Release Notes for Cloud-delivered Firewall Management Center : A Feature of Cisco Defense Orchestrator

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Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

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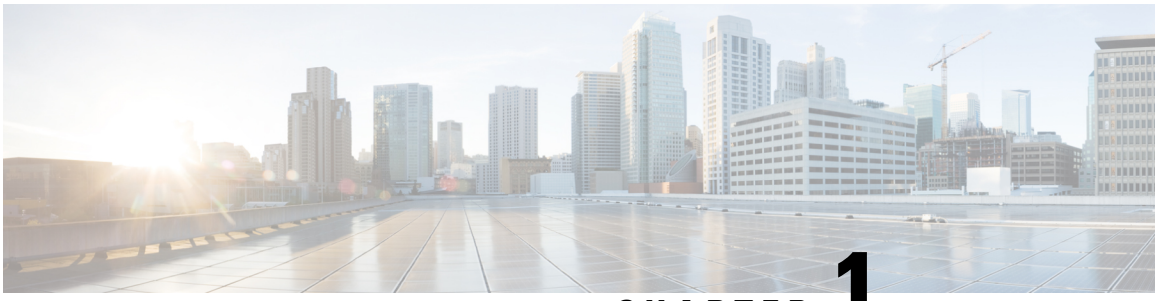


CHAPTER 1

About Cloud-delivered Firewall Management Center

Cisco Defense Orchestrator (CDO) is the platform for the cloud-delivered Firewall Management Center.

The cloud-delivered Firewall Management Center is a software-as-a-service (SaaS) product that manages Secure Firewall Threat Defense devices. It offers many of the same functions as an on-premises Secure Firewall Management Center, it has the same appearance and behavior as an on-premises Secure Firewall Management Center, and uses the same FMC REST API.

This product is designed for Secure Firewall Management Center customers who want to move from an on-premises version of the Secure Firewall Management Center to a SaaS version.

The CDO operations team is responsible for maintaining the SaaS product. As new features are introduced, the CDO operations team updates CDO and the cloud-delivered Firewall Mangement Center for you.

A migration wizard is available to help you migrate your Secure Firewall Threat Defense devices registered to your on-premises Secure Firewall Management Center to the cloud-delivered Firewall Management Center.

• Are these release notes for you?, on page 1

Are these release notes for you?

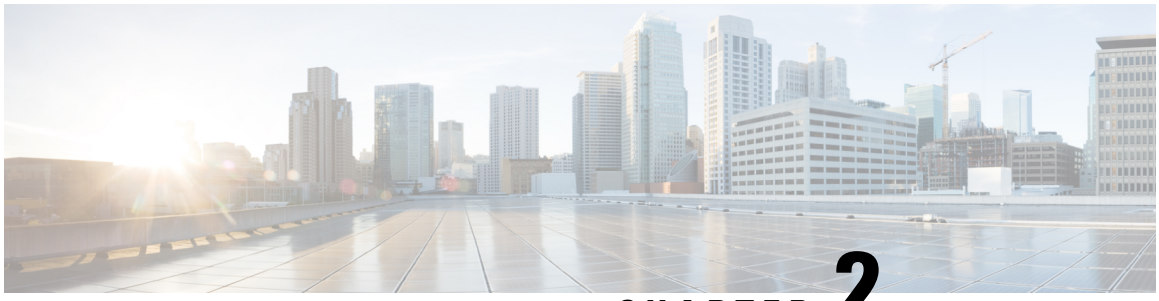
These release notes are for existing Cisco Defense Orchestrator (CDO) users who have a cloud-delivered Firewall Management Center deployed on their tenant.

Cisco Secure Threat Defense Terminology

Table 1:

Product Name	Description
Cisco Secure Firewall Threat Defense	Cisco's next-generation firewall. The name is often shortened to "Secure Firewall Threat Defense" or "threat defense" in documentation. It can be configured and managed by these device managers: • A cloud-delivered Firewall Management Center. • An on-premises Cisco Secure Firewall Management Center. • The local device manager included with the threat defense image.

Product Name	Description
Cloud-delivered Firewall Management Center	This refers to the version of the Cisco Secure Firewall Management Center that is deployed with CDO. The cloud-delivered Firewall Management Center manages one or more Secure Firewall Threat Defense firewalls. You may see the cloud-delivered Firewall Management Center referred to as "management center" in product documentation. **These release notes provide information about this manager.**
On-premises Cisco Secure Firewall Management Center	This manages one or more Cisco Secure Firewall Threat Defense devices. You may see these devices referred to as "Secure Firewall Management Center," or simply "management center" in product documentation. The on-premises Secure Firewall Management Center is managed by the customer. Some images are designed for installation on a physical Firepower appliance, others are virtual images that are installed and managed in the customer's private cloud. The customer performs installation and upgrade tasks.
Cisco Secure Firewall Threat Defense device manager	This manager is delivered with the Secure Threat Defense software image and *only* manages the single Secure Threat Defense device it was delivered with. CDO can manage threat defense devices that are managed by the device manager and are configured for local management. Management tasks for the threat defense device can be performed by CDO or by the device manager and CDO keeps track of which manager performed which task and alerts the CDO user where changes are coming from. Threat defense devices managed by the device manager by CDO cannot be managed by the cloud-delivered Firewall Management Center. In the documentation for Cisco Defense Orchestrator, we refer to a threat defense device managed by the device manager as "an FDM-managed device" or an "FDM."



CHAPTER 2

New Features in Cloud-delivered Firewall Management Center 2024

April 2, 2024

This release introduces stability, hardening, and performance enhancements.

February 13, 2024

New Features

Table 2: New Features: Version 20240203

Feature	Min. Threat Defense	Details
Platform		
Threat defense Version 7.4.1 support.	7.4.1	You can now manage threat defense devices running Version 7.4.1.
Network modules for the Secure Firewall 3130 and 3140.	7.4.1	The Secure Firewall 3130 and 3140 now support these network modules: • 2-port 100G QSFP+ network module (FPR3K-XNM-2X100G) See: Cisco Secure Firewall 3110, 3120, 3130, and 3140 Hardware Installation Guide

Feature	Min. Threat Defense	Details
Optical transceivers for Firepower 9300 network modules.	7.4.1	The Firepower 9300 now supports these optical transceivers: • QSFP-40/100-SRBD • QSFP-100G-SR1.2 • QSFP-100G-SM-SR On these network modules: • FPR9K-NM-4X100G • FPR9K-NM-2X100G • FPR9K-DNM-2X100G See: Cisco Firepower 9300 Hardware Installation Guide
Performance profile support for the Secure Firewall 3100.	7.4.1	The performance profile settings available in the platform settings policy now apply to the Secure Firewall 3100. Previously, this feature was supported on the Firepower 4100/9300, the Secure Firewall 4200, and on threat defense virtual. See: Configure the Performance Profile
NAT		
Create network groups while editing NAT rules.	Any	You can now create network groups in addition to network objects while editing a NAT rule. See: Customizing NAT Rules for Multiple Devices
Device Management		
Device management services supported on user-defined VRF interfaces.	Any	Device management services configured in the threat defense platform settings (NetFlow, SSH access, SNMP hosts, syslog servers) are now supported on user-defined Virtual Routing and Forwarding (VRF) interfaces. Platform restrictions: Not supported with container instances or clustered devices. See Platform Settings
SD-WAN		
SD-WAN Summary dashboard	7.4.1	The WAN Summary dashboard provides a snapshot of your WAN devices and their interfaces. It provides insight into your WAN network and information about device health, interface connectivity, application throughput, and VPN connectivity. You can monitor the WAN links and take proactive and prompt recovery measures. In addition, you can also monitor the WAN interface application performance using the **Application Monitoring** tab. New/modified screens: **Analysis** > **SD-WAN Summary** See: SD-WAN Summary Dashboard
Access Control: Identity		

