



## Cable and Register the Firewall

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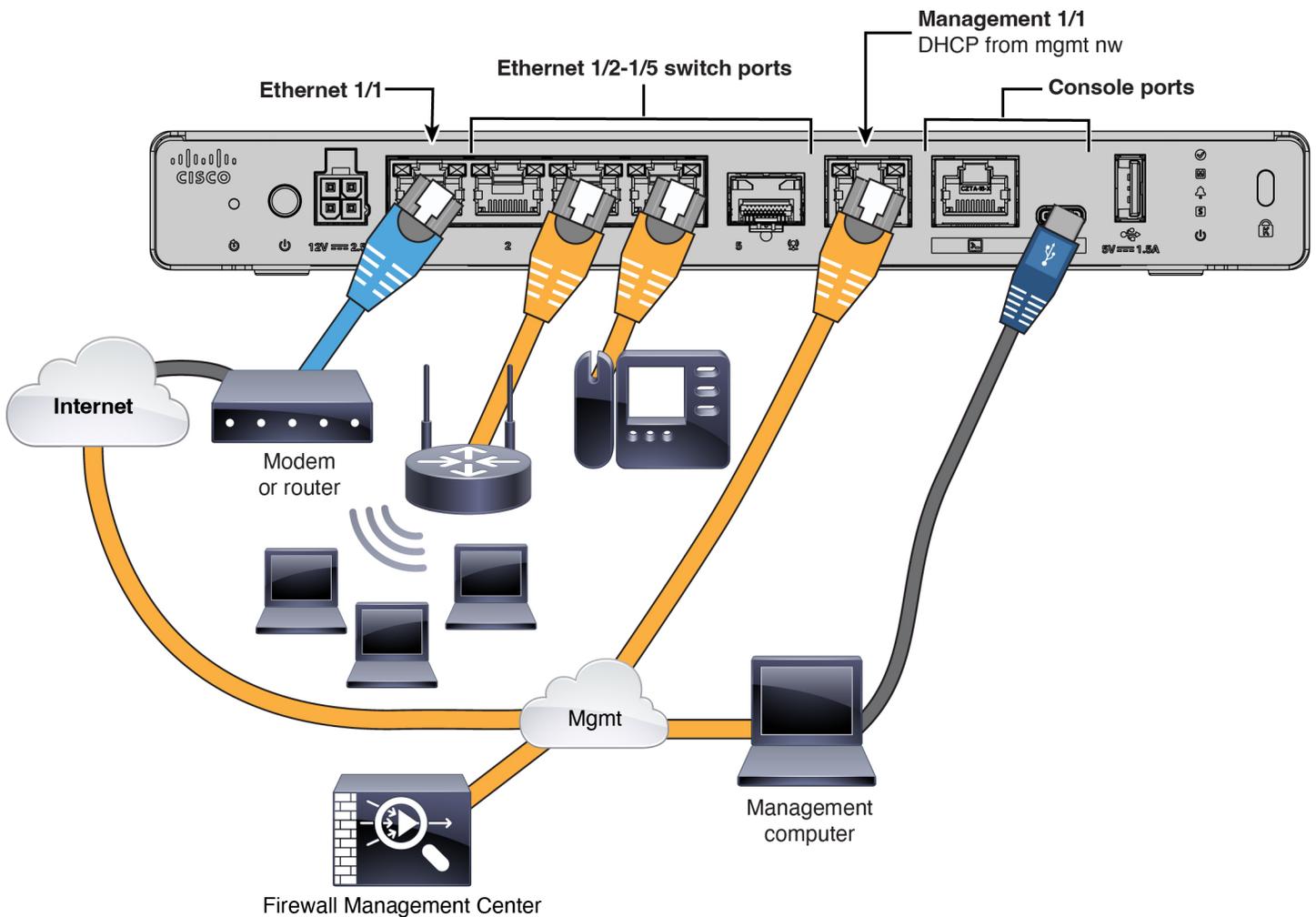
Cable the firewall and then register the firewall to the Firewall Management Center.

