

# 在CDO中使用FMT将FDM迁移到cdFMC

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## 简介

本文档介绍如何使用CDO中的Firepower迁移工具(FMT)将Firepower设备管理器(FDM)迁移到云交付的FMC (cdFMC)。

## 先决条件

### 要求

- Firepower设备管理器(FDM) 7.2+
- 云交付的防火墙管理中心(cdFMC)
- CDO中包含Firepower迁移工具(FMT)

### 使用的组件

本文档正是基于上述要求而创建的。

- 版本7.4.1上的Firepower设备管理器(FDM)
- 云交付的防火墙管理中心(cdFMC)
- 云防御协调器(CDO)

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始(默认)配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

## 背景信息

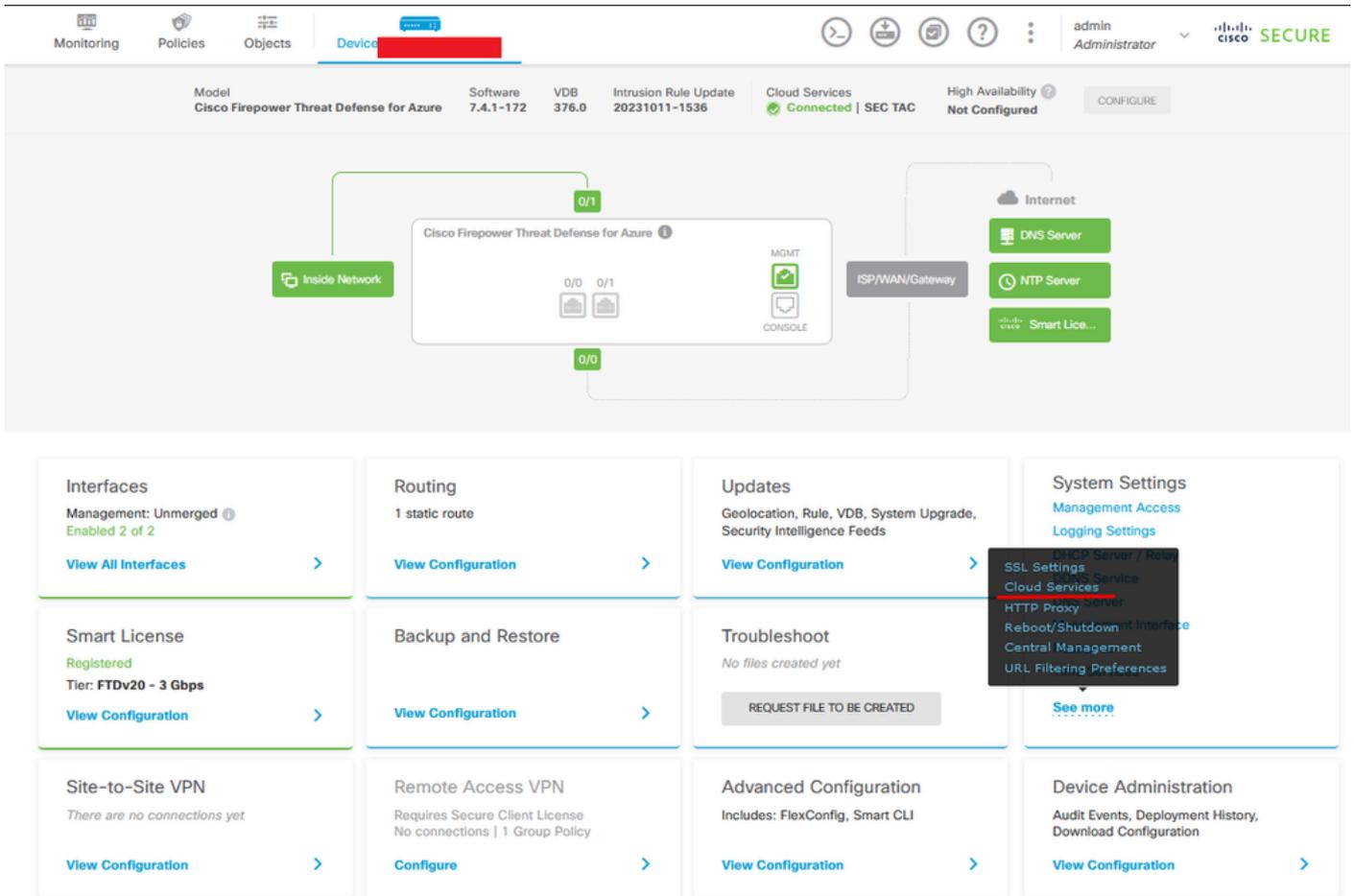
CDO管理员用户可以在设备使用版本7.2或更高版本时将其设备迁移到cdFMC。在本文档中介绍的迁移中，cdFMC已在CDO租户上启用。

## 配置

## 1.-在FDM上启用思科云服务

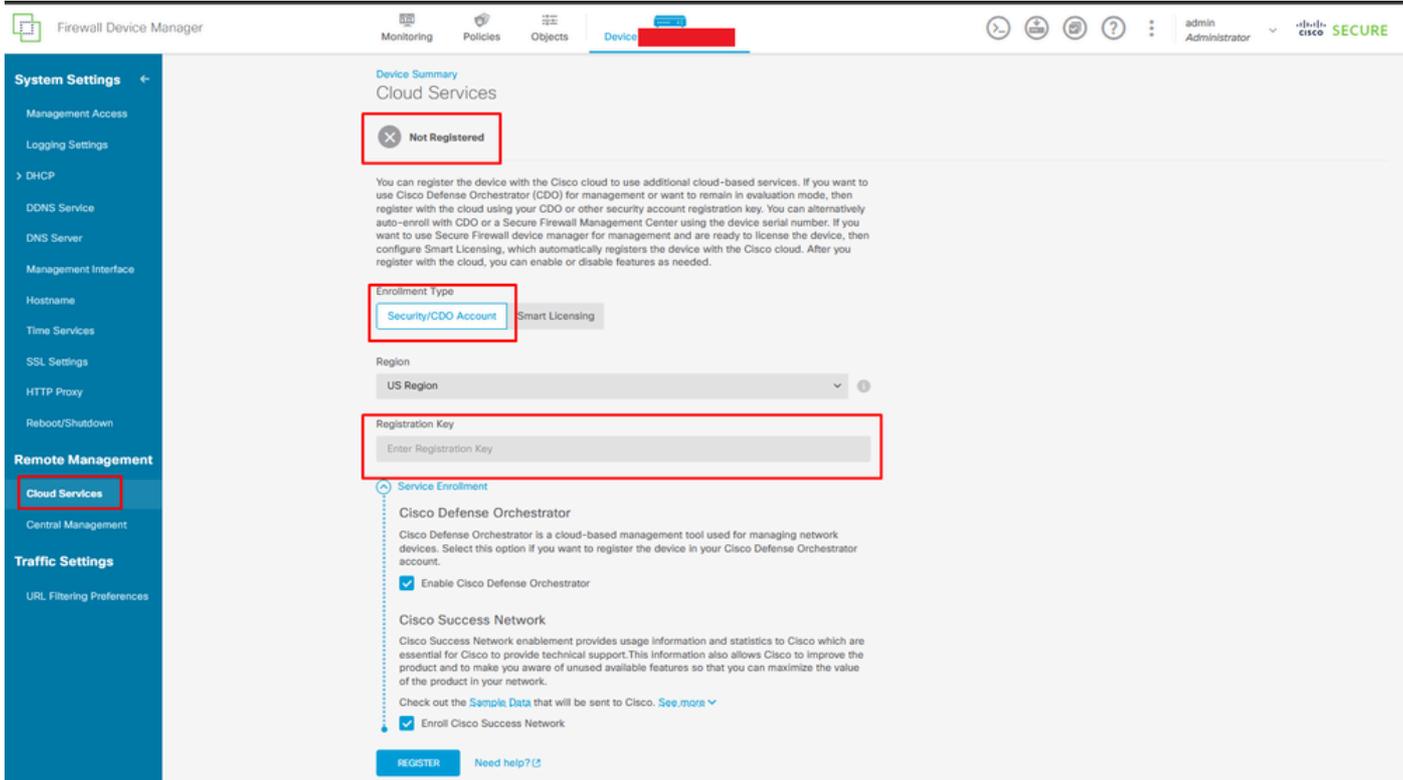
要开始迁移，必须使FDM设备没有挂起的部署并注册到云服务。要注册到云服务，请导航到系统设置(System Settings) >查看更多(See More) >云服务(Cloud Services)。

在云服务部分中，您发现设备未注册，因此必须使用类型安全/CDO帐户执行注册。您必须配置注册密钥，然后配置注册。



注册云服务

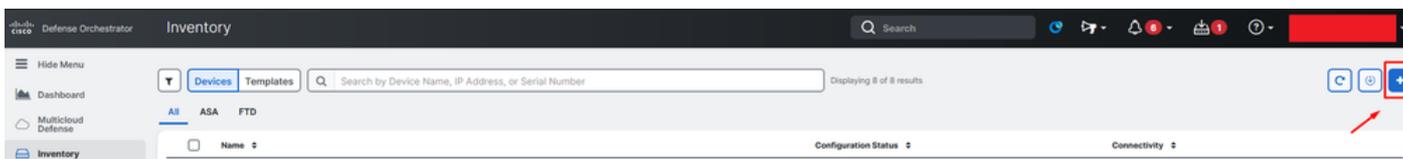
在云服务上，显示未注册。选择CDO帐户注册类型并提供CDO的注册密钥。



注册云服务

注册密钥可以在CDO中找到。导航至CDO，转至资产>添加符号。

系统将显示一个菜单，用于选择您拥有的设备类型。选择FTD选项。必须启用FDM选项；否则，无法执行相应的迁移。注册类型使用使用注册密钥。在此选项中，注册密钥出现在第3步中，我们必须将其复制并粘贴到FDM中。



板载FDM，添加选项

出现“Select a Device or Service Type ( 选择设备或服务类型 )”菜单。

## 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



### AWS VPC

Amazon Virtual Private Cloud



### Duo Admin

Duo Admin Panel

Umbrella

### Umbrella Organization

View Umbrella Organization Policies  
from CDO



### Import

Import configuration for offline  
management

选择设备或服务类型

对于此文档，已选择“选择注册密钥”。

Follow the steps below

Cancel



### 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.

注册类型

此处显示上一步所需的注册密钥。

**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.

**1** Device Name [Redacted]

**2** Database Updates **Enabled**

**3** Create Registration Key **7a53c:** [Redacted]

**4** Smart License **(Skipped)**

**5** Done  
Your device is now onboarding.  
 ⓘ This may take a long time to finish. You can check the status of the device on the Devices and Services page.