Feature	Min. Threat Defense	Details
Captive portal support for multiple Active Directory realms (realm sequences).	7.4.1	**Upgrade impact. Update custom authentication forms.** You can configure active authentication for either an LDAP realm; or a Microsoft Active Directory realm or a realm sequence. In addition, you can configure a passive authentication rule to fall back to active authentication using either a realm or a realm sequence. You can optionally share sessions between managed devices that share the same identity policy in access control rules. In addition, you have the option to require users to authenticate again when they access the system using a different managed device than they accessed previously. If you use the HTTP Response Page authentication type, after you upgrade threat defense, you must add **`<select name="realm" id="realm"></select>`** to your custom authentication form. This allows the user to choose between realms. Restrictions: Not supported with Microsoft Azure Active Directory. New/modified screens: • **Policies** > **Identity** > **(edit policy)** > **Active Authentication** > **Share active authentication sessions across firewalls** • **Identity policy** > **(edit)** > **Add Rule** > **Passive Authentication** > **Realms & Settings** > **Use active authentication if passive or VPN identity cannot be established** • **Identity policy** > **(edit)** > **Add Rule** > **Active Authentication** > **Realms & Settings** > **Use active authentication if passive or VPN identity cannot be established** See: How to Configure the Captive Portal for User Control
Share captive portal active authentication sessions across firewalls.	7.4.1	Determines whether or not users are required to authenticate when their authentication session is sent to a different managed device than one they previously connected to. If your organization requires users to authenticate every time they change locations or sites, you should *disable* this option. • (Default.) Enable to allow users to authenticate with any managed device associated with the active authentication identity rule. • Disable to require the user to authenticate with a different managed device, even if they have already authenticated with another managed device to which the active authentication rule is deployed. New/modified screens: **Policies** > **Identity** > **(edit policy)** > **Active Authentication** > **Share active authentication sessions across firewalls** See: How to Configure the Captive Portal for User Control
Deployment and Policy Management		

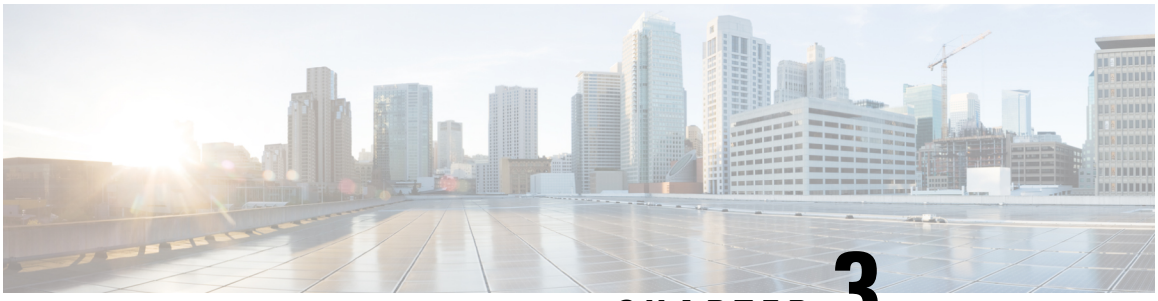
Feature	Min. Threat Defense	Details
View and generate reports on configuration changes since your last deployment.	Any	You can generate, view, and download (as a zip file) the following reports on configuration changes since your last deployment: • A policy changes report for each device that previews the additions, changes, or deletions in the policy, or the objects that are to be deployed on the device. • A consolidated report that categorizes each device based on the status of policy changes report generation. This is especially useful after you upgrade threat defense devices, so that you can see the changes made by the upgrade before you deploy. New/modified screens: **Deploy** > **Advanced Deploy**. See: Download Policy Changes Report for Multiple Devices
Suggested release notifications.	Any	The management center now notifies you when a new suggested release is available. If you don't want to upgrade right now, you can have the system remind you later, or defer reminders until the next suggested release. The new upgrade page also indicates suggested releases. See: Cisco Secure Firewall Management Center New Features by Release
Enable revert from the threat defense upgrade wizard.	Any	You can now enable revert from the threat defense upgrade wizard. Other version restrictions: You must be upgrading threat defense to Version 7.2+. See: Cisco Secure Firewall Threat Defense Upgrade Guide for Cloud-Delivered Firewall Management Center
View detailed upgrade status from the threat defense upgrade wizard.	Any	The final page of the threat defense upgrade wizard now allows you to monitor upgrade progress. This is in addition to the existing monitoring capability on the Upgrade tab on the Device Management page, and on the Message Center. Note that as long as you have not started a new upgrade flow, **Devices** > **Threat Defense Upgrade** brings you back to this final wizard page, where you can view the detailed status for the current (or most recently complete) device upgrade. See: Cisco Secure Firewall Threat Defense Upgrade Guide for Cloud-Delivered Firewall Management Center
Firmware upgrades included in FXOS upgrades.	Any	**Chassis/FXOS upgrade impact. Firmware upgrades cause an extra reboot.** For the Firepower 4100/9300, FXOS upgrades to Version 2.14.1 now include firmware upgrades. If any firmware component on the device is older than the one included in the FXOS bundle, the FXOS upgrade also updates the firmware. If the firmware is upgraded, the device reboots twice—once for FXOS and once for the firmware. Just as with software and operating system upgrades, do not make or deploy configuration changes during firmware upgrade. Even if the system appears inactive, do not manually reboot or shut down during firmware upgrade. See: Cisco Firepower 4100/9300 FXOS Firmware Upgrade Guide
Upgrade		

Feature	Min. Threat Defense	Details
Improved upgrade starting page and package management.	Any	A new upgrade page makes it easier to choose, download, manage, and apply upgrades to your entire deployment. The page lists all upgrade packages that apply to your current deployment, with suggested releases specially marked. You can easily choose and direct-download packages from Cisco, as well as manually upload and delete packages. Patches are not listed unless you have at least one appliance at the appropriate maintenance release (or you manually uploaded the patch). You must manually upload hotfixes. New/modified screens: • **System** (⚙) > **Product Upgrades** is now where you upgrade devices, as well as manage upgrade packages. • **System** (⚙) > **Content Updates** is now where you update intrusion rules, the VDB, and the GeoDB. • **Devices** > **Threat Defense Upgrade** takes you directly to the threat defense upgrade wizard. Deprecated screens/options: • **System** (⚙) > **Updates** is deprecated. All threat defense upgrades now use the wizard. • The **Add Upgrade Package** button on the threat defense upgrade wizard has been replaced by a **Manage Upgrade Packages** link to the new upgrade page. See: Cisco Secure Firewall Threat Defense Upgrade Guide for Cloud-Delivered Firewall Management Center
Administration		
Updated internet access requirements for direct-downloading software upgrades.	Any	The management center has changed its direct-download location for software upgrade packages from sourcefire.com to amazonaws.com. See: Internet Access Requirements
Scheduled tasks download patches and VDB updates only.	Any	The **Download Latest Update** scheduled task no longer downloads maintenance releases; now it only downloads the latest applicable patches and VDB updates. To direct-download maintenance (and major) releases to the management center, use **System** (⚙) > **Product Upgrades**. See: Software Update Automation
Smaller VDB for lower memory Snort 2 devices.	Any with Snort 2	For VDB 363+, the system now installs a smaller VDB (also called *VDB lite*) on lower memory devices running Snort 2. This smaller VDB contains the same applications, but fewer detection patterns. Devices using the smaller VDB can miss some application identification versus devices using the full VDB. Lower memory devices: ASA-5508-X and ASA 5516-X See: Update the Vulnerability Database

Deprecated Features

Table 3: Deprecated Features: Version 20240203

Feature	Deprecated in Threat Defense	Details
Deprecated: DHCP relay trusted interfaces with FlexConfig.	Any	You can now use the management center web interface to configure interfaces as trusted interfaces to preserve DHCP Option 82. If you do this, these settings override any existing FlexConfigs, although you should remove them. See: Configure the DHCP Relay Agent
Deprecated: Merging downloadable access control list with a Cisco attribute-value pair ACL for RADIUS identity sources with FlexConfig.	Any	This feature is now supported in the management center web interface.
Deprecated: `frequent drain of events` health alerts.	7.4.1	The Disk Usage health module no longer alerts with `frequent drain of events`. You may continue to see these alerts until you either deploy health policies to managed devices (stops the display of alerts) or upgrade devices to Version 7.4.1+ (stops the sending of alerts). See: Disk Usage and Drain of Events Health Monitor Alerts



CHAPTER 3

New Features in Cloud-delivered Firewall Management Center 2023

November 30, 2023

Table 4: New Features: Version 20231117

Feature	Min. Threat Defense	Details
Administration		
Schedule a Secure Firewall Threat Defense Device Backup in Cloud-delivered Firewall Management Center	Any	Use the cloud-delivered Firewall Management Center to perform scheduled backups of the Secure Firewall Threat Defense devices it manages. See Schedule Remote Device Backups for more information.

