Onboard FDM to Defense Orchestrator

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Introduction

This document describes how to onboard a device managed by Firepower Device Manager (FDM) to Cisco Defense Orchestrator (CDO) using registration key.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Firepower Device Manager (FDM)
- Cisco Defense Orchestrator (CDO)

Components Used

The information in this document is based on these software and hardware versions:

- Firepower Device Manager (FDM) Azure running version 7.4.1

For a comprehensive list of compatible versions and products, consult the Secure Firewall Threat Defense Compatibility Guide for additional details.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

Before beginning the onboarding process of an FDM-managed device to Cisco Defense Orchestrator (CDO) using a registration key, please ensure you meet these prerequisites:

1. **Compatible Version**: Your device must be running version 6.6 or higher.

2. **Network Requirements**: Connect Cisco Defense Orchestrator to your Managed Devices

3. **Management Software**: The device must be managed via Secure Firewall Device Manager (FDM).

4. **Licensing**: Your device can use either a 90-day evaluation license or a smart license.

5. **Existing Registrations**: Ensure that the device is not already registered with Cisco Cloud Services to avoid conflicts during the onboarding process.

6. **Pending Changes**: Verify that there are no pending changes on the device.

7. **DNS Configuration**: DNS settings must be correctly configured on your FDM-managed device.

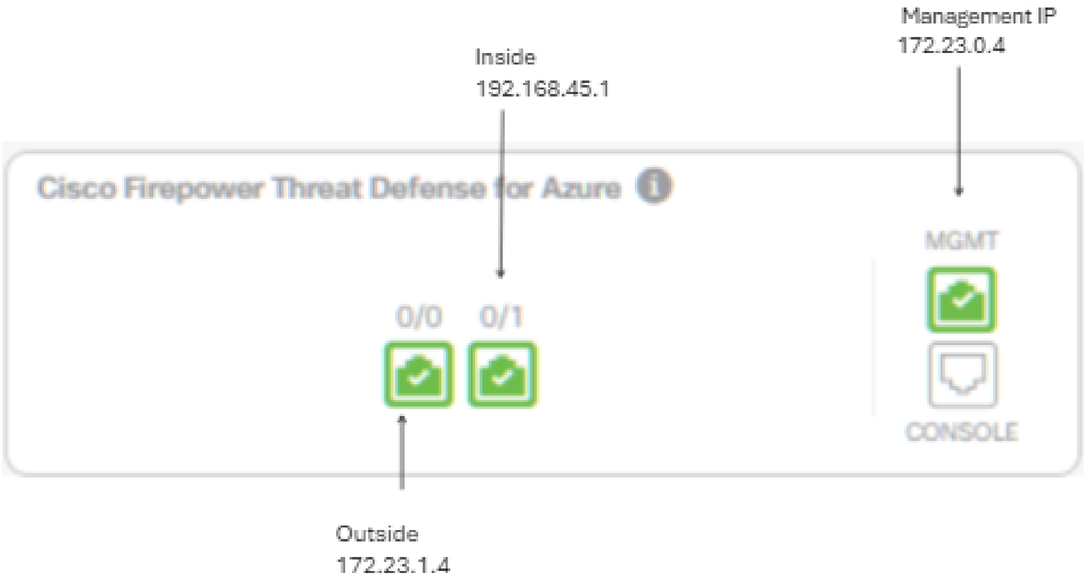
8. **Time Services**: Time services on the device can be accurately configured to ensure synchronization with network time protocols.

9. **Requirement for FDM Support Activation**. Firewall Device Manager (FDM) support and its functionality is exclusively granted upon request. Users without FDM support enabled on their tenant are unable to manage or deploy configurations to FDM-managed devices. To activate this platform, users must send a request to the support team for FDM support enablement.

Configure

Network Diagram

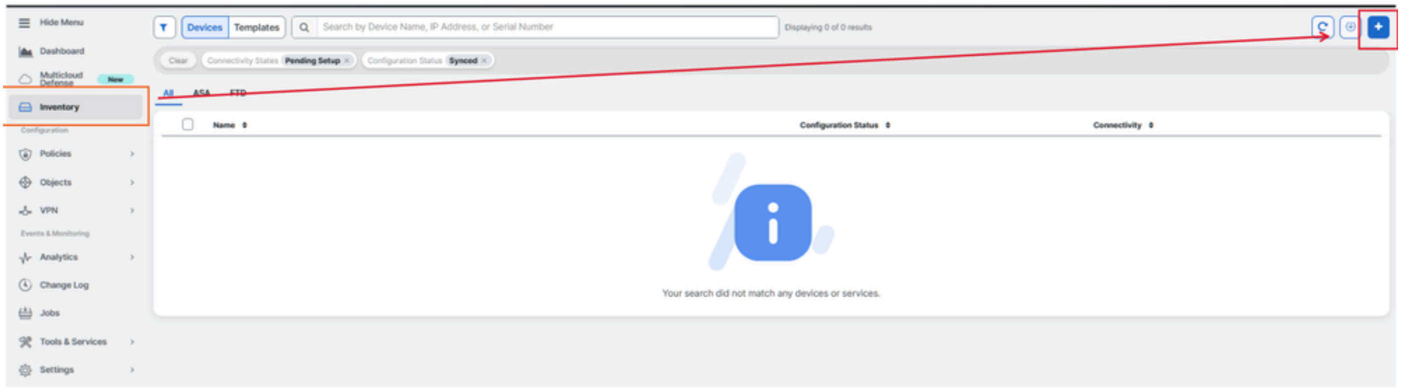
This article focuses on an FDM (Firepower Device Manager) device, which is controlled through its management interface. This interface has internet access that is essential for registering the device with Cisco Defense Orchestrator (CDO).



