Release Notes for Cisco IOS XE Catalyst SD-WAN Devices, Cisco IOS XE Catalyst SD-WAN Release 17.12.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.

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
- User Documentation for Cisco SD-WAN Release 20

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Release Notes for Cisco IOS XE Catalyst SD-WAN Devices, Cisco IOS XE Catalyst SD-WAN Release 17.12.1a



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These release notes accompany the Cisco IOS XE Catalyst SD-WAN Release 17.12.1a, which provides Cisco Catalyst 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 Catalyst SD-WAN Control Components, refer to Release Notes for Cisco SD-WAN Control Components, Cisco Catalyst SD-WAN Control Components Release 20.12.x

What's New for Cisco IOS XE Catalyst SD-WAN Release 17.12.1a

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 Cisco Catalyst SD-WAN solution, see the *Resolved and Open Bugs* section in the Release Notes.

Table 1: Cisco IOS XE Catalyst SD-WAN Release 17.12.1a

Feature	Description
Cisco Catalyst SD-WAN Getting Started Guide	
Support for Certificates Without the Organizational Unit Field	Enterprise certificates that you install on devices do not require the Organizational Unit (OU) field to be defined. Earlier, this field was used as part of the authentication of a device. However, if a signed certificate includes the OU field, the field must match the organization name configured on the device.
Cisco Catalyst SD-WAN Systems and Interfaces	
Cisco Catalyst SD-WAN Remote Access Configuration in SSL-VPN Mode	This feature enables you to configure the following Cisco Catalyst SD-WAN Remote Access features for a device in SSL-VPN mode, using Cisco SD-WAN Manager: — Private IP Pool — Authentication — AAA Policy
Configuration Groups and Feature Profiles (Phase IV)	The following new features are introduced to the feature profiles: — In the System Profile: Flexible Port Speed. — In the Transport Profile: OSPFv3 IPv4 Routing, OSPFv3 IPv6 Routing, T1/E1 Controller — Subfeatures for transport VPN: OSPFv3 IPv4 Routing, OSPFv3 IPv6 Routing, T1/E1 Serial, DSL PPPoE, DSL PPPoA, DSL IPoE, Ethernet PPPoE — In the Service Profile: OSPFv3 IPv4 Routing, OSPFv3 IPv6 Routing, EIGRP Routing, Object Tracker, Object Tracker Group — Subfeatures for service VPN: OSPFv3 IPv4 Routing, OSPFv3 IPv6 Routing, EIGRP Routing, Multilink Controller, Object Tracker, Object Tracker Group — The **Route leak to Global VPN** option is added to the **Route Leak** parameter in the service VPN.
Support for Dual Device Site Configuration	This feature supports dual devices site configuration using configuration groups, for redundancy.
Enhancements to User-Defined Device Tagging	Device tagging has the following new functionalities: — When you add devices to a configuration group using rules, you can choose **Match All** or **Match Any**. — You can use **Starts With** and **Ends With** operator conditions when you add devices to a configuration group using rules. — In addition, the button formerly called **Add New Tag** is now **Create New Tag**.

Feature	Description
VFR (Virtual Fragmentation Reassembly) and Underlay Fragmentation	The VFR mechanism reassembles fragmented packets in Cisco Catalyst SD-WAN networks. The packets are fragmented for better transportion and are fragmented while they are travelling through a VFR enabled Cisco IOS XE Catalyst SD-WAN device. Underlay fragmentation fragments packets in the underlying layer of a network. Underlay fragmentation is introduced to easily transport larger packets that exceed the (MTU).
Enhanced Cisco Catalyst SD-WAN Manager Dashboard for Multitenancy	This feature is enhanced to support consistent user experience in tenant and service providers dashboard. The Cisco Catalyst SD-WAN Manager dashboard provides visibility into the available resources on shared devices.
RADIUS/TACAS Support for Multitenancy	This feature enables support for Remote Authentication Dial-In User Service (RADIUS) and Terminal Access Controller Access Control System (TACACS) authentication in a multitenant deployment on WAN edge devices.
Enhanced Multitenant Tier Definition to include NAT Limits	This feature is enhanced to support NAT to enforce per tenant maximum limit on the translations. From this release **Tier** is called **Resource Profile** in Cisco SD-WAN Manager.
Cisco Catalyst SD-WAN Routing Configuration Guide	
Transport Gateways	A transport gateway operates as the hub in a hub-and-spoke routing topology. It offers the advantage of achieving this topology without requiring complex routing policy configuration. The following are some uses of a transport gateway: • Providing connectivity to routers in disjoint underlay networks • Serving as a gateway (hub) for all traffic in one discrete network to reach another discrete network, such as directing all local network traffic to a cloud gateway
Hub-and-Spoke Configuration	Hub-and-spoke configuration simplifies the process of configuring a hub-and-spoke topology, making complex centralized control policy unnecessary. Instead, the configuration requires only a few simple configurations: a single command each on (a) the Cisco SD-WAN Controllers serving a network, (b) a router that serves as a hub, and (c) the routers that operate as spokes.
Symmetric Routing	You can use affinity groups, affinity group preference, and translation of RIB metrics to ensure symmetric routing of traffic flows across devices in a network. Symmetric routing accommodates various network topologies, including Multi-Region Fabric. To support symmetric routing beyond the overlay network, transport gateways can translate RIB metrics to control plane protocols such as BGP and OSPF. This extends the path preference configuration to routers outside of the overlay network, such as routers in a data center LAN.
Cisco Catalyst SD-WAN Policies	

Feature	Description
WAN Insight Policy Automation	With this feature, you can apply the recommendations that are available on vAnalytics to Cisco SD-WAN Manager AAR policy and view the applied recommendations on Cisco SD-WAN Manager.
Flow Telemetry Enhancement When Using Loopbacks as TLOCs.	When you configure a loopback interface as an ingress or egress transport interface, this feature enables you to collect loopback interface reports in FNF records and is supported for IPv4 and IPv6. A show command is enhanced on the device to display the binding relationship between the loopback and physical interfaces.
Lawful Intercept 2.0 Enhancements	This feature lets you configure intercepts in the Cisco Catalyst SD-WAN multitenancy mode, and also provides support for Cisco Catalyst SD-WAN Manager clusters.
Enhancements to Flexible NetFlow for vAnalytics	This feature introduces logging enhancements to Cisco Flexible NetFlow for Cisco SD-WAN Analytics. The output of the **show flow record** command has been enhanced for IPv4 and IPv6 flow records.
Enhanced Application-Aware Routing	Without enhanced application-aware routing enabled, Cisco IOS XE Catalyst SD-WAN device require several minutes to switch traffic from one network path to another to meet SLA requirements when the loss, latency, and jitter exceed specific threshold values. Enabling enhanced application-aware routing speeds the detection of tunnel performance issues. This enables Cisco IOS XE Catalyst SD-WAN devices to redirect traffic away from tunnels that do not meet SLA requirements.
Cisco Catalyst SD-WAN Security	
Snort Engine Version Upgrade	This feature adds support for Snort engine version 3, which is an upgrade from version 2.
IPv6 GRE or IPsec Tunnels Between Cisco Catalyst SD-WAN and Third-Party Devices	This feature allows you to configure an IPv6 GRE or IPSEC tunnel from a Cisco IOS XE Catalyst SD-WAN device device to a third-party device over a service VPN.
Enabling MACsec using Cisco SD-WAN Manager	This feature adds support for enabling MACsec using Cisco SD-WAN Manager for Cisco Catalyst SD-WAN devices on the service side. With MACsec enabled using Cisco SD-WAN Manager, communication between devices in the service VPN is protected, thus enhancing security for the service VPN.
OMP Prefixes for IP-SGT Binding	The OMP routes are typically present in the IOS RIB. The OMP routes aren't present in the IOS FIB containing entries that map destination IP addresses to next-hop IP addresses. The IOS FIB operates independently of the control plane, receiving the forwarding instructions from a centralized Cisco SD-WAN Controller instead of consuming the OMP routes from the IOS RIB. Starting from Cisco IOS XE Catalyst SD-WAN Release 17.12.1a, the OMP prefixes get added to the IOS FIB which improves IP-SGT binding.