October 19, 2023

Table 5: New Features: Version 20230929

Feature	Min. Threat Defense	Details
Platform		
Threat defense Version 7.4.0 support.	7.4.0	You can now manage threat defense devices running Version 7.4.0. Version 7.4.0 is available *only* on the Secure Firewall 4200. You must use a Secure Firewall 4200 for features that require Version 7.4.0. Support for all other platforms resumes in Version 7.4.1.
Secure Firewall 4200.	7.4.0	You can now manage the Secure Firewall 4215, 4225, and 4245 with cloud-delivered Firewall Management Center. These devices support the following new network modules: • 2-port 100G QSFP+ network module (FPR4K-XNM-2X100G) • 4-port 200G QSFP+ network module (FPR4K-XNM-4X200G) See: Cisco Secure Firewall 4215, 4225, and 4245 Hardware Installation Guide
Performance profile support for the Secure Firewall 4200.	7.4.0	The performance profile settings available in the platform settings policy now apply to the Secure Firewall 4200. Previously, this feature was supported only on the Firepower 4100/9300 and on threat defense virtual. See: Configure the Performance Profile
Numbering convention for cloud-delivered Firewall Management system.	Any	The cloud-delivered Firewall Management system is a feature of CDO. For the purposes of troubleshooting, we identify the version number of the cloud-delivered Firewall Management Center on the FMC Services page. See: View Services Page Information.
Platform Migration		
Migrate from Firepower 1000/2100 to Secure Firewall 3100.	Any	You can now easily migrate configurations from the Firepower 1000/2100 to the Secure Firewall 3100. New/modified screens: **Devices** > **Device Management** > **Migrate** Platform restrictions: Migration not supported from the Firepower 1010 or 1010E. See: Migrate the Configuration to a new Model.

Feature	Min. Threat Defense	Details
Migrate devices from Firepower Management Center 1000/2500/4500 to cloud-delivered Firewall Management Center.	Any	

Feature	Min. Threat Defense	Details
		You can migrate devices from Firepower Management Center 1000/2500/4500 to cloud-delivered Firewall Management Center. To migrate devices, you must *temporarily* upgrade the on-prem management center from Version 7.0.3 (7.0.5 recommended) to Version 7.4.0. This temporary upgrade is required because Version 7.0 management centers do not support device migration to the cloud. Additionally, only standalone and high availability threat defense devices running Version 7.0.3+ (7.0.5 recommended) are eligible for migration. Cluster migration is not supported at this time. **Important** Version 7.4.0 is only supported on the 1000/2500/4500 during the migration process. You should minimize the time between management center upgrade and device migration. To summarize the migration process: **1.** Prepare for upgrade and migration. Read, understand, and meet all the prerequisites outlined in the release notes, upgrade guides, and migration guide. Before you upgrade, it is especially important that the on-prem management center is "ready to go," that is, managing only the devices you want to migrate, configuration impact assessed (such as VPN impact), freshly deployed, fully backed up, all appliances in good health, and so on. You should also provision, license, and prepare the cloud tenant. This must include a strategy for security event logging; you cannot retain the on-prem management center for analytics because it will be running an unsupported version. **2.** Upgrade the on-prem management center and all its managed devices to at least Version 7.0.3 (Version 7.0.5 recommended). If you are already running the minimum version, you can skip this step. **3.** Upgrade the on-prem management center to Version 7.4.0. Unzip (but do not untar) the upgrade package before uploading it to the management center. Download from: Special Release. **4.** Onboard the on-prem management center to CDO. **5.** Migrate all devices from the on-prem management center to the cloud-delivered Firewall Management Center as described in the migration guide. When you select devices to migrate, make sure you choose **Delete FTD from On-Prem FMC**. Note that the device is not fully deleted unless you commit the changes or 14 days pass. **6.** Verify migration success. If the migration does not function to your expectations, you have 14 days to switch back or it is committed automatically. However, note that Version 7.4.0 is unsupported for general operations. To return the on-prem management center to a supported version you must remove the re-migrated devices, re image back to Version 7.0.x, restore from backup, and reregister the devices.

Feature	Min. Threat Defense	Details
		See: • Cisco Secure Firewall Threat Defense Release Notes • Cisco Firepower Management Center Upgrade Guide, Version 6.0–7.0 • Migrate On-Prem Management Center Managed Secure Firewall Threat Defense to Cloud-delivered Firewall Management Center If you have questions or need assistance at any point in the migration process, contact Cisco TAC.
S2S VPN support in FTD to cloud migration. Migrate threat defense devices with VPN policies from on-prem to cloud-delivered Firewall Management Center.	7.0.3-7.0.x 7.2 or later	Site-to-site VPN configurations on Secure Firewall Threat Defense devices are now migrated along with the rest of the configuration when the device is migrated from the on-prem Firewall Management Center to the cloud-delivered Firewall Management Center. See: Migrate On-Prem Management Center managed Secure Firewall Threat Defense to Cloud-delivered Firewall Management Center
Interfaces		

Feature	Min. Threat Defense	Details
Merged management and diagnostic interfaces.	7.4.0	**Upgrade impact. Merge interfaces after upgrade.** For new devices using 7.4 and later, you cannot use the legacy diagnostic interface. Only the merged management interface is available. If you upgraded to 7.4 or later and: • You did not have any configuration for the diagnostic interface, then the interfaces will merge automatically. • You have configuration for the diagnostic interface, then you have the choice to merge the interfaces manually, or you can continue to use the separate diagnostic interface. Note that support for the diagnostic interface will be removed in a later release, so you should plan to merge the interfaces as soon as possible. Merged mode also changes the behavior of AAA traffic to use the data routing table by default. The management-only routing table can now only be used if you specify the management-only interface (including Management) in the configuration. For platform settings, this means: • You can no longer enable HTTP, ICMP, or SMTP for diagnostic. • For SNMP, you can allow hosts on management instead of diagnostic. • For Syslog servers, you can reach them on management instead of diagnostic. • If Platform Settings for syslog servers or SNMP hosts specify the diagnostic interface by name, then you must use separate Platform Settings policies for merged and non-merged devices. • DNS lookups no longer fall back to the management-only routing table if you do not specify interfaces. New/modified screens: **Devices** > **Device Management** > **Interfaces** New/modified commands: **show management-interface convergence** See: Merge the Management and Diagnostic Interfaces
VXLAN VTEP IPv6 support.	7.4.0	You can now specify an IPv6 address for the VXLAN VTEP interface. IPv6 is not supported for the threat defense virtual cluster control link or for Geneve encapsulation. New/modified screens: • **Devices** > **Device Management** > **Edit Device** > **VTEP** > **Add VTEP** • **Devices** > **Device Management** > **Edit Devices** > **Interfaces** > **Add Interfaces** > **VNI Interface** See: Configure Geneve Interfaces

Feature	Min. Threat Defense	Details
Loopback interface support for BGP and management traffic.	7.4.0	You can now use loopback interfaces for AAA, BGP, DNS, HTTP, ICMP, IPsec flow offload, NetFlow, SNMP, SSH, and syslog. New/modified screens: **Devices** > **Device Management** > Edit device > **Interfaces** > **Add Interfaces** > **Loopback Interface** See: Configure Loopback Interfaces
Loopback and management type interface group objects.	7.4.0	You can create interface group objects with only management-only or loopback interfaces. You can use these groups for management features such as DNS servers, HTTP access, or SSH. Loopback groups are available for any feature that can utilize loopback interfaces. However, it's important to note that DNS does not support management interfaces. New/modified screens: **Objects** > **Object Management** > **Interface** > **Add** > **Interface Group** See: Interface
High Availability/Scalability		
Reduced "false failovers" for threat defense high availability.	7.4.0	Other version restrictions: Not supported with threat defense Version 7.3.x. See: Heartbeat Module Redundancy
SD-WAN		
Policy-based routing using HTTP path monitoring.	7.2.0	Policy-based routing (PBR) can now use the performance metrics (RTT, jitter, packet-lost, and MOS) collected by path monitoring through HTTP client on the application domain rather than the metrics on a specific destination IP. HTTP-based application monitoring option is enabled by default for the interface. You can configure a PBR policy with match ACL having the monitored applications and interface ordering for path determination. New/modified screens: **Devices** > **Device Management** > Edit device > Edit interface > **Path Monitoring** > **Enable HTTP based Application Monitoring** check box. Platform restrictions: Not supported for clustered devices. See: Configure Path Monitoring Settings
Policy-based routing with user identity and SGTs.	7.4.0	You can now classify the network traffic based on users and user groups, and SGTs in PBR policies. You can select the identity and SGT objects while defining the extended ACLs for the PBR policies. New/modified screens: **Objects** > **Object Management** > **Access List** > **Extended** > Add/Edit Extended Access List > Add/Edit Extended Access List Entry > **Users** and **Security Group Tag** See: Configure Extended ACL Objects
VPN		