**Add Labels** ⓘ  
Add label groups and labels +

**Go to Inventory**

#### 注册流程

获取注册密钥后，将其复制并粘贴到FDM中，然后单击注册(Register)。在云服务中注册FDM后，其将显示为启用，如图所示。

已跳过智能许可证，因为设备将在启动并运行后进行注册。

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

7a53c2

Service Enrollment

### 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

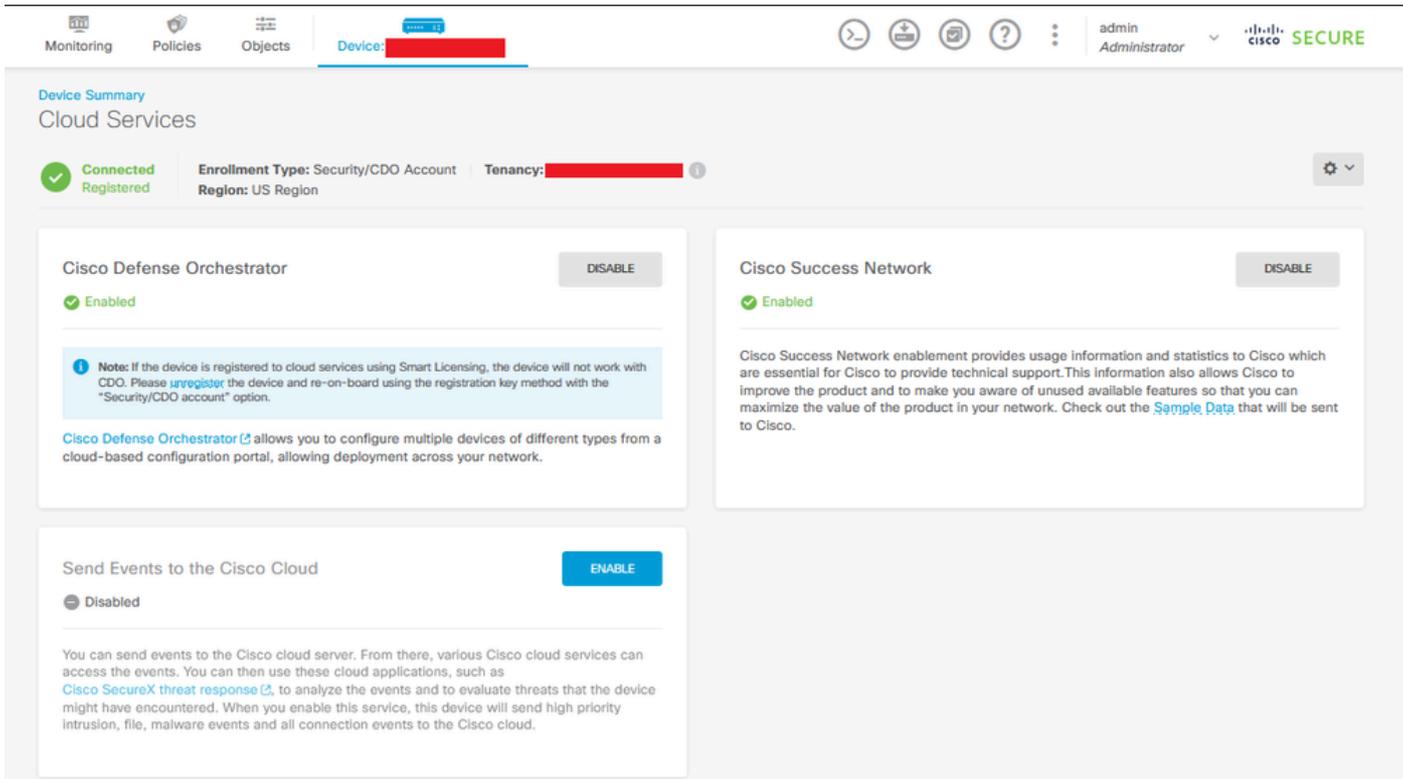
Cisco Success Network enablement provides usage information and statistics to Cisco which are essential for Cisco to provide technical support. This information also allows Cisco to improve the product and to make you aware of unused available features so that you can maximize the value of the product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

Check out the [Sample Data](#) that will be sent to Cisco. [See more](#)

Enroll Cisco Success Network

REGISTER

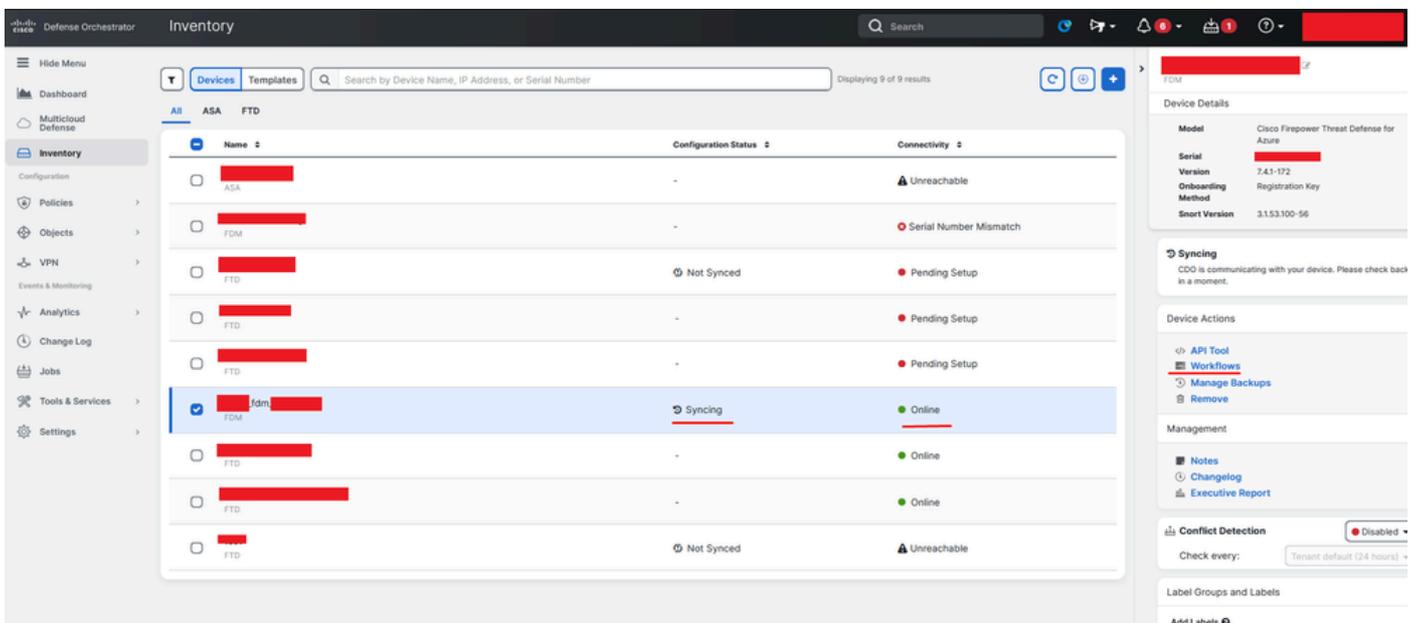
[Need help?](#)



