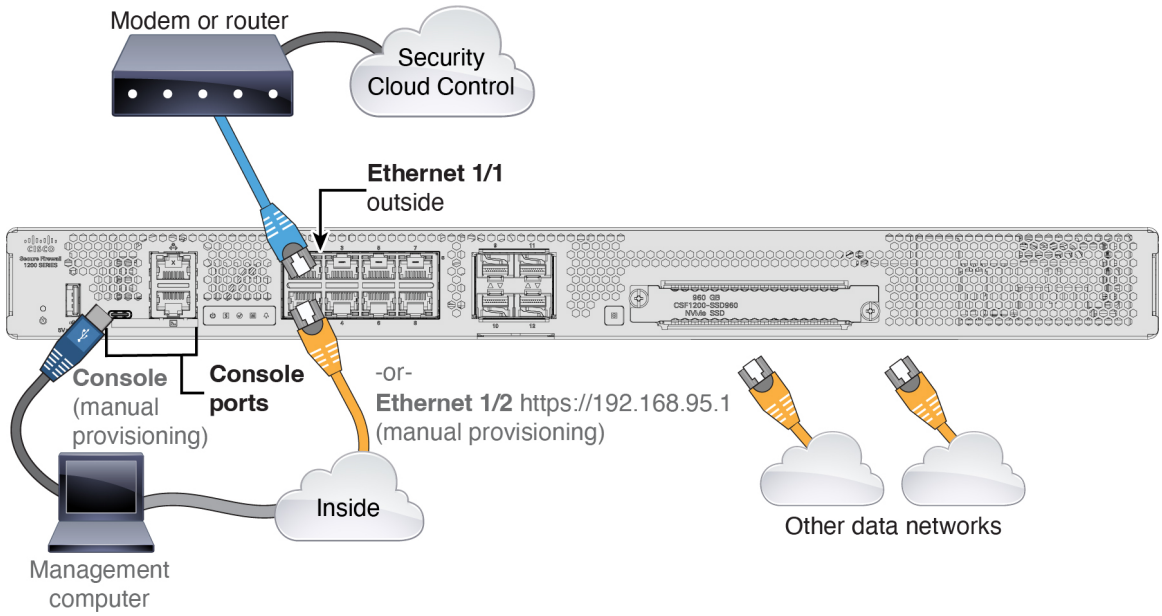
Cable and Onboard the Firewall

Cable and onboard the firewall to Security Cloud Control.

Cable the firewall

- Install SFP/SFP+ modules into Ethernet 1/9 and higher—The fixed ports are 1/10-Gbps SFP+ ports that require SFP/SFP+ modules.
- See the hardware installation guide for more information.
- If you use zero-touch provisioning, do not cable both the outside and the Management interface. This guide covers management on the outside interface, but you may want to use zero-touch provisioning on Management with high availability. If you use zero-touch provisioning on outside and want to use high availability, you will have to change the outside IP address to a static address after registration.



Onboard the firewall to Security Cloud Control

Onboard the firewall using zero-touch provisioning or manual provisioning. Log into Security Cloud Control at https://security.cisco.com.

Onboard the firewall with zero-touch provisioning

Onboard using zero-touch provisioning with the serial number.

Onboard the Firewall Threat Defense using zero-touch provisioning and the device serial number.

Before you begin

- Obtain your device's serial number.
  - If you have the shipping box, you can see the chassis serial number on the label.
  - The chassis serial number is on the compliance label on a pull-out tab at the front of the device.
  - The PCB serial number is on a label on the chassis called "S/N."
  - You can view the serial numbers using the following CLI commands:
    - FXOS—**show chassis detail** shows both serial numbers.
    - Firewall Threat Defense—**show inventory** shows the chassis serial number. **show serial-number** shows the PCB serial number.
- Check your LEDs to make sure the firewall is ready for registration.

Table 1: Zero-Touch Provisioning: Managed (M) LED behavior

M LED	Description	Time after firewall powered on (minutes:seconds)
Slow flashing green	Connected to the Cisco cloud and ready for onboarding	15:00 - 30:00
Alternating green and amber (error condition)	Failed to connect to the Cisco cloud	15:00 - 30:00
Solid green	Onboarded	20:00 - 45:00

Procedure

Step 1 In the Security Cloud Control navigation menu, click **Security Devices**, then click the blue plus button (+) to **Onboard** a device.