Feature	Description
Cisco Catalyst SD-WAN Cloud OnRamp	
AWS Cloud WAN Integration	AWS Cloud WAN is a managed wide-area network (WAN) service. This feature enables you to easily connect and route remote sites, regions and cloud applications over the AWS global network. You can build and operate the wide-area networks using simple network policies and get a complete view of the global network.
Added an Azure Instance Type	For the Microsoft Azure West Central US and Australia East regions, added the Standard_D16_v5 Azure instance type, which includes 16 CPU cores and 64 GB of memory. You can deploy this type of instance for SKU scale values of 20, 40, 60, and 80.
Cisco Catalyst 8000V Edge Software Support	You can deploy a Cisco Catalyst 8000v Edge Software as the Interconnect Gateway in the Equinix fabric and connect an Cisco Catalyst SD-WAN branch location to the Interconnect Gateway.
Addition of VPC and VNet Tags to SDCI Connections	You can add or modify additional properties of Virtual Private Cloud (VPC) and Virtual Networks (VNets) tags that are associated with a connection.
Audit Management in Equinix	You can identify the gaps or disconnects between Cisco SD-WAN Manager intent and what is realized in the cloud. The audit management helps in understanding if the interconnect cloud and provider states are in sync with the Cisco SD-WAN Manager state.
Cisco Catalyst SD-WAN Policy Groups	
Policy Groups	This feature provides a simple, reusable, and structured approach for configuring policies in Cisco Catalyst SD-WAN. You can create a policy group, that is, a logical grouping of policies that is applied to one or more sites or a single device at the site in the network. To deploy the policy group to devices, the devices must be managed by a configuration group in Cisco Catalyst SD-WAN. You can configure policies based on features that are required, recommended, or uniquely used, and then combine them to complete a policy configuration.
Security Policy Using Policy Groups	This feature provides a simple, reusable, and structured approach for configuring security policies in Cisco Catalyst SD-WAN. You can create a security policy, that is, a logical grouping of policies that is applied to one or more sites or a single device at the site in the network. To deploy the policy group to devices, the devices must be managed by a configuration group in Cisco Catalyst SD-WAN. You can configure policies based on features that are required, recommended, or uniquely used, and then combine them to complete a policy configuration.
Topology	This feature allows you to provision a **Mesh** or a **Hub and Spoke** topology policy which is applied to Cisco Catalyst SD-WAN Controllers. This allows exchange of data traffic between two or more Cisco IOS XE Catalyst SD-WAN devices.
Cisco Catalyst SD-WAN Monitor and Maintain	

Feature	Description
Heatmap View for Alarms	In the heatmap view, a grid of colored bars displays the alarms as **Critical**, **Major**, or **Medium & Minor**. You can hover over a bar or click it to display additional details at a selected time interval. The intensity of a color indicates the frequency of alarms in a severity level.
Heatmap View for Events	In the heatmap view, a grid of colored bars displays the events as **Critical**, **Major**, or **Minor**. You can hover over a bar or click it to display additional details at a selected time interval. The intensity of a color indicates the frequency of events in a severity level.
Enhancements to Audit Logging	This feature introduces enhanced audit logging to monitor unauthorized activity. To view these audit logs, from the Cisco SD-WAN Manager menu, choose **Monitor** > **Logs** > **Audit Log**.
Enhancements to Network-Wide Path Insight	This feature provides enhancements to the Network-Wide Path Insight feature to include support for multiple VPNs for traces, the ability to generate synthetic traffic for traces, options for grouping trace information, support for auto-on tasks, new information on insight displays, and expanded insight summaries.
Cisco Catalyst SD-WAN NAT	
Support for multiple WAN Links for NAT66 DIA	You can configure NAT66 to use multiple WAN Links to direct local IPv6 traffic to exit directly to the internet.
Cisco Catalyst SD-WAN Remote Access	
Cisco Catalyst SD-WAN Remote Access Configuration in SSL-VPN mode Using Cisco SD-WAN Manager	This feature enables you to configure Cisco Catalyst SD-WAN Remote Access for a device in SSL-VPN mode, using Cisco SD-WAN Manager.
User Login Options	
Configure Inactivity Lockout	You can to configure Cisco SD-WAN Manager to lock out users who have not logged in for a designated number of consecutive days.
Configure Unsuccessful Login Attempts Lockout	You can configure Cisco SD-WAN Manager to lock out users who have made a designated number of consecutive unsuccessful login attempts within a designated period.
Configure Duo Multifactor Authentication	You can configure Cisco SD-WAN Manager to require Duo multifactor authentication (MFA) to verify the identity of users before they can log in to Cisco SD-WAN Manager.
Cisco IOS XE SD-WAN Qualified Command Reference	

Feature	Description
vDaemon Logging Commands	The following troubleshooting commands are added: • **debug vdaemon** • **debug platform software sdwan vdaemon** • **set platform software trace vdaemon** • **show sdwan control connections**
lockout-policy Command	This command allows you to lock out users who have made a designated number of consecutive unsuccessful login attempts within a designated period, or who have not logged in for a designated number of days
multi-factor-auth duo command	This command allows you to require Duo multifactor authentication (MFA) to verify the identity of users before they can log in.

New and Enhanced Hardware Features

New Features

- Support for Cisco SM-X-1T3/E3 Module: Cisco SD-WAN Manager CLI device templates now supports Cisco SM-X-1T3/E3 module.
- Support for Cisco Managed Cellular Activation (eSIM): The Managed Cellular Activation solution provides a programmable subscriber identity module (SIM), called an eSIM, a physical SIM card that you can configure with a cellular service plan of your choice. Managed Cellular Activation is available for the 5G Sub-6 GHz Pluggable Interface Module (PIM), model P-5GS6-GL, and for the Cisco Catalyst Wireless Gateway 113-4GW6.

  The solution also provides a "bootstrap" cellular plan with limited data for connecting your device to the internet on Day 0. You need to set up your cellular plan details in Cisco SD-WAN Manager before you power on and onboard the device. This way, you can avoid using up the data provided with the device before your onboarding is completed.

  For information about configuring Cisco SD-WAN Manager with the details of your cellular plan in preparation for onboarding the device, see the *Cisco Managed Cellular Activation Configuration Guide*.

Note In this context, eSIM refers to a removable SIM pre-installed by Cisco. In other contexts, eSIM can refer to a non-removable SIM embedded in a cellular-enabled device.

Software and Hardware Behavior Changes in Cisco IOS XE Catalyst SD-WAN Release 17.12.x

Software and Hardware Behavior Changes in Cisco IOS XE Catalyst SD-WAN Release 17.12.5

Table 2: Software and Hardware Behavior Changes in Cisco IOS XE Catalyst SD-WAN Release 17.12.5

Behavior Change	Description
Mandatory Tenant ID and VPN ID with Prefix address for **show sdwan omp routes** command.	Starting from Cisco IOS XE Catalyst SD-WAN Release 17.18.1a, Cisco IOS XE Catalyst SD-WAN Release 17.15.1a, and Cisco IOS XE Catalyst SD-WAN Release 17.15.2, the **show sdwan omp routes** command requires you to specify both the tenant ID and VPN ID when using a prefix address.

Software and Hardware Behavior Changes in Cisco IOS XE Catalyst SD-WAN Release 17.12.2

Table 3: Software and Hardware Behavior Changes in Cisco IOS XE Catalyst SD-WAN Release 17.12.2

Behavior Change	Description
Added support for certificates that do not have a matching Organizational Unit (OU) field: When onboarding a device, if the associated enterprise certificate has one or more OU fields defined, Cisco Catalyst SD-WAN does not require that any of the OU fields match the organization name of the fabric.	The Configure Enterprise Certificates for Cisco SD-WAN Controllers section describes the behavior.
For all ISR1100 platforms, before changing the resource profile, you must reboot the device. Performing a reboot improves the perfomance of ISR1100 platforms.	The Supported Platforms section in the *Unified Threat Defense Resource Profiles* chapter describes the behavior.
Added an advanced telemetry option to enable Cisco SD-WAN Manager to collect anonymized data for the Cisco Catalyst SD-WAN Data Collection Service (DCS).	The Enable or Disable Cisco Catalyst SD-WAN Telemetry section describes the option.

Software and Hardware Behavior Changes in Cisco IOS XE Catalyst SD-WAN Release 17.12.1a

Table 4: Software and Hardware Behavior Changes in Cisco IOS XE Catalyst SD-WAN Release 17.12.1a

Behavior Change	Description
You cannot include a comma in the **Organization Name** field of the bootstrap configuration file.	The Enable Reverse Proxy and Cisco Catalyst SD-WAN Overlay Network Bring-Up Process sections are updated twith a note on the new behavior.

Behavior Change	Description
The **Viptela-User-Group** and **Viptela-Resource-Group** tags are used in RADIUS and TACACs configurations for accounting and authorization.	The Configure the Authentication Order section is updated with a note on new tag definitions.
A restriction for rebooting a control manage is added.	The Connect Cisco SD-WAN Manager VM Instance to Cisco SD-WAN Manager Console section is updated with the restriction.
Device variable names can contain the following special characters dots (.), forward slashes (/) and square brackets ([]).	The Configure Device Values section is updated with the new support for special characters.
Bar chart to display changes from the previous time period.	The following sections are updated in the Cisco SD-WAN Manager Monitor Overview dashboard with information about the dashlets displaying a bar chart showing the changes from the last time period: • Site Health • Tunnel Health • WAN Edge Health • Application Health
A new command to run diagnostics on a Cisco Catalyst SD-WAN Manager cluster.	The Troubleshooting Commands chapter has been updated with a new command **vdiagnose vmanage cluster**.
Change in the severity value of a few alarms.	The Alarms chapter has been updated with the change in the alarm severity value for the following alarms: • New CSR Generated • Root Cert Chain Installed • Root Cert Chain Uninstalled
New commands that display details of alarms that are generated in Cisco SD-WAN Manager. These commands provide better readability into the alarms.	The Troubleshooting Commands chapter has been updated with the **show sdwan alarms detail** and **show sdwan alarms summary** commands.
In addition to routers in controller mode, from Cisco Catalyst SD-WAN Manager Release 20.12.1, Cisco SD-WAN Manager can monitor routers that are in autonomous mode and not part of the Cisco Catalyst SD-WAN overlay network. These routers appear with the label **SD-Routing** in the **Device Model** column to distinguish them from routers that are part of the overlay network.	Updated the View Controller and Device Information section to describe the new behavior.