FDM注册完成

在CDO中的“库存”(Inventory)菜单中，FDM可在入网和同步过程中找到。可以在Workflows部分中查看此同步的进度和流程。

此过程完成后，将显示为“已同步”和“联机”。



CDO资产FDM已注册

设备同步后，将显示为“联机”和“已同步”。



FDM已注册

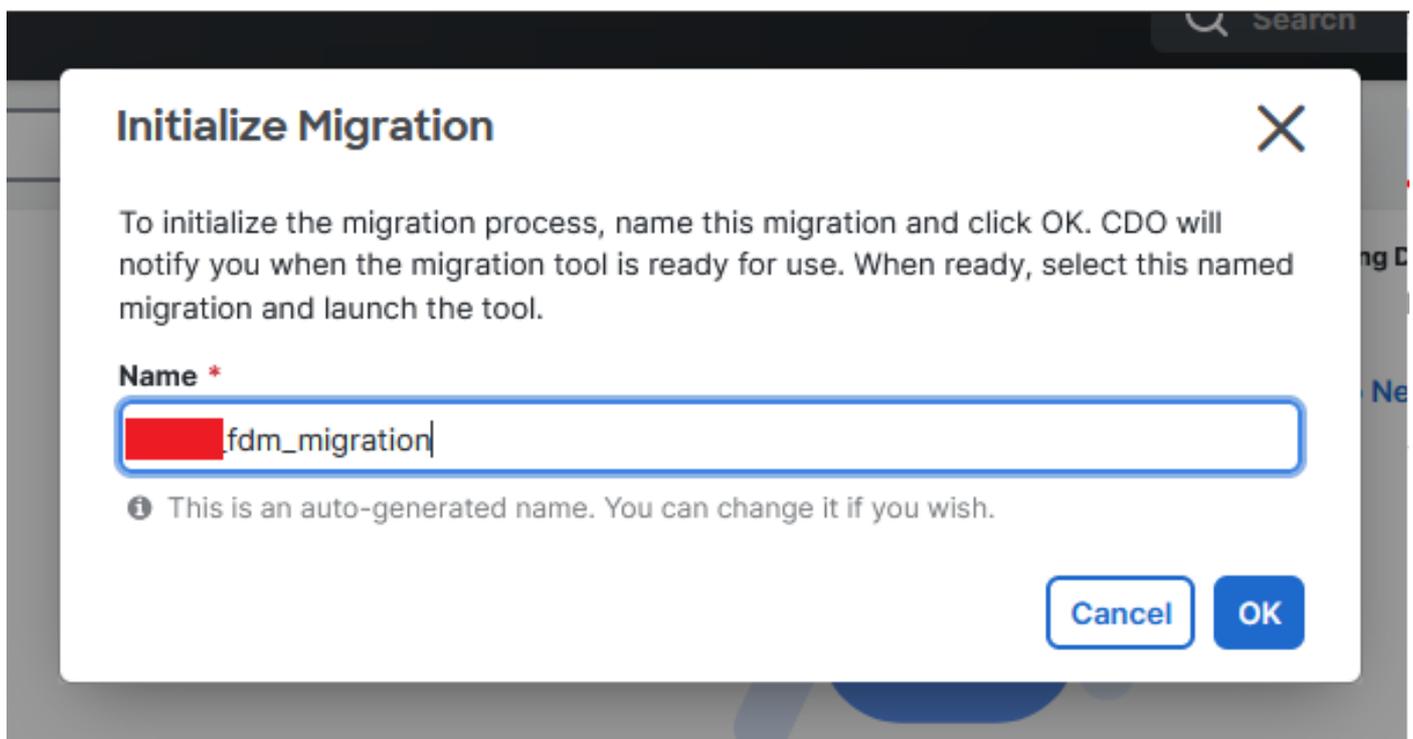
当FDM成功注册到CDO后，我们必须注销FDM。退出FDM后，在CDO中导航到工具和服务>迁移>防火墙迁移工具。



单击Add符号，将显示一个随机名称，表示需要重命名该名称以启动迁移进程。



重命名后，单击Launch开始迁移。



初始化迁移

单击Launch开始迁移配置。

Name	Status	Created Date	Deprovisioning Date	Actions
fdm_migration	Ready to Migrate	Jun 12, 2024	Jun 19, 2024	Launch

迁移启动流程

单击Launch后，将打开一个窗口，显示选择选项Cisco Secure Firewall Device Manager (7.2+)的迁移过程。如前所述，此选项从版本7.2开始启用。

## Firewall Migration Tool (Version 6.0.1)

### Select Source Configuration

Source Firewall Vendor

Select Source

- Cisco ASA (8.4+)
- Cisco Secure Firewall Device Manager (7.2+)
- Check Point (r75-r77)
- Check Point (r80-r81)
- Fortinet (5.0+)
- Palo Alto Networks (8.0+)

FMT选择源配置

选择后，系统将显示三种不同的迁移选项：仅共享配置、包括设备和共享配置，以及从“设备和共享配置”到“FTD新硬件”。

对于此实例，将执行第二个选项“迁移Firepower设备管理器”(Migrate Firepower Device Manager) (包括设备和共享配置)。

## How would you like to migrate from Firepower Device Manager :



 Click on text below to get additional details on each of the migration options

Migrate Firepower Device Manager (Shared Configurations Only) >

Migrate Firepower Device Manager (Includes Device & Shared Configurations) v

- This option migrates both device and shared configuration. Same FTD is moved from FDM managed to FMC managed.
- **The migration process is to be done over a scheduled downtime or maintenance window. There is device downtime involved in this migration process.**
- Ensure connectivity between FDM device and FMC to move the device from FDM to FMC using FDM.
- User should provide FDM credentials to fetch details.
- FDM Devices enrolled with the cloud management will lose access upon registration with FMC
- Ensure out-of-band access to FTD device is available, to access the device in case of accessibility issues during migration.
- It is highly recommended that a backup (export) of the FDM configuration is performed to restore the original state of the firewall managed by FDM if required.
- If the FTD devices are in a failover pair, failover needs to be disabled (break HA) before proceeding with moving manager from FDM to FMC.
- FDM with Universal PLR cannot be moved from FDM to FMC.
- FDM with flexConfig objects or flexconfig policies cannot be moved from FDM to FMC. The flexconfig objects and policies must be completely removed from FDM before migration.
- FMC should be registered to Smart Licensing Server.

Migrate Firepower Device Manager (Includes Device & Shared Configurations) to FTD Device (New Hardware) >

### **Note :**

迁移选项

选择迁移方法后，继续从提供的列表中选择设备。

## Live Connect to FDM

- Select any FDM device onboarded on CDO from the below dropdown.
- Only devices with online connectivity and synced status will be displayed in the dropdown.
- Click on change device status button to update the FDM device status from In-Use to Available.

Select FDM Managed Device

████████\_fdm\_████████ - Available

Connect



FDM设备选择

FDM device config extraction successful



100% Complete

配置提取已完成

建议打开顶部的选项卡，查看并了解选择设备时的步骤。



### Extract Cisco Secure Firewall Device Manager (7.2+) Information

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: Includes Device and Shared Config

Extraction Methods >

FDM IP Address:

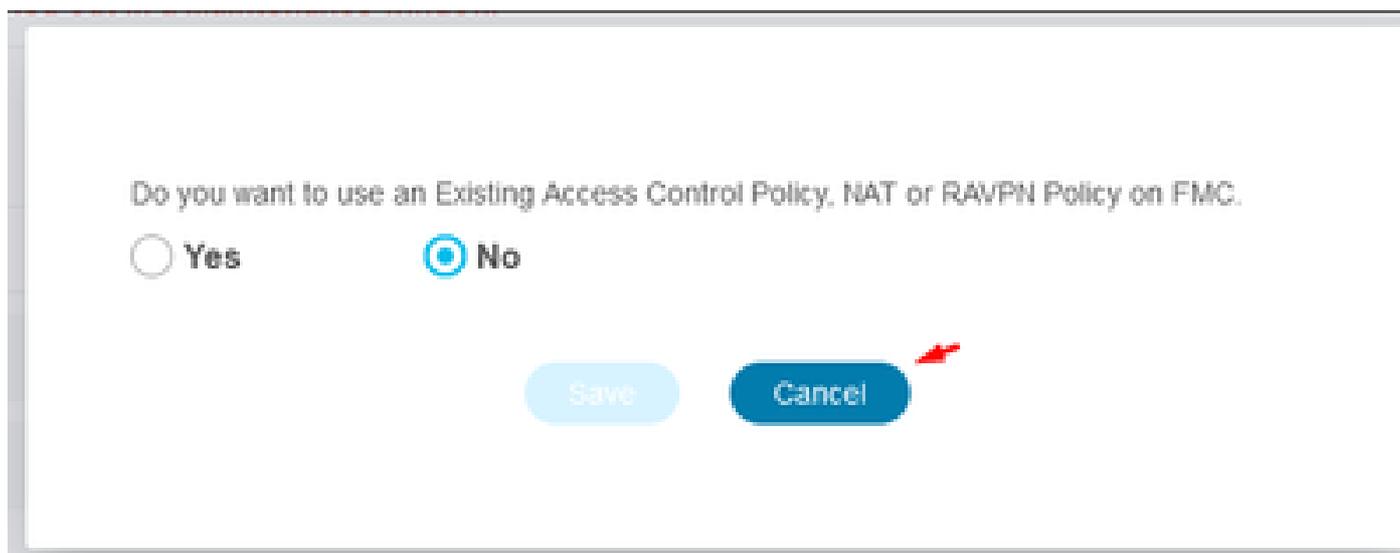
Parsed Summary

3 Access Control List Lines	0 Access List Objects (Standard, Extended used in BGP/ RAVPNEIGRP)	4 Network Objects	0 Port Objects	1 Access Control Policy Objects (Geo, Application, URL, objects and Intrusion Rule Group)
0 Dynamic-Route Objects (AS-Path, Community-List, Policy-List, Prefix-List, Route-Map)	2 Network Address Translation	2 Logical Interfaces	1 Routes (Static Routes, ECMP)	1 DHCP (Server, Relay, DDNS)
0	0	0	0	0

Back Next

迁移过程的步骤

作为新迁移，请在系统提示时选择Cancel选项“Do you want to use an Existing Access Control Policy , NAT or RAVPN Policy on FMC ?”



现有配置的取消选项

然后，系统将提供用于选择要迁移的功能（如图所示）的选项。单击Proceed。



### Select Target ⓘ

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: Includes Device and Shared Config

Firewall Management - Cloud-delivered FMC

Select Features

#### Device Configuration

- Interfaces
- Routes
  - ECMP
  - Static
  - BGP
  - EIGRP
- Site-to-Site VPN Tunnels (no data)
  - Policy Based (Crypto Map)
  - Route Based (VTI)
- Platform Settings
  - DHCP
    - Server
    - Relay
    - DDNS

**Proceed**

#### Shared Configuration

- Access Control
  - Migrate tunnelled rules as Prefilter
- NAT
  - Network Objects
  - Port Objects(no data)
  - Access List Objects(Standard, Extended)
  - Access Control Policy Objects (Geolocation, Application, URL objects and Intrusion Rule Group)
  - Time based Objects (no data)
  - Remote Access VPN
  - File and Malware Policy

#### Optimization

- Migrate Only Referenced Objects
- Object Group Search ⓘ

Note: Platform settings and file and malware policy migration is supported in FMC 7.4 and later versions.