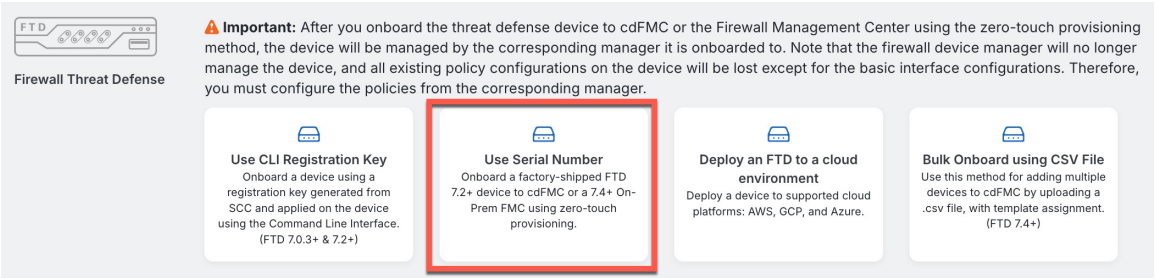
Step 2 Select the **FTD** tile.

Step 3 Under **Management Mode**, be sure **FTD** is selected.

At any point after selecting **FTD** as the management mode, you can click **Manage Smart License** to enroll in or modify the existing smart licenses available for your device. See Obtain licenses to see which licenses are available.

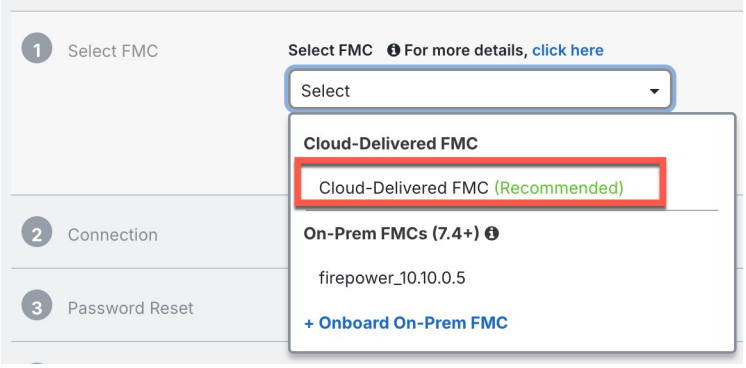
Step 4 Select **Use Serial Number** as the onboarding method.

Figure 1: Use Serial Number



Step 5 In **Select FMC**, choose the **Cloud-Delivered FMC** > **Cloud-Delivered FMC** from the list, and click **Next**.

Figure 2: Select FMC



Step 6 In the **Connection** area, enter the **Device Serial Number** and the **Device Name** and then click **Next**.

