_sa_add().
<a href="#">CSCwd01326</a>	Catalyst 8500L - qfp-ucode-fugazi crashes with SIGABRT within cio infra under heavy load
<a href="#">CSCwd56015</a>	UTD skipped when interface UTD config is used to enable/disable UTD



Identifier	Headline
<a href="#">CSCwc76082</a>	check_sig_ipsec_ike_sessions fails with could not find entry for Tunnel100001
<a href="#">CSCwd15560</a>	With 2 sequences, should not skip if the match is different and action is same
<a href="#">CSCwb85215</a>	Firewall dropping packets in Hub Cisco IOS XE Catalyst SD-WAN device with SIG tunnels
<a href="#">CSCwd11365</a>	Needs cert update - Azure CGW creation fails due to NVA provisioning failure
<a href="#">CSCwd15070</a>	Cisco IOS XE Catalyst SD-WAN device upgrade fails and can't change template due to "advertise aggregate" config w/o prefix-list
<a href="#">CSCwc95218</a>	C8300 with 5G module P-5GS6-GL is losing cellular config at each boot after upgrading to 17.9.1
<a href="#">CSCvz45869</a>	Cisco IOS XE Catalyst SD-WAN device same multicast flow load balanced to different path when AppRoute policy configured
<a href="#">CSCwc28587</a>	C8300 : Crashed without generating any core (Critical process plogd fault on rp_0_0 (rc=75)
<a href="#">CSCwd17381</a>	NAT/DIA traffic is skipping UTD in forward direction after SSNAT path from service-side
<a href="#">CSCwb32635</a>	17.6.2 IOS XE Catalyst SD-WAN - vdaemon file is incomplete when running admin-tech
<a href="#">CSCwc77177</a>	BFD and control packets are dropped when ACL is applied on gigi to which loopback is bind
<a href="#">CSCwd61799</a>	"show utd engine standard logging events" not showing any events
<a href="#">CSCvz20025</a>	SSH connection getting dropped with UTD and Service NAT feature interaction

#### Open Bugs for Cisco IOS XE Release 17.6.5

Identifier	Headline
<a href="#">CSCvy23366</a>	C8300-2N2S + UCSE: Kernel crash on C8300-2N2S with UCSE module.
<a href="#">CSCwd45508</a>	Cisco IOS XE Catalyst SD-WAN device does not form BFD across Serial link when upgrading from 17.3.3 to 17.6.x
<a href="#">CSCwc68069</a>	RTP packets not forwarded when packet duplication enabled, no issue without duplication feature
<a href="#">CSCwd47937</a>	Device roll back doesn't work on C1121X-8P on 17.6.3a
<a href="#">CSCwd10988</a>	Cisco IOS XE Catalyst SD-WAN device crashes due to OMP process
<a href="#">CSCwc20170</a>	C8500 Cisco IOS XE Catalyst SD-WAN device reloads unexpectedly due to Critical FTMD Fault when VRF Configuration is Pushed

Identifier	Headline
<a href="#">CSCwd79057</a>	Multicast packet loss when Cisco SD-WAN Controllers goes down
<a href="#">CSCwb65396</a>	C1116-4P: cli template push fails with error: 'Error: on line 48: line-mode single-wire line 0'
<a href="#">CSCwd48781</a>	Cisco IOS XE Catalyst SD-WAN device ASR1k crashed due to Critical process cxdp fault
<a href="#">CSCwd76364</a>	Cisco IOS XE Catalyst SD-WAN device crash with imgr_n2_ipsec_sa_ctx_register
<a href="#">CSCwc37465</a>	Unable to push "no-alias" option on static NAT mapping from Management system
<a href="#">CSCwd44586</a>	Cisco SD-WAN Cisco IOS XE Catalyst SD-WAN device - Login banner config is changed after upgrade to 17.6.3a
<a href="#">CSCvz71647</a>	Optimization of Cisco SD-WAN_process_dp_in and Cisco SD-WAN_process_dp_out features in cpp dp
<a href="#">CSCwb74821</a>	yang-management process confd is not running, controller mode 17.6.2a
<a href="#">CSCwb90252</a>	Automatically freeing up filesystems stale image or recovered folder (lost+found)
<a href="#">CSCwb83236</a>	Traceback: Cisco IOS XE Catalyst SD-WAN device QFP core after pushing data policy with IPv6 interface
<a href="#">CSCwd34941</a>	NAT configuration with no-alias option is not preserved after reload
<a href="#">CSCwd70300</a>	Route-map not getting effect when its applied in OMP for BGP routes (check WORKAROUND in Summary)

### Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.4

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 Catalyst SD-WAN Release 17.6.4

Identifier	Headline
<a href="#">CSCvz93712</a>	VFR is enabled by feature NAT but there is no NAT configured on the interface
<a href="#">CSCwb32059</a>	Cellular interface tracker Down but NAT route persists in the Service VPN Routing Table
<a href="#">CSCwa92082</a>	RG B2B(Box to Box), Interchassis HA, STBY is stuck in STANDBY COLD-BULK on ISR 4461
<a href="#">CSCwb59736</a>	CSR BFD tunnel are zero with Cisco SD-WAN version 17.03.03.0.7
<a href="#">CSCwa00229</a>	Template push failed while deploying C1111-8PLTELA using LTE for ZTP
<a href="#">CSCvz83016</a>	BFD tunnel uptime not showing correct values post upgrade