Configurations

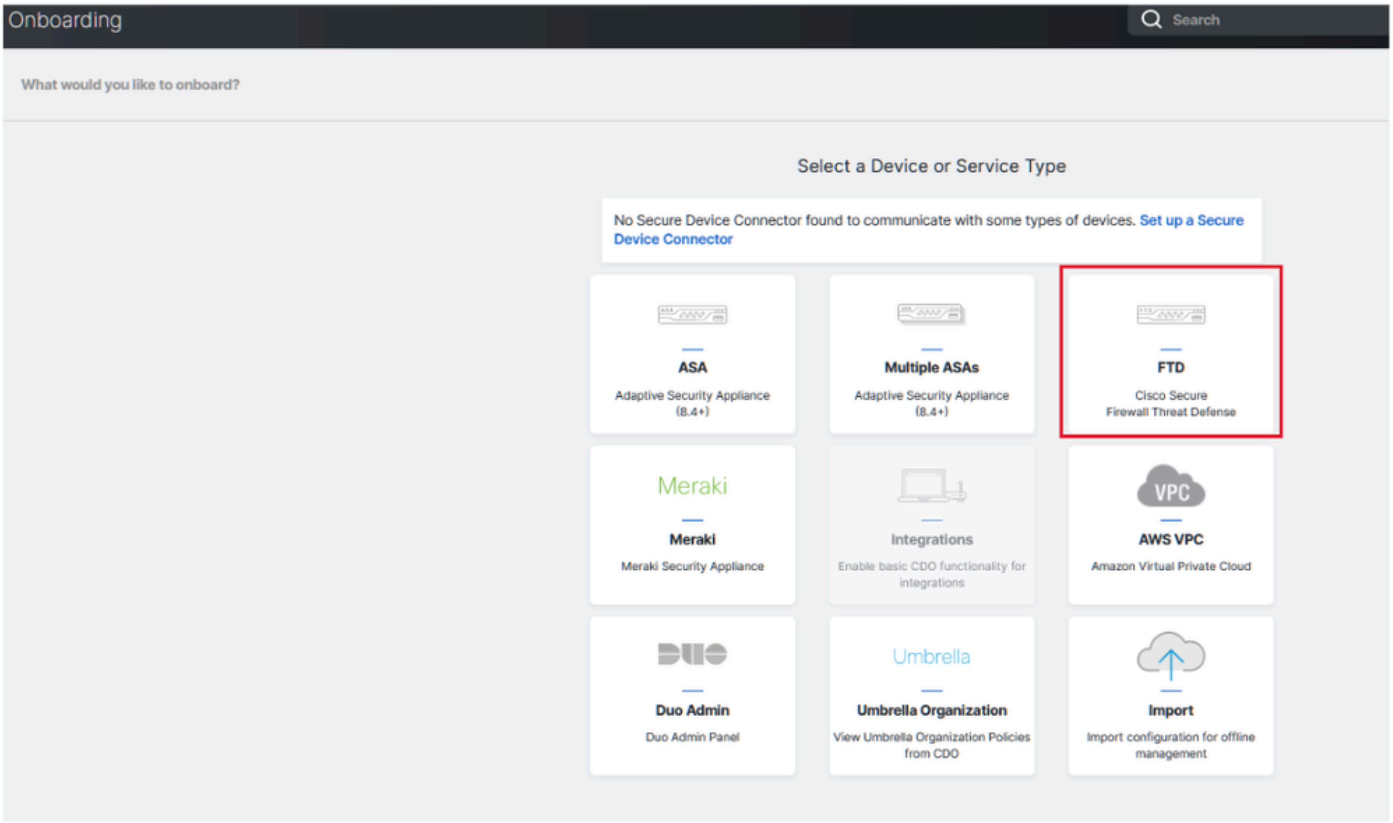
Step 1. Log in to Cisco Defense Orchestrator (CDO).

Step 2. Navigate to the Inventory pane and select the blue plus button to onboard a device.



Your search did not match any devices or services.

Step 3. Choose the FTD option.



What would you like to onboard?

Select a Device or Service Type

No Secure Device Connector found to communicate with some types of devices. Set up a Secure Device Connector

ASA
Adaptive Security Appliance (8.4+)
Multiple ASAs
Adaptive Security Appliance (8.4+)
FTD
Cisco Secure Firewall Threat Defense
Meraki
Meraki
Meraki Security Appliance
Integrations
Enable basic CDO functionality for integrations
VPC
AWS VPC
Amazon Virtual Private Cloud
DUO
Duo Admin
Duo Admin Panel
Umbrella
Umbrella Organization
View Umbrella Organization Policies from CDO
Import
Import configuration for offline management

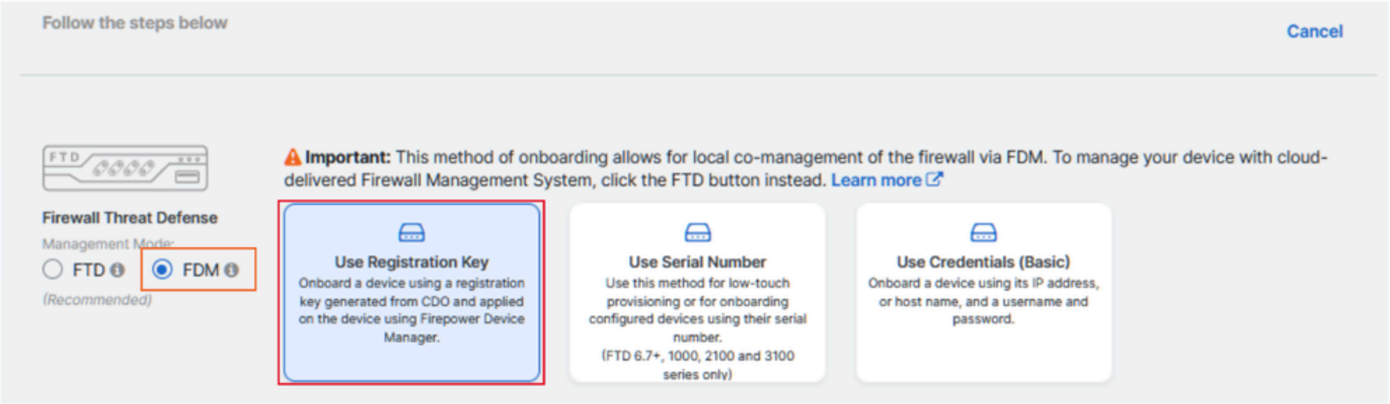
Step 4 Proceed to the Onboard FTD Device' section to commence the registration process. It is important to note the available methods for onboarding a Threat Defense Device:

- By Serial Number: This method applies to physical devices such as the Firepower 1000, Firepower 2100, or Secure Firewall 3100 series with supported software versions. It necessitates the chassis or PCA serial number and a network connection to the internet.

- By Registration Key: This is the preferred method for onboarding, particularly advantageous for devices that receive IP addresses via DHCP, as it helps maintain connectivity with CDO even if there is a change in the device IP address.

- Using Credentials: This alternative involves entering the device credentials and the IP address of its outside, inside, or management interface, tailored to the device configuration within the network.

For this process, select the FDM option and then the **Use Registration Key** option to ensure consistent connectivity to CDO, irrespective of potential changes in the device IP address.



Firewall Threat Defense

Management Mode:

○ FTD ● FDM

(Recommended)