要选择的 功能

然后 Start Conversion。

Firewall Migration Tool (Version 6.0.1)



### Select Target ⓘ

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: Includes Device and Shared Config

Firewall Management - Cloud-delivered FMC

Select Features

Rule Conversion/ Process Config

**Start Conversion**

开始转换。

解析过程结束后，可以使用两个选项：下载文档并通过点击下一步继续迁移。

## Select Target

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: Includes Device and Shared Config

Firewall Management - Cloud-delivered FMC

Select Features

Rule Conversion/ Process Config

Start Conversion

No parsing error found. Refer to the pre-migration report for more details.

Please download the Pre-Migration report for a detailed summary of the parsed configuration.

Download Report

3 Access Control List Lines	0 Access List Objects (Standard, Extended used in BGP/ RAVPIE/IGRP)	3 Network Objects	0 Port Objects	3 Access Control Policy Objects (Geo, Application, URL objects and Intrusion Rule Group)
0 Dynamic-Route Objects (AS-Path, Community-List, Policy-List, Prefix-List, Route-Map)	2 Network Address Translation	2 Logical Interfaces	1 Routes (Static Routes, ECMP)	1 DHCP (Server, Relay, DDNS)
0 Site-to-Site VPN Tunnels	0 Remote Access VPN (Connection Profiles)			

Back

Next

下载报告。

设备接口设置为显示。最佳做法是单击Refresh更新接口。验证完成后，您可以点击下一步继续。

1 Extract FDM Information 2 Select Target 3 Map FTD Interface 4 Map Security Zones & Interface Groups 5 Review & Validate (Shared Config) 6 Push Shared Config To FMC 7 Move Manager 8 Review & Validate (Device Config) 9 Complete Migration

Note: Steps 7,8 and 9 should be carried out in a maintenance window.

### Map FTD Interface

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Option: Includes Device and Shared Config

FDM Interface Name	FTD Interface Name
GigabitEthernet0/0	GigabitEthernet0/0
GigabitEthernet0/1	GigabitEthernet0/1

Refresh

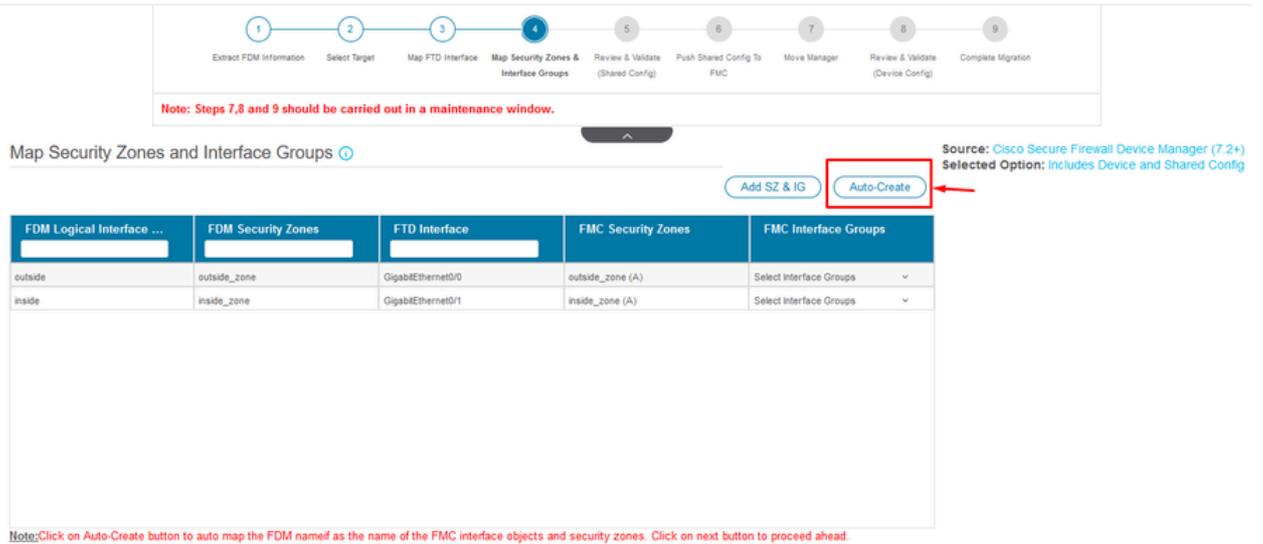
20 of 20 Page 1 of 1

Success Successfully gathered details!

Back Next

显示的接口

导航到安全区域和接口组部分，需要在这里使用添加SZ和IG手动添加。对于本示例，已选择Auto-Create。这有助于在要迁移到的FMC内自动生成接口。完成后，单击Next按钮。



Note: Steps 7,8 and 9 should be carried out in a maintenance window.

Map Security Zones and Interface Groups

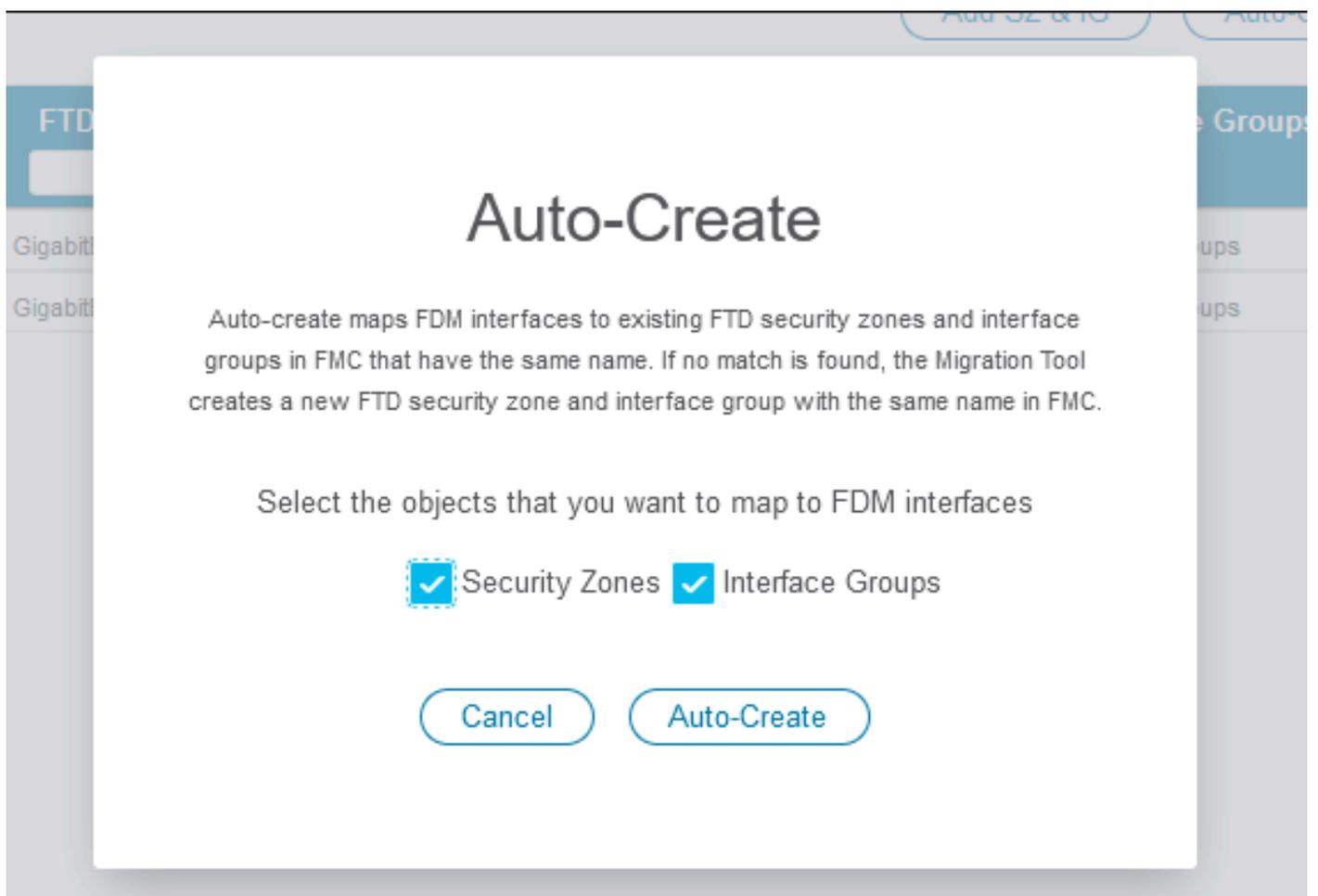
Source: Cisco Secure Firewall Device Manager (7.2+) Selected Option: Includes Device and Shared Config

FDM Logical Interface ...	FDM Security Zones	FTD Interface	FMC Security Zones	FMC Interface Groups
outside	outside_zone	GigabitEthernet0/0	outside_zone (A)	Select Interface Groups
inside	inside_zone	GigabitEthernet0/1	inside_zone (A)	Select Interface Groups

Note: Click on Auto-Create button to auto map the FDM name if as the name of the FMC interface objects and security zones. Click on next button to proceed ahead.

安全区域和接口组

Auto-Create选项将FDM接口映射到具有相同名称的现有FTD安全区域和FMC中的接口组。



## Auto-Create

Auto-create maps FDM interfaces to existing FTD security zones and interface groups in FMC that have the same name. If no match is found, the Migration Tool creates a new FTD security zone and interface group with the same name in FMC.