Behavior Change	Description
You can configure a global certificate authority using the **Configuration** > **Certificate Authority** option in Cisco SD-WAN Manager. In earlier releases, there was an **Administration** > **Settings** > **Certificate Authority (CA) Settings** option that provided the same functionality, but that option has been removed in this release.	See the Certificate Management section for information about certificates.
You can commit the configuration before rebooting a control manage device through Cisco Catalyst SD-WAN Manager.	The Cisco SD-WAN Manager Console section is updated to describe the new behavior.
In Cisco SD-WAN Manager, **auth-no-priv** authentication algorithm is not supported.	The Configure SNMP on Cisco IOS XE Catalyst SD-WAN Devices section is updated with the support details.
Use the **tools consent-token** command to authenticate the network administrator of an organization to access system shell. Starting Cisco Catalyst SD-WAN Manager Release 20.12.1, the **request support ciscotac** command is deprecated.	The Ciscotac User Access section is updated to describe the new behavior.
Authorization rule for **vshell** is limited to only netadmin users.	The User Authorization Rules table in the Role-Based Access Control chapter is updated with the new rule.
In a Microsoft Azure setup, to allow packets with IPv6 Unique Local Addresses (ULA) on the device, configure the **enable-ipv6-unique-local-address** command to enable or disable these addresses.	The Deploy Cisco Catalyst SD-WAN Controllers in Azure: Tasks section is updated to describe the new behavior.
If multiple Azure Virtual WAN hubs are there in a region, you can select a particular Azure Virtual WAN hub for that region. Once you choose the Azure Virtual WAN hub, all subsequent connections created for Azure Virtual WAN uses the same Azure Virtual WAN hub.	See the Virtual WAN Setting for Megaport and Virtual WAN Setting for Equinix sections for more information.
You have the option to choose to delete Express-Route and vWan at the time of deletion. When you delete a GCP connection, you can optionally select to delete the Google Cloud Router, or manage these resources as required.	See the Delete Connection section for more information.
The Application Monitoring feature is enabled with read and write permission.	See the User Group Permissions:Cisco IOS XE Catalyst SD-WAN devices for more information.
The mutual authentication option is enabled with read and write permission.	See the User Group Permissions:Cisco IOS XE Catalyst SD-WAN devices for more information.

Behavior Change	Description
From Cisco IOS XE 17.12.1a and later, operating with SD-WAN Manager 20.12.1 or later, Cisco Catalyst SD-WAN employs a more efficient mechanism for telemetry data exchange between edge devices and SD-WAN Manager. In earlier releases, in some circumstances, devices could fill a buffer for data collection, causing some telemetry data to be dropped. Dropped telemetry data can cause missing data in flow logs, gaps in charts, and gaps in other information shown on pages such as **Overview**, the **Applications** dashboard, and the **Circuits** dashboard. These pages are accessible from the **Monitor** or **Analytics** menus, depending on the SD-WAN Manager release.	

Important Notes, Known Behaviors, and Workarounds

SFP-10G-SR module

Cisco IOS XE Catalyst SD-WAN devices with the SFP-10G-SR module do not support online insertion and removal (OIR) of the module.

Software maintenance upgrade (SMU)

The minimum supported release for software maintenance upgrade (SMU) is Cisco IOS XE Catalyst SD-WAN Release 17.12.3a. It was previously described as Cisco IOS XE Catalyst SD-WAN Release 17.12.1a. See Supported Devices for Software Maintenance Upgrade.

esp-null Deprecated

In Cisco IOS XE Catalyst SD-WAN Release 17.12.1a, the esp-null encryption algorithm is deprecated. When configuring Secure Internet Gateways (SIG), selecting the NULL-SHA1 cipher will invoke esp-null and result in template push failures. To avoid deployment errors, configure SIG with a supported encryption algorithm.

Disaster Recovery

The user account used for disaster recovery supports only local authentication and does not support remote authentication methods such as TACACS+ or RADIUS. This user must be dedicated solely to disaster recovery tasks and must not be used for any other functions, such as cluster management because of the following reasons:

- Reliability: Using dedicated accounts for DR sync minimizes configuration errors and reduces operational risks.
- Resilience: Prevents issues related to user lockouts or account overrides, ensuring DR processes are not impacted by administrative changes to other accounts.
- Audit and compliance: Dedicated users provide clear separation for auditing purposes, making it easier to track and log DR-related activities.

- Industry standard: All our customers, including those in highly regulated sectors such as finance, follow this model. It is the recommended and supported deployment standard.
- Avoid remote authentication issues: TACACS-based users are prone to disruptions due to potential latency or connectivity issues with remote authentication servers. Using local accounts eliminates these risks, ensuring uninterrupted DR sync and cluster operations.
- Password rotation: Capabilities are provided via API/GUI on active cluster and through CLI on standby cluster.

TLOC extension configuration

If a device

- is using Cisco IOS XE Catalyst SD-WAN Release 17.9.x or earlier, and
- the device has a tunnel interface configuration includes a TLOC extension,

then you cannot upgrade to one of these:

- 17.12.1 through 17.12.4
- 17.15.1 through 17.15.2

Attempting such an upgrade causes the device to crash and enter a rollback state.

If you have a TLOC extension configured and need to perform such an upgrade, remove the TLOC extension configuration from the tunnel interface configuration before upgrading.

This issue was fixed and does not apply for upgrades from one of these releases:

- 17.12.5 and later releases of 17.12.x
- 17.15.3 and later releases of 17.15.x
- 17.18.1a and later

VRF range

VRF range:

In Cisco Catalyst SD-WAN environments, you can configure VPN or VRF IDs in the range 1 to 65525, excluding 512. Cisco Catalyst SD-WAN reserves 0, 512, and 65526 and higher, for specific purposes, so these are not available for configuration.

From Cisco IOS XE Catalyst SD-WAN releases 17.9.7, 17.12.6, 17.15.4, and 17.18.1a, and later releases, devices do not redistribute routes that use VPNs or VRFs outside of the supported range.

Resolved and Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.x

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

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.8

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.8

Identifier	Headline
CSCwr73175	Replacing the SFP module from 1G to 10G leaves the TenGigabit interface in a down state.
CSCws86262	The Cisco IOS XE Catalyst SD-WAN device IPv4 GRE Tunnel API endpoint-tracker incorrectly uses IPv6 DNS.
CSCwu24891	TLS control connections flap every 30 seconds with the Cisco Catalyst SD-WAN Controller.
CSCwo90776	Race conditions during connrent and eagain states prevent the system from draining messages in the MQIPC buffer queue.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.8

There are no customer impacting bugs that were identified in this release.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.7b

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.7b

Identifier	Headline
CSCwm42521	NBAR is not enabled for service VPN tunnel ingress direction.
CSCwr00437	Abrupt power loss may cause the SD-WAN cEdge device to lose the saved configuration.
CSCwq65520	cEdge cannot clear the zScaler location parameter without a reload.
CSCwr66677	FIB table routes are getting misprogrammed.
CSCwp87792	CPP crashes with SIG tunnel GRE keepalive packets when you switch the tunnel debug on.
CSCwr88206	FIB table routes: Next Hop (NH) ID 0 is getting corrupted and assigned to a value other than blackhole.
CSCwm28737	cEdge device upgrade fails with error: "Failed to finish task as Task Timeout has been reached".
CSCwq74074	Router crashes due to "Critical process cpp_ha_top_level_server fault on fp_0_0 (rc=69)".
CSCwn89324	Continuous unexpected reloads due to "Critical process cfgmgr fault on rp_0_0".
CSCwq72772	cEdge - FNF exporter not sending data packets when ipv6 collector is defined.
CSCwk30890	cEdge experiences a crash on bfd_proxy_ipc_response_handler.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.7b

Identifier	Headline
CSCwo22511	cEdge experiences high CPU utilization in confd_cli after executing "show omp tlocs."
CSCwq82993	SD-WAN Manager receives a flood of LTE Carrier State change messages, resulting in a major event where the reason is "Cellular Bearer Technology is changed to LTE / FDD."
CSCws86262	cEdge IPv4 GRE Tunnel API endpoint-tracker incorrectly uses IPv6 DNS.
CSCwo84428	cEdge experiences a memory leak under the vdaemon process with DTLS during SNMP polling.
CSCwh06870	APN password displayed in plain text when cellular controller profile is configured.
CSCwe19394	cEdge may boot up into prev_packages.conf due to a power outage.
CSCws35252	cEdge loses the interface IP configuration due to corruption in NVRAM.
CSCws52745	TCP Optimization may drop packets if payload is less than 5 bytes.
CSCwq60993	The EM9293 module is not able to acquire GPS coordinates.
CSCwm96744	The IPsec tunnel takes over 12 hours to recover after a WAN failover.
CSCwe92181	cEdge experiences a traceback and reload after detecting a fatal error in qfp-ucode-radium.
CSCwn42496	SDWAN-SIT: Encore crashes at bfd_send_and_detect_sleep_time during a soak run.
CSCwf45486	OMP to BGP redistribution leads to incorrect AS_Path installation on the chosen next-hop.
CSCwr25077	vDaemon crash when initializing DNS channels.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.6

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.6

Identifier	Headline
CSCwo98521	cxpd experiences a memory leak when HTTPs endpoint probing has more than 2 second RTT.
CSCwm27749	Speed test download / Throughput issue on C8200 platform seen with IPSEC ESP-NULL transform using Zscaler.
CSCwq31287	Cisco IOS and IOS XE Software SNMP: Denial of service and remote code execution vulnerability.
CSCwn85877	Cisco IOS XE Catalyst SD-WAN device fragments the packets with interface MTU instead of tunnel PMTU.