Identifier	Headline
<a href="#">CSCwb43605</a>	Cisco IOS XE Catalyst SD-WAN device OMPd crash during RIB-out attribute aspath/community processing
<a href="#">CSCwb90470</a>	Cisco IOS XE Catalyst SD-WAN device crashed with last reload reason Critical process expd fault.
<a href="#">CSCwb73511</a>	Cisco IOS XE Catalyst SD-WAN device is not able to bring up SIG tunnels after reboot
<a href="#">CSCwa97951</a>	Basic feature template fails on ASR1001-HX with TenGig interface due to negotiation auto
<a href="#">CSCwa67886</a>	UDP based DNS resolution doesn't work with IS-IS EMCP on IOS-XE
<a href="#">CSCvz23982</a>	IOS sending UP Event for the sub interface which is in down state
<a href="#">CSCvx93283</a>	Service Chain is not created when Tracking is disabled
<a href="#">CSCvx18302</a>	[SIT] Speed Test to Internet failing on vEdges and Cisco IOS XE Catalyst SD-WAN devices running 20.3/17.3
<a href="#">CSCvz99832</a>	Cisco IOS XE Catalyst SD-WAN device per class BFD - echo response pkts
<a href="#">CSCwb05743</a>	Crash seen with umbrella config during soak run
<a href="#">CSCwb73664</a>	[SIT] "sh Cisco SD-WAN bfd session" have missing last digit for site-id
<a href="#">CSCwa92137</a>	17.7.1 - Cisco IOS XE Catalyst SD-WAN device is changing ICMP ID in ICMP echo replies intermittently
<a href="#">CSCwa49721</a>	Cisco Catalyst SD-WAN HUB with firewall configured incorrectly dropping return packets when routing between VRFs
<a href="#">CSCwb08636</a>	IPSEC-3-HMAC_ERROR: IPsec SA receives HMAC error seen for TLOCExt setup after upgrade
<a href="#">CSCwb13820</a>	C8Kv crashed at high scale with IPSEC and heavy features configured
<a href="#">CSCwb16723</a>	Traceroute not working on Cisco IOS XE Catalyst SD-WAN device with NAT
<a href="#">CSCwc33311</a>	Cisco IOS XE Catalyst SD-WAN device crash @ imgr_n2_ipsec_sa_ctx_register
<a href="#">CSCwa81471</a>	AOM pending objects with loopbacks binded to tloc-extended interfaces
<a href="#">CSCwc13304</a>	Per-tunnel QoS counters and shapers not working for some bfd tunnel with stale 'nh_overlay' objects
<a href="#">CSCwb71658</a>	[SIT] Traceback seen on ISR4331 and C8300-2N2S-4T2X after enabling ipsec_pwk and reboot
<a href="#">CSCwb76170</a>	IPsec SIG auto tunnels are not coming up
<a href="#">CSCwb91729</a>	Fix mishandling of policy sequence programming failures and notify with syslog/notification

Identifier	Headline
<a href="#">CSCwa30857</a>	Internet SpeedTest with Loopback binding mode doesn't work with implicit ACL drop for return traffic
<a href="#">CSCwa98545</a>	Checks of route leaks creates memory corruption.
<a href="#">CSCwb43423</a>	Cisco IOS XE Catalyst SD-WAN device: IOS XE image installation fails
<a href="#">CSCwc04688</a>	Cisco IOS XE Catalyst SD-WAN device crash observed after enabling NWPI trace with IPv6 traffic
<a href="#">CSCwb78290</a>	Cisco Catalyst SD-WAN-BFD-MIB request gives results intermittently
<a href="#">CSCwb44275</a>	Simulated flows with PPPoE with NAT DIA result in crash consistently
<a href="#">CSCwa57873</a>	Incorrect reload reason - Last reload reason: LocalSoft for Netconf Initiated request
<a href="#">CSCvz37340</a>	The [service timestamps log datetime msec localtime] command cannot be pushed via CLI Addon template
<a href="#">CSCwa25256</a>	Installing new enterprise wan edge cert does not remove old cert causing device to use old cert
<a href="#">CSCwb51595</a>	Missing IOS config (voice translation rule) on upgrade from 17.3 to 17.6
<a href="#">CSCwb40575</a>	After Cisco IOS XE Catalyst SD-WAN device upgrade, umbrella dns config set to NONE in show umbrella config (17.4.2 to 17.6.3)
<a href="#">CSCwb18315</a>	Umbrella DNS security policy doesn't work with Cloud onRamp with SIG tunnels
<a href="#">CSCwb58468</a>	17.8 Sig Autotunnels:tunnel 409 response received
<a href="#">CSCwc04289</a>	Cisco IOS XE Catalyst SD-WAN device: Inconsistency between Path MTU Discovery result and Tunnel MTU
<a href="#">CSCvx74917</a>	[17.5 Umbrella] DNS Packets are not redirected to configured Custom DNS after Umbrella Template Edit
<a href="#">CSCvy34350</a>	Cisco Catalyst SD-WAN gatekeeper optimization for service side nat

#### Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.4

Identifier	Headline
<a href="#">CSCvy23366</a>	C8300-2N2S + UCSE: Kernel crash on C8300-2N2S with UCSE module.
<a href="#">CSCwc32595</a>	BFD sessions remains down if interface flap form up/down/up
<a href="#">CSCwc55260</a>	Cisco Catalyst SD-WAN - Memory leak due to FTMD process
<a href="#">CSCwc38529</a>	[17.6] Traffic seems not inspected by UTD when umbrella is set
<a href="#">CSCwc55467</a>	BFD Tunnel on Cisco SD-WAN router is not staying up, 1 out of 40 tunnels.

Identifier	Headline
<a href="#">CSCwc20170</a>	C8500 Cisco IOS XE Catalyst SD-WAN device Reloads Unexpectedly due to Critical FTMd Fault when VRF Configuration is Pushed
<a href="#">CSCwc54463</a>	Cisco IOS XE Catalyst SD-WAN device C1121x-8P LAN Module is down when high CPU noticed
<a href="#">CSCwb62474</a>	[SIT] Cisco IOS XE Catalyst SD-WAN device may crash when doing Cisco SD-WAN speedtest with WAN flapping
<a href="#">CSCwc37465</a>	Static NAT configuration in CLI with the no-alias keyword cannot be retrieved via NETCONF/YANG
<a href="#">CSCwc52538</a>	Cisco Catalyst SD-WAN flows are not distributed and load-balanced evenly and consistently
<a href="#">CSCwc23077</a>	Firewall drop seen stating "FirewallL4" seen on Cisco IOS XE Catalyst SD-WAN device
<a href="#">CSCwb83236</a>	Traceback: Cisco IOS XE Catalyst SD-WAN device QFP core after pushing data policy with IPv6 interface
<a href="#">CSCwc53885</a>	IOS-XE "no ip nat" config is allowed to be committed and removes nat routes among other nat config
<a href="#">CSCwc59650</a>	show Cisco SD-WAN app-fwd cflowd flows vpn X format tabled does not show all flows for vpn X
<a href="#">CSCwb74821</a>	Yang-management process confd is not running, controller mode 17.6.2a
<a href="#">CSCwc42978</a>	ISR1100-4G loses all BFD sessions with Invalid SPI
<a href="#">CSCwc27208</a>	BFD sessions not coming UP because of ANTI-REPLAY-FAILURES

### Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.3a

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 Catalyst SD-WAN Release 17.6.3a

Bug ID	Description
<a href="#">CSCvw68560</a>	17.5: OMP is advertising unfiltered ipv6 routes from BGP
<a href="#">CSCvz37661</a>	17.6 to 17.7 : Continuous 4461 Octeon crypto crash. does not stay up.
<a href="#">CSCvz40222</a>	SDRA : RA headend crash with Critical process vdaemon fault with tunnel flaps
<a href="#">CSCwa52915</a>	Replicator with direct multicast source reachability should be preferred among selected replicators
<a href="#">CSCvx40516</a>	17.5 ZBFW + NAT: Traffic flow In2Out scenario failed

Bug ID	Description
<a href="#">CSCwa26509</a>	Shut/no shut of endpoint-tracker attached tunnel, doesn't create probe again on 17.6.2
<a href="#">CSCvz99404</a>	Cisco Catalyst SD-WAN ImplicitAclDrop seen on non Cisco Catalyst SD-WAN interface after upgrade to 17.6.1
<a href="#">CSCwa12878</a>	Cisco SD-WAN Manager intermittent netconf connection issue to Cisco IOS XE Catalyst SD-WAN device
<a href="#">CSCwa98047</a>	SASE - after Cisco IOS XE Catalyst SD-WAN device upgrade, umbrella dns config set to NONE in show umbrella config
<a href="#">CSCwa42747</a>	Fugazi and TSN get crashed consistently when start nwpi trace
<a href="#">CSCwa04960</a>	[SIT] OMPD process memory leak seen on Cisco IOS XE Catalyst SD-WAN device
<a href="#">CSCwa83899</a>	Cisco SD-WAN Manager getting "non-ok device" error when attaching a template to several devices.
<a href="#">CSCvz74773</a>	Discrepancies in CLI and GUI interface details (Truncating interface numbers)
<a href="#">CSCvz62032</a>	Attach gateways failed in cloud express
<a href="#">CSCvz87855</a>	mroute state stuck after Cisco IOS XE Catalyst SD-WAN device failure is restored
<a href="#">CSCvz69103</a>	Pending obejts and download failure with policy update from 17.7.1 throttle image
<a href="#">CSCwa73783</a>	Incorrect Cisco IOS XE Catalyst SD-WAN device COR for SAAS Policy Sequence Programming
<a href="#">CSCwa19074</a>	Infinite output from command show Cisco Catalyst SD-WAN tunnel sla
<a href="#">CSCwa34783</a>	BFD session get stuck to down after site to site speedtest with Loopback as WAN + NAT
<a href="#">CSCwa92411</a>	Slowness issues casued by intermittent traffic drop on ISRv ingress from GRE tunnel
<a href="#">CSCwa64990</a>	Cisco Catalyst SD-WAN NAT DIA with data policy not work properly with static destination NAT
<a href="#">CSCvv82985</a>	dhcpx6_relay:dhcp-client on branch not receive ipv6 address
<a href="#">CSCwa78762</a>	Umbrella SIG tunnel creation failed after config reset for PnP
<a href="#">CSCvz81428</a>	SIT : vedaemon assert noticed in the ISR 4221 over weekend longevity
<a href="#">CSCwa93930</a>	"Alarms alarm bfd-state-change syslog" command is getting rejected while reconfiguring the device.
<a href="#">CSCwa96768</a>	SIP/ICMP flow can't be forwarded after FEC enabled and WAN link re-connected.
<a href="#">CSCwa71862</a>	Crash may be hit when start stop flow monitor in NWPI domain monitor
<a href="#">CSCvz41647</a>	Partial multicast drops are seen after a failover event in a site with two Cisco IOS XE Catalyst SD-WAN devices

Bug ID	Description
<a href="#">CSCwa45487</a>	DNS packets gets injected improperly with sdwan system ip and dropped from Service VPN
<a href="#">CSCwb07025</a>	Packets are being fragmented even if Dont Fragment is set.
<a href="#">CSCwa53223</a>	Cisco IOS XE Catalyst SD-WAN device app-route policy not load balancing traffic as expected when SLA doesn't meet
<a href="#">CSCwa78020</a>	ZBFW dropping packets as Input VPN ID set to 0 instead of 99. SDWAN VPN : 99

#### Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.3a

Identifier	Headline
<a href="#">CSCvz93712</a>	VFR is enabled by feature NAT but there is no NAT configured on the interface
<a href="#">CSCwb52616</a>	Cisco IOS XE Catalyst SD-WAN device doesn't inject ping packets due to no route although data policy has nat vpn-0
<a href="#">CSCwa92082</a>	RG B2B(Box to Box), Interchassis HA, STBY is stuck in STANDBY COLD-BULK on ISR 4461
<a href="#">CSCwb03455</a>	Inter-vrf route leaking not working and packet drop seen due to IPv4 Unclassified
<a href="#">CSCvz83016</a>	BFD tunnel uptime not showing correct values post upgrade
<a href="#">CSCwa67886</a>	UDP based DNS resolution doesn't work with IS-IS EMCP on Cisco IOS XE Catalyst SD-WAN device
<a href="#">CSCwb42807</a>	After Enforce Software Version (ZTP) completed successfully, it automatically rolled-back
<a href="#">CSCwb05743</a>	Crash seen with umbrella config during soak run
<a href="#">CSCwb43423</a>	Cisco IOS XE Catalyst SD-WAN device: IOS XE image installation fails
<a href="#">CSCwa92137</a>	Cisco IOS XE Catalyst SD-WAN device is changing ICMP ID in ICMP echo replies intermittently
<a href="#">CSCwa49721</a>	Cisco Catalyst SD-WAN HUB with firewall configured incorrectly dropping return packets when routing between VRFs
<a href="#">CSCwb18223</a>	SNMP v2 community name encryption problem
<a href="#">CSCwb16723</a>	Traceroute not working on Cisco IOS XE Catalyst SD-WAN device with NAT
<a href="#">CSCwa81471</a>	AOM pending objects with loopbacks binded to tloc-extended interfaces
<a href="#">CSCwa11349</a>	ASR1002-HX High QFP Utilization
<a href="#">CSCwa64993</a>	CXP for SaaS takes more than 5 min to detect indirect path failure over TLOC-extension
<a href="#">CSCwa98545</a>	Checks of route leaks creates memory corruption.