Feature	Min. Threat Defense	Details
IPsec flow offload on the VTI loopback interface for the Secure Firewall 4200.	7.4.0	On the Secure Firewall 4200, qualifying IPsec connections through the VTI loopback interface are offloaded by default. Previously, this feature was supported for physical interfaces on the Secure Firewall 3100. You can change the configuration using FlexConfig and the **flow-offload-ipsec** command. Other requirements: FPGA firmware 6.2+ See: IPSec Flow Offload
Crypto debugging enhancements for the Secure Firewall 4200.	7.4.0	We made the following enhancements to crypto debugging: • The crypto archive is now available in text and binary formats. • Additional SSL counters are available for debugging. • Remove stuck encrypt rules from the ASP table without rebooting the device. New/modified CLI commands: **show counters** See: Troubleshooting Using Crypto Archives
VPN: Remote Access		
Customize Secure Client messages, icons, images, and connect/disconnect scripts.	7.2.0	You can now customize Secure Client and deploy these customizations to the VPN headend. The following are the supported Secure Client customizations: • GUI text and messages • Icons and images • Scripts • Binaries • Customized Installer Transforms • Localized Installer Transforms Threat defense distributes these customizations to the endpoint when an end user connects from the Secure Client. New/modified screens: • **Objects** > **Object Management** > **VPN** > **Secure Client Customization** • **Devices** > **Remote Access** > Edit VPN policy > **Advanced** > **Secure Client Customization** See: Customize Secure Client
VPN: Site to Site		

Feature	Min. Threat Defense	Details
Easily exempt site-to-site VPN traffic from NAT translation.	Any	We now make it easier to exempt site-to-site VPN traffic from NAT translation. New/modified screens: • Enable NAT exemptions for an endpoint: **Devices** > **VPN** > **Site To Site** > **Add/Edit Site to Site VPN** > **Add/Edit Endpoint** > **Exempt VPN traffic from network address translation** • View NAT exempt rules for devices that do not have a NAT policy: **Devices** > **NAT** > **NAT Exemptions** • View NAT exempt rules for a single device: **Devices** > **NAT** > **Threat Defense NAT Policy** > **NAT Exemptions** See: NAT Exemption
Easily view IKE and IPsec session details for VPN nodes.	Any	You can view the IKE and IPsec session details of VPN nodes in a user-friendly format in the Site-to-Site VPN dashboard. New/modified screens: **Overview** > **Site to Site VPN** > Under the Tunnel Status widget, hover over a topology, click **View**, and then click the **CLI Details** tab. See: Monitoring the Site-to-Site VPNs
Access Control: Threat Detection and Application Identification		
Sensitive data detection and masking.	7.4.0 with Snort 3	**Upgrade impact. New rules in default policies take effect.** Sensitive data such as social security numbers, credit card numbers, emails, and so on may be leaked onto the internet, intentionally or accidentally. Sensitive data detection is used to detect and generate events on possible sensitive data leakage and generates events only if there is a transfer of significant amount of Personally Identifiable Information (PII) data. Sensitive data detection can mask PII in the output of events, using built-in patterns. Disabling data masking is not supported. See: Custom Rules in Snort 3

Feature	Min. Threat Defense	Details
Clientless zero-trust access.	7.4.0 with Snort 3	We introduced Zero Trust Access that allows you to authenticate and authorize access to protected web based resources, applications, or data from inside (on-premises) or outside (remote) the network using an external SAML Identity Provider (IdP) policy. The configuration consists of a Zero Trust Application Policy (ZTAP), Application Group, and Applications. New/modified screens: • **Policies** > **Zero Trust Application** • **Analysis** > **Connections** > **Events** • **Overview** > **Dashboard** > **Zero Trust** New/modified CLI commands: • **show running-config zero-trust application** • **show running-config zero-trust application-group** • **show zero-trust sessions** • **show zero-trust statistics** • **show cluster zero-trust statistics** • **clear zero-trust sessions application** • **clear zero-trust sessions user** • **clear zero-trust statistics** See: Zero Trust Access.
Routing		
Configure graceful restart for BGP on IPv6 networks.	7.3.0	You can now configure BGP graceful restart for IPv6 networks on managed devices version 7.3 and later. New/modified screens: **Devices** > **Device Management** > Edit device > **Routing** > **BGP** > **IPv6** > **Neighbor** > Add/Edit Neighbor. See: Configure BGP Neighbor Settings
Virtual routing with dynamic VTI.	7.4.0	You can now configure a virtual router with a dynamic VTI for a route-based site-to-site VPN. New/modified screens: **Devices** > **Device Management** > Edit Device > **Routing** > **Virtual Router Properties** > Dynamic VTI interfaces under **Available Interfaces** Platform restrictions: Supported only on native mode standalone or high availability devices. Not supported for container instances or clustered devices. See: About Virtual Routers and Dynamic VTI
Access Control: Threat Detection and Application Identification		

Feature	Min. Threat Defense	Details
Encrypted visibility engine enhancements.	7.4.0 with Snort 3	Encrypted Visibility Engine (EVE) can now: • Block malicious communications in encrypted traffic based on threat score. • Determine client applications based on EVE-detected processes. • Reassemble fragmented Client Hello packets for detection purposes. New/modified screens: Use the access control policy's advanced settings to enable EVE and configure these settings. See: Encrypted Visibility Engine
Exempt specific networks and ports from bypassing or throttling elephant flows.	7.4.0 with Snort 3	You can now exempt specific networks and ports from bypassing or throttling elephant flows. New/modified screens: • When you configure elephant flow detection in the access control policy's advanced settings, if you enable the **Elephant Flow Remediation** option, you can now click **Add Rule** and specify traffic that you want to exempt from bypass or throttling. • When the system detects an elephant flow that is exempted from bypass or throttling, it generates a mid-flow connection event with the reason **Elephant Flow Exempted**. Platform restrictions: Not supported on the Firepower 2100 series. See: Elephant Flow Detection
Improved JavaScript inspection.	7.4.0 with Snort 3	We improved JavaScript inspection, which is done by normalizing the JavaScript and matching rules against the normalized content. See: HTTP Inspect Inspector and Cisco Secure Firewall Management Center Snort 3 Configuration Guide
Access Control: Identity		
Cisco Secure Dynamic Attributes Connector on the management center.	Any	You can now configure the Cisco Secure Dynamic Attributes Connector on the management center. Previously, it was only available as a standalone application. See: Cisco Secure Dynamic Attributes Connector
Event Logging and Analysis		
Configure threat defense devices as NetFlow exporters from the management center web interface.	Any	NetFlow is a Cisco application that provides statistics on packets flows. You can now use the management center web interface to configure threat defense devices as NetFlow exporters. If you have an existing NetFlow FlexConfig and redo your configurations in the web interface, you cannot deploy until you remove the deprecated FlexConfigs. New/modified screens: **Devices** > **Platform Settings** > **Threat Defense Settings Policy** > **NetFlow** See: Configure NetFlow
Health Monitoring		