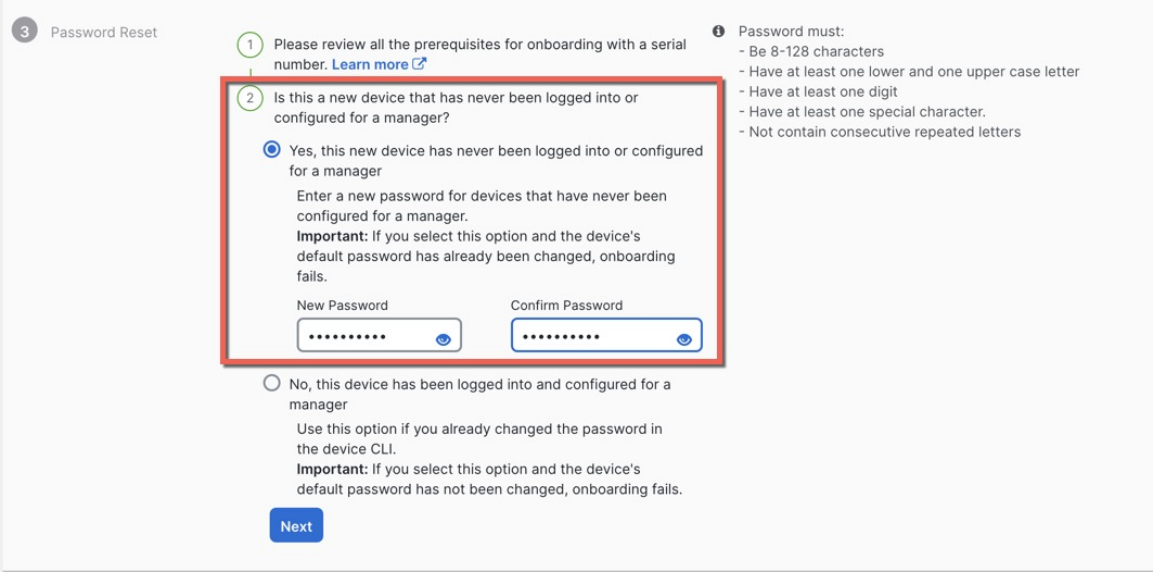
Figure 3: Connection

Step 7 In **Password Reset**, click **Yes...**. Enter a new password and confirm the new password for the device, then click **Next**.

For zero-touch provisioning, the device must be brand new or has been reimaged.

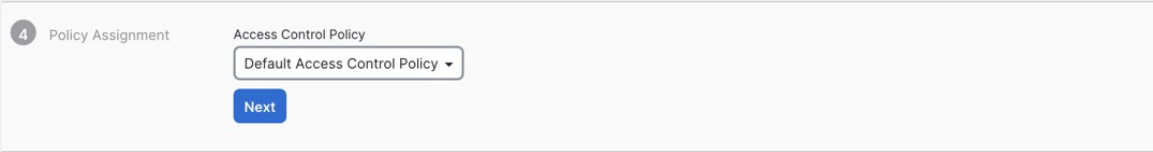
Note
If you logged into the device and reset the password, and you did not change the configuration in a way that would disable zero-touch provisioning, then you should choose the **No...** option. There are a number of configurations that disable zero-touch provisioning provisioning, so we don't recommend logging into the device unless you need to, for example, to perform a reimage.

Figure 4: Password Reset



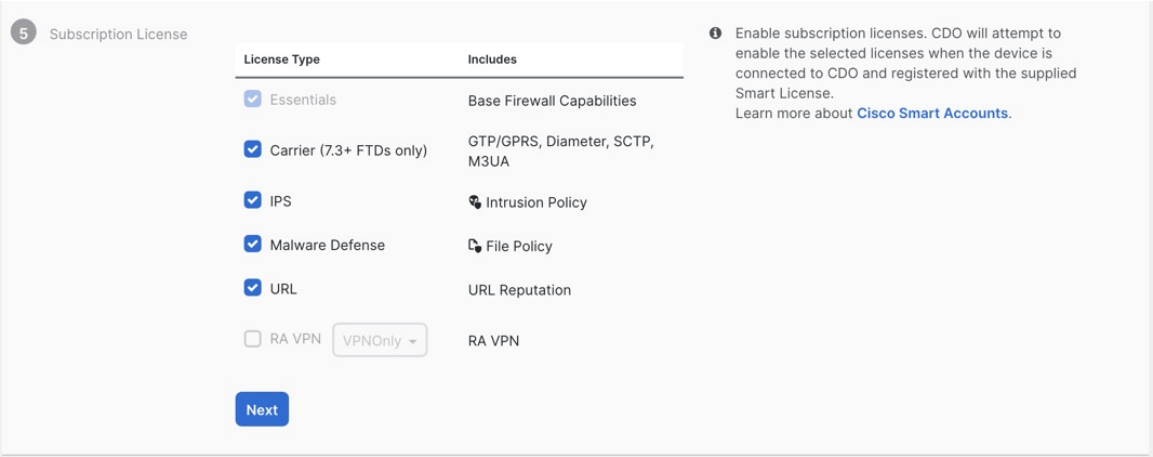
Step 8 For the **Policy Assignment**, use the drop-down menu to choose an access control policy for the device. If you have no policies configured, choose the **Default Access Control Policy**.