- [Cable the firewall, on page 1](#)
- [Perform initial configuration, on page 2](#)
- [Register the firewall with the Firewall Management Center, on page 10](#)

### Cable the firewall

Connect the Firewall Management Center to the dedicated Management 1/1 interface. The management network needs access to the internet for updates. For example, you can connect the management network to the internet through the firewall itself (for example, by connecting to the inside network).

- Install an SFP into Ethernet 1/5—It is a 1-Gbps SFP port that requires an SFP module.
- See the [hardware installation guide](#) for more information.



## Perform initial configuration

Perform initial configuration of the firewall using the Secure Firewall Device Manager or using the CLI.

### Initial configuration: Firewall Device Manager

Using this method, after you register the firewall, the following interfaces will be preconfigured in addition to the Management interface:

- Ethernet 1/1—**outside**, IP address from DHCP, IPv6 autoconfiguration
- — **inside**, 192.168.95.1/24
- Default route—Obtained through DHCP on the outside interface
- Additional interfaces—Any interface configuration from the Firewall Device Manager is preserved.

Other settings, such as the DHCP server on inside, access control policy, or security zones, are not preserved.

## Procedure

**Step 1** Connect your computer to the inside interface.

**Step 2** Log into the Firewall Device Manager.

- a) Go to <https://192.168.95.1>.
- b) Log in with the username **admin** and the default password **Admin123**.
- c) You are prompted to read and accept the General Terms and change the admin password.

**Step 3** Use the setup wizard.

### Note

The exact port configuration depends on your model.

- a) Configure the outside and management interfaces.

**Figure 1: Connect firewall to internet**

### Connect firewall to Internet

The initial access control policy will enforce the following actions.  
You can edit the policy after setup.

<p>Rule 1 <b>Trust Outbound Traffic</b></p> <p>This rule allows traffic to go from inside to outside, which is needed for the Smart License configuration.</p>	<p>Default Action <b>Block all other traffic</b></p> <p>The default action blocks all other traffic.</p>
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Outside Interface Address

Connect Ethernet1/1 (Outside) to your ISP/WAN device, for example, your cable modem or router. Then, configure the addresses for the outside interface.

**Configure IPv4**

Using DHCP ▼

**Configure IPv6**

Using DHCP ▼

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NEXT

Don't have internet connection?  
[Skip device setup](#) ⓘ

1. **Outside Interface Address**—Use a static IP address if you plan for high availability. You cannot configure PPPoE using the setup wizard; you can configure PPPoE after you complete the wizard.
2. **Management Interface**—Setting the Management interface IP address is not part of the setup wizard, but you can set the following options. If you need to use a static IP address, see [Step 4, on page 5](#).
 

**DNS Servers**—The DNS server for the system's management address. The default is the OpenDNS public DNS servers.

## Firewall Hostname

- b) Configure the **Time Setting (NTP)** and click **Next**.

**Figure 2: Time Setting (NTP)**

Time Setting (NTP)

System Time: 11:56:20AM October 03 2024 -06:00

Time Zone for Scheduling Tasks

(UTC+00:00) UTC

NTP Time Server

Default NTP Servers

Server Name

0.sourcefire.pool.ntp.org

1.sourcefire.pool.ntp.org

2.sourcefire.pool.ntp.org

**NEXT**

- c) Select **Start 90 day evaluation period without registration**.

Register with Cisco Smart Software Manager

Register with Cisco Smart Software Manager to use the full functionality of this device and to apply subscription licenses.

[What is smart license? ↗](#)