Identifier	Headline
CSCwo01770	E-AAR Local Loss does not work on COFF Platforms.
CSCwj49155	DNS Channel uses same source port in every connection.
CSCwo86919	Reloading the hardware module subslot with a DIA interface disables CXP on those interfaces.
CSCwo47261	Flow stickiness has an issue when NAT fallback is used.
CSCwm27749	Users observe a speed test download/throughput issue on the C8200 platform when using IPSEC ESP-NULL transform with Zscaler.
CSCwo32083	The system loses the default route after moving from a physical interface to a sub-interface.
CSCwo50617	The system replies to unknown unicast packets with a non-self MAC address on a GRE tunnel.
CSCwp23900	IP sla probes are not created for DIA endpoint-tracker after upgrading to Release 17.12.5a.
CSCwn53608	BFD Packet drops on ATM interface after upgrade.
CSCwn65833	Unexpected reload on Cisco IOS XE Catalyst SD-WAN device due to NWPI trace elephant flow.
CSCwo10491	BFD offload causes the IPv6 BFD session sourced from a loopback (unbind) to go down.
CSCwo05158	SLA events do not get the correct values from the Cisco IOS XE Catalyst SD-WAN device.
CSCwn93052	Static default route is not installed in routing table due to issue with track-default-gateway.
CSCwq47389	The C1100 router experiences high CPU usage after a reload.
CSCwo76207	Flow stickiness does not work when match based on app-family.
CSCwn12847	IPSec umbrella tunnels are going down everytime umbrella side executes the rekey.
CSCwm72414	Data Policy SIG action with CoR SaaS DIA path blackholes DNS traffic.
CSCwo72675	All BFD sessions for dialer interfaces are down. SA ID is 0 for all of them.
CSCwo78780	A critical process ompd fault occurs on rp_0_0 restart with return code (rc) 134.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.6

Identifier	Headline
CSCwo22511	Cisco IOS XE Catalyst SD-WAN device: cexperiences high CPU utilization by confd_cli after executing "show omp tlocs".

Identifier	Headline
CSCwo66099	Cisco IOS XE Catalyst SD-WAN device Service Side BFD flaps.
CSCwm96744	After a WAN failover, the IPsec tunnel takes more than 12 hours to recover.
CSCwp12196	Cisco IOS XE Catalyst SD-WAN device unexpectedly reloads due to memory corruption on a notification queue in FTMd.
CSCwo34471	SDWAN NAT timedout sessions are not removed.
CSCwh06870	The APN password appears in plain text when users configure the Cellular controller profile.
CSCwe19394	Cisco IOS XE Catalyst SD-WAN device may boot up into prev_packages.conf due to power outage.
CSCwk74916	The 'pppoe-client dial-pool-number' configuration under the Ethernet interface fails.
CSCwo58622	cEdgeElixirwifi: native Vlan config is not loaded by configuration reset on WLAN Interface.
CSCwh62600	The system removes unused code used for collecting data plane statistics in the background.
CSCwn89324	The system experiences continuous unexpected reloads due to a "Critical process cfgmgr fault on rp_0_0".
CSCwm72748	The OMPd process crashes due to a Sig-abort when it hits the Pthread limit.
CSCwe92181	Cisco IOS XE Catalyst SD-WAN device experiences a traceback and reloads after detecting a fatal error in qfp-ucode-radium.
CSCwn42496	SDWAN-SIT: During a soak run, SD-WAN SIT Encore crashes at bfd_send_and_detect_sleep_time.
CSCwf45486	OMP to BGP redistribution leads to incorrect AS_Path installation on the chosen next-hop.
CSCwk30890	Bender: Observed crash on bfd_proxy_ipc_response_handler.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5d

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5d

Identifier	Headline
CSCwn48408	A command injection vulnerability affects the Cisco IOS XE Software HTTP API.
CSCwq36711	Cellular UP/UP with no ip seen with last-resort testing.
CSCwn78222	In version 17.12.5 Curie with EM7411, the cellular interface has an IP address, but ping operations fail.

Identifier	Headline
CSCwq47389	The C1100 router experiences high CPU usage after a reload.
CSCwq78692	Link recovery activates in version 17.12 because the SDK/modem becomes unresponsive; this is an IoS-NIM specific issue.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5d

There are no customer impacting bugs that were identified in this release.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5b

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5b

Identifier	Headline
CSCwo01770	E-AAR local loss does not work on COFF Platforms.
CSCwj49155	DNS Channel uses same source port in every connection.
CSCwn99822	Large number of BFD sessions are stuck due to out of window drops reported with control connections NAT flaps.
CSCwn53608	BFD Packet drops on ATM interface after upgrade.
CSCwo84747	Tunnel delete/create flaps unexpectedly for PWK case for private control NAT changes.
CSCwo05158	SLA events not getting the correct values from the Cisco IOS XE Catalyst SD-WAN device.
CSCwb24403	SD-WAN (Cisco IOS XE Catalyst SD-WAN device/Cisco vEdge device) : BFD flap on public IP change on a private color TLOC.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5a

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5a

Identifier	Headline
CSCwn53881	The rekey fails in the PWK and Non-PWK interworking use case.
CSCwn49931	Longevity traffic with triggers causes an FMAN_FP crash.
CSCwn45512	The router reaches the total limit for "show ip nat translations" despite having a low number of active NAT table entries.
CSCwi49846	The ftmd crashed when SIG GRE tunnels configurations were removed.
CSCwk75733	Custom applications may not be programmed properly.
CSCwn34457	After a power cycle, an error stating "Authentication failed" prevents login to the router.

Identifier	Headline
CSCwn81320	Executing "show sdwan ftm" CLI commands at scale causes the confd_cli process to show high CPU usage and hang.
CSCwi69971	Rapid FTMd leak on Cisco IOS XE Catalyst SD-WAN device due to event-driven UMTS records building up.
CSCwn54491	After a reboot on a spoke with a dual-stack WAN (IPv4 and IPv6), BFD sessions fail to initialize.
CSCwm27495	An OMP route is advertised even though the route is unavailable due to the network statement and NAT DIA VPN configuration.
CSCwk16333	Cisco IOS XE Catalyst SD-WAN device repeatedly crashes in FTMd due to FNF Flow additions..
CSCwj95633	In the SDWAN setup, the SAIE application shows "No Data to Display" over the Cisco SD-WAN Managerfor the IOS XE router.
CSCwm28775	A certificate update for the ios_core.p7b bundle is required for Umbrella DNS using the TOKEN method on versions 17.6/.9/.12.
CSCwj96852	Return traffic for Outside to Inside NAT received on one TLOC is forwarded out through another TLOC.
CSCwn20500	Executing "show ip nat translation" unexpectedly causes a reboot.
CSCwk28794	When using switchport, SNMP returns incorrect values for the interface.
CSCwk39391	Drops occur due to IpsecOutput issues with the error OUT_IPV4_SA_NOT_FOUND.
CSCwn40906	Optimizing encrypted traffic with DRE causes the router to crash.
CSCwh46764	The IPSEC fix addresses the issue where IPv6 BFD fails to establish with edges in private network controllers operating in a public network.
CSCwn52348	Removing and re-adding NAT intermittently causes BFD to go down.
CSCwj75957	Cisco IOS XE Catalyst SD-WAN device uninstalls UTD before committing the configuration to the candidate datastore, and if the commit fails, UTD is not reinstalled.
CSCwm61871	SLA-Change events display incorrect information, showing "None" for both old-sla and new-sla values.
CSCwm40311	An unexpected reboot due to ftdm process after a change on a configuration template on a Cisco IOS XE Catalyst SD-WAN device router.
CSCwm07349	The vmanage-stats-db for firewall continues to increase in size without stabilization.
CSCwm07564	Cisco IOS XE Catalyst SD-WAN device: The data-policy local-tloc-list disrupts the RTP media stream.
CSCwm02632	Configuring route-aggregate from the Cisco SD-WAN Manager without the 'aggregate-only' option appears misleading.

Identifier	Headline
CSCvz73754	Multiple SKA clients accessing the pubkey table on IOS-XE causes an unexpected reload.
CSCwn16182	Shortly after enabling Enhanced Application-Aware Routing, a crash is observed.
CSCwo11688	Continuous endpoint tracker log messages appear when a DNS query fails in the tracker-group.
CSCwn12971	Certain OMP routes return the error "% No such element exists" if the prefix length is not included.
CSCwi01337	Cisco IOS XE Catalyst SD-WAN device: A crash is observed during the imgr_ipsec_sa_seqno_ctx_restore process.
CSCwj76662	Cisco IOS XE Catalyst SD-WAN device: High memory utilization due to "ftmd" process.
CSCwk70415	An unexpected reload occurs in IOS-XE due to a stuck thread with NAT BPA configuration.
CSCwm48459	Software crash with Critical process vip_confd_startup_sh fault on rp_0_0 (rc=6)
CSCwn35075	Cisco IOS XE Catalyst SD-WAN device: An unexpected reload occurs after an overlay session deletion during the AVL tree removal process.
CSCwo21215	17.12.4 Respin: BFD goes down with private color behind NAT for carrier7 and carrier8.
CSCwk08685	Observing crash related to packet reassembly.
CSCwo08234	After a router reload, the Zscaler SSE tunnel is incorrectly established using the TLOC extension.
CSCwk38020	AAR BOW is not selecting the best tunnel; instead, it is load balancing among the tunnels.
CSCwj99827	Cisco IOS XE Catalyst SD-WAN device unexpectedly reloads due to a crash in 'vdaemon' process
CSCwk69490	Running the incomplete command "show sdwan app-route stats local-color" mistakenly causes a crash.
CSCwm29499	Cisco IOS XE Catalyst SD-WAN device advertises component routes temporarily even if omp aggregate-only is configured.
CSCwn39940	Crash seen with Enhanced Application-Aware Routing feature (additional code changes for CSCwn16182).
CSCwk90014	NAT DIA traffic is dropped due to port allocation failure.
CSCwj40223	The appRouteStatisticsTable sequence is misordered in the CISCO-SDWAN-APP-ROUTE-MIB, or the OS returns the sequence in the wrong order.