Identifier	Headline
<a href="#">CSCvy23366</a>	C8300-2N2S + UCSE: Kernel crash on C8300-2N2S with UCSE module.
<a href="#">CSCwb33625</a>	Cisco SD-WAN Manager:Speed Test Not working for ISR1100-4g and C8300 devices
<a href="#">CSCwb32635</a>	17.6.2 Cisco IOS XE Catalyst SD-WAN device - vdaemon file is incomplete when running admin-tech
<a href="#">CSCvx74917</a>	[17.5 Umbrella] DNS Packets are not redirected to configured Custom DNS after Umbrella Template Edit
<a href="#">CSCwb51595</a>	Missing IOS config (voice translation rule) on upgrade from 17.3 to 17.6
<a href="#">CSCwb18315</a>	Umbrella DNS security policy doesn't work with Cloud onRamp
<a href="#">CSCwa68540</a>	FTP data traffic broken when UTD IPS enabled in both service VPN

### Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.2

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 Catalyst SD-WAN Release 17.6.2

Bug ID	Description
<a href="#">CSCvy37285</a>	SSH to Loopback not working
<a href="#">CSCvy89362</a>	QOS-3-INVALID_BQS_QUEUE_INFO: Drop policy given an invalid scheduling queue/wred 0/0 -Traceback
<a href="#">CSCvy91411</a>	SD-WAN policy is not correctly programmed in Cisco IOS XE Catalyst SD-WAN device
<a href="#">CSCvy92960</a>	C8500 QFP FirewallNonsession drops when starting 80K flows
<a href="#">CSCvy97761</a>	IPV6 route is breaking control connection.
<a href="#">CSCvy98784</a>	AppQoE DP stats for active connections shows huge bogus value
<a href="#">CSCvy99344</a>	Cisco IOS XE Catalyst SD-WAN device: Multicast UnconfiguredIpv4Fia drop when multicast interworks with service chain/NAT DIA
<a href="#">CSCvz03053</a>	OMP continues to redistribute BGP route with down bit set (SoO)
<a href="#">CSCvz04121</a>	"show sdwan tunnel statistics bfd" and "clear sdwan tunnel statistics" issues
<a href="#">CSCvz09330</a>	Bootstrap aaa config issues due to default aaa config
<a href="#">CSCvz23024</a>	17.6.1_auto:SNMP failure on bfdSessionsListSystemIp
<a href="#">CSCvz25619</a>	FNF: Reload due to a memory allocation failure in Cisco IOS XE Catalyst SD-WAN device

Bug ID	Description
<a href="#">CSCvz30465</a>	MT: Template push with thousand eye feature failed for ISR4461 after PnP workflow
<a href="#">CSCvz38312</a>	ISR1100 - Cisco IOS XE Catalyst SD-WAN device: Tx queue hang issue on RJ45 ports
<a href="#">CSCvz40788</a>	Cisco Catalyst SD-WAN tunnels are not coming up in Multilink Frame relay sub-interface
<a href="#">CSCvz45159</a>	Data plane crash seen on C8200-UCPE-1N8 with upgrade of c8kv from 17.5.1 to 17.6.1 build
<a href="#">CSCvz47982</a>	Flow-Control Goes down when configuring manual speed and remove the auto negotiation
<a href="#">CSCvz55789</a>	Data-policy direction-all with empty action is causing to ignore app-route-policy
<a href="#">CSCvz56966</a>	Zscaler SIG tunnels not coming up after reboot due to HTTP/RESP/CODE 400
<a href="#">CSCvz62602</a>	Extranet local switch crash when mdata is enabled.
<a href="#">CSCvz69124</a>	ISR4k:BFD scaling: Not able to scale more that 2048 BFD sessions
<a href="#">CSCvz70734</a>	Cisco IOS XE Catalyst SD-WAN device crash with sdwan overlay multicast: "CPU Usage due to Memory Pressure exceeds threshold"
<a href="#">CSCvz86972</a>	Cisco IOS XE Catalyst SD-WAN DST Root CA X3 Expiration causing umbrella integration to fail
<a href="#">CSCvz09460</a>	Remote Server: Dont send userid and password in download notifications
<a href="#">CSCvy78170</a>	SIT : The cpu usage percentage is shown incorrect in the Cisco SD-WAN Manager-alarms
<a href="#">CSCvz74825</a>	Crash may be hit when start stop flow monitor in NWPI domain monitor
<a href="#">CSCvz31429</a>	fman_fp crash while running stress test
<a href="#">CSCwa11628</a>	Umbrella Certificate is not getting copied to HW device causing umbrella integration to fail
<a href="#">CSCvz07713</a>	ASR1001HX crashed when enable fair-queue under class-default of per-Tunnel QoS policy template
<a href="#">CSCvz76008</a>	C8300 router might get crashed during config update with flow-visibility and flow-visibility-ipv6
<a href="#">CSCvz14059</a>	more than 4 unique sla policies applied to Cisco IOS XE Catalyst SD-WAN device.
<a href="#">CSCwa03524</a>	Fugazi crash @posix_burst_add_pkt_slow with 4K SDWAN tunnels

**Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.2**

Bug ID	Description
<a href="#">CSCwa14435</a>	Cisco IOS XE Catalyst SD-WAN device   tcp adjust mss not working for incoming TCP packets
<a href="#">CSCvz93712</a>	VFR is enabled by feature NAT but there is no NAT configured on the interface
<a href="#">CSCwa08336</a>	Cloud SaaS packets does not follow the best performing path
<a href="#">CSCvz41647</a>	Partial multicast drops are seen after a failover event in a site with two Cisco IOS XE Catalyst SD-WAN devices
<a href="#">CSCwa08713</a>	Multicast traffic is getting dropped due to SdwanDataPolicyDrop
<a href="#">CSCwa11291</a>	QOS stats showing all traffic in queue 2
<a href="#">CSCvy83781</a>	Infinite output from command show sdwan tunnel sla
<a href="#">CSCwa11349</a>	ASR1002-HX High QFP Utilization
<a href="#">CSCvz79855</a>	CPU spike is observed on GD performance when Adaptive FEC is enabled
<a href="#">CSCvz99404</a>	SdwanImplicitAclDrop seen on non-SDWAN interface after upgrade to 17.6.1
<a href="#">CSCvz62032</a>	Attach gateways failed in cloud express
<a href="#">CSCwa14636</a>	Cisco IOS XE Catalyst SD-WAN device stopped forwarding traffic. Suspect OMPD is busy
<a href="#">CSCvz91487</a>	Cisco IOS XE Catalyst SD-WAN device config changed via CLI while control is down don't revert once the control is restored
<a href="#">CSCwa19074</a>	Infinite output from command show sdwan tunnel sla
<a href="#">CSCwa22412</a>	ftmd crash during reload
<a href="#">CSCwa22254</a>	uninterested traffic getting dropped due to natout2in feature when fragmented
<a href="#">CSCwd42523</a>	Same label is assigned to different VRFs

**Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.1a**

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 Catalyst SD-WAN Release 17.6.1a**

Bug ID	Description
<a href="#">CSCvq11402</a>	[SSL-Proxy-Policy] Webroot - url cloud lookup timeout is 60s (way too long to hold the traffic)
<a href="#">CSCvw88366</a>	data traffic failing in SIG + firewall config

Bug ID	Description
<a href="#">CSCvx45788</a>	cannot apply ciscoCisco Catalyst SD-WAN.cfg due to vpg-log-server-acl ACL on VirtualPortGroup0 for logging
<a href="#">CSCvx49311</a>	Cisco Catalyst SD-WAN Manager pushing invalid "no shutdown" command to ISR Service-Engine interface
<a href="#">CSCvx53399</a>	fman_fp_image crashed with ZBFW config change
<a href="#">CSCvx57615</a>	ZBFW blocking ACK packets for applications using cloudexpress SaaS set to use a Gateway with synsent
<a href="#">CSCvx58099</a>	C8500-12X4QC does not send logs to Cisco Catalyst SD-WAN Manager when harddisk is not installed
<a href="#">CSCvx59899</a>	ISR4431/K9 rebooting due to CPP crashing because of UTD feature.
<a href="#">CSCvx60842</a>	OnDemand Tunnel- Site-ID doesnt update after change it
<a href="#">CSCvx72232</a>	rbuf-oooh crash in HSL
<a href="#">CSCvx79113</a>	Cisco Catalyst SD-WAN Cisco IOS XE Catalyst SD-WAN device : traffic simulation tool shows traffic blackhole
<a href="#">CSCvx88246</a>	Packets dropped due to firewall + data policy interop issue
<a href="#">CSCvy00963</a>	On Cisco Catalyst SD-WAN Manager 20.4.1, traceroute on Cisco IOS XE Catalyst SD-WAN device leads to outage at the site
<a href="#">CSCvy03584</a>	Cisco IOS XE Catalyst SD-WAN device fails to capture Cisco Catalyst SD-WAN-related outputs to admin-tech
<a href="#">CSCvy06736</a>	Config out of sync after upgrading to 17.4.1
<a href="#">CSCvy09343</a>	CFM inject packet is not marked as high priority
<a href="#">CSCvy09777</a>	Cisco IOS XE Catalyst SD-WAN device running 17.4.1b crashing with NAT Backtraces everytime we shut no-shut PPPoE
<a href="#">CSCvy13261</a>	ASR1001-X is not tagging BGP prefixes with OMP tags
<a href="#">CSCvy13735</a>	BFD tunnels stuck in down state after port-hop
<a href="#">CSCvy14126</a>	ISR4331 are crashing frequently 17.4.1b
<a href="#">CSCvy33007</a>	"Best of Worst" Fallback mode causes reachability issue when routes flap
<a href="#">CSCvy35044</a>	Signature update failure - SSL-CERTIFICATE_VERIFY_FAILED
<a href="#">CSCvy37216</a>	Cisco Catalyst SD-WAN Manager fails to push template - interface config stuck
<a href="#">CSCvy44563</a>	cpp-mcplo-ucode crash due to stuck thread with extranet route leaking between vpns
<a href="#">CSCvy45478</a>	Device is showing the passwords in clear text rather than hash

Bug ID	Description
<a href="#">CSCvy47279</a>	C1111 device crashed when PPPoE(running NAT) cable pulled out
<a href="#">CSCvy52761</a>	adding multilink frame relay sub-interface to Cisco Catalyst SD-WAN fails; "Aborted: application error"
<a href="#">CSCvy54314</a>	Data-policy local-tloc with app-route is dropping packets when SLA is not met
<a href="#">CSCvy55507</a>	Cisco IOS XE Catalyst SD-WAN devices are dropping incoming GRe keepalives due to implicit ACL
<a href="#">CSCvy58266</a>	vDaemon crashes due to buffer overflow with read/write in TAM
<a href="#">CSCvy64180</a>	Cisco IOS XE Catalyst SD-WAN device C1121-4P crashed with Localsoft error
<a href="#">CSCvy78123</a>	Cisco IOS XE Catalyst SD-WAN device: High CPU usage due to Multicast and Data Policy configuration.
<a href="#">CSCvy93830</a>	BFD tunnel uptime not showing correct values post upgrade to 17.6.01
<a href="#">CSCvy98015</a>	Cisco IOS XE Catalyst SD-WAN device(UTD) : ICMP time Exceed packet dropped on UTD by 'Err: unwanted error messages'
<a href="#">CSCvx36167</a>	MT-SIT: Template attach failed with "Server error: lte modem syntax error: element does not exist"
<a href="#">CSCvw68402</a>	Template push to Cisco IOS XE Catalyst SD-WAN device fails when changing system-ip due to Cisco Cisco SD-WAN controller centralized policy

#### Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.6.1a

Bug ID	Description
<a href="#">CSCvx17563</a>	ISR4331/K9 running 16.12.04 crashed with Segmentation fault(11), Process = Cellular CNM
<a href="#">CSCvx42400</a>	Cisco IOS XE Catalyst SD-WAN device Experiences Unexpected reboot with: Last reload reason: Critical software exception
<a href="#">CSCvx44834</a>	ASR1K - ACE entry added after object-group is missing in hardware causing packets drops
<a href="#">CSCvy33818</a>	On MTT Cisco SD-WAN Manager system IP persists after invalidating and deleting the edge devices.
<a href="#">CSCvy55408</a>	C1121 router multiple crash. - session hash corrupted
<a href="#">CSCvy72970</a>	Active ftp not working with UTD+HTX for security and Unified policy.
<a href="#">CSCvy78501</a>	17.6: AAR not working properly as configured SLA classes are not shown under app-route stats