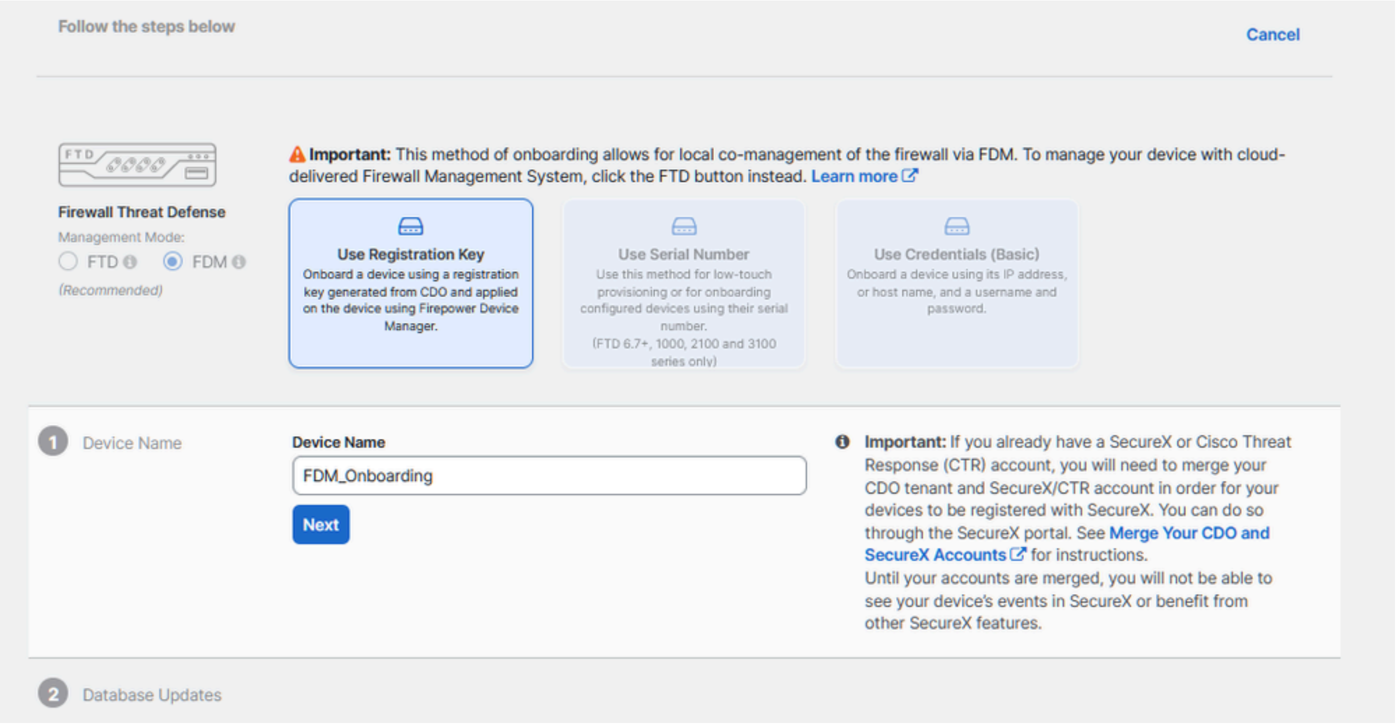
⚠ **Important:** This method of onboarding allows for local co-management of the firewall via FDM. To manage your device with cloud-delivered Firewall Management System, click the FTD button instead. Learn more

Use Registration Key
Onboard a device using a registration key generated from CDO and applied on the device using Firepower Device Manager.

Use Serial Number
Use this method for low-touch provisioning or for onboarding configured devices using their serial number.
(FTD 6.7+, 1000, 2100 and 3100 series only)

Use Credentials (Basic)
Onboard a device using its IP address, or host name, and a username and password.

Step 5. Input the desired device name in the Device Name field and specify the Policy Assignment. Also, choose the Subscription License that must be associated with the device.



Firewall Threat Defense

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Use Credentials (Basic)
Onboard a device using its IP address, or host name, and a username and password.

1 Device Name

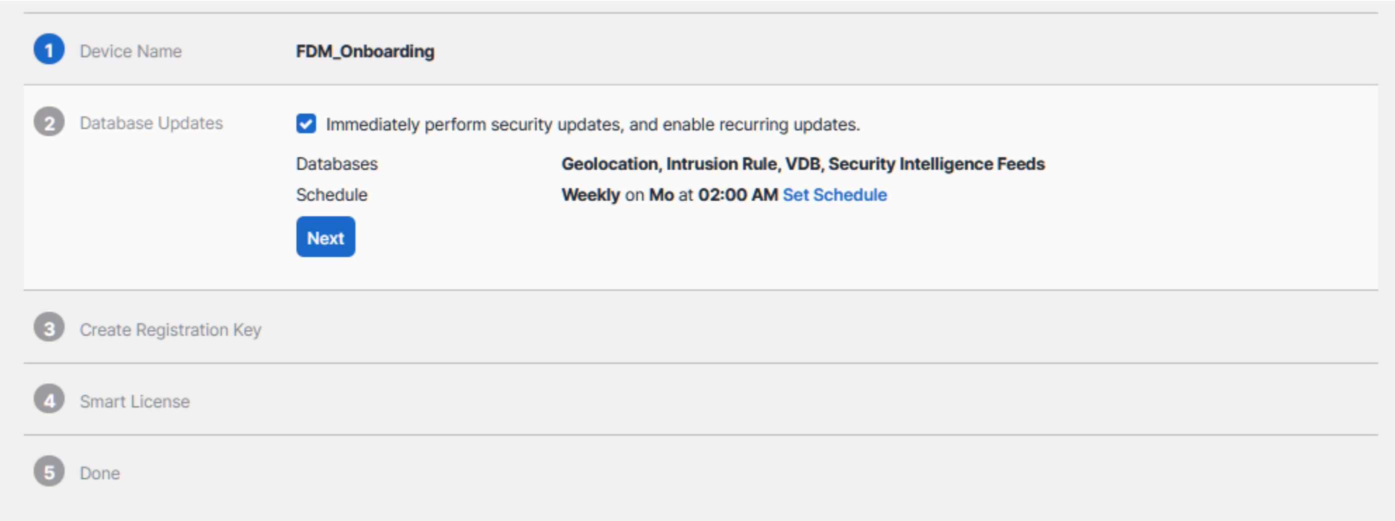
Device Name

FDM_Onboarding

Important: If you already have a SecureX or Cisco Threat Response (CTR) account, you will need to merge your CDO tenant and SecureX/CTR account in order for your devices to be registered with SecureX. You can do so through the SecureX portal. See **Merge Your CDO and SecureX Accounts** for instructions.
Until your accounts are merged, you will not be able to see your device's events in SecureX or benefit from other SecureX features.

2 Database Updates

Step 6. The Database Updates section is configured by default to execute security updates immediately and set up recurring updates. Changing this setting does not alter any existing update schedules established through the Secure Firewall device manager.



1 Device Name FDM_Onboarding

2 Database Updates

☑ Immediately perform security updates, and enable recurring updates.