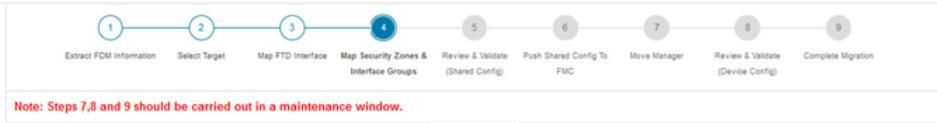
Select the objects that you want to map to FDM interfaces

Security Zones  Interface Groups

Cancel Auto-Create

Auto-Create选项。

然后选择Next。



Map Security Zones and Interface Groups

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Option: includes Device and Shared Config

FDM Logical Interface N...	FDM Security Zones	FTD Interface	FMC Security Zones	FMC Interface Groups
outside	outside_zone	GigabitEthernet0/0	outside_zone (A)	outside_ig (A)
inside	inside_zone	GigabitEthernet0/1	inside_zone (A)	inside_ig (A)

Note: Click on Auto-Create button to auto map the FDM name as the name of the FMC interface objects and security zones. Click on next button to proceed ahead.

Back Next

After-Creation选项。

在步骤5中，如顶部栏中所示，请花时间检查访问控制策略(ACP)、对象和NAT规则。继续仔细检查每个项目，然后单击Validate确认名称或配置没有问题。



Optimize, Review and Validate Shared Configuration Only

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: includes Device and Shared Config

Access Control Objects NAT Interfaces Routes Site-to-Site VPN Tunnels Remote Access VPN SHMP DHCP

Access List Objects Network Objects Port Objects Access Control Policy Objects VPN Objects Dynamic-Route Objects

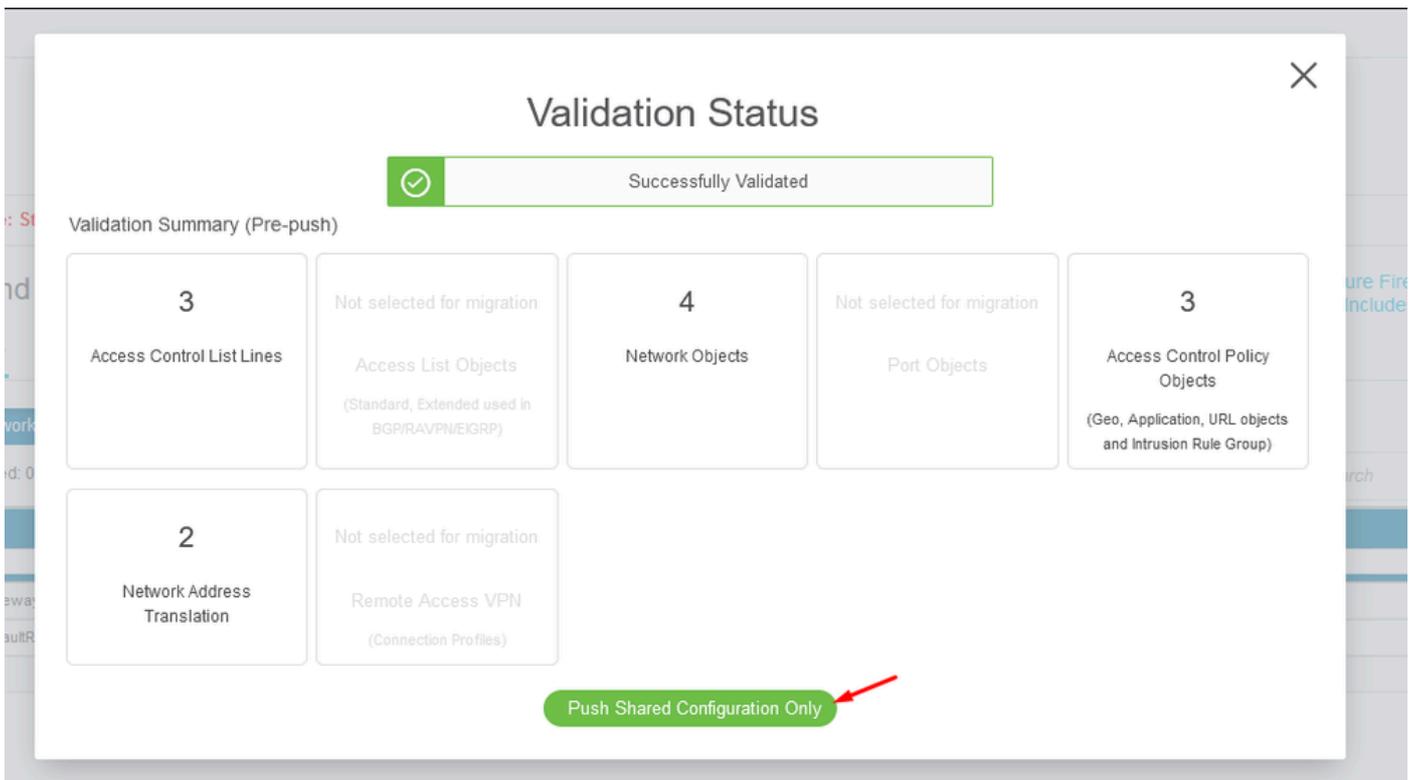
Select all 3 entries Selected: 0/3 Actions Save

#	Name	Validation State	Type	Value
1	OutsidePv4Gateway	Validation pending	Network Object	172.18.1.1
2	OutsidePv4DefaultRoute	Validation pending	Network Object	0.0.0.0/0
3	Banned	Validation pending	Network Object	103.104.73.155

Validate

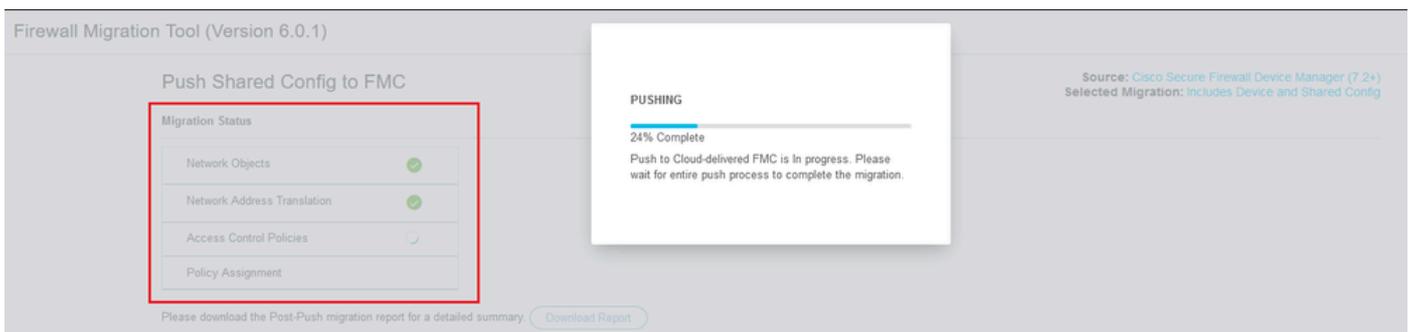
访问控制、对象和NAT配置

然后仅推送共享配置



仅推送共享配置

可以观察到完成的百分比和正在处理的特定任务。



推送百分比

完成步骤5后，继续执行步骤6（如顶部栏所示），此时将共享配置推送到FMC发生。此时，请选择Next按钮前进。



### Push Shared Config to FMC

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: Includes Device and Shared Config

#### Migration Status

✓ Migration of Shared Config is complete, policy is pushed to FMC.  
Next Step - Login to FMC to deploy the policy to FTD.

#### Live Connect:

Selected Context: Single Context Mode

#### Migration Summary (Post Push)

3 Access Control List Lines	Not selected for migration Access List Objects <small>(Standard, Extended used in BGP, RAVNEGRP)</small>	4 Network Objects	Not selected for migration Port Objects	3 Access Control Policy Objects <small>(Geo, Application, URL objects and Intrusion Rule Group)</small>
Not selected for migration Dynamic Route Objects <small>(AS-Path, Community-List, Policy-List, Prefix-List, Route-Map)</small>	2 Network Address Translation	Not selected for migration Logical Interfaces	Not selected for migration Routes <small>(Static Routes, EIGRP)</small>	Not selected for migration DHCP <small>(Server, Relay, DDNS)</small>

Next

将共享配置推送到FMC已完成

此选项会触发确认消息，提示继续管理器迁移。

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# Confirm Move Manager

**Requires maintenance window to be scheduled**

**FDM manager will be moved to be managed in FMC.**

The steps outlined below should be performed in a maintenance window as there is device downtime involved in this migration process.

- Ensure connectivity between FDM device and FMC to move the device from FDM to FMC using FDM.
- FDM devices enrolled with the cloud management will lose access upon registration with FMC.
- Ensure out-of-band access to the FTD device is available during migration.
- It is highly recommended that a backup (export) of the FDM configuration is performed to restore the original state of the firewall managed by FDM.
- FMC should be registered to Smart Licensing Server.

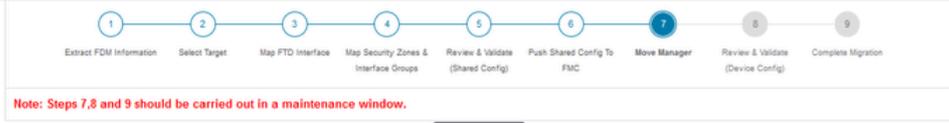
I acknowledge all the steps mentioned above have been completed.