Figure 5: Policy Assignment



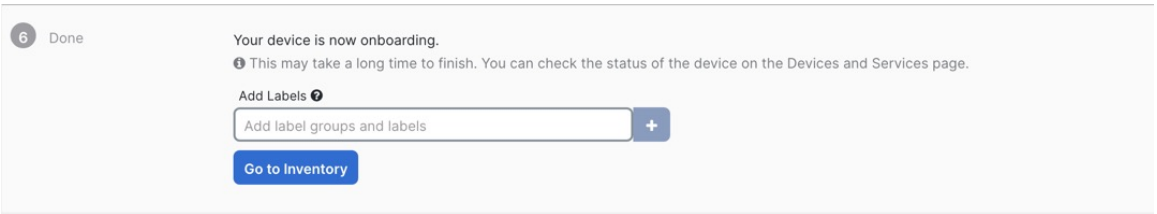
Step 9 For the **Subscription License**, check each of the feature licenses you want to enable. Click **Next**.

Figure 6: Subscription License



Step 10 (Optional) Add labels to your device to help sort and filter the **Security Devices** page. Enter a label and select the blue plus button (+). Labels are applied to the device after it's onboarded to Security Cloud Control.

Figure 7: Done



What to do next

From the **Security Devices** page, select the device you just onboarded and select any of the option listed under the **Management** pane located to the right.

Onboard the firewall with manual provisioning

Onboard the firewall using a CLI registration key.

Procedure

Step 1 In the Security Cloud Control navigation menu, click **Security Devices**, then click the blue plus button (+) to **Onboard** a device.

Step 2 Click the **FTD** tile.

Step 3 Under **Management Mode**, be sure **FTD** is selected.

Step 4 Select **Use CLI Registration Key** as the onboarding method.

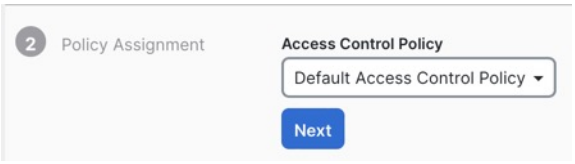
Figure 8: Use CLI Registration Key

Step 5 Enter the **Device Name** and click **Next**.

Figure 9: Device Name

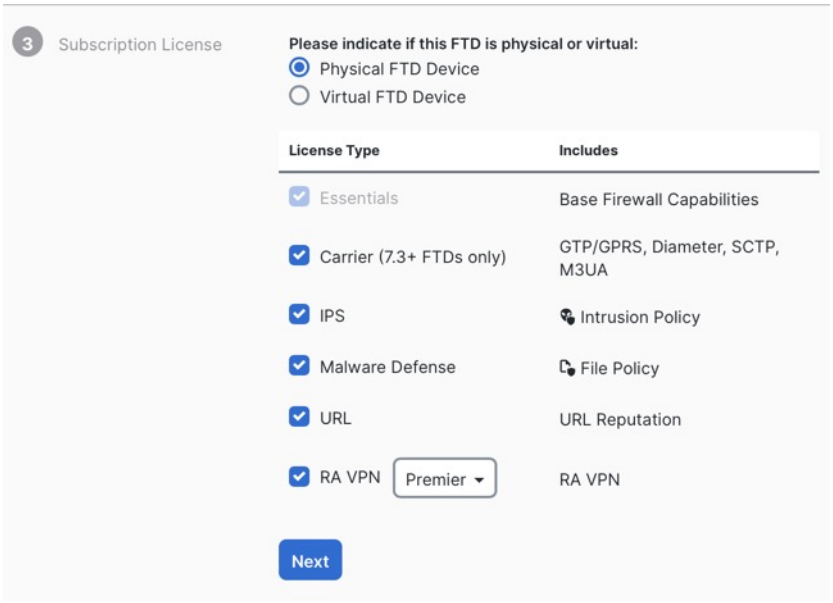
Step 6 For the **Policy Assignment**, use the drop-down menu to choose an access control policy for the device. If you have no policies configured, choose the **Default Access Control Policy**.