Databases Geolocation, Intrusion Rule, VDB, Security Intelligence Feeds

Schedule **Weekly** on **Mo** at **02:00 AM** Set Schedule

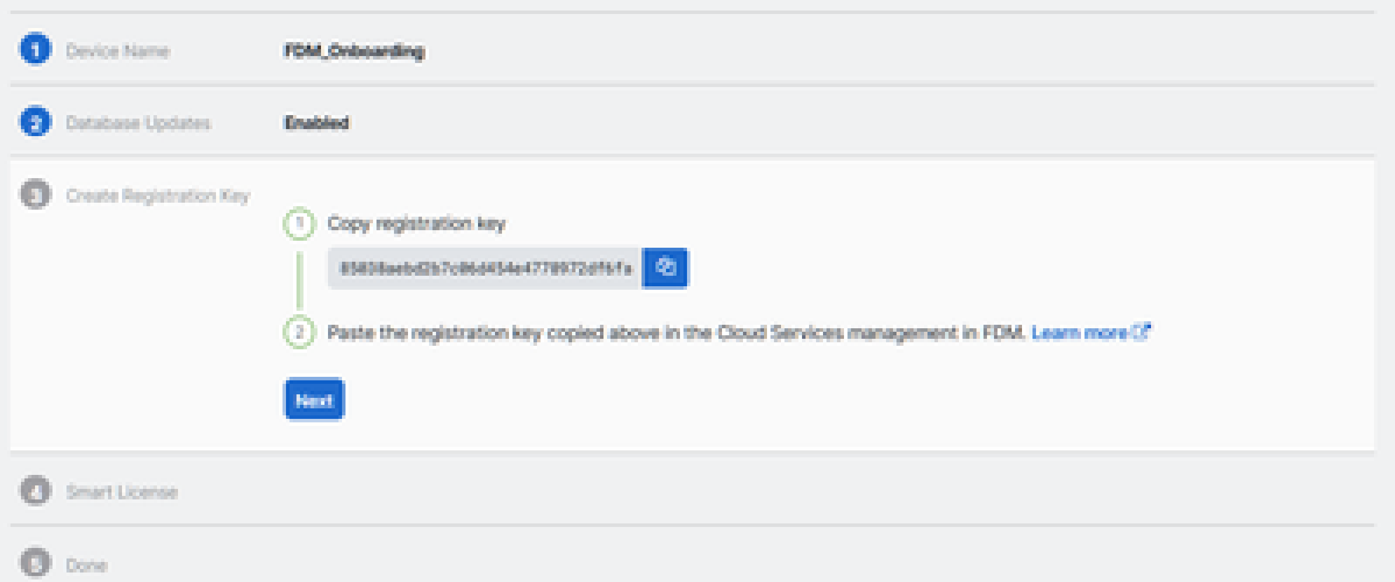
Next

3 Create Registration Key

4 Smart License

5 Done

Step 7. In the CLI Registration Key section, CDO auto-generates a registration key. Exiting the onboarding interface before completion results in the creation of a placeholder for the device within the Inventory. The registration key can be retrieved from this location at a later time if necessary.



1 Device Name FDM_Onboarding

2 Database Updates Enabled

3 Create Registration Key

1 Copy registration key

85838aebd2b7c86d454e4778972df6fa

2 Paste the registration key copied above in the Cloud Services management in FDM. Learn more

Next

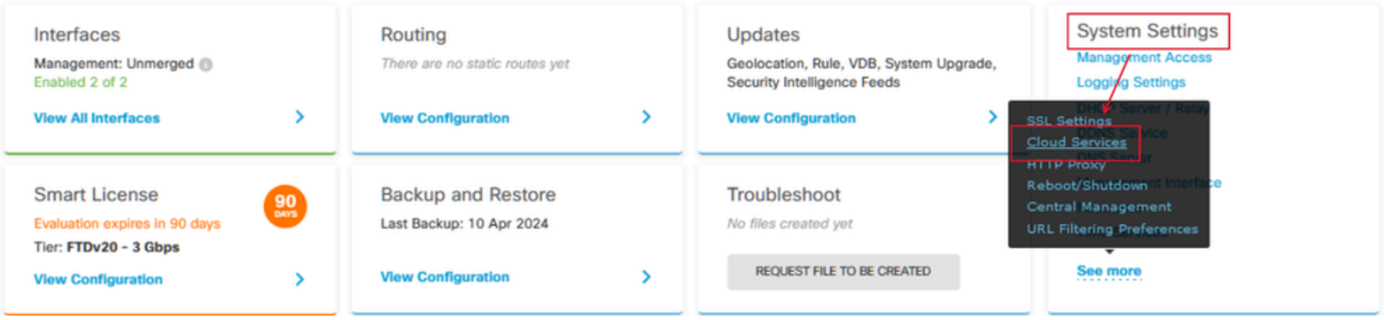
4 Smart License

5 Done

Step 8. Utilize the Copy icon to copy the generated registration key.

Step 9. Access the Secure Firewall Device Manager device intended for onboarding to CDO.

Step 10. Select Cloud Services from within the System Settings menu.



Interfaces
Management: Unmerged
Enabled 2 of 2
View All Interfaces

Routing
There are no static routes yet
View Configuration

Updates
Geolocation, Rule, VDB, System Upgrade, Security Intelligence Feeds
View Configuration

System Settings
Management Access
Logging Settings
DHCP Server / Relay
DDNS Service
DNS Server
Management Interface
See more

SSL Settings
Cloud Services
HTTP Proxy
Reboot/Shutdown
Central Management
URL Filtering Preferences

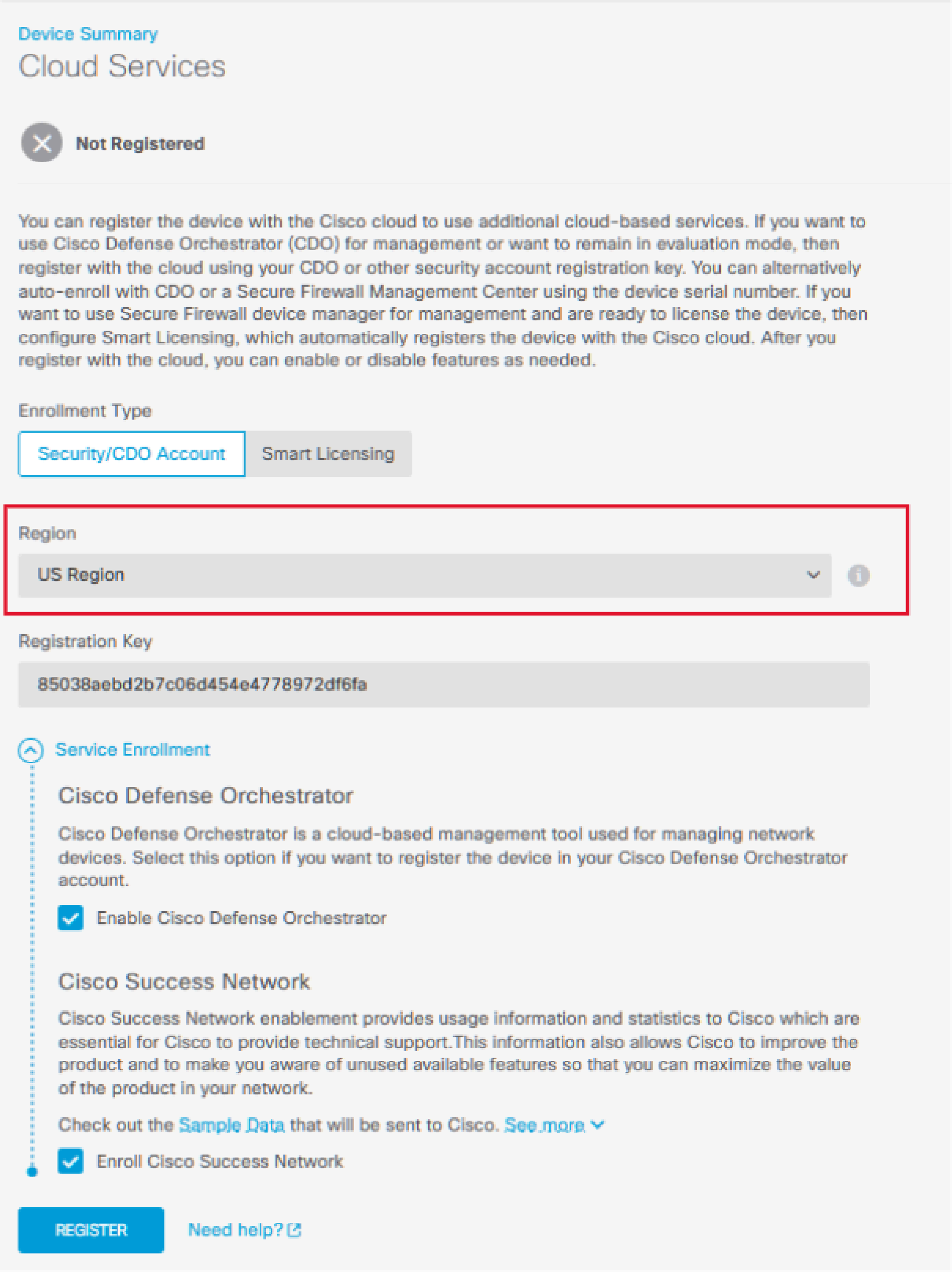
Smart License
90 DAYS
Evaluation expires in 90 days
Tier: FTDv20 - 3 Gbps
View Configuration