Proceed

Cancel

确认移动管理器

继续管理员迁移需要拥有管理中心ID和NAT ID，这是必不可少的。通过选择Update Details，可以检索这些ID。此操作将启动一个弹出窗口，在此窗口中输入cdFMC中FDM表示的所需名称，然后保存更改。



### Move Manager

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: Includes Device and Shared Config



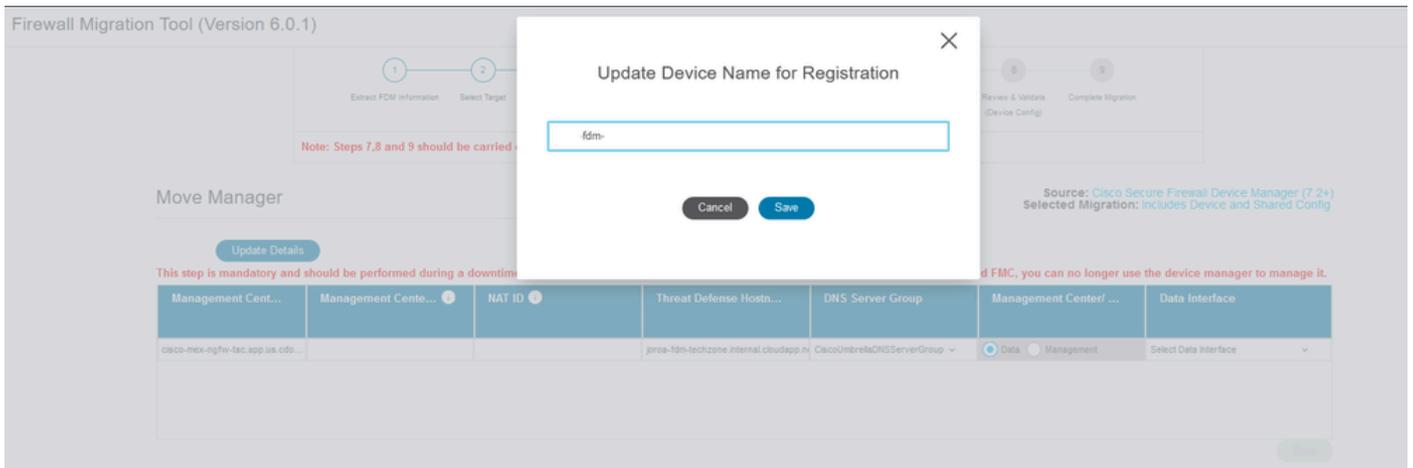
This step is mandatory and should be performed during a downtime window. After you register the device with the management center or Cloud-delivered FMC, you can no longer use the device manager to manage it.

Management Cent...	Management Cente...	NAT ID	Threat Defense Hostn...	DNS Server Group	Management Center/ ...	Data Interface	
cisco	cdc			cloudapp.ni	CiscoUmbrellaDNSServerGroup	<input checked="" type="radio"/> Data <input type="radio"/> Management	Select Data Interface

Show

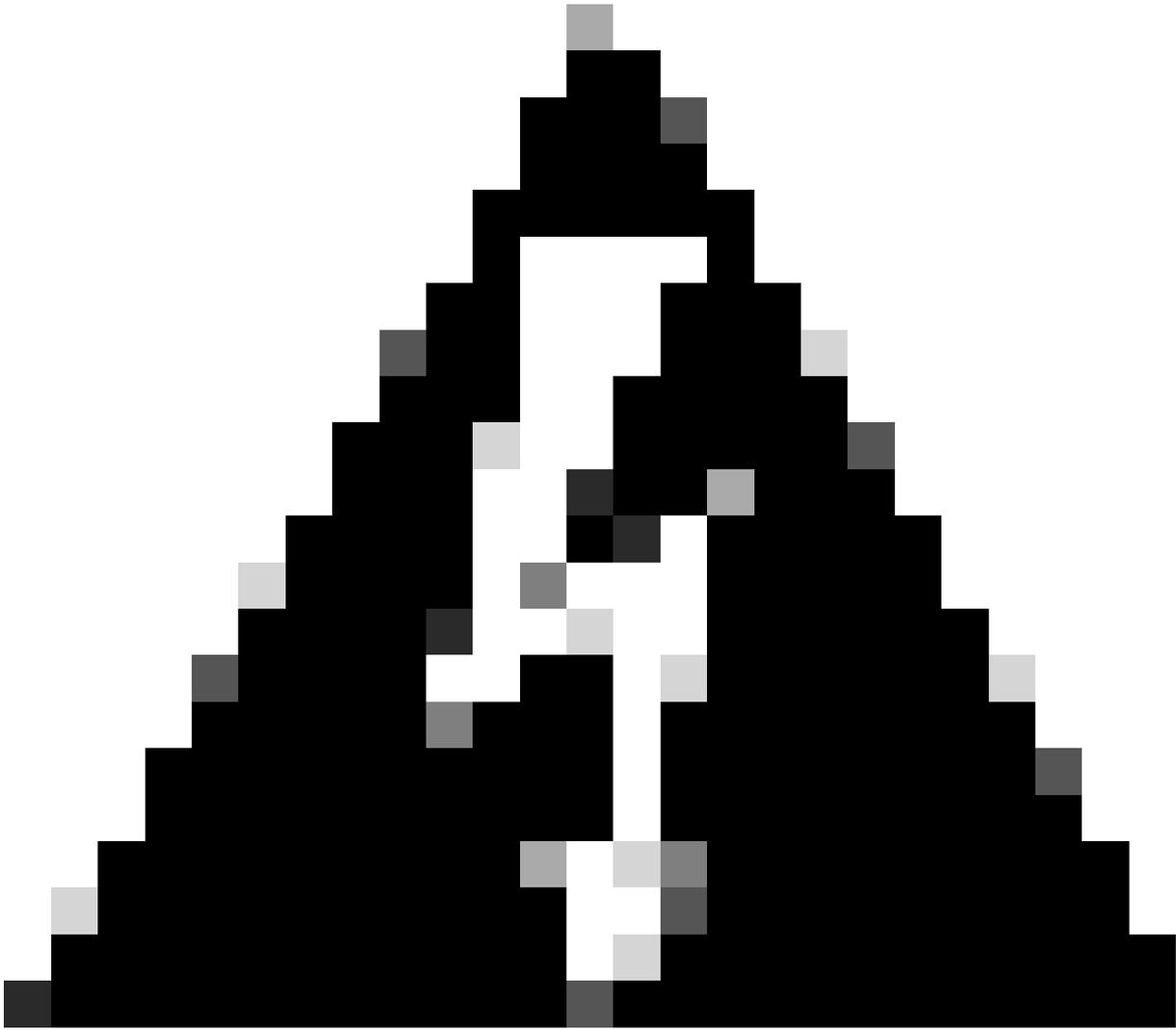
Move Manager

### 管理员中心ID和NAT ID



更新设备名称以进行注册。

执行此操作后，将显示上述字段的ID。



警告：请勿对管理中心界面进行任何更改。默认情况下，Management选项处于选中状态，保留该选项为默认设置。

---



### Move Manager

Source: Cisco Secure Firewall Device Manager (7.2+)  
Selected Migration: Includes Device and Shared Config

**Update Details**

This step is mandatory and should be performed during a downtime window. After you register the device with the management center or Cloud-delivered FMC, you can no longer use the device manager to manage it.

Management Cent...	Management Cente...	NAT ID	Threat Defense Hostn...	DNS Server Group	Management Center/ ...	Data Interface		
cisco	us.cdo...	ego	#66GW/ 104v	2aPMT	fdm-Azure	CiscoUmbrellaDNSServerGroup	<input checked="" type="radio"/> Data <input type="radio"/> Management	Select Data interface

Save

Move Manager

管理中心ID & NAT ID。

选择Update Details选项后，设备将开始同步。



同步FDM设备

完成迁移后，下一步是通过选择验证来检查FDM中配置的接口、路由和DHCP设置。



Optimize, Review and Validate Device Configuration Page

Source: Cisco Secure Firewall Device Manager (7.2+) Selected Migration: Includes Device and Shared Config

Access Control Objects NAT **Interfaces** Routes Site-to-Site VPN Tunnels Remote Access VPN SNMP DHCP

Static PPPoE

Select all 2 entries Selected: 0 / 2

#	Interface	Zone	IP Address	State
1	GigabitEthernet0/0	outside_zone		Enabled
2	GigabitEthernet0/1	inside_zone	15.1	Enabled

Page 1 to 2 of 2 Page 1 of 1



验证FDM配置设置

验证之后，选择Push Configuration以启动配置推送进程，该进程将持续到迁移结束为止。此外，还可以监控正在执行的任务。

### Validation Status

Successfully Validated

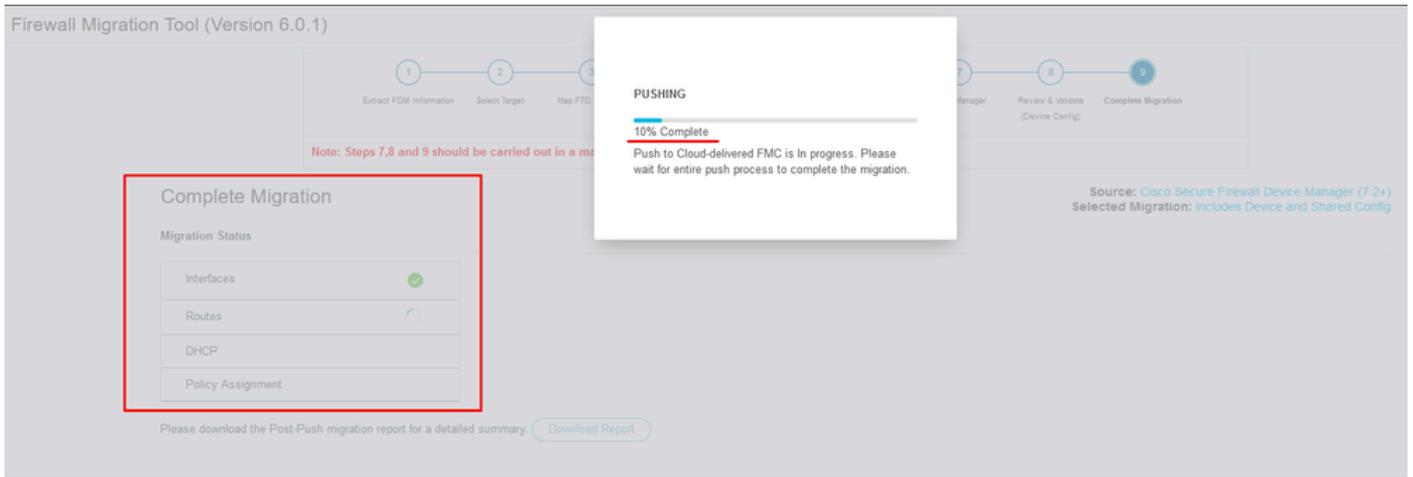
Validation Summary (Pre-push)