Identifier	Headline
CSCwk31804	Cisco SD-WAN Manager Control Connection does not come up with local dialer when remote Cisco IOS XE Catalyst SD-WAN device uplink is down.
CSCwj87028	Cflowd displays custom APP as "unknown" for egress traffic when using DRE optimization.
CSCwh44363	IPv6 BFD fails to establish connections with edges in private network controllers operating within a public network.
CSCwn39963	NAT DIA packets randomly dropped due to Ipv4RoutingErr.
CSCwj26202	AppQoE: Increase performance for long-lived flows.
CSCwn37784	A memory leak occurs in fman-fp cce-class-grp when using per-tunnel QoS policy during BFD session flaps.
CSCwf62943	Cisco IOS XE Catalyst SD-WAN device: When image expansion fails due to insufficient disk space, the system image file is not set to packages.conf.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.5a

Identifier	Headline
CSCwj12763	The IP name-server command was not pushed to Cisco IOS XE Catalyst SD-WAN device.
CSCwo72675	[SITLite]: All BFD sessions for dialer interfaces are down. SA ID is 0 for all of them.
CSCwo61195	Active FTP is not working with UTD+HTX for security and unified policy for DIA in version 17.12.5.
CSCwo58622	cEdgeElixirwifi: Native VLAN configuration is not loaded by config reset on the WLAN interface.
CSCwo50978	In version 17.12.5, the single endpoint DIA tracker fails to come up after a router reload and clearing PPP.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4b

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4b

Identifier	Headline
CSCwh70484	Per-tunnel QoS convergence slows down when the number of policy-map instances increases.
CSCwi01337	Observed crash on imgr_ipsec_sa_seqno_ctx_restore.
CSCwk39391	Multicast drops seen due to IpsecOutput drops - OUT_IPV4_SA_NOT_FOUND
CSCwn52348	The Remove and Re-add NAT causes BFD to go down (Intermittent).

Identifier	Headline
CSCwn81320	The confd_cli processes experience high CPU usage and may hang when executing show sdwan ftm CLI commands at scale.
CSCwn56474	Pairwise keying affects every single BFD session, causing up/down status changes that trigger tunnel delete and create events.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4b

Identifier	Headline
CSCwo21215	17.12.4 Respin BFD down with private color behind NAT for carrier7 and carrier 8

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4a

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4a

Identifier	Headline
CSCwj90614	High CPU utilisation for confd_cli
CSCwk98835	17.12 incorrect debug print in BFD rx pkt processing is causing issue.
CSCwi81026	SDWAN BFD sessions flapping during IPSec rekey in scaled environment.
CSCwm73365	SSL handshake fails despite umbrella_root_ca.ca with latest certificate being present on the device.
CSCwm32488	Tracker group with DNS endpoint does not recover after going down due to DNS query error.
CSCwj74769	After [non]pairwise key enabling and reboot, bfd ip and port mismatch on device.
CSCwk19725	Add FNF cache limit for show sdwan app-fwd flows for CSCwj02401.
CSCwk22225	FTMd crashes after receiving credentials feature template update from Cisco SD-WAN Manager.
CSCwn20614	17.17.1 After change integrity-type twice, all bfd sessions will be down.
CSCwk08216	FW dropping VPN traffic even after zone-pair policy is removed.
CSCwk42634	%PMAN-0-PROCFAILCRIT: R0/0: pvp: A critical process vip_confd_startup_sh has failed (rc 6)
CSCwk87944	VRRP switchover with tloc preference change is generating rekey and crypto add/delete events.
CSCwj94862	Cisco IOS XE Catalyst SD-WAN device crashed while stuck at fme_tbs_tw_timer_lock
CSCwk39131	Cisco IOS XE Catalyst SD-WAN device crashed when issuing "show sdwan ftm next-hop chain all"

Identifier	Headline
CSCwm63773	Cisco IOS XE Catalyst SD-WAN device crash with critical process vip_confd_startup_sh fault due to huge number of zbfw-dp sessions.
CSCwm46805	IPSec Auto AR Recovery.
CSCwm05395	Add event cause in IPSEC vesen log.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4

Identifier	Headline
CSCwj59970	Some duplicated packets are dropped when there are frequent BFD flaps on primary path transport.
CSCwi74743	[SITLite]Observing BFD down issue between Cisco IOS XE Catalyst SD-WAN device boxes.
CSCwi83365	C1117-4PLTEEA platform crashed with sh pl hard qfp ac feat cef-mpls prefix IP 10.40.201.10/32 vrf 2
CSCwi91443	The QFP/CPP crash when handling non-first fragmented TCP packet in DIA interface with "art-aggregated"
CSCwj83678	Tunnel interface tracker stopped working after upgrading the Cisco IOS XE Catalyst SD-WAN device to 17.12.3
CSCwj14121	snmpwalk for OID ifOperStatus gives different output before & after upgrade for serial interface.
CSCwj63786	MT-Edge: Cisco IOS XE Catalyst SD-WAN device device created a core file and rebooted with 17.14 image.
CSCwh63864	Service-side NAT Translation discrepancy.
CSCwj80904	Crash on ISR1K router (double free or corruption).
CSCwj25493	Cisco IOS XE Catalyst SD-WAN device crashed twice with Critical process linux_iosd_image fault on rp_0_0
CSCwj45177	"dmidecode: command not found" error seen executing "show sdwan certificate validity"
CSCwj27545	Cisco IOS XE Catalyst SD-WAN device router crashing due to ftmd.
CSCwj81257	Cisco IOS XE Catalyst SD-WAN device: IPv4 NAT routes redistributed into OMP gets tagged as origin-proto = proto-invalid.
CSCwi61369	Cisco IOS XE Catalyst SD-WAN device device may unexpectedly reload due to SIGABRT
CSCwj02661	UTD signature update failure and device not recording the update.

Identifier	Headline
CSCwh21714	Tunnel destination not getting set on sig sub-interfaces due to DNS timing out.
CSCwj02628	Speed-test not working for the Cisco IOS XE Catalyst SD-WAN device running on code 17.12.2
CSCwj24698	VFR enablement difference with NAT interface vs NAT pool configuration.
CSCwj58176	Cisco IOS XE Catalyst SD-WAN device performing NAT for Directly connected traffic.
CSCwi99753	Configuration gets wiped out and restored, UTD container uninstalled.
CSCwh67046	Install UTD image using remoter server with hostname is not working.
CSCwi05722	20.12 MR1: Multicast traffic drops when Enhanced App-Aware Routing is enabled.
CSCwi16015	[SIT]: SSE tunnels don't come up with Dialer interface.Relax check in IKE
CSCwi60266	Cisco IOS XE Catalyst SD-WAN device with enterprise certificates not forming control connections with controllers after upgrade.
CSCwi62230	SIG tunnel: 'SIG STATEâ is showing blank value.
CSCwf98902	Cisco IOS XE Catalyst SD-WAN device: Unexpected reboot fman_fp_image fault on fp_0_0 (rc=134)
CSCwj49941	The dns-snoop-agent has TCAM entry with all zeros for some regex patterns.
CSCwj42249	Disabling PMTU-Discovery with MTU change and BFD flap breaks packet duplication.
CSCwi59854	The 'show sdwan policy service-path' command gives inconsistent results with app name specified.
CSCwj53782	If FPM failed and path changes from SIG to DIA, flow stickiness is not triggered.
CSCwj48209	Cisco IOS XE Catalyst SD-WAN device may reload after enabling CDP.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.4

Identifier	Headline
CSCwk42634	%PMAN-0-PROCFAILCRIT: R0/0: pvp: A critical process vip_confd_startup_sh has failed (rc 6)
CSCwk16333	Cisco IOS XE Catalyst SD-WAN device repeatedly crashing in FTMd due to FNF flow add.
CSCwj96852	Return traffic for Outside to Inside NAT traffic received on one TLOC is forwarded out of other TLOC.
CSCwk39131	Cisco IOS XE Catalyst SD-WAN device crashed when issuing "show sdwan ftm next-hop chain all"

Identifier	Headline
CSCwk28794	SNMP returns incorrect value for the interface when using switchport.
CSCwk39391	Multicast drops seen due to IpsecOutput drops - OUT_IPV4_SA_NOT_FOUND
CSCwk38020	AAR BOW is not choosing the best tunnel; it is load balancing among the tunnels.
CSCwk22225	FTMd crashes after receiving credentials feature template update from Cisco SD-WAN Manager.
CSCwf44703	Cisco IOS XE Catalyst SD-WAN device: NAT64 prefix is not originated into OMP
CSCwk19596	Memory leak seen due to bcti process due to lot of failed response.
CSCwk53221	Mismatch between FTMD and TTMD causing IPSec tunnels to not come up in SDWAN.
CSCwk42817	The snmpbulk request on Cisco IOS XE Catalyst SD-WAN device taking long time to process and respond
CSCwk42853	SSD-M2NVME-2T is not detected on 17.9.4a
CSCwk53668	The confd constantly crashing in cedge (sdwan router cat8200)
CSCwk48991	Transport Gateway: WAN Edge Receives Re-Originated Route with it's own Site ID
CSCwk45165	fman_fp Memory Leak on Cisco Catalyst 8500 Series Edge Platforms.
CSCwj99827	Cisco IOS XE Catalyst SD-WAN device unexpectedly reloads due to a crash in 'vdaemon' process
CSCwj40223	The appRouteStatisticsTable sequence misordered in CISCO-SDWAN-APP-ROUTE-MIB or OS returns wrong order
CSCwk31804	Cisco SD-WAN Manager control connection does not come up with local dialer when remote-cedge uplink is down
CSCwk19725	The add FNF cache limit for show sdwan app-fwd flows for CSCwj02401
CSCwk42253	Unexpected reboot when a HTTP connection failed with 404 on a controller mode router
CSCwk47467	LTE TLOC not coming up unless all other TLOCs goes down.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.3

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.3

Identifier	Headline
CSCwi31523	EPBR FIA is not enabled on port-channel sub-interface.