Backup and Restore
Last Backup: 10 Apr 2024
View Configuration

Troubleshoot
No files created yet
REQUEST FILE TO BE CREATED

Step 11. Designate the correct Cisco cloud region in the Region dropdown, aligning with the tenant geographic location:

- For defenseorchestrator.com, select US.
- For defenseorchestrator.eu, select EU.
- For apj.cdo.cisco.com, select APJ.



Cloud Services

Not Registered

You can register the device with the Cisco cloud to use additional cloud-based services. If you want to use Cisco Defense Orchestrator (CDO) for management or want to remain in evaluation mode, then register with the cloud using your CDO or other security account registration key. You can alternatively auto-enroll with CDO or a Secure Firewall Management Center using the device serial number. If you want to use Secure Firewall device manager for management and are ready to license the device, then configure Smart Licensing, which automatically registers the device with the Cisco cloud. After you register with the cloud, you can enable or disable features as needed.

Enrollment Type

Region: US Region

Registration Key: 85038aebd2b7c06d454e4778972df6fa

Cisco Defense Orchestrator

Cisco Defense Orchestrator is a cloud-based management tool used for managing network devices. Select this option if you want to register the device in your Cisco Defense Orchestrator account.

☑ Enable Cisco Defense Orchestrator

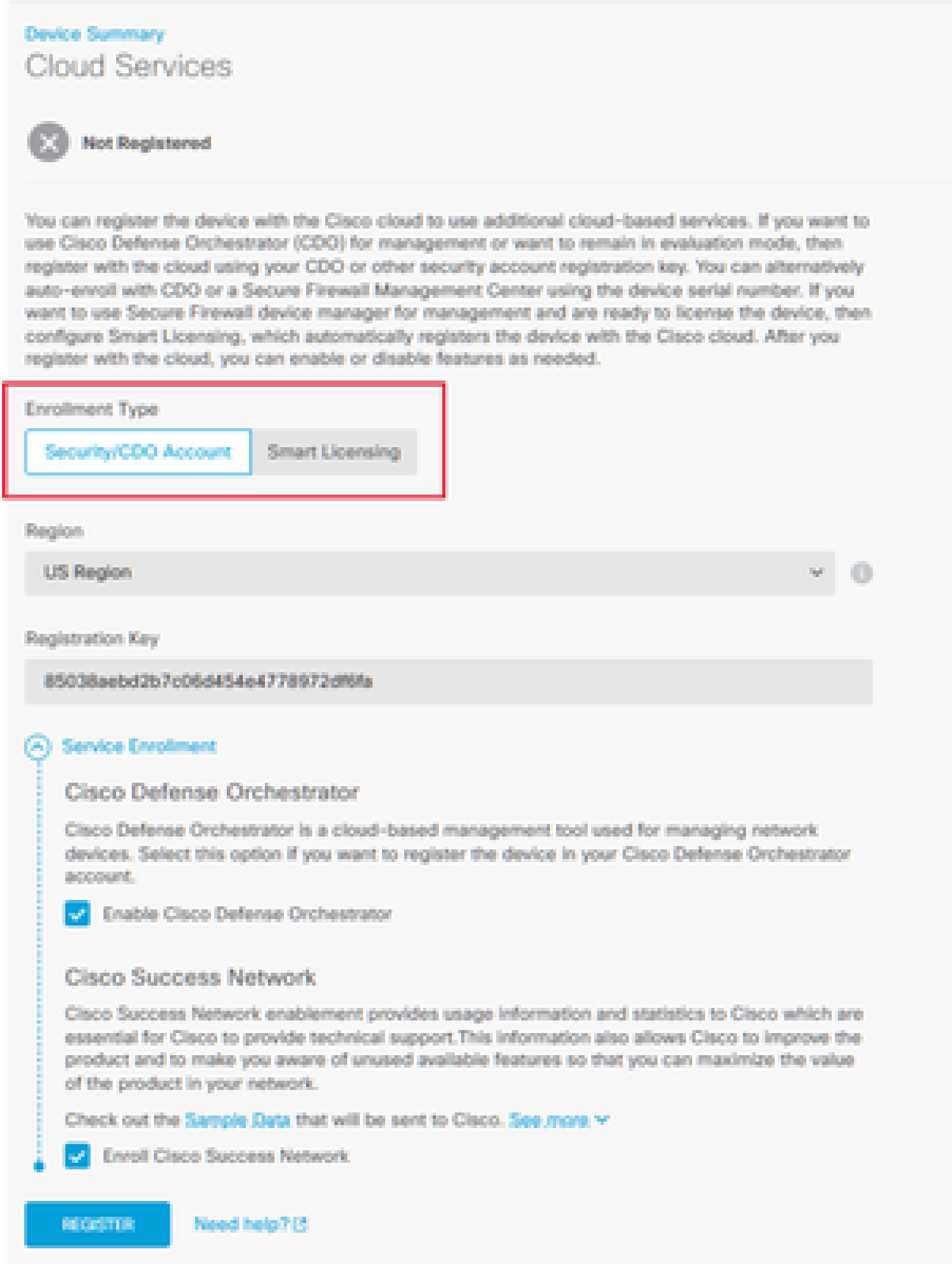
Cisco Success Network

Cisco Success Network enablement provides usage information and statistics to Cisco which are essential for Cisco to provide technical support.This information also allows Cisco to improve the product and to make you aware of unused available features so that you can maximize the value of the product in your network.