Not selected for migration Access List Objects (Standard, Extended used in BGP/RAVPN/EIGRP)	Not selected for migration Dynamic-Route Objects (AS-Path, Community-List, Policy-List, Prefix-List, Route-Map)	2 Logical Interfaces	1 Routes (Static Routes, ECMP)	1 DHCP (Server, Relay, DDNS)
Not selected for migration Site-to-Site VPN Tunnels	0 Platform Settings (snmp,http)	0 Malware & File Policy		

Push Configuration

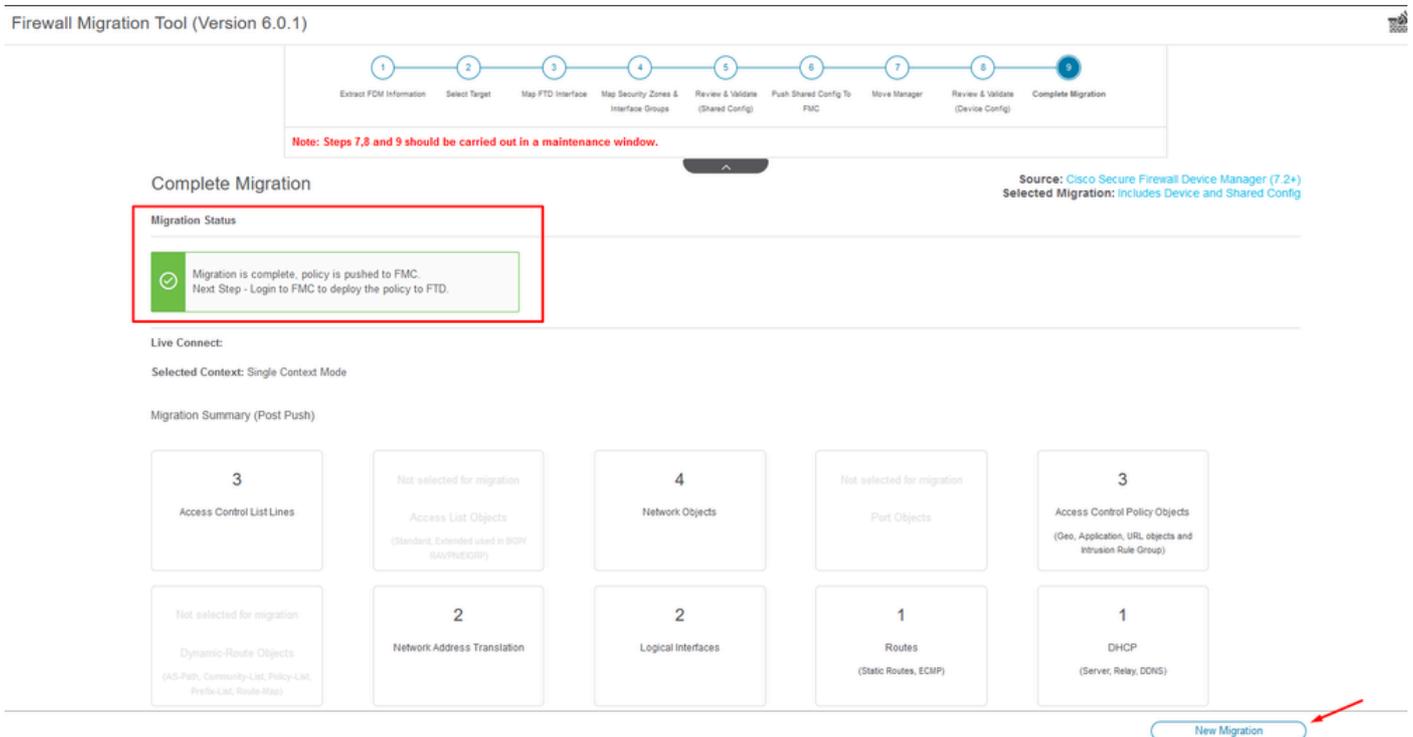
验证状态-推送配置。

包含百分比推送配置的弹出窗口。



推送完成百分比

完成后，将显示启动新迁移的选项，标记从FDM到cdFMC的迁移过程的结束。

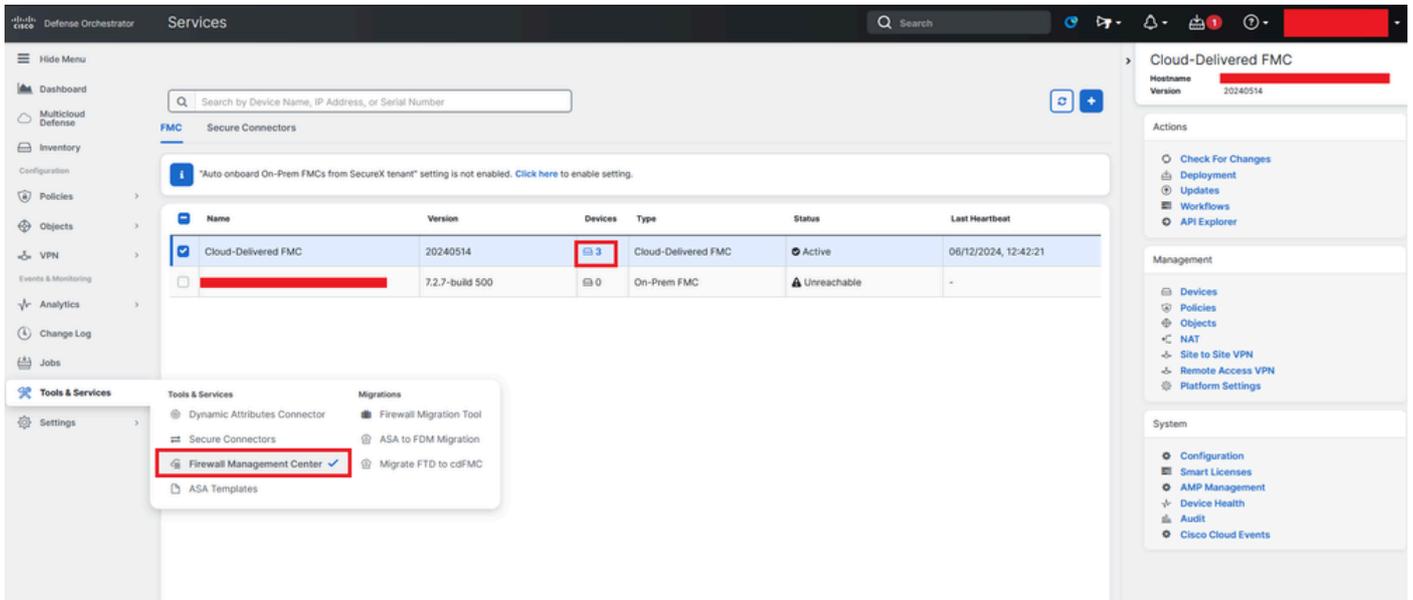


完成迁移

## 验证

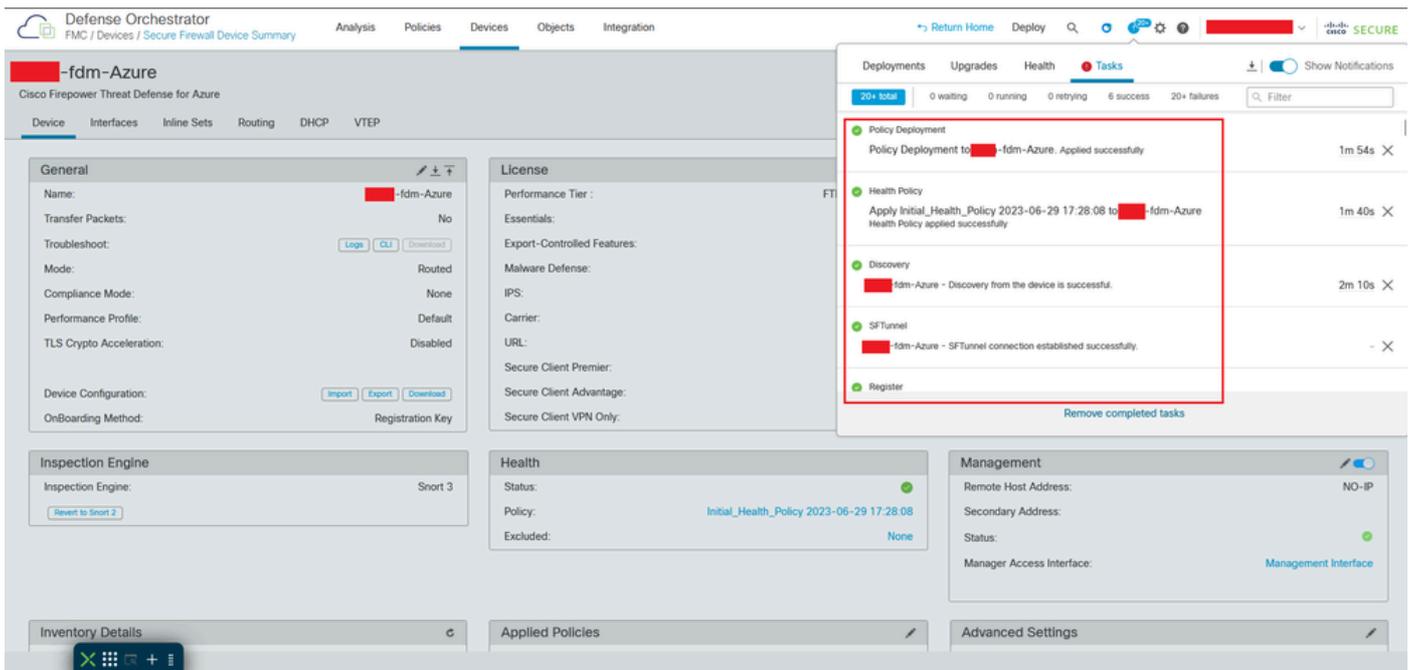