Identifier	Headline
CSCwi46413	Cisco IOS XE Catalyst SD-WAN device does not install OMP route with high preference using service chaning.
CSCwi27324	Tunnels behind Sym-nat does not come up or flap after "clear omp all" trigger on HUB.
CSCwi44633	Fragmented radius access-request packets are dropped when NWPI is running.
CSCwh72441	The show sdwan appqoe aoim-statistics - APPQOE services restart.
CSCwj15983	MRF: OMP debugs does not print any reason why from another BR in the same region ignored.
CSCwh82168	One of IPSEC IKE tunnel goes down when second IPSEC IKE tunnel has been shut with same source interface.
CSCwi33634	Cisco IOS XE Catalyst SD-WAN device is incorrectly consuming icmp reply packets.
CSCwh65016	Unexpected reboots on Cisco IOS XE Catalyst SD-WAN device due to QFP exception.
CSCwf63771	Non-Fabric:With multiple interfaces in instance, using minimal bootstrap unable to onboard Cisco Catalyst 8000V.
CSCwi33543	SDWAN org name matching one of the OU. This is not needed for Enterprise Certification Mode.
CSCwi05395	The snmpbulkget cannot get loss, latency, and jitter for ProbeClassTable & ClassIntervalTable OIDs
CSCwi32044	Cisco IOS XE Catalyst SD-WAN device reboot due to "Critical process vip_confd_startup_sh".
CSCwh53943	Dialer interface blocking SIG Auto Tunnel workflow.
CSCvr51536	Cisco IOS XE Catalyst SD-WAN device cflowd source interface for non-loopback interface does not get pushed to Cisco IOS XE Catalyst SD-WAN device.
CSCwi49363	confd_cli processes hanging and are maxing out CPU.
CSCwi31747	SymNat with low bandwith is not working.
CSCwi19875	Cisco IOS XE Catalyst SD-WAN device is unable to process hidden characters in a file while trying to use bootstrap method.
CSCwi00369	Cisco IOS XE Catalyst SD-WAN device lost security parameter after upgrade.

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.3

Identifier	Headline
CSCwi35716	AAR backup preferred color not working as expected from 17.12.1.
CSCwj14121	The snmpwalk for OID ifOperStatus gives different output before & after upgrade for serial interface.

Identifier	Headline
CSCwh63864	Service-side NAT translation discrepancy.
CSCwf44703	Cisco IOS XE Catalyst SD-WAN device: NAT64 prefix is not originated into OMP
CSCwi58561	Cisco IOS XE Catalyst SD-WAN device : Tracker not working after software upgrade
CSCwi53549	Cisco IOS XE Catalyst SD-WAN device router crash with reason "Critical process fman_fp_image fault on fp_0_0 (rc=134)"
CSCwj02628	Speed-test not working for the Cisco IOS XE Catalyst SD-WAN device running on code 17.12.2.
CSCwh67046	Install UTD image using remoter server with hostname is not working.
CSCwi16015	[SIT]: SSE tunnels don't come up with Dialer interface.Relax check in IKE.
CSCwi62230	SIG tunnel: 'SIG STATEâ is showing blank value.
CSCwf98902	Solution: crash seen on fman_fp / ucode during longevity run (cpp_plu_alloc_v2).

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.2

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.2

Identifier	Headline
CSCwf94052	BFD going down for newly onboarded Cisco IOS XE Catalyst SD-WAN device.
CSCwh39906	Cisco IOS XE Catalyst SD-WAN device: confd_cli may cause high CPU. Parent PID of "confd_cli" containing "show ip fib".
CSCwf71051	Issues seen due to race conditions between Cisco Catalyst SD-WAN policy and og-mgr on config-change.
CSCwb74384	Cisco IOS XE Catalyst SD-WAN device: confd_cli high CPU utilization after executing "show sdwan app-route stats".
CSCwf84522	Cisco Catalyst 8500L Edge Platform: Unexpectedly rebooted while classifying packet with CTF (Common Flow Table).
CSCwf94294	Misprograming during vpn-list change under data policy.
CSCwf95095	Intermittent BFD session flaps on Cisco IOS XE Catalyst SD-WAN device service side interface.
CSCwh58907	Cisco IOS XE Catalyst SD-WAN device: DNS probes for endpoint-tracker API are sent on wrong interface.
CSCwh67812	Crypto Map feature CLIs are unavailable in 17.12.1

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.2

Identifier	Headline
CSCwi00661	The Per-Tunnel QoS policy with loopback as WAN bind mode is not working.
CSCwi00369	Cisco IOS XE Catalyst SD-WAN device lost security parameter after upgrade.
CSCwh63864	Service-side NAT Translation discrepancy.
CSCwh72441	show sdwan appqoe aoim-statistics - APPQOE services restart.
CSCwh76453	The trracker for TLOC extension is down even though TLOC is up and there is ICMP reachability.
CSCwh06870	The APN password is in plain text when cellular controller profile is configured.
CSCwh82168	One of IPSEC IKE tunnel goes down when second IPSEC IKE tunnel has been shut with same source interface.
CSCwh88316	%EVENTLIB-3-CPUHOG: F0/0: fman_fp_image: uipeer downlink listener:
CSCwh65016	There are unexpected reboots on Cisco IOS XE Catalyst SD-WAN device due to QFP exception.
CSCwh67046	The 'Install UTD image' using remoter server with hostname is not working.
CSCwf63771	Non-Fabric:With multiple interfaces in instance, unable to onboard Cisco Catalyst 8000V Edge Software using minimal bootstrap.
CSCwf44703	Cisco IOS XE Catalyst SD-WAN device: NAT64 prefix is not originated into OMP.
CSCwh53943	The Dialer interface is blocking SIG Auto Tunnel workflow.
CSCwf69062	SDRA-SSLVPN : The sslvpn session closes with re-authentication error after some interval of time.
CSCwf95066	17.12 SIG Zscaler IPSec UX2.0: Tracker for Tunnel15000001 is down after source interface swap.
CSCwh95119	The secure-internet-gateway tunnels show no output for generic tunnels.
CSCwf45486	OMP to BGP redistribution leads to incorrect AS_Path Installation on chosen Next-Hop.

Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.1a

Resolved Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.1a

Identifier	Headline
CSCwf61793	Traceback during policy changes
CSCwf43470	Cisco IOS XE Catalyst SD-WAN device : Traceroute not working with NAT pool configuration

Identifier	Headline
CSCwe43341	TLS control-connections down, traffic from controller dropped with Cisco Catalyst SD-WANImplicitAclDrop
CSCwe18276	17.6: Route-map not getting effect when its applied in OMP for BGP routes
CSCwf38166	CPP Ucode crash when Multicast traffic and UTD is enabled together on the same Cisco IOS XE Catalyst SD-WAN device
CSCwf38281	Misprograming during policy changes
CSCwf14727	FNF ucode crash when add or remove interface
CSCwf39945	Device requested SLAC without customer issuing command
CSCwe38296	The cat8500 Procyon Packets drop due to MACSEC post-encryption padding behavior
CSCwe90501	CSR1000v upgrade fails from 17.3.4a to C8000v 17.6.5 due to "advertise aggregate" with vrf.
CSCwe85195	AAR: BoW feature ignoring color preference from Tiered Transport preference configuration
CSCwf67857	MPLS_NAT_OUTPUT_FIA is not enabled for TLOCs created after SSNAT data policy push
CSCwe81991	The fugazi crash with qfp-ucode-fugazi in C8500L at @posix_mempool_prime_cache
CSCwe65036	[SIT]: Nutella crashed and reboot history shows "IntelResetRequest" on upgrade
CSCwd53710	17.10 - Crash seen when umbrella/zscaler template pushed to device when name_lookup takes > 30 sec
CSCwe70374	Cisco 8300/85000 platform punt-policer is not configurable
CSCwd42523	Same label is assigned to different VRFs
CSCwf49597	Traffic is getting dropped with "Cisco Catalyst SD-WANDataPolicyDrop" with TunnelReason:MATCHED_NONE
CSCwd90056	C8500-12X4QC P2MP WAN MACSEC does not allow traffic to pass on the link
CSCwe70642	AAR overlay actions are applied to DIA traffic
CSCwe85421	Cisco IOS XE Catalyst SD-WAN device BFD Session Down with interface flap
CSCwf21973	Device replying with NAT pool IP address instead of the WAN IP address
CSCwf26771	Invalid L4 Header drop due to multiple encap
CSCwf25249	The AppQoE DRE shows the optimized traffic is more than the original traffic on the data center SCs
CSCwf05980	C8300 dropping Speedtest/IPerf packets with drop reason DROP 19 (Ipv4NoRoute)