Check out the Sample Data that will be sent to Cisco. See more

☑ Enroll Cisco Success Network

Step 12. In the Enrollment Type section, opt for the Security Account.



Cloud Services

Not Registered

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Enrollment Type: [✓ Security/CDO Account] Smart Licensing

Region: US Region

Registration Key: 85038aebd2b7c06d454e4778972df6fa

Service Enrollment

Cisco Defense Orchestrator

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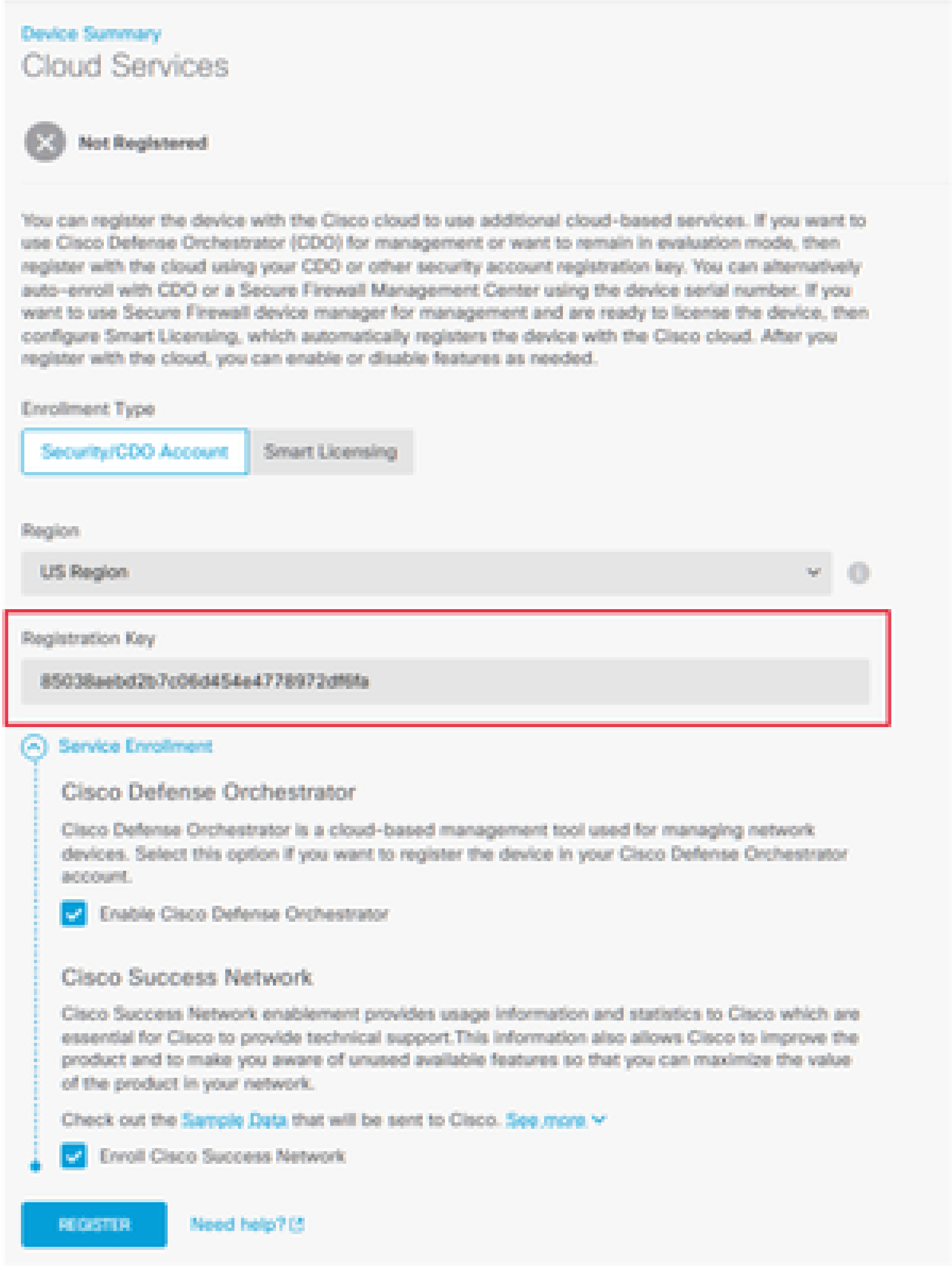
☑ Enroll Cisco Success Network

Step 13. Paste the registration key into the Registration Key field.



Cloud Services

Not Registered

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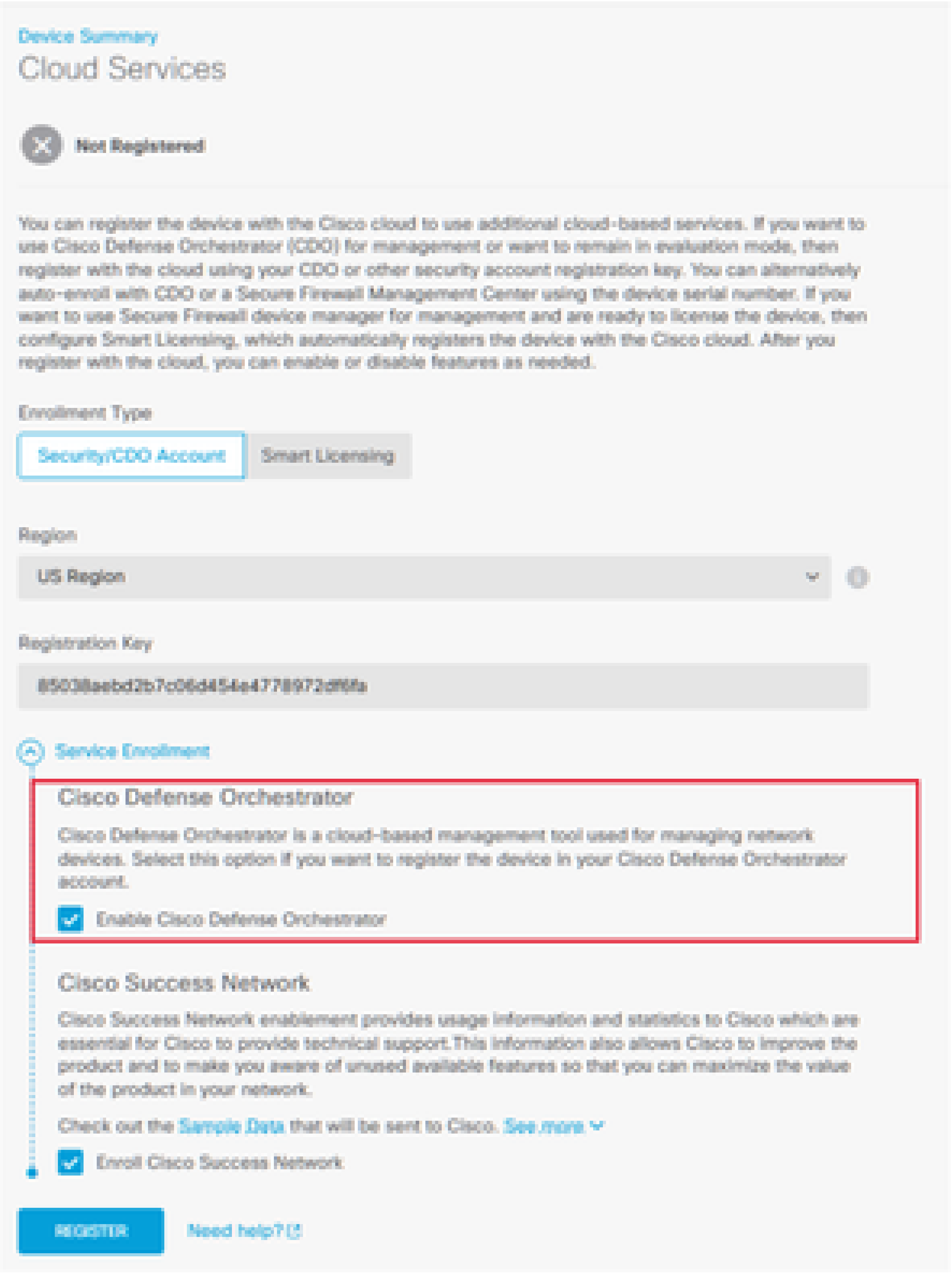
Step 14. For devices on version 6.7 or later, verify that Cisco Defense Orchestrator is enabled in the Service Enrollment section.