Bug ID	Description
<a href="#">CSCvy79833</a>	Cisco IOS XE Catalyst SD-WAN device: Cellular related AOM pending objects after IOS-XE upgrade
<a href="#">CSCvy83674</a>	Cisco Catalyst 8200: Observing low performance compare to UP performance numbers
<a href="#">CSCvy86497</a>	BFD session flap/down while control connection with Cisco SD-WAN Manager is going down
<a href="#">CSCvy98784</a>	AppQoE DP stats for active connections shows huge bogus value
<a href="#">CSCvz08674</a>	Cisco IOS XE Catalyst SD-WAN device rebooted 2 time with CPP 0 failure Stuck Thread
<a href="#">CSCvz08945</a>	low-bandwidth-link doesn't reduce number of BFD packets
<a href="#">CSCvz11158</a>	Not able to upgrade Cisco IOS XE Catalyst SD-WAN device from Cisco SD-WAN Manager   from 16.12.3 to 17.3.3
<a href="#">CSCvz24199</a>	cEdge: Transport interface IP is unexpectedly NATed to pool address in DIA scenarion
<a href="#">CSCvz25403</a>	NetApp: Issues with traffic does not get forwarded via TLOC extended interface
<a href="#">CSCvz30626</a>	20.6: Cisco SD-WAN Manager Main Dashboard , with Top Application Data => SSL proxy, data is empty
<a href="#">CSCvz33108</a>	After uploading the serial file list to the Cisco SD-WAN Manager, the edges lost Control Con. and BFD sessions
<a href="#">CSCvz35967</a>	cEdge reboot due to "Critical process fman_fp_image fault on fp_0_0 (rc=134)"
<a href="#">CSCvz37551</a>	Switchport Feature Template is unable to create VLANs- Missing VLANs on VLAN-DATA BASE
<a href="#">CSCvz40788</a>	Cisco Catalyst SD-WAN tunnels are not coming up in Multilink Frame relay sub-interface
<a href="#">CSCvz38312</a>	ISR1100 - cedge: Tx queue hang issue on RJ45 ports
<a href="#">CSCvz62602</a>	Extranet local switch crash when mdata is enabled.

## Cisco Catalyst SD-WAN Control Components Compatibility Matrix and Server Recommendations

For compatibility information and server recommendations, see [Cisco Catalyst SD-WAN Control Components Compatibility Matrix and Server Recommendations](#).

### Supported Devices

For device compatibility information, see [Cisco Catalyst SD-WAN Device Compatibility](#).

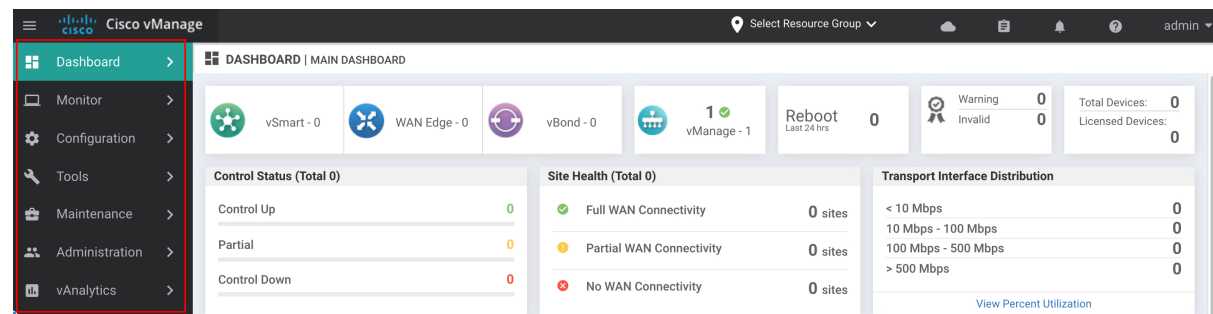
## Redesign of Cisco SD-WAN Manager GUI

From Cisco vManage Release 20.6.1, Cisco SD-WAN Manager GUI is redesigned and offers a new visual display. Besides the new sign in screen, this section presents a comparative summary of the significant changes between older Cisco vManage releases and Cisco vManage Release 20.6.1 and later.

### Change in Navigation Menu

From Cisco vManage Release 20.6.1, the navigation menu at the top left of the Cisco SD-WAN Manager window is collapsed, and can be expanded to view the menu options. The previous releases of Cisco SD-WAN Manager have a static side-bar navigation menu.