Feature	Min. Threat Defense	Details
New asp drop metrics.	7.4.0	You can add over 600 new asp (accelerated security path) drop metrics to a new or existing device health dashboard. Make sure you choose the **ASP Drops** metric group. New/modified screens: **System** (⚙) > **Health** > **Monitor** > **Device** See: show asp drop Command Usage
Administration		
Support for IPv6 URLs when checking certificate revocation.	7.4.0	Previously, threat defense supported only IPv4 OCSP URLs. Now, threat defense supports both IPv4 and IPv6 OCSP URLs. See: Certificate Enrollment Object Revocation Options
Store threat defense backup files in a secure remote location.	Any	When you back up a device, the cloud-delivered Firewall Management Center stores the backup files in its secure cloud storage. See: Backup/Restore
Usability, Performance, and Troubleshooting		
Usability enhancements.	Any	You can now: • Manage Smart Licensing for threat defense clusters from **System** (⚙) > **Smart Licenses**. Previously, you had to use the Device Management page. See: Licenses for Clustering • Download a report of Message Center notifications. In the Message Center, click the new **Download Report** icon, next to the **Show Notifications** slider. See: Managing System Messages. • Download a report of all registered devices. On **Devices** > **Device Management**, click the new **Download Device List Report** link, at the top right of the page. See: Download the Managed Device List. • Easily create custom health monitoring dashboards, and easily edit existing dashboards. See: Correlating Device Metrics
Specify the direction of traffic to be captured with packet capture for the Secure Firewall 4200.	7.4.0	On the Secure Firewall 4200, you can use a new **direction** keyword with the **capture** command. New/modified CLI commands: **capture***capture_name***switchinterface***interface_name* [**direction** { **both** | **egress** | **ingress** }] See: Cisco Secure Firewall Threat Defense Command Reference
Management Center REST API		

Feature	Min. Threat Defense	Details
Cloud-delivered Firewall Management Center REST API.	Feature dependent	For information on changes to the management center REST API, see What's New in the API quick start guide.

Table 6: Deprecated Features: Version 20230929

Feature	Deprecated in Threat Defense	Details
Deprecated: NetFlow with FlexConfig.	Any	You can now configure threat defense devices as NetFlow exporters from the management center web interface. If you do this, you cannot deploy until you remove any deprecated FlexConfigs. See: Configure NetFlow
Deprecated: `high unmanaged disk usage` alerts.	7.0.6 7.2.4 7.4.0	The Disk Usage health module no longer alerts with `high unmanaged disk usage`. You may continue to see these alerts until you either deploy health policies to managed devices (stops the display of alerts), or upgrade the devices to Version 7.0.6, 7.2.4, or 7.4 (stops the sending of alerts). For information on the remaining Disk Usage alerts, see Disk Usage and Drain of Events Health Monitor Alerts.

August 3, 2023

Table 7: New Features: August 3, 2023

Feature	Description
Updates to Firewall Migration Tool	Cisco Defense Orchestrator now hosts an updated version of the Firewall Migration Tool. You can now merge multiple contexts in your Secure Firewall ASA devices to a routed-mode instance and migrate them to threat defense devices managed by the cloud-delivered Firewall Management Center. In addition, the migration tool now leverages the virtual routing and forwarding (VRF) functionality to replicate the segregated traffic flow observed in a multi-context ASA environment, which will be part of the new merged configuration. See Migrating Secure Firewall ASA Managed by CDO in *Migrating Firewalls with the Firewall Migration Tool in Cisco Defense Orchestrator* guide for more information.

July 20, 2023

Table 8: New Features: July 20, 2023

Feature	Description
EasyDeploy for Virtual Threat Defense Devices Managed by GCP	You can now create a virtual threat defense device and deploy it to a Google Cloud Platform (GCP) project simultaneously. The EasyDeploy method combines the steps required to create a new virtual device and then associating the device with the cloud environment, streamlining the procedure and minimizing the amount of time required for setup. Note that you **must** have cloud-delivered Firewall Management Center enabled for these onboarding flows. See Deploy a Threat Defense Device to Google Cloud Platform for more information. Minimum threat defense: • 7.0.3 and later 7.0.x versions • 7.2 and later versions

June 8, 2023

Table 9: New Features: June 8, 2023

Feature	Description
EasyDeploy for Secure Firewall Threat Defense with AWS or Azure	You can now create and deploy a Secure Firewall Threat Defense device with either an AWS or Azure environment simultaneously. Onboard the device with CDO and manage the environment in cloud-delivered Firewall Management Center. See Deploy a Threat Defense Device with AWS and Deploy a Threat Defense Device with an Azure VNet respectively for more information. Minimum threat defense: • 7.0.3 and later 7.0.x versions • 7.2 and later versions

May 25, 2023

Table 10: New Features: May 25, 2023

Feature	Description
Threat defense Version 7.3.1 support.	You can now manage threat defense devices running Version 7.3.1.

Feature	Description
Firepower 1010E.	You can now manage the Firepower 1010E, which does not support power over Ethernet (PoE), with cloud-delivered Firewall Management Center. Minimum threat defense: 7.2.3

March 9, 2023

This release introduces stability, hardening, and performance enhancements.

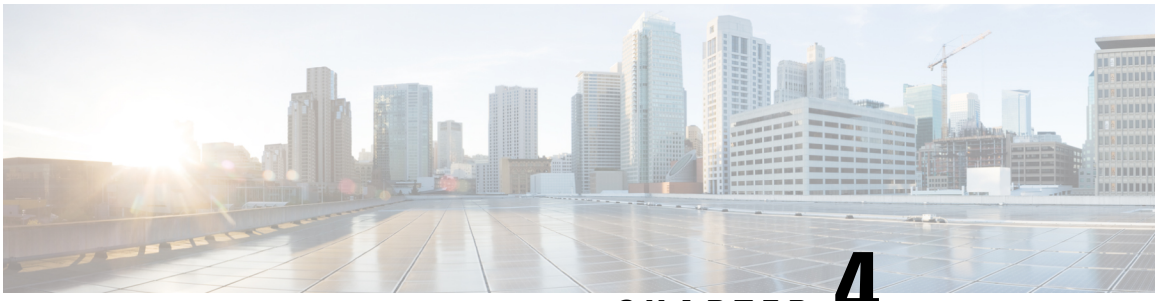
February 16, 2023

This release introduces stability, hardening, and performance enhancements.

January 18, 2023

Table 11: New Features: January 18, 2023

Feature	Description
Remote Access VPN	
Monitor remote access VPN sessions in CDO.	You can now use CDO to monitor RA VPN sessions on threat defense devices managed by the cloud-delivered Firewall Management Center. You can see a a list of active and historical sessions, as well as the details of the device and user associated with each session. Supported threat defense versions: • 7.0.3 and later 7.0.x versions • 7.2 and later versions For more information, see Monitor Remote Access VPN Sessions in the configuration guide.



CHAPTER 4

New Features in Cloud-delivered Firewall Management Center 2022

December 13, 2022

Table 12: New Features: December 13, 2022

Feature	Description
Onboarding to CDO and Threat Defense Upgrades	
Additional Device Support and Onboarding	You can now onboard clustered devices, AWS VPC environments, and Azure VNET environments to cloud-delivered Firewall Management Center. Onboarding these devices currently requires login credentials. Clustered devices must be already formed in their designated managing platform. See the following topics at https://docs.defenseorchestrator.com for more information: • Onboard a Cluster • Onboard a Device Associated with an AWS VPC. • Onboard an Azure VNet Environment