Device Summary

Cloud Services

Not Registered

You can register the device with the Cisco cloud to use additional cloud-based services. If you want to use Cisco Defense Orchestrator (CDO) for management or want to remain in evaluation mode, then register with the cloud using your CDO or other security account registration key. You can alternatively auto-enroll with CDO or a Secure Firewall Management Center using the device serial number. If you want to use Secure Firewall device manager for management and are ready to license the device, then configure Smart Licensing, which automatically registers the device with the Cisco cloud. After you register with the cloud, you can enable or disable features as needed.

Enrollment Type: Security/CDO Account | Smart Licensing

Region: US Region

Registration Key: 85038aebd2b7c06d454e4778972df6fa

Service Enrollment

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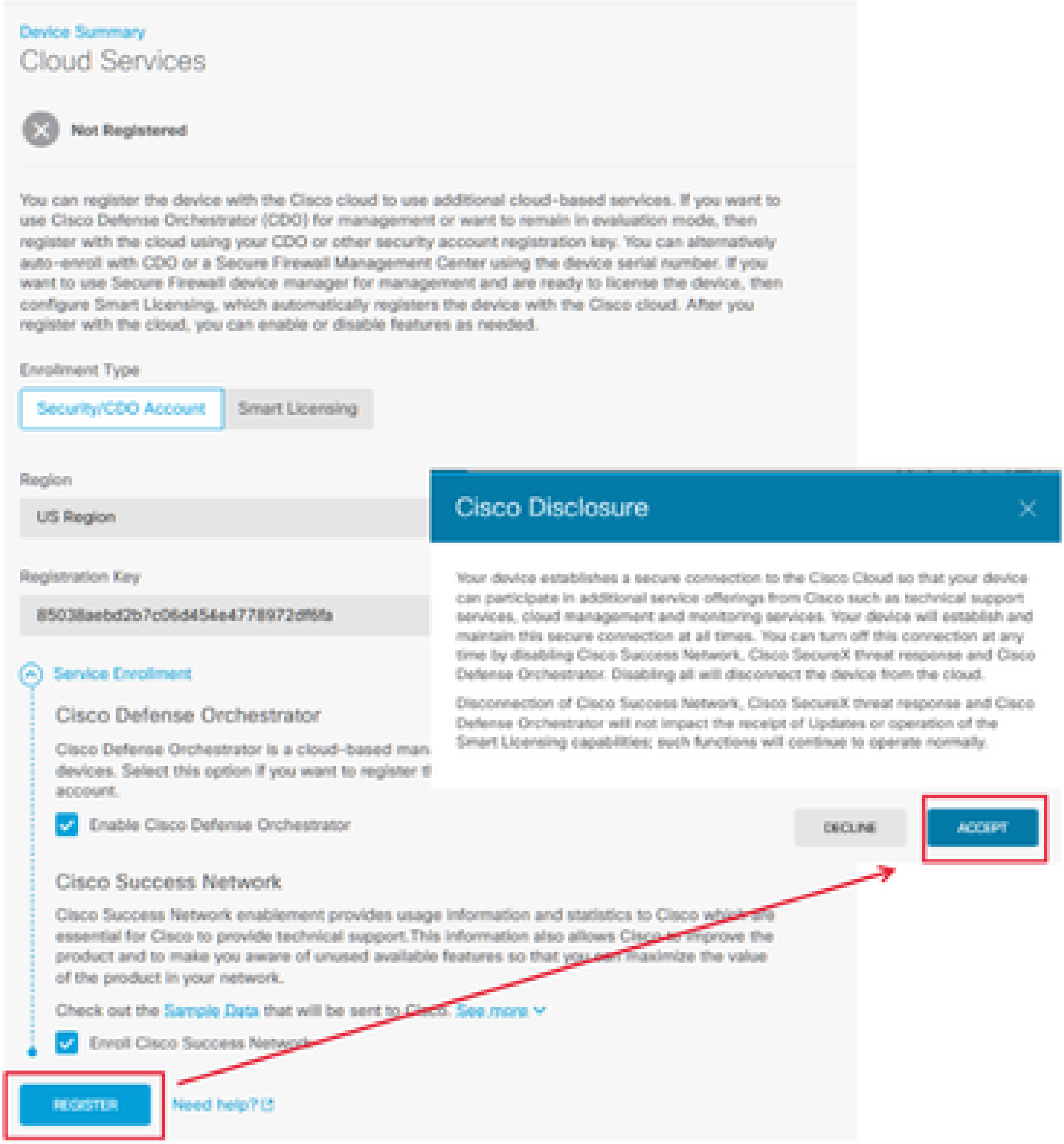
Check out the Sample Data that will be sent to Cisco. See more

☑ Enroll Cisco Success Network

Step 15. (Optional) Review the Cisco Success Network Enrollment details. If not wishing to partake, deselect the Enroll Cisco Success Network check box.

Step 16. Select Register and accept the Cisco Disclosure. The Secure Firewall Device Manager submits the registration to CDO.



Cloud Services

Not Registered

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Enrollment Type: Security/CDO Account | Smart Licensing

Region: US Region

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Check out the Sample Data that will be sent to Cisco. See more

☑ Enroll Cisco Success Network

Cisco Disclosure

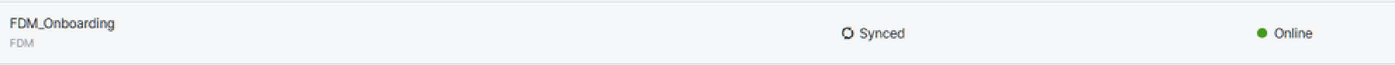
Your device establishes a secure connection to the Cisco Cloud so that your device can participate in additional service offerings from Cisco such as technical support services, cloud management and monitoring services. Your device will establish and maintain this secure connection at all times. You can turn off this connection at any time by disabling Cisco Success Network, Cisco SecureX threat response and Cisco Defense Orchestrator. Disabling all will disconnect the device from the cloud.