**Figure 1: Navigation Menu in Cisco vManage Release 20.5.1 and Earlier**



**Figure 2: Navigation Menu (Collapsed) in Cisco vManage Release 20.6.1 and Later**

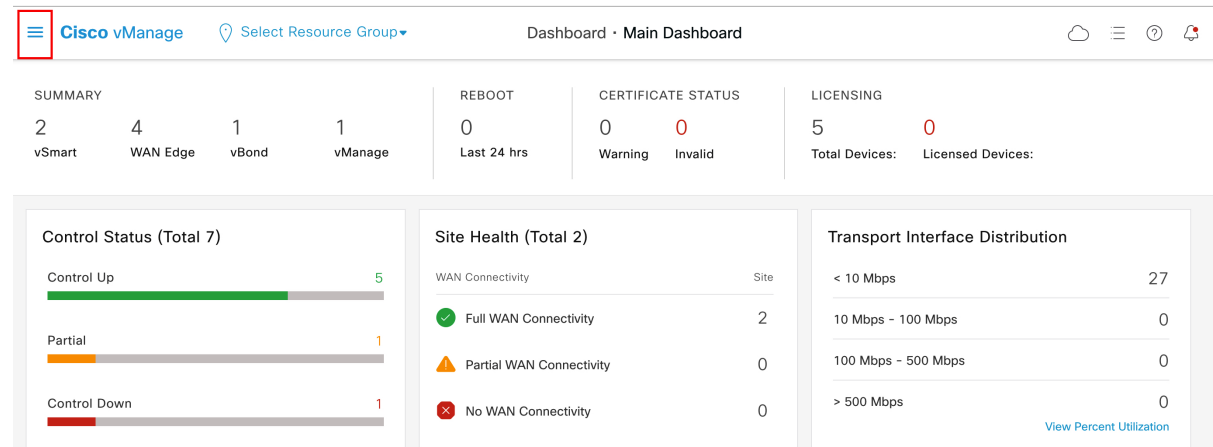
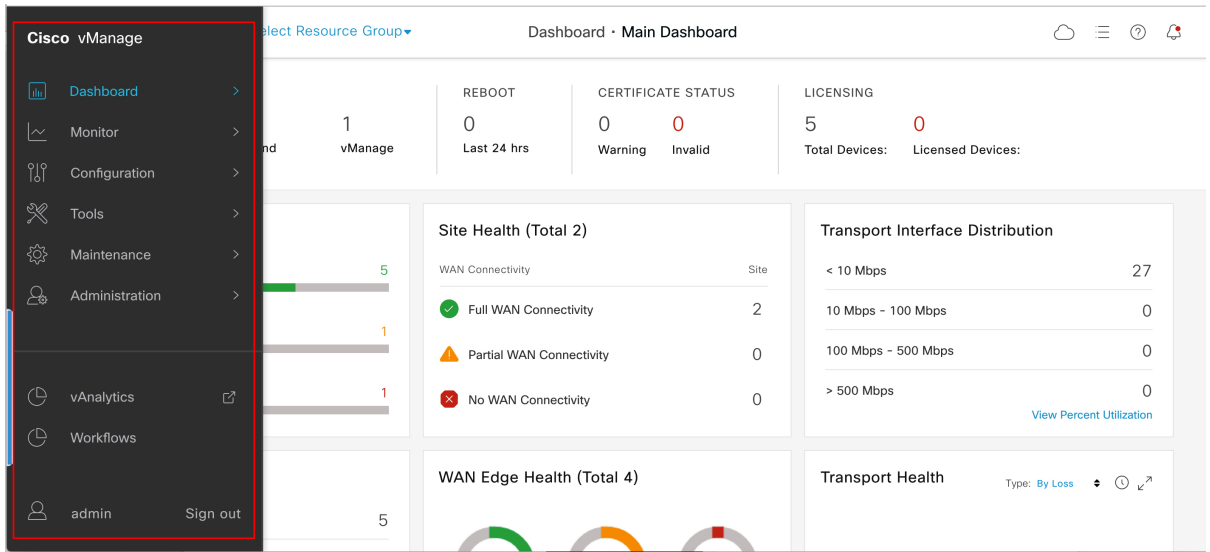




Figure 3: Navigation Menu (Expanded) in Cisco vManage Release 20.6.1 and Later



### Change in Position of the User Profile and Sign Out Options

From Cisco vManage Release 20.6.1, the **User Profile** and **Sign Out** options are moved to the bottom of the collapsible side-bar menu in the left pane. In the previous releases, these options are available at the top-right corner of Cisco SD-WAN Manager.

Figure 4: User Profile and Sign Out Options in Cisco vManage Release 20.5.1 and Earlier

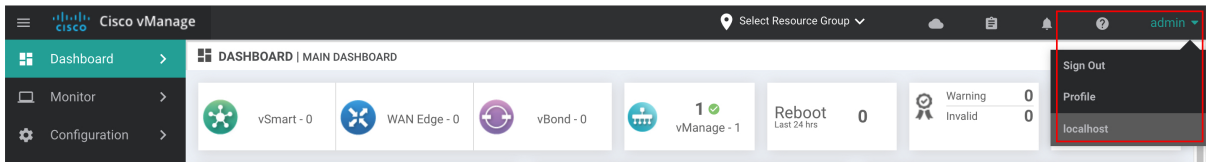
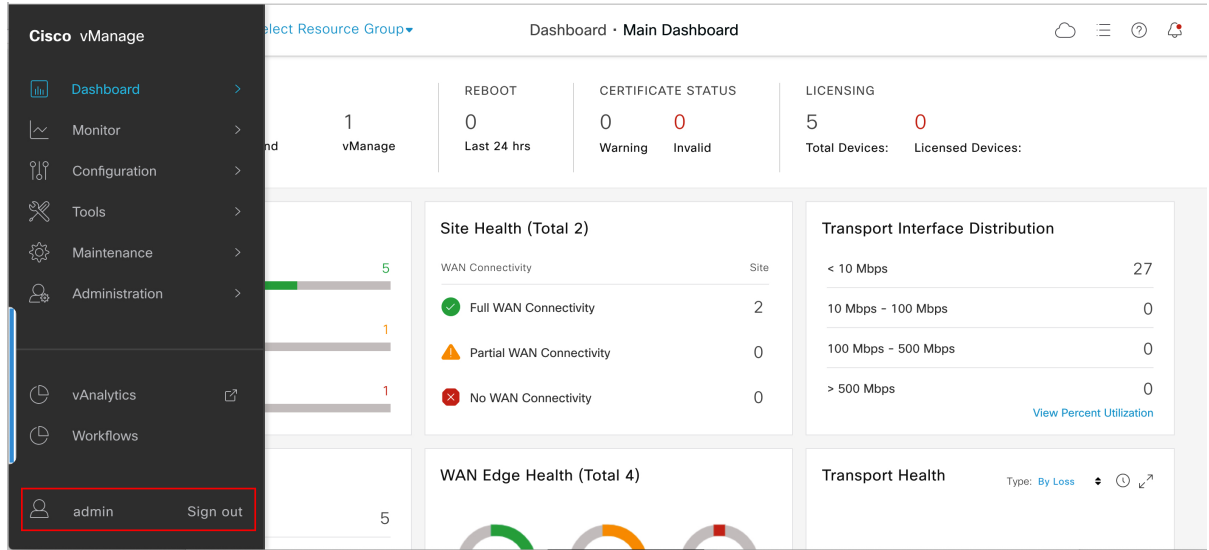


Figure 5: User Profile and Sign Out Options in Cisco vManage Release 20.6.1 and Later



### Change in Presentation of the Main Dashboard

From Cisco vManage Release 20.6.1, the position of **Select Resource Group** drop-down menu is shifted to the left.