验证FDM是否已成功迁移到cdFMC。

导航到CDO > Tools & Services > Firepower Management Center。您会发现注册设备的数量已增加。



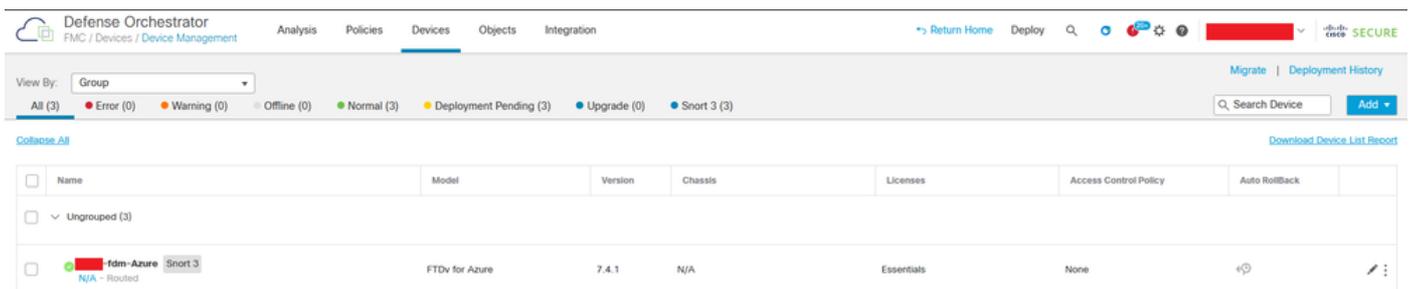
cdFMC注册设备

在Devices > Device Management中检查设备。此外，在FMC的任务中，您可以找到设备成功注册和首次部署成功完成的时间。



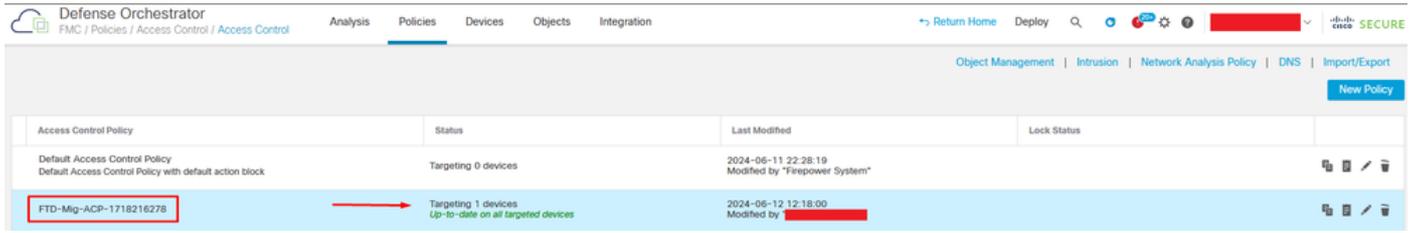
cdFMC注册任务已完成。

设备位于cdFMC > Device > Device Management中。



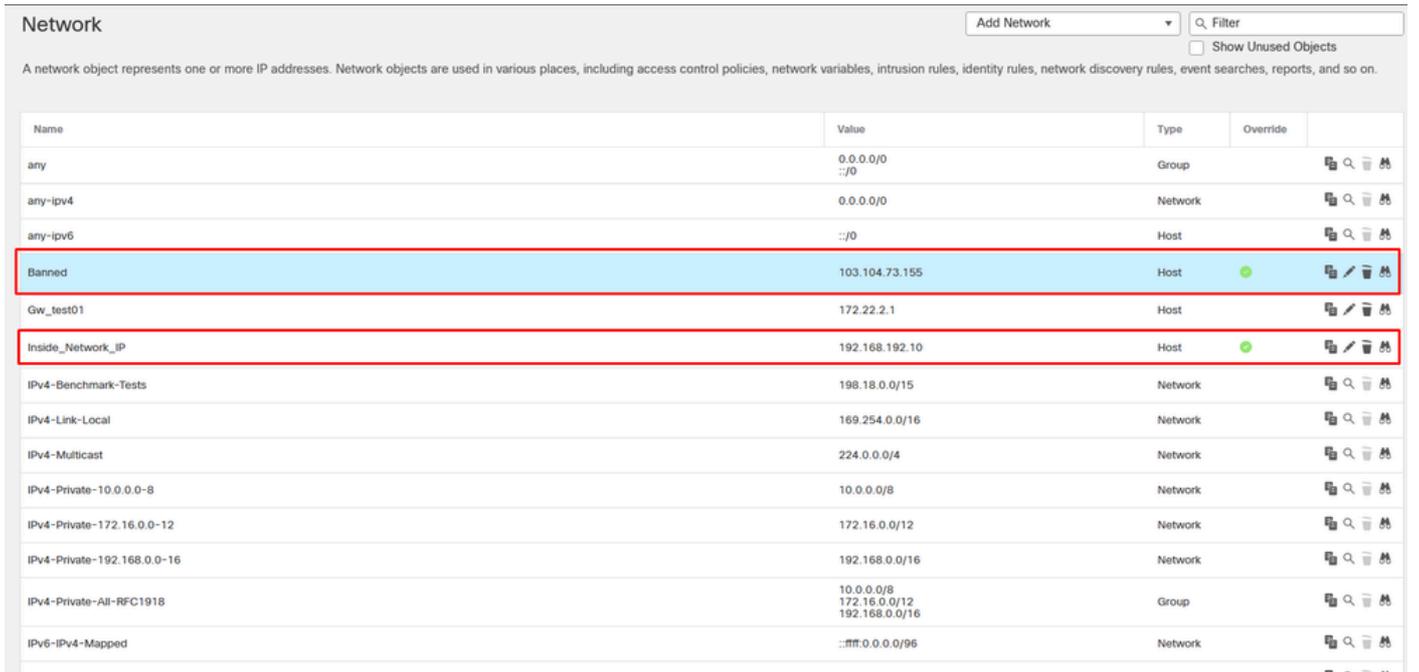
在cdFMC上注册的设备

在Policies > Access Control下迁移的访问控制策略。



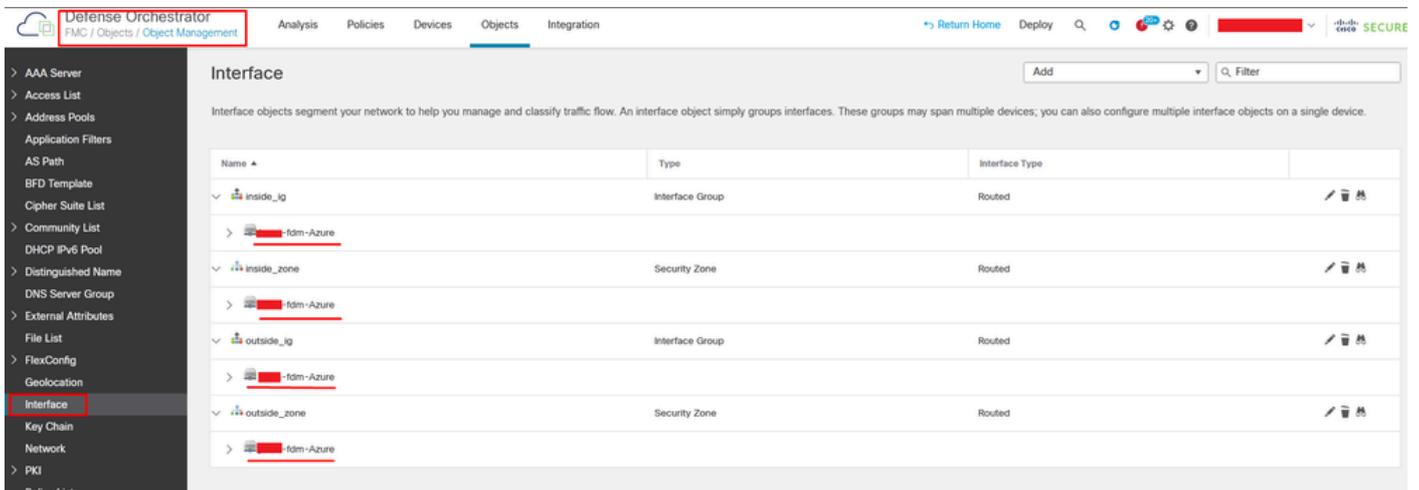
迁移策略

同样，您可以查看在FDM中创建的对象，这些对象已正确迁移到cdFMC。



从FDM迁移到cdFMC的对象

已迁移对象管理接口。



已迁移对象管理接口。

## 关于此翻译

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