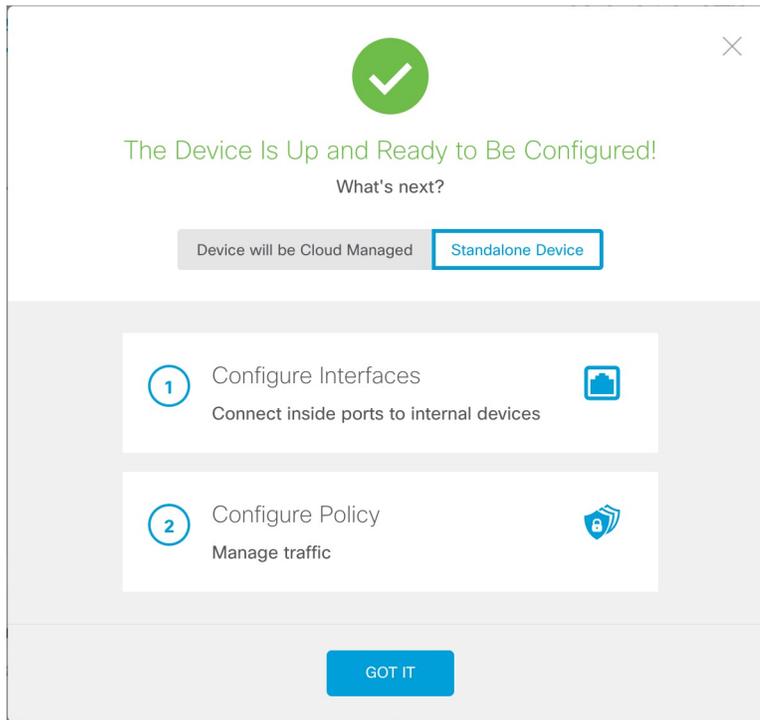
**Continue with evaluation period: Start 90-day evaluation period without registration**  
**Recommended if device will be cloud managed. [Learn More](#)**

Please make sure you register with Cisco before the evaluation period ends.  
 Otherwise you will not be able to make any changes to the device configuration.

*Do not register the Firewall Threat Defense with the Smart Software Manager; all licensing is performed on the Firewall Management Center Security Cloud Control.*

- d) Click **Finish**.

Figure 3: What's Next



e) Choose **Standalone Device**, and then **Got It**.

**Step 4** (Optional) Configure the Management interface with a static IP address. See the Management interface on **Device > Interfaces**.

**Step 5** If you want to configure additional interfaces, choose **Device**, and then click the link in the **Interfaces** summary.

**Step 6** Register with the Firewall Management Center Security Cloud Control by choosing **Device > System Settings > Central Management** and clicking **Proceed**

Configure the **Management Center/SCC/Details**.

**Note**

Older versions may show "CDO" instead of "SCC."

Figure 4: Management Center/SCC Details

Management Center/SCC Details

Do you know the Management Center/SCC hostname or IP address?

Yes  No

**Threat Defense**



10.89.5.4  
fe80::6a87:c6ff:fea6:5480/64

→

**Management Center/SCC**



10.89.5.35

Management Center/SCC Hostname or IP Address

10.89.5.35

Management Center/SCC Registration Key

.... [👁](#)

NAT ID

*Required when the management center/SCC hostname or IP address is not provided. We recommend always setting the NAT ID even when you specify the management center/SCC hostname or IP address.*

11204

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Connectivity Configuration

Threat Defense Hostname

1120-4

DNS Server Group

CustomDNSServerGroup ▼

Management Center/SCC Access Interface

management (Management1/1) ▼

**Type:** Static | **IP Address:** 10.89.5.4 / 255.255.255.192 [Edit](#)

CANCEL
CONNECT

- a) For **Do you know the Management Center/SCC Hostname or IP address**, click **Yes** if you can reach the Firewall Management Center using an IP address or hostname or **No** if the Firewall Management Center is behind NAT or does not have a public IP address or hostname.
- b) If you chose **Yes**, enter the **Management Center/SCC Hostname/IP Address**.
- c) Specify the **Management Center/SCC Registration Key**.

This key is a one-time registration key of your choice that you will also specify on the Firewall Management Center when you register the firewall. The registration key must be between 2 and 36 characters. Valid characters include

alphanumeric characters (A–Z, a–z, 0–9) and the hyphen (-). This ID can be used for multiple firewalls registering to the Firewall Management Center.

d) Specify a **NAT ID**.

This ID is a unique, one-time string of your choice that you will also specify on the Firewall Management Center. We recommend that you specify the NAT ID even if you know the IP addresses of both devices. The NAT ID must be between 2 and 36 characters. Valid characters include alphanumeric characters (A–Z, a–z, 0–9) and the hyphen (-). This ID *cannot* be used for any other firewalls registering to the Firewall Management Center. The NAT ID is used in combination with the IP address to verify that the connection is coming from the correct device; only after authentication of the IP address/NAT ID will the registration key be checked.