Identifier	Headline
CSCwe79007	Cisco IOS XE Catalyst SD-WAN device unexpected reload when doing ips test with UTD ips engine
CSCwe39157	During Soak Run, On C8500L-8S4X, Memif channel's were missing and causing SC-SN state down
CSCwf16608	Cisco IOS XE Catalyst SD-WAN device configured with 10G BDI might reload when running NWPI Trace with QoS Insight enabled
CSCwf38449	SLA violation alarm shows incorrect reading of DSCP value
CSCwf40849	Cisco IOS XE Catalyst SD-WAN device IPv6: removing "advertise aggregate" configuration does not remove the entry from OMP
CSCwe49684	Cisco Catalyst SD-WAN BFD sessions keeps flapping intermittently
CSCwb39206	Enable VFR CLI in Cisco Catalyst SD-WAN mode

Open Bugs for Cisco IOS XE Catalyst SD-WAN Release 17.12.1a

Identifier	Headline
CSCwf94052	BFD going down for newly onboarded Cisco IOS XE Catalyst SD-WAN device
CSCwd98074	OMP keeps advertising route after corresponding OSPF route removed if "advertise network" configured
CSCwh23659	Umbrella Tunnels go to degraded state when default tracker is enabled.
CSCwh08536	F0 Data Plane programming issue
CSCwh04520	Unexpected reload on Cisco IOS XE Catalyst SD-WAN device due to cpp ucode crash
CSCwf80927	Speed tests to internet from C8500 (17.9.3) triggered from Cisco SD-WAN Manager 20.9.3.1 will fail sometimes
CSCwh20577	Crashed by TRACK Client thread at access invalid memory location
CSCwf84522	Cisco IOS XE Catalyst SD-WAN device(C8500L) Unexpected rebooted while classifying packet with CTF (Common Flow Table)
CSCwh06870	APN password in plain text when Cellular controller profile is configured
CSCwh00320	Show run and Show Cisco Catalyst SD-WAN run not in sync after removing GigabitEthernet3 c8000v
CSCwf44703	Cisco IOS XE Catalyst SD-WAN device: NAT64 prefix is not originated into OMP
CSCwf95535	Intf/System xml files are not generated on Cisco IOS XE Catalyst SD-WAN device
CSCwf95095	Intermittent BFD session flaps on Cisco IOS XE Catalyst SD-WAN device service side interface

Identifier	Headline
CSCwf94294	Misprograming during vpn-list change under data policy.
CSCwf71116	Static route keep advertising via OMP even though there is no route.
CSCwf45486	OMP to BGP Redistribution Leads to Incorrect AS_Path Installation on Chosen Next-Hop
CSCwh01318	Multiple Crashes observed on Cisco IOS XE Catalyst SD-WAN device platform due to Memory Exhaustion

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.

Cisco SD-WAN Manager GUI Changes

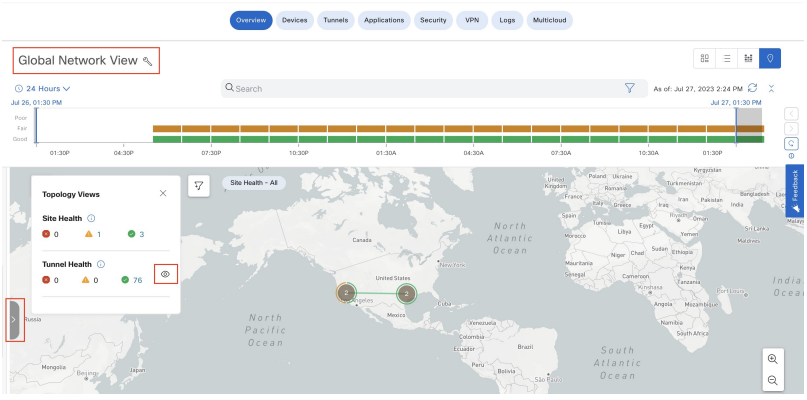
This section presents a comparative summary of the significant GUI changes between Cisco vManage Release 20.11.1 and Cisco Catalyst SD-WAN Manager Release 20.12.1.

Monitor Overview Page

Cisco Catalyst SD-WAN Manager Release 20.12.1 includes the following GUI changes to the **Monitor** > **Overview** page. For more information about the **Monitor** > **Overview** page, see Cisco SD-WAN Manager Monitor Overview.

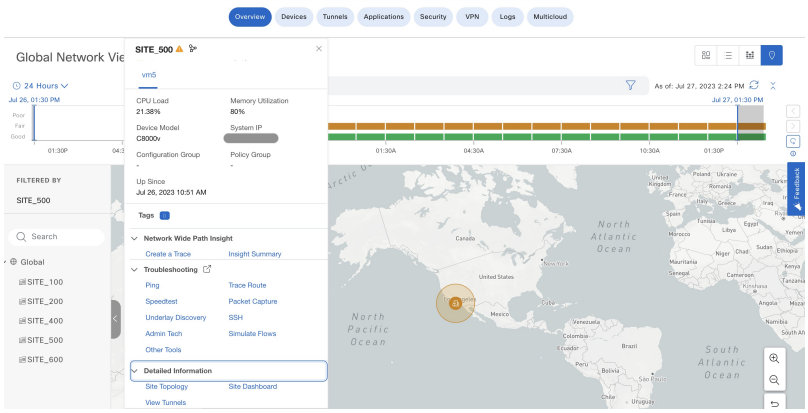
- The **Global Topology** view is called as **Global Network View** in Cisco SD-WAN Manager.

Figure 1: Global Network View in Monitor - Overview Page



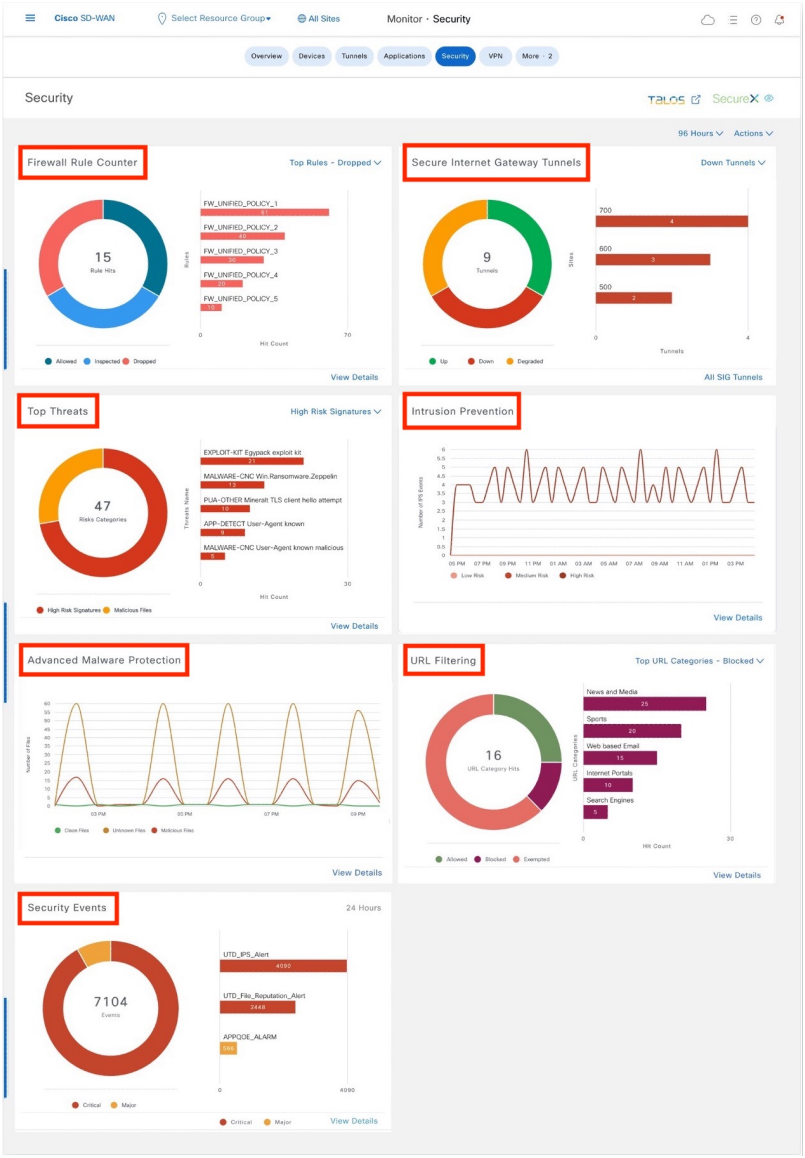
Click the eye icon to view the tunnel connection with aggregated tunnel health between the sites. Click the arrow on the left to open the network hierarchy menu.

Figure 2: Device Details for the Selected Site in Global Network View



- Cisco Catalyst SD-WAN Manager's security dashboard is enhanced to provide greater flexibility in troubleshooting security threats.