Figure 10: Access Control Policy



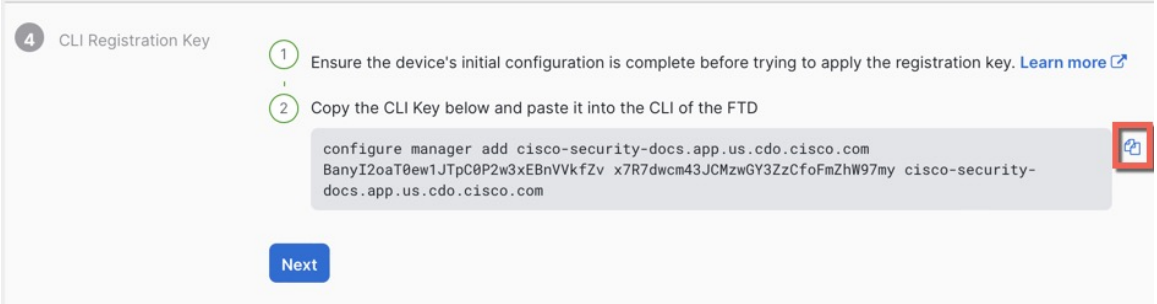
Step 7 For the **Subscription License**, click the **Physical FTD Device** radio button, and then check each of the feature licenses you want to enable. Click **Next**.

Figure 11: Subscription License



Step 8 For the **CLI Registration Key**, Security Cloud Control generates a command with the registration key and other parameters. You must copy this command and use it in the intial configuration of the Firewall Threat Defense.

Figure 12: CLI Registration Key



configure manager add Security Cloud Control_*hostname registration_key nat_id display_name*

Complete initial configuration at the CLI or using the Firewall Device Manager:

- Initial configuration: CLI, on page 15—Copy this command at the Firewall Threat Defense CLI after you complete the startup script.
- Initial configuration: Firewall Device Manager, on page 9—Copy the *scc_hostname*, *registration_key*, and *nat_id* parts of the command into the **Management Center/Security Cloud Control Hostname/IP Address**, **Management Center/Security Cloud Control Registration Key**, and **NAT ID** fields.

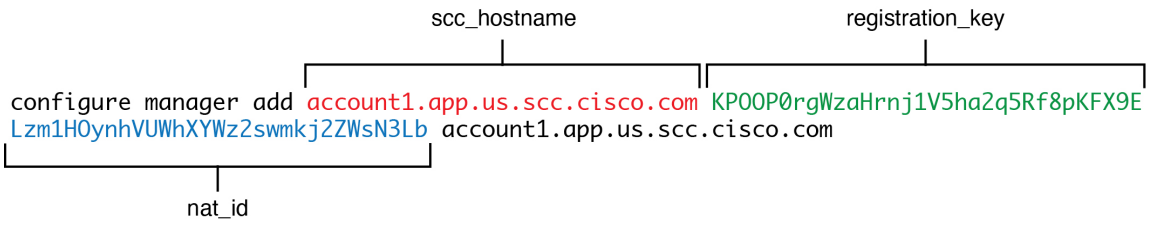
Example:

Sample command for CLI setup:

```
configure manager add account1.app.us.scc.cisco.com KPOOP0rgWzaHrnj1V5ha2q5Rf8pKFX9E
Lzm1HOynhVUWhXYWz2swmkj2ZWsN3Lb account1.app.us.scc.cisco.com
```

Sample command components for GUI setup:

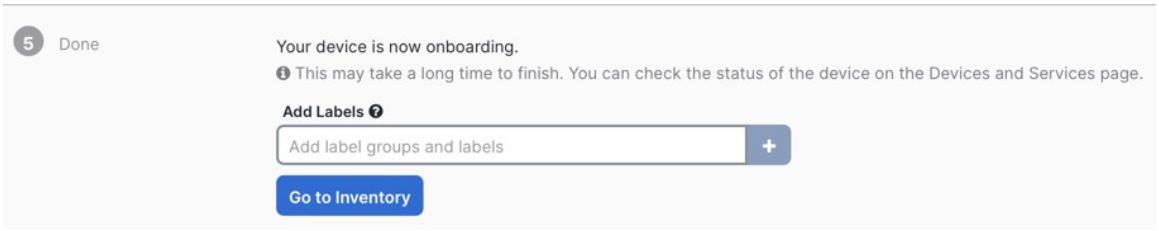
Figure 13: configure manager add command components



Step 9 Click **Next** in the onboarding wizard to start registering the device.

Step 10 (Optional) Add labels to your device to help sort and filter the **Security Devices** page. Enter a label and select the blue plus button (+). Labels are applied to the device after it's onboarded to Security Cloud Control.

Figure 14: Done



Perform initial configuration (manual provisioning only)

For manual provisioning, perfom 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
- Ethernet 1/2— **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 (Ethernet 1/2).

Step 2 Log into the Firewall Device Manager.