**Step 7** Configure the **Connectivity Configuration**.

- a) Specify the **Threat Defense Hostname**.
- b) Specify the **DNS Server Group**.

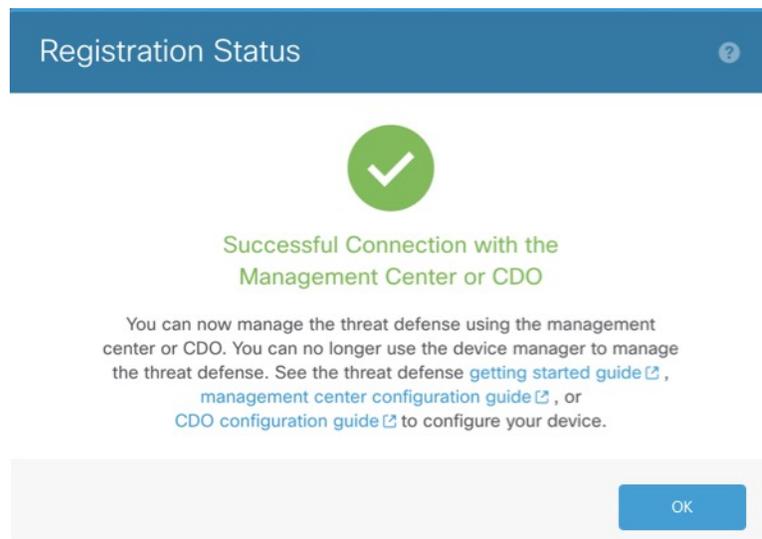
Although you already set this: Choose an existing group, or create a new one. The default DNS group is called **CiscoUmbrellaDNSServerGroup**, which includes the OpenDNS servers.

- c) For the **Management Center/SCC Access Interface**, click **Management Interface**.

**Step 8** Click **Connect**.

The **Registration Status** dialog box shows the current status of the Firewall Management CenterSecurity Cloud Control registration.

*Figure 5: Successful Connection*



- Step 9** After the **Saving Management Center/SCC Registration Settings** step on the status screen, go to the Firewall Management CenterSecurity Cloud Control and add the firewall. See [Register the firewall with the Firewall Management Center, on page 10](#).

## Initial configuration: CLI

Set the dedicated Management IP address, gateway, and other basic networking settings using the CLI setup script.

### Procedure

- Step 1** Connect to the console port and access the Firewall Threat Defense CLI. See [Access the Firewall Threat Defense CLI](#).
- Step 2** Complete the CLI setup script for the Management interface settings.

#### Note

You cannot repeat the CLI setup script unless you clear the configuration, for example, by reimaging. However, all of these settings can be changed later at the CLI using **configure network** commands. See [Cisco Secure Firewall Threat Defense Command Reference](#).

```
You must accept the EULA to continue.
Press <ENTER> to display the EULA:
Cisco General Terms
[...]
```

```
Please enter 'YES' or press <ENTER> to AGREE to the EULA:
```

```
System initialization in progress. Please stand by.
You must configure the network to continue.
Configure at least one of IPv4 or IPv6 unless managing via data interfaces.
Do you want to configure IPv4? (y/n) [y]:
Do you want to configure IPv6? (y/n) [y]: n
```

**Guidance:** Enter **y** for at least one of these types of addresses.

```
Configure IPv4 via DHCP or manually? (dhcp/manual) [manual]:
Enter an IPv4 address for the management interface [192.168.45.61]: 10.89.5.17
Enter an IPv4 netmask for the management interface [255.255.255.0]: 255.255.255.192

Enter the IPv4 default gateway for the management interface [data-interfaces]: 10.10.10.1

Enter a fully qualified hostname for this system [firepower]: 1010-3
Enter a comma-separated list of DNS servers or 'none' [208.67.222.222,208.67.220.220,2620:119:35::35]:
Enter a comma-separated list of search domains or 'none' []: cisco.com
If your networking information has changed, you will need to reconnect.
Disabling IPv6 configuration: management0
Setting DNS servers: 208.67.222.222,208.67.220.220,2620:119:35::35
Setting DNS domains:cisco.com

Setting hostname as 1010-3
Setting static IPv4: 10.89.5.17 netmask: 255.255.255.192 gateway: data on management0
Updating routing tables, please wait...
All configurations applied to the system. Took 3 Seconds.
Saving a copy of running network configuration to local disk.
For HTTP Proxy configuration, run 'configure network http-proxy'

Manage the device locally? (yes/no) [yes]: no
```