Feature	Description
Unattended Threat Defense Upgrade	The threat defense upgrade wizard now supports unattended upgrades, using a new Unattended Mode menu. You just need to select the target version and the devices you want to upgrade, specify a few upgrade options, and step away. You can even log out or close the browser. With an unattended upgrade, the system automatically copies needed upgrade packages to devices, performs compatibility and readiness checks, and begins the upgrade. Just as happens when you manually step through the wizard, any devices that do not "pass" a stage in the upgrade (for example, failing checks) are not included in the next stage. After the upgrade completes, you pick up with the verification and post-upgrade tasks. You can pause and restart unattended mode during the copy and checks phases. However, pausing unattended mode does not stop tasks in progress. Copies and checks that have started will run to completion. Similarly, you cannot cancel an upgrade in progress by stopping unattended mode; to cancel an upgrade, use the Upgrade Status pop-up, accessible from the Upgrade tab on Device Management page, and from the Message Center. See *Upgrade Threat Defense* in the Cisco Secure Firewall Threat Defense Upgrade Guide for Management Center.
Auto-upgrade to Snort 3	When you upgrade threat defense to Version 7.3+, you can no longer disable the Upgrade Snort 2 to Snort 3 option. After the software upgrade, all eligible devices will upgrade from Snort 2 to Snort 3 when you deploy configurations. Although you can switch individual devices back, Snort 2 will be deprecated in a future release and we strongly recommend you stop using it now. For devices that are ineligible for auto-upgrade because they use custom intrusion or network analysis policies, we strongly recommend you manually upgrade to Snort 3 for improved detection and performance. For migration assistance, see the Cisco Secure Firewall Management Center Snort 3 Configuration Guide.
CDO-managed Secure Firewall Threat Defense Devices on Firepower 4100/9300	The Firepower 4100/9300 is a flexible security platform on which you can install one or more logical devices. Before you can add the threat defense to the management center, you must configure chassis interfaces, add a logical device, and assign interfaces to the device on the Firepower 4100/9300 chassis using the Secure Firewall chassis manager or the FXOS CLI. You can now create a CDO-managed, standalone logical threat defense device on the Firepower 4100/9300, by configuring CDO as the manager when creating the device. See *Configure Logical Devices* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator
Interfaces	

Feature	Description
IPv6 DHCP Enhancements	The Dynamic Host Configuration Protocol (DHCP) provides network configuration parameters, such as IP addresses, to DHCP clients. The threat defense device can provide a DHCP server to DHCP clients attached to threat defense device interfaces. The DHCP server provides network configuration parameters directly to DHCP clients. The cloud-delivered Firewall Management Center now supports the following IPv6 addressing features for Secure Firewall Threat Defense devices: • DHCPv6 Address Client: Threat defense obtains an IPv6 global address and optional default route from the DHCPv6 server. • DHCPv6 Prefix Delegation Client: Threat defense obtains delegated prefix(es) from a DHCPv6 server. It can then use these prefixes to configure other threat defense interface addresses so that StateLess Address Auto Configuration (SLAAC) clients can auto-configure IPv6 addresses on the same network. • BGP router advertisement for delegated prefixes. • DHCPv6 Stateless Server: Threat defense provides other information such as the domain name to SLAAC clients when they send Information Request (IR) packets to threat defense. Threat defense only accepts IR packets and does not assign addresses to the clients. See *Configure IPv6 Addressing* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator for more information.
Support for Loopback Interface	A loopback interface is a software interface that emulates a physical interface. It is reachable through multiple physical interfaces with IPv4 and IPv6 addresses. You can configure a loopback interface for the redundancy of static and dynamic VTI VPN tunnels. See *Regular Firewall Interfaces* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator.
Paired Proxy VXLAN for the Threat Defense Virtual for the Azure Gateway Load Balancer	You can configure a paired proxy mode VXLAN interface for the threat defense virtual in Azure for use with the Azure Gateway Load Balancer (GWLB). The threat defense virtual defines an external interface and an internal interface on a single NIC by utilizing VXLAN segments in a paired proxy. See *Clustering for Threat Defense Virtual in a Public Cloud* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator to learn more.

Feature	Description
Redundant Manager Access Data Interface	You can now configure a secondary data interface to take over the management functions if the primary interface goes down, when using a data interface for manager access. The device uses SLA monitoring to track the viability of the static routes and an equal-cost multi-path (ECMP) zone that contains both interfaces so management traffic can use both interfaces. See *Configure a Redundant Manager Access Data Interface* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator for more information.
Remote Access VPN	
TLS 1.3 in Remote Access VPN	You can now use TLS 1.3 to encrypt remote access VPN connections. Use threat defense platform settings to specify that the device must use TLS 1.3 protocol when acting as a remote access VPN server. See *Platform Settings* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator.
Site to Site VPN	
Support for Dynamic Virtual Tunnel Interface	You can create a dynamic VTI and use it to configure a route-based site-to-site VPN in a hub and spoke topology. Previously, you could use only a static VTI to configure a route-based site-to-site VPN in a hub and spoke topology. Dynamic VTI eases the configuration of peers for large enterprise hub and spoke deployments. A single dynamic VTI can replace several static VTI configurations on the hub. You can add new spokes to a hub without changing the hub configuration. See *Site-to-Site VPNs for Secure Firewall Threat Defense* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator
Routing	
Support for Bidirectional Forwarding Detection	Cloud-delivered Firewall Management Center now supports Bidirectional Forwarding Detection (BFD) configuration on Secure Firewall Threat Defense devices. BFD operates in a unicast, point-to-point mode on top of any data protocol being forwarded between two systems. However, in threat defense, BFD is supported on BGP protocols only. BFD configuration on the device includes creating templates and policies and enabling BFD support in the BGP neighbor settings. See *Bidirectional Forwarding Detection Routing* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator for more information.

Feature	Description
EIGRP (IPv4) routing support on Virtual Tunnel Interface	EIGRP (IPv4) routing is now supported on the Virtual Tunnel Interface. You can now use EIGRP (IPv4) protocol to share routing information and to route traffic flow over a VTI-based VPN tunnel between peers. See *Additional Configurations for VTI* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator.
Virtual Tunnel Interface (VTI) Support for OSPF	The IPv4 or IPv6 OSPF can be configured on the VTI interface of a threat defense device. You can use OSPF to share routing information and route traffic through a VTI-based VPN tunnel between the devices. See *Site-to-Site VPNs for Secure Firewall Threat Defense* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator.
Access Control and Threat Detection	
Decryption Policy	Feature renamed from *SSL policy* to *decryption policy* to better reflect what it does. We now enable you to configure a decryption policy with one or more **Decrypt - Resign** or **Decrypt - Known Key** rules at the same time. Get started by going to **Policies** > **Access Control** > **Decryption**. The Create Decryption Policy dialog box now has two tab pages: **Outbound Connections** and **Inbound Connections**. Use the **Outbound Connections** tab page to configure one or more decryption rules with a **Decrypt - Resign** rule action. (You can either upload or generate certificate authorities at the same time). Each combination of a CA with networks and ports results in one decryption rule. Use the Inbound Connections tab page to configure one or more decryption rules with a Decrypt - Known Key rule action. (You can upload your server's certificate at the same time.) Each combination of a server certificate with networks and ports results in one decryption rule.
Health Monitoring	
Cloud-delivered Firewall Management Center Deployment Notifications on CDO	CDO now notifies you about the status of deployments that are performed on the cloud-delivered Firewall Management Center. The notification messages include information on whether the deployment has succeeded, failed, or is in progress, the time and date of the deployment, and a link to the deployment history page of the cloud-delivered Firewall Management Center. See *Notifications* in Managing FDM Devices with Cisco Defense Orchestrator for more information.

Feature	Description
Cluster Health Monitor Settings	You can now edit cluster health monitor settings in the cloud-delivered Firewall Management Center web interface. If you configure these settings with the FlexConfig in a previous version, the system allows you to deploy, but also warns you to redo the configuration because the FlexConfig settings take precedence. See *Edit Cluster Health Monitor Settings* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator to learn more.
Improved Health Monitoring for Device Clusters	You can now use the health monitor for each cluster to view overall cluster status, load distribution metrics, performance metrics, cluster control link (CCL) and data throughput, and so on. See *Cluster Health Monitor* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator to learn more.
New Health Monitoring Alerts	The cloud-delivered Firewall Management Center now provides new health modules to monitor the temperature and power supply on a Firepower 4100/9300 chassis. Using the new Environment Status and Power Supply health modules, you can create a custom health dashboard and set threshold values for temperature and power supply on your physical appliance. See *Health Monitor Alerts* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator to learn more.
Licensing	
Carrier License	Cisco Smart Licensing is a flexible licensing model that provides you with an easier, faster, and more consistent way to purchase and manage software across the Cisco portfolio and across your organization. The cloud-delivered Firewall Management Center now supports Carrier license, in addition to the existing smart licenses. The Carrier license allows GTP/GPRS, Diameter, SCTP, and M3UA inspection configurations. See *Licenses* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator.
Usability, Performance, and Troubleshooting	