Disconnection of Cisco Success Network, Cisco SecureX threat response and Cisco Defense Orchestrator will not impact the receipt of Updates or operation of the Smart Licensing capabilities; such functions will continue to operate normally.

Step 17. Back in CDO, in the registration key creation area, choose Next.

Step 18. (Optional) Identify and select the licenses intended for the device, then proceed by selecting Next.

Step 19. Observe the device status in the CDO Inventory transition from **Unprovisioned** to **Locating**, then to **Syncing**, and finally, to **Synced**.



FDM_Onboarding
FDM

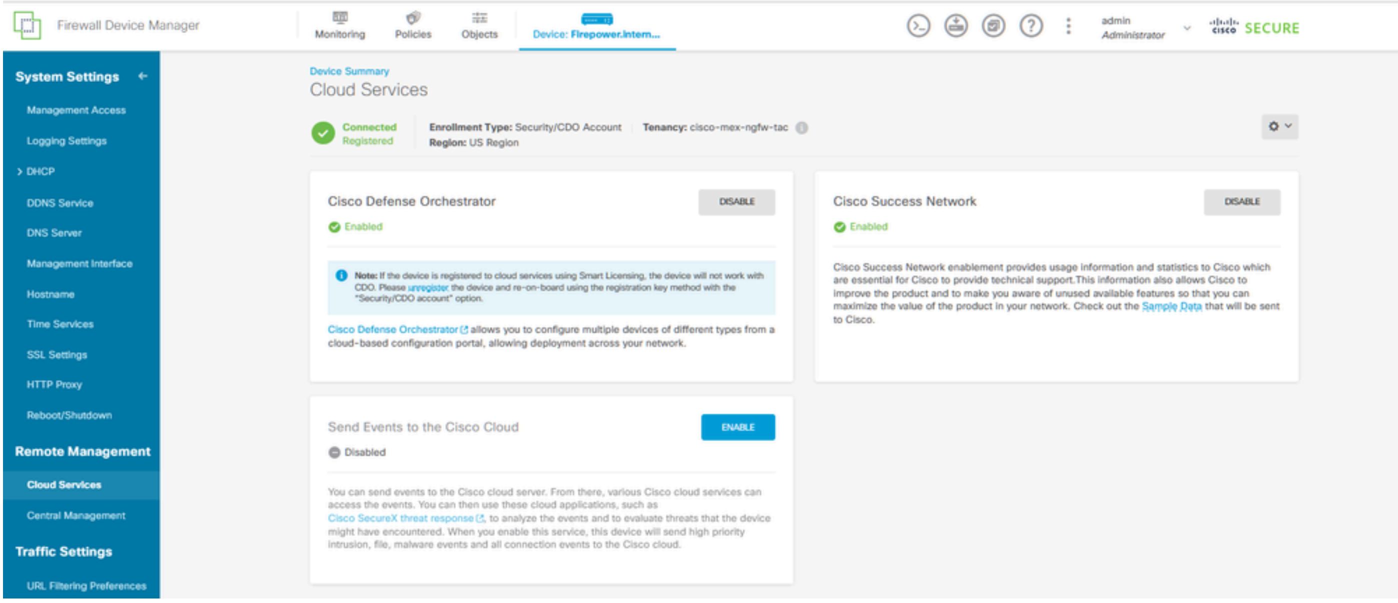
○ Synced

● Online

Verify

Use this section in order to confirm that your configuration works properly.

Navigate to the CDO portal and check the device status, which indicates **Online** and **Synced**. Additionally, verification of the status can be conducted via the FDM GUI. Navigate to **System** > **Cloud Services** to observe the connection status for Cisco Defense Orchestrator and Cisco Success Network. The interface displays a **Connected** status, confirming successful integration with the services.



Cloud Services

Connected
Registered

Enrollment Type: Security/CDO Account

Tenancy: cisco-mex-ngfw-tac

Region: US Region

Cisco Defense Orchestrator

Enabled

Note: If the device is registered to cloud services using Smart Licensing, the device will not work with CDO. Please unregister the device and re-on-board using the registration key method with the "Security/CDO account" option.

Cisco Defense Orchestrator allows you to configure multiple devices of different types from a cloud-based configuration portal, allowing deployment across your network.

Cisco Success Network

Enabled

Cisco Success Network enablement provides usage information and statistics to Cisco which are essential for Cisco to provide technical support.This information also allows Cisco to improve the product and to make you aware of unused available features so that you can maximize the value of the product in your network. Check out the Sample Data that will be sent to Cisco.

Send Events to the Cisco Cloud

Disabled

You can send events to the Cisco cloud server. From there, various Cisco cloud services can access the events. You can then use these cloud applications, such as Cisco SecureX threat response, to analyze the events and to evaluate threats that the device might have encountered. When you enable this service, this device will send high priority intrusion, file, malware events and all connection events to the Cisco cloud.

Troubleshoot

This section provides information you can use in order to troubleshoot your configuration.

- Resolution of Cloud Service FQDN Failure

If device registration fails due to an inability to resolve the cloud service FQDN, check the network connectivity or DNS configuration and attempt device onboarding again.

- Invalid Registration Key Error

When device registration does not complete due to the entry of an invalid registration key in the Firewall Device Manager, proceed to copy the correct registration key from Cisco Defense Orchestrator and retry the registration process. If the device is already smart licensed, remove the smart license before entering the registration key in the Firewall Device Manager.

- Insufficient License Issue

In instances where the device connectivity status indicates "Insufficient License", proceed to:

1. Allow some time for the device to obtain the license, as Cisco Smart Software Manager can require a period to apply a new license to the device.
2. If the device status remains unchanged, refresh the CDO portal by signing out and then signing back in to resolve potential network communication issues between the license server and the device.
3. If the portal refresh does not update the device status, take these actions:

- Generate a new registration key from Cisco Smart Software Manager and copy it. Refer to the Generate Smart Licensing video for guidance.
- In the CDO navigation bar, select the Inventory page.
- Choose the device listed with the **Insufficient License** state.
- In the Device Details pane, click on **Manage Licenses** under the **Insufficient Licenses** alert. The Manage Licenses window prompts.
- In the Activate field, paste the new registration key and select **Register Device**.

After the new registration key is successfully applied, the device connectivity state must change to 'Online'.

For comprehensive guidance on registering Firepower Device Manager (FDM) using alternative methods to the Registration Key, please refer to the detailed documentation provided in the link: Troubleshoot FDM-Managed Devices.

This resource offers step-by-step instructions and troubleshooting tips for different registration techniques that can be employed to successfully onboard FDM to Cisco Defense Orchestrator (CDO).

Related Information

- Troubleshoot FDM-Managed Devices
- Managing FDM Devices with Cisco Defense Orchestrator
- Cisco Technical Support & Downloads