Figure 6: Main Dashboard in Cisco vManage Release 20.5.1 and Earlier

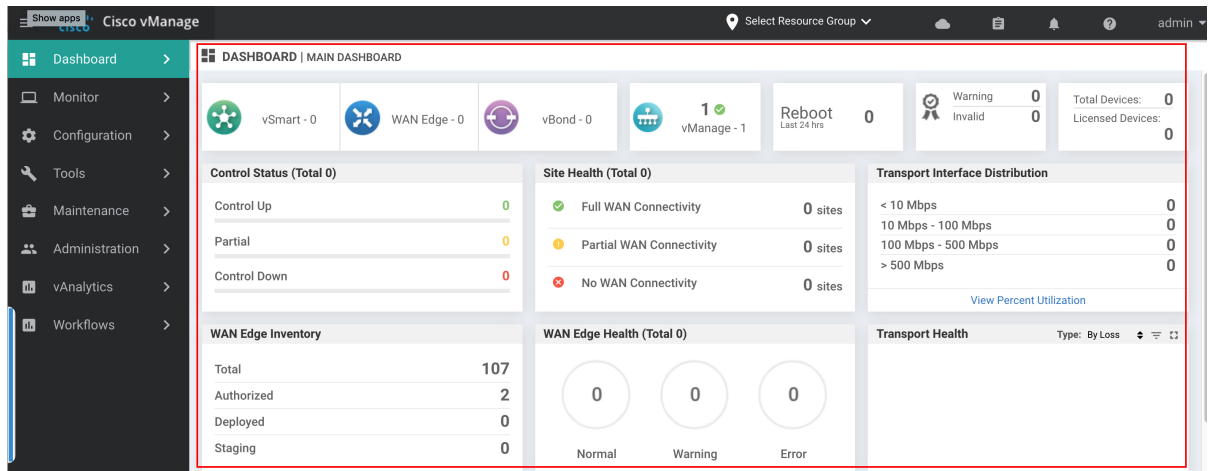
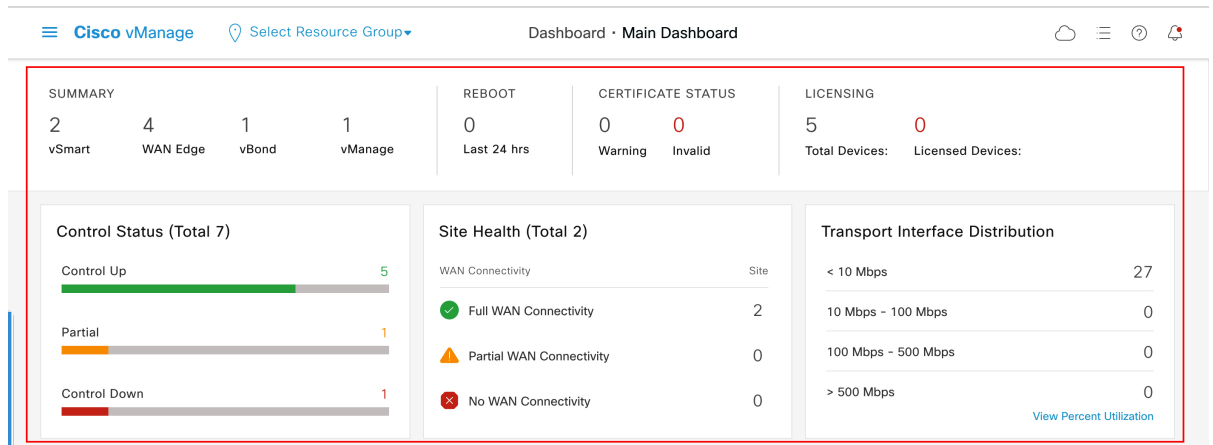


Figure 7: Main Dashboard in Cisco vManage Release 20.6.1 and Later



### Other Changes

The redesign includes:

- New icons across Cisco SD-WAN Manager

Figure 8: Example of Icons in Cisco vManage Release 20.5.1 and Earlier

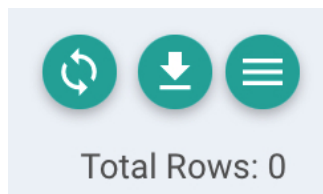
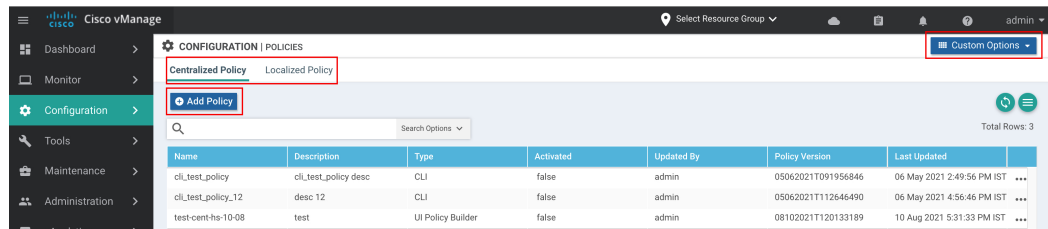


Figure 9: Example of Icons in Cisco vManage Release 20.6.1 and Later

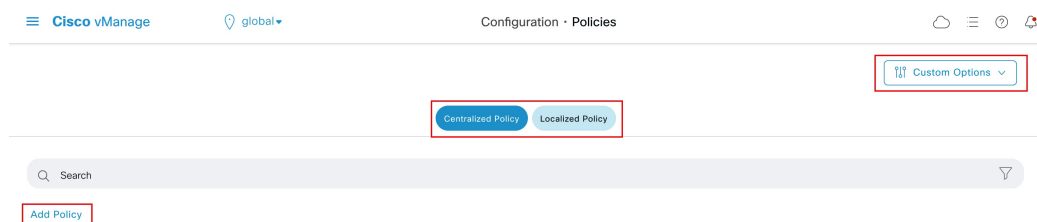


- New design for GUI elements such as tabs and buttons

Figure 10: Example of GUI Elements in Cisco vManage Release 20.5.1 and Earlier



**Figure 11: Example of GUI Elements in Cisco vManage Release 20.6.1 and Later**

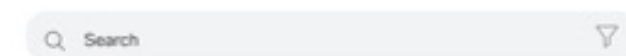


- New design for search bars across Cisco SD-WAN Manager

**Figure 12: Example of Search Bar in Cisco vManage Release 20.5.1 and Earlier**



**Figure 13: Example of Search Bar in Cisco vManage Release 20.6.1 and Later**



## 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](#)
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