Feature	Description
Core Allocation Performance Profiles	The CPU cores on the Secure Firewall Threat Defense device are assigned to two of the main system processes: Lina and Snort. Lina handles VPN connections, routing, and other basic layer 3/4 processing. Snort provides advanced inspection, including intrusion and malware prevention, URL filtering, application filtering, and other features that require deep packet inspection. You can now adjust the percentage of system cores assigned to the data plane and Snort to adjust system performance, using the performance profiles. Based on your relative use of VPN and intrusion policies, you can choose a desired performance profile. See *Configure the Performance Profile* in Managing Firewall Threat Defense with Cloud-delivered Firewall Management Center in Cisco Defense Orchestrator for more information.
Identity	
Proxy Sequence	A *proxy sequence* is one or more managed devices that can be used to communicate with an LDAP, Active Directory, or ISE/ISE-PIC server. It is necessary only if Cisco Defense Orchestrator (CDO) cannot communicate with your Active Directory or ISE/ISE-PIC server. (For example, CDO might be in a public cloud but Active Directory or ISE/ISE-PIC might be in a private cloud.) Although you can use one managed device as a proxy sequence, we strongly recommend you set up two or more so that, in the event one managed device cannot communicate with Active Directory or ISE/ISE-PIC, another managed device can take over. Create a proxy sequence by going to **Integration** > **Other Integrations** > **Realms** > **Proxy Sequence**.

October 20, 2022

Support for Configuring Next-Hop IP Addresses in a Policy-based Route Map

Policy-Based Routing (PBR) helps route network traffic for specified applications based on your priorities, such as source port, destination address, destination port, protocol, applications, or a combination of these objects, rather than by destination network criteria. For example, you can use PBR to route your high-priority network traffic over a high-bandwidth, expensive link and your lower priority network traffic over a lower bandwidth, lower cost link.

The cloud-delivered Firewall Management Center now supports defining next-hop IP addresses when creating a policy-based route map. See *About Policy Based Routing* and *Configure Policy-Based Routing Policy* in Managing Firewall Threat Defense with Cloud-Delivered Firewall Management Center in Cisco Defense Orchestrator for more information.

URL Filtering Enhancements

URL filtering lets you control access to websites that the users on your network can use. You can filter websites based on category and reputation, for which your device needs a URL-filtering license, or manually by specifying URLs. The category and reputation-based filtering—the quicker and smarter way to filter URLs—uses Cisco's up-to-date threat intelligence information and is highly recommended.

The cloud-delivered Firewall Management Center can now query for up-to-date URL category and reputation information directly from the Cisco Talos cloud instead of using the local database information. The local database gets updated every 24 to 48 hours. See *URL Filtering Options* in Managing Firewall Threat Defense with Cloud-Delivered Firewall Management Center in Cisco Defense Orchestrator for detailed information.

Umbrella Tunnel Integration with Secure Firewall Threat Defense using Cloud-delivered Firewall Management Center

You can now automatically deploy IPsec IKEv2 tunnels to Umbrella from a threat defense device using cloud-delivered Firewall Management Center. This tunnel forwards all internet-bound traffic to the Umbrella Secure Internet Gateway (SIG) for inspection and filtering. Create a SASE topology, a new type of static VTI-based site-to-site VPN topology, using a simple wizard to configure and deploy the Umbrella tunnels.

See *About Umbrella SASE Topology* in Managing Firewall Threat Defense with Cloud-Delivered Firewall Management Center in Cisco Defense Orchestrator for more information.

Support for Remote Access VPN Policy in FTD to Cloud Migration

CDO now imports the remote access VPN policy during the migration of the FTD to cloud.

See *Migrate FTD to Cloud* in Managing Firewall Threat Defense with Cloud-Delivered Firewall Management Center in Cisco Defense Orchestrator for more information.

Migrate Flex Configured Routing Policies

Cloud-delivered Firewall Management Center now supports the migration of Flex configured ECMP, VxLAN, and EIGRP policies using the Migration Config option in the user interface.

See *Migrating FlexConfig Policies* in Managing Firewall Threat Defense with Cloud-Delivered Firewall Management Center in Cisco Defense Orchestrator for more information.

Smart Licensing Standardization

The license names used by cloud-delivered Firewall Management Center have been changed.

Table 13: Smart License Name Changes

Old Name	is now	New Name
Base	is now	Essentials
Threat	is now	IPS
Malware	is now	Malware Defense
RA VPN/AnyConnect License	is now	Cisco Secure Client
AnyConnect Plus	is now	Secure Client Advantage

Old Name	is now	New Name
AnyConnect Apex	is now	Secure Client Premier
AnyConnect Apex and Plus	is now	Secure Client Premier and Advantage
AnyConnect VPN Only	is now	Secure Client VPN Only

See *License Types and Restrictions* in Managing Firewall Threat Defense with Cloud-Delivered Firewall Management Center in Cisco Defense Orchestrator for more information.

June 9, 2022

Cisco Defense Orchestrator (CDO) is now the platform for the cloud-delivered Firewall Management Center.

The cloud-delivered Firewall Management Center is a software-as-a-service (SaaS) product that manages Secure Firewall Threat Defense devices. It offers many of the same functions as an on-premises Secure Firewall Management Center, it has the same appearance and behavior as an on-premises Secure Firewall Management Center, and uses the same FMC API.

This product is designed for Secure Firewall Management Center customers who want to move from an on-premises version of the Secure Firewall Management Center to a SaaS version.

As a SaaS product, the CDO operations team is responsible for maintaining it. As new features are introduced, the CDO operations team updates CDO and the cloud-delivered Firewall Manager for you.

A migration wizard is available to help you migrate your Secure Firewall Threat Defense devices registered to your on-premises Secure Firewall Management Center to the cloud-delivered Firewall Management Center.

Onboarding Secure Firewall Threat Defense devices is carried out in CDO using familiar processes such as onboarding a device with its serial number or using a CLI command that includes a registration key. Once the device is onboarded, it is visible in both CDO and in the cloud-delivered Firewall Management Center, however, you configure the device in the cloud-delivered Firewall Management Center. Secure Firewall Threat Defense devices running Version 7.2 or later can be onboarded.

The license for cloud-delivered Firewall Management Center is a per-device-managed license and there is no license required for the cloud delivered FMC itself. Existing Secure Firewall Threat Defense devices re-use their existing smart licenses and new Secure Firewall Threat Defense devices provision new smart licenses for each feature implemented on the FTD.

In a remote branch office deployment, the data interface of the threat defense device is used for Cisco Defense Orchestrator management instead of the Management interface on the device. Because most remote branch offices only have a single internet connection, outside CDO access makes centralized management possible. In the case of remote branch deployment, CDO provides high availability support for the threat defense devices that it manages through the data interface.

You can analyze syslog events generated by your onboarded threat defense devices using Security Analytics and Logging (SaaS) or Security Analytics and Logging (On Premises). The SaaS version stores events in the cloud and you view the events in CDO. The on-premises version stores events in an on-premises Secure Network Analytics appliance and analysis is done in the on-premises Secure Firewall Management Center. In both cases, just as with an on-premises FMC today, you can still send logs to a log collector of your choice directly from the sensors.

The FTD dashboard provides you an at-a-glance view of the status, including events data collected and generated by all threat defense devices managed by the cloud-delivered Firewall Management Center. You

can use this dashboard to view collective information that is related to the device status and the overall health of the devices in your deployment. The information that the FTD dashboard provides depends on how you license, configure, and deploy the devices in your system. The FTD dashboard displays data for all CDO-managed threat defense devices. However, you can choose to filter device-based data. You can also choose the time range to display for specific time range.

The Cisco Secure Dynamic Attributes Connector enables you to use service tags and categories from various cloud service platforms in cloud-delivered Firewall Management Center access control rules. Network constructs such as IP addresses may be ephemeral in virtual, cloud and container environments due to the dynamic nature of the workloads and the inevitability of IP address overlap. Customers require policy rules to be defined based on non-network constructs such as VM name or security group, so that firewall policy is persistent even when the IP address or VLAN changes.

Proxy sequences of one or more managed devices can be used to communicate with an LDAP, Active Directory, or ISE/ISE-PIC servers. It is necessary only if Cisco Defense Orchestrator(CDO) cannot communicate with your Active Directory or ISE/ISE-PIC server. For example, CDO might be in a public cloud but Active Directory or ISE/ISE-PIC might be in a private cloud.