**Guidance:** Enter **no** to use the Firewall Management Center.

```
Setting hostname as 1010-3
Setting static IPv4: 10.89.5.17 netmask: 255.255.255.192 gateway: data on management0
Updating routing tables, please wait...
```

```
All configurations applied to the system. Took 3 Seconds.
Saving a copy of running network configuration to local disk.
For HTTP Proxy configuration, run 'configure network http-proxy'

Configuring firewall mode ...
```

```
Device is in OffBox mode - disabling/removing port 443 from iptables.
Update policy deployment information
  - add device configuration
  - add network discovery
  - add system policy
```

You can register the sensor to a Firepower Management Center and use the Firepower Management Center to manage it. Note that registering the sensor to a Firepower Management Center disables on-sensor Firepower Services management capabilities.

When registering the sensor to a Firepower Management Center, a unique alphanumeric registration key is always required. In most cases, to register a sensor to a Firepower Management Center, you must provide the hostname or the IP address along with the registration key.

```
'configure manager add [hostname | ip address ] [registration key ]'
```

However, if the sensor and the Firepower Management Center are separated by a NAT device, you must enter a unique NAT ID, along with the unique registration key.

```
'configure manager add DONTRESOLVE [registration key ] [ NAT ID ]'
```

Later, using the web interface on the Firepower Management Center, you must use the same registration key and, if necessary, the same NAT ID when you add this sensor to the Firepower Management Center.

```
>
```

### Step 3 Identify the Firewall Management Center.

```
configure manager add {hostname | IPv4_address | IPv6_address | DONTRESOLVE} reg_key nat_id
```

- {hostname | IPv4\_address | IPv6\_address | **DONTRESOLVE**}—Specifies either the FQDN or IP address of the Firewall Management Center. If the Firewall Management Center is not directly addressable, use **DONTRESOLVE**, in which case the firewall must have a reachable IP address or hostname.
- *reg\_key*—Specifies a one-time registration key of your choice that you will also specify on the Firewall Management Center when you register the Firewall Threat Defense. The registration key must be between 2 and 36 characters. Valid characters include alphanumeric characters (A–Z, a–z, 0–9) and the hyphen (-).
- *nat\_id*—Specifies a unique, one-time string of your choice that you will also specify on the Firewall Management Center. The NAT ID must be between 2 and 36 characters. Valid characters include alphanumeric characters (A–Z, a–z, 0–9) and the hyphen (-). This ID cannot be used for any other devices registering to the Firewall Management Center.

#### Example:

```
> configure manager add fmc-1.example.com regk3y78 natid56
Manager successfully configured.
```

# Register the firewall with the Firewall Management Center

Register the firewall to the Firewall Management Center.

## Procedure

- Step 1** Log into the Firewall Management Center.
- Enter the following URL.  
**`https://fmc_ip_address`**
  - Enter your username and password.
  - Click **Log In**.
- Step 2** Choose **Devices > Device Management**.
- Step 3** From the **Add** drop-down menu, choose **Device**.
- Step 4** Click **Registration Key**, click **Basic**, and then click **Next**.

*Figure 6: Device Registration Method*

**Add device**

1 Device registration method

2 Device details

3 Initial device configuration

**Device registration method**

**Registration key**  
Identify the same one-time registration key on the device and in the management center.

**Serial number**  
Identify the device by serial number. On the device, you don't have to configure anything (zero-touch provisioning).

Choose the initial device configuration method:

**Basic**  
Apply basic configuration, including the access control policy.

**Device template**  
Preconfigure settings using a template. A compatible **template** must exist (either a default template or one you added) before continuing.

Cancel Next

- Step 5** Configure the device details and click **Next**.