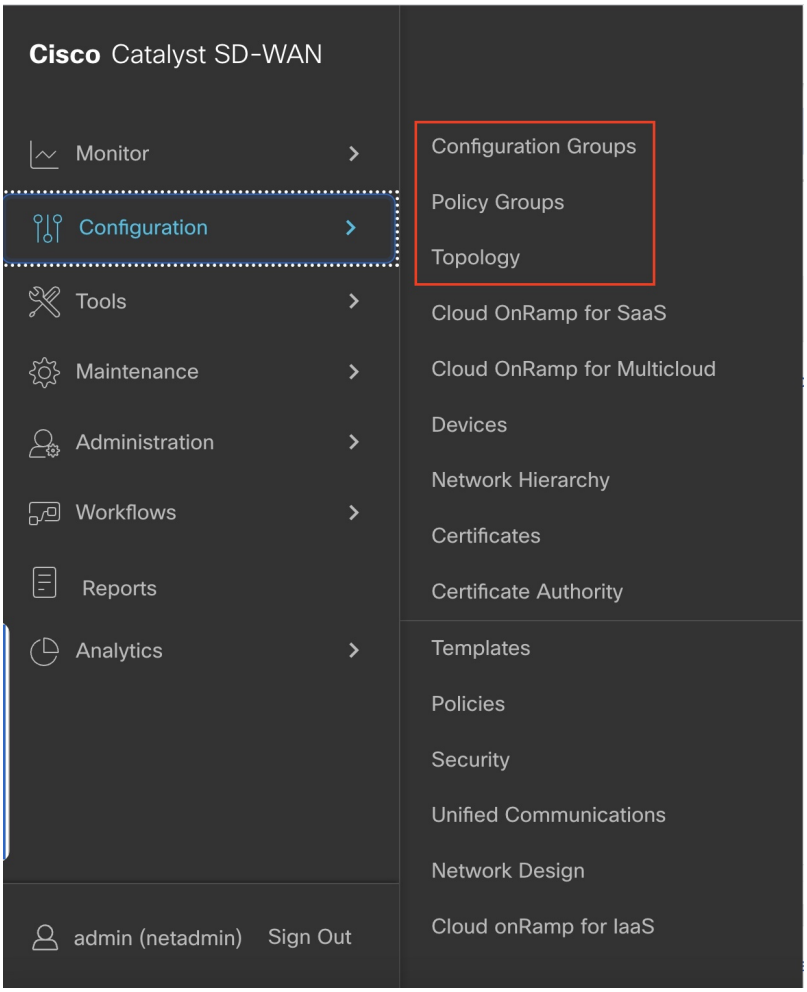
Figure 3: Enhancements to the Security Dashboard Through Modified Dashlets in the Monitor - Security Page



Configuration Page

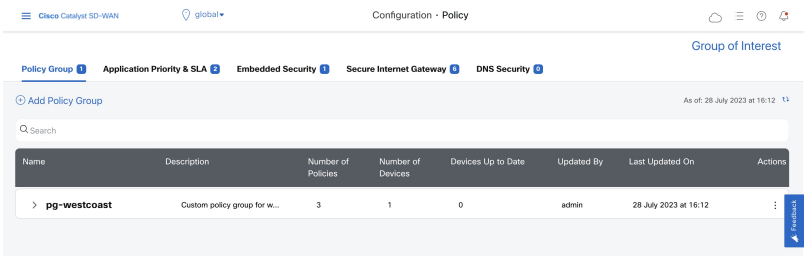
New submenus are added to the **Configuration** menu in Cisco Catalyst SD-WAN Manager menu.

Figure 4: New Submenus in the Configuration Menu



New menus are available in the **Configuration** > **Policy Groups** page to configure policy groups and security policies.

Figure 5: Policy Page for Configuring Policy Groups and Security Policies

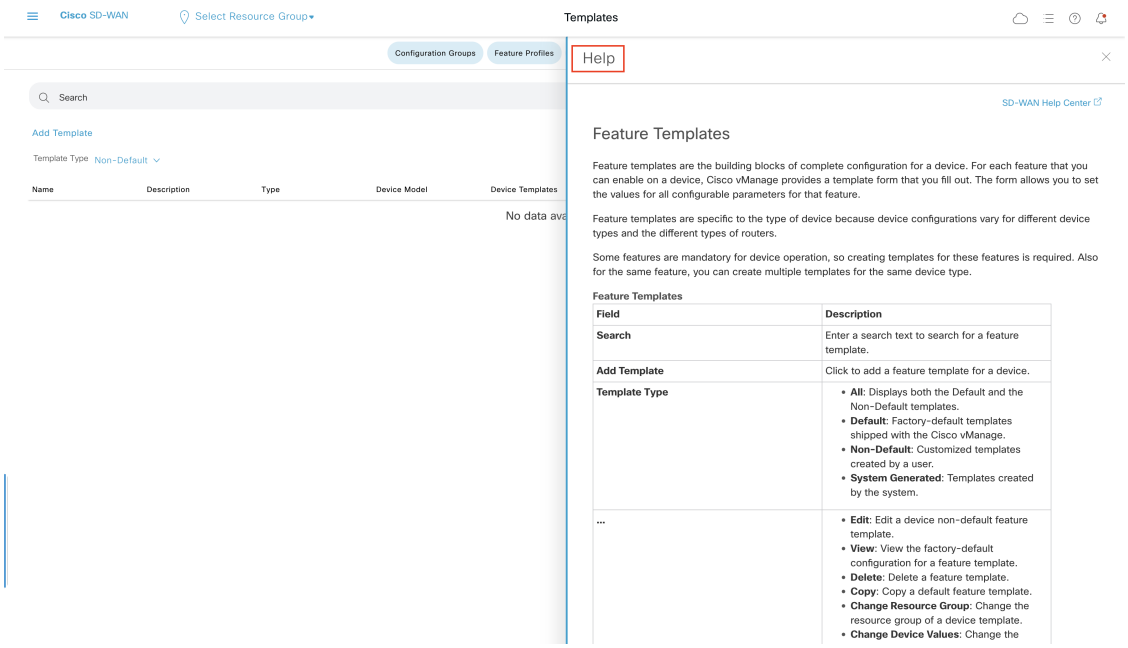


In-product Help

In a single-tenant deployment, access help content for Cisco SD-WAN Manager UI pages by clicking the **Help** icon at the top-right corner of a page. The help content is displayed in a slide-in pane in the same browser window.

Starting from Cisco SD-WAN Manager Release 20.12.x, In-product help is available for a majority of the Cisco SD-WAN Manager UI pages.

Figure 6: Help Content in a Slide-in Pane

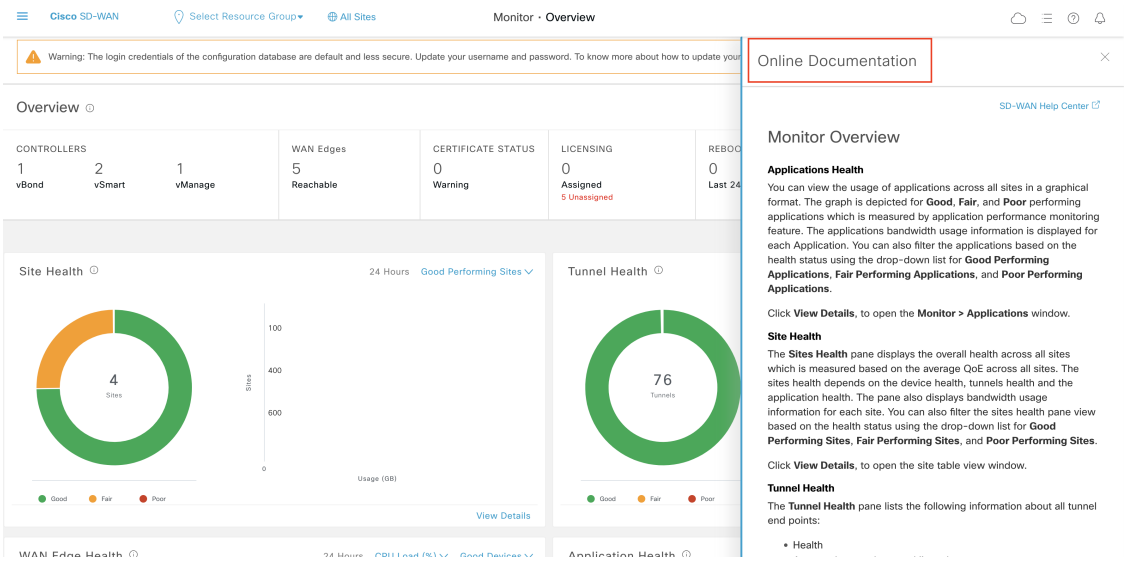


Cisco DNA Sense

Access help content for Cisco SD-WAN Manager UI pages using Cisco DNA Sense by clicking the **?** icon at the top-right corner and choose **Online Documentation** from the drop-down list.

Cisco DNA Sense is not enabled by default for all the users. You should enroll and configure your Cisco SD-WAN Manager using the instructions provided in the **Online Documentation** pane. The help content from Cisco DNA Sense is displayed across all major Cisco SD-WAN Manager pages once you enroll.

If your Cisco SD-WAN Manager is already enrolled to Cisco DNA Sense, choose **Online Documentation** from the **?** drop-down.



Ask Cisco Networking Bot

To access the **Cisco Networking Bot** click the **Help(?)** icon and choose **Ask Cisco Networking** from the drop-down list.

You can use Cisco Networking Bot chat to get relevant answers to your questions.



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
- Cisco Recommended Catalyst SD-WAN Software Versions for Controllers and WAN Edge Routers

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