Although you can use one managed device as a proxy sequence, we strongly recommend you set up two or more so that, in the event one managed device cannot communicate with Active Directory or ISE/ISE-PIC, another managed device can take over.

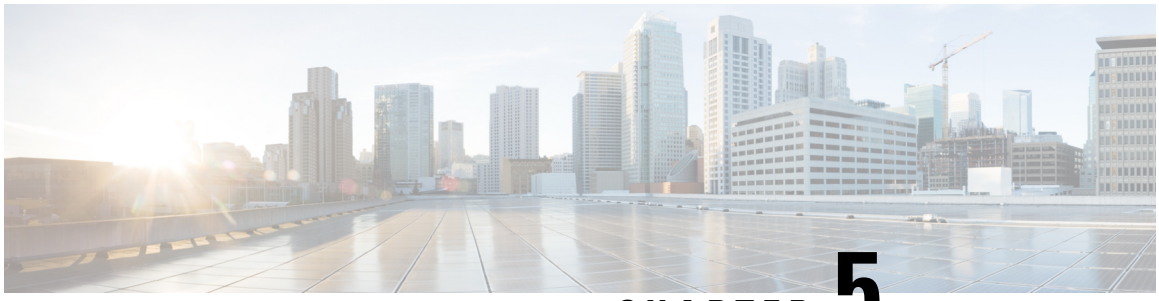
Any customer can use CDO to manage other device types like, the Secure Firewall ASA, Meraki, Cisco IOS devices, Umbrella, and AWS virtual private clouds. If you use CDO to manage a Secure Firewall Threat Defense device configured for local management with Firepower Device Manager, you can continue to manage them with CDO as well. If you are new to CDO, you can manage Secure Firewall Threat Defense devices with the new cloud-delivered Firewall Management Center and all of the other device types as well.

Learn more about the Firewall Management Center features we support in the cloud-delivered Firewall Management Center.

- Health Monitoring
- Secure Firewall Threat Defense Device Backup/Restore
- Scheduling
- Import/Export
- External Alerting with Alert Responses
- Transparent or Routed Firewall mode
- High Availability for Secure Firewall Threat Defense Devices
- Interfaces
- Network Access Control (NAT)
- Static and Default Routes and other routing configurations
- Object Management and Certificates
- Remote Access VPN and Site to Site VPN configuration
- Access Control policies
- Cisco Secure Dynamic Attributes Connector
- Intrusion and Detection and Prevention policies

- Network Malware and Protection and File Policies
- Encrypted Traffic Handling
- User Identity
- FlexConfig Policies

June 9, 2022



CHAPTER 5

Open and Resolved Bugs

This document lists the open and resolved bugs in the cloud-delivered Firewall Management Center as of April 2, 2024.

Note Bug lists are auto-generated once and are not updated between upates of cloud-delivered Firewall Management Center. Depending on how and when a bug was categorized or updated in our system, it may not appear in the release notes.

Open Bugs

Important Bug lists are auto-generated once and are not subsequently updated. Depending on how and when a bug was categorized or updated in our system, it may not appear in the release notes. If you have a support contract, you can view the bugs below in the Cisco Bug Search Tool.

Table 14: Open Bugs in the April 2, 2024 update of Cloud-delivered Firewall Management Center

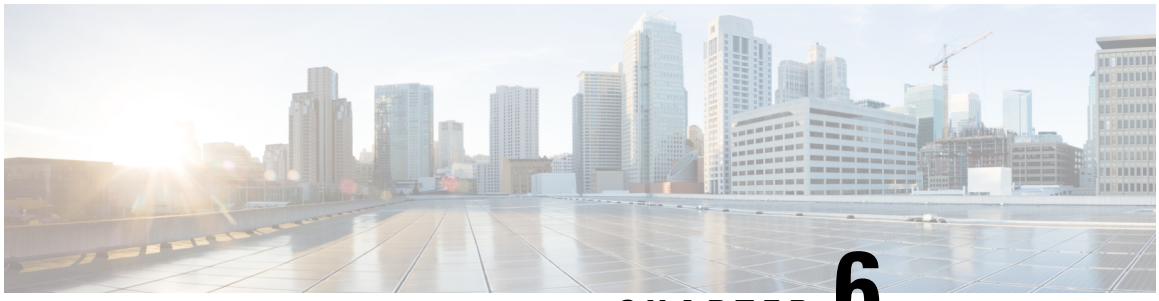
Bug ID	Headline
CSCwh24268	CdFMC: Seeing bulk registration issues while migrating Secure Firewall Threat Defense
CSCwi31563	cdFMC: Table View of Rule Update Import Log UI is throwing error, unable to check SRU update log
CSCwi65988	cdFMC: cannot migrate TPK MI chassis manager to cdFMC
CSCwj08822	cdFMC Multiple health monitor widgets throwing Error while fetching data
CSCwj29351	Health Policy Configuration - Unable to remove device from the policy
CSCwj30329	cdFMC: FTD Cluster Registration failing with internal error

Resolved Bugs

Table 15: Resolved Bugs in the April 2, 2024 update of Cloud-delivered Firewall Management Center

Identifier	Headline
CSCvz42065	IPS policy should be imported when its referred in Access Control policy
CSCvx75441	File list preview: Deleting two list having few similar contents throws stacktrace on FMC-UI
CSCwd29926	Cloud-delivered Firewall Management Center will not allow download of files from devices using the File Download Page
CSCwd63987	Cloud-delivered FMC: On-premises FMC does not show correct node status (control/data)
CSCwd72573	CDO Malware Policy unable to delete
CSCwd75738	Predefined FlexConfig Text Objects are not exported by Import-Export
CSCwd79150	Device API healthStatus for cluster devices not aligned with health status on device listing
CSCwd88641	Deployment changes to push VDB package based on Device model and snort engine
CSCwe07928	On a cloud-delivered FMC there is no way to send events to syslog without sending to SAL/CDO as well
CSCwe48606	CDO FTD migration failed due to colon and semi-colon in device names
CSCwe09465	Stale health alerts in notification table
CSCwe10871	Secure Firewall Threat Defense RA VPN: DNS Server Association with DfltGrpPolicy is removed after migrating FTDs to CDO
CSCwe60534	The region for creating an AMP Cloud Connection is different from where the cloud-delivered Firewall Management Center is deployed
CSCwf02673	[cdfmc] Network Discovery Policy(ND): Notification message about unsupported functionality
CSCwf14031	Snort down due to missing lua files because of disabled application detectors (VDB side)
CSCwf20958	No logrotate and max size is configured for Health.log file
CSCwf55325	Prometheus Data folder backup and restore during upgrade and DR
CSCwf89265	CDFMC: VDB version rolling back to old version after performing Disaster Recovery

Identifier	Headline
CSCwh45488	PBR configuration using User Identity is not migrated during FTD migration to cdFMC
CSCwh64992	Need to update awscli to address CVEs.
CSCwh89058	Login attempt to ccdFMC returns 401 Unauthorized for /api/ui_platform/v1/uiauth/generatetoken
CSCwi34323	After importing AC policy, Realm is not present in UI causing validation error for Azure AD users
CSCwi82189	ACP page goes blank or error thrown if one of the ACP rules has user created app filter



CHAPTER 6

Documentation and Support Resources

Related Cisco Defense Orchestrator Product Documentation

Here are the locations of other helpful documents:

- Managing Firewall Threat Defense with Cloud-Delivered Firewall Management Center in Cisco Defense Orchestrator
- Links to all other Cisco Defense Orchestrator documentation

Cisco Support Resources

Open a Support Case Within Cloud-Delivered Firewall Management Ceneter

Follow this procedure to open a support case from within the cloud-delivered Firewall Management Center:

1. In the cloud-delivered Firewall Management Center, click the (**Help** ( ) icon.
2. Under **Support & Downloads**, click **TAC Support Cases**.

Contact Cisco

These are other methods of contacting the Cisco Technical Assistance Center (TAC):

- Email Cisco TAC: tac@cisco.com
- Call Cisco TAC (North America): 1.408.526.7209 or 1.800.553.2447
- Call Cisco TAC (worldwide): Cisco Worldwide Support Contacts