Figure 7: Device Details

**Add device**

1 Device registration method

2 **Device details**

3 Initial device configuration

**Device details**

**Domain \***  
Global/Leaf1

**Hostname or IP address**  
10.89.5.41  
e.g. server.example.com or 192.168.1.1

**Display name \***  
3110-1

**Registration key \***  
....  
Enter the same registration key you set on the device. This key doesn't have to be unique per device. Use alphanumerical characters (A-Z, a-z, 0-9) and the hyphen (-), between 2 and 36 characters.

**Unique NAT ID**  
31101  
Enter the same NAT ID if you set one on the device. This key needs to be unique per device. Use alphanumerical characters (A-Z, a-z, 0-9) and the hyphen (-), between 2 and 36 characters.

**Analytics-only management center**  
When using Security Cloud Control as your primary manager, you can use an On-Prem management center for analytics.

Cancel Back Next

- **Domain**—In a multidomain environment, choose the leaf domain.
- **Device group**—In a single domain environment, add the device to a **Device group**.
- **Hostname or IP address**—Enter the IP address or the hostname of the device you want to add. Leave this field blank if you don't know the device IP address (for example, it's behind NAT).
- **Display name**—Enter a name for the device as you want it to display in the Firewall Management Center. You cannot change this name later.
- **Registration key**—Enter the same registration key from your initial configuration.
- **Unique NAT ID**—Enter the same ID from your initial configuration.
- **Analytics-only management center**—Leave this unchecked.

**Step 6** Configure the initial device configuration.

Figure 8: Initial Device Configuration

**Add device**

- Device registration method
- Device details
- 3 Initial device configuration**

**Initial device configuration**

**Access control policy \***  
Default Access Control Policy +

**Smart licensing**  
Ensure that your smart licensing account has the required licenses.

**Is this device physical or virtual?**  
 Physical device  Virtual device

License type	Includes
<input checked="" type="checkbox"/> Essentials	Base firewall capabilities
<input checked="" type="checkbox"/> Carrier	GTP/GPRS, Diameter, SCTP, M3UA
<input checked="" type="checkbox"/> IPS	Intrusion Policy
<input checked="" type="checkbox"/> Malware Defense	File Policy
<input checked="" type="checkbox"/> URL Filtering	URL Reputation
<input checked="" type="checkbox"/> RA VPN <span>Premier</span>	RA VPN

**Transfer packets**  
For each intrusion event, the device sends event information and the packet that triggered the event to the management center for inspection. If you disable it, only event information will be sent to the management center; the packet will not be sent.

[Cancel](#) [Back](#) [Add device](#)

- **Access control policy**—Choose an initial policy to deploy to the device at registration, or create a new policy. Unless you already have a customized policy you know you need to use, choose **Add (+)**, and choose **Block all traffic**. You can change this later to allow traffic.
- **Smart licensing**—Choose your licenses.
  - **Is this device physical or virtual?**—Choose **Physical device**
  - **License type**—Check each license type to assign to the device.

You can also apply licenses after you add the device.

- **Transfer packets**—Enable this option so that for each intrusion event, the device transfers the packet to the Firewall Management Center for inspection.

For each intrusion event, the device sends event information and the packet that triggered the event to the Firewall Management Center for inspection. If you disable it, only event information will be sent to the Firewall Management Center; the packet will not be sent.

### Step 7 Click **Add device**.

It may take up to two minutes for the Firewall Management Center to verify the device's heartbeat and establish communication. If the registration succeeds, the device is added to the list. If it fails, you will see an error message. If the device fails to register, check the following items:

- **Ping**—Access the device CLI, and ping the Firewall Management Center IP address using the following command:  
**ping system ip\_address**

If the ping is not successful, check your network settings using the **show network** command. If you need to change the device IP address, use the **configure network {ipv4 | ipv6} manual** command.

- Registration key, NAT ID, and Firewall Management Center IP address—Make sure you are using the same registration key, and if used, NAT ID, on both devices. You can set the registration key and NAT ID on the device using the **configure manager add** command.

For more troubleshooting information, see <https://cisco.com/go/fmc-reg-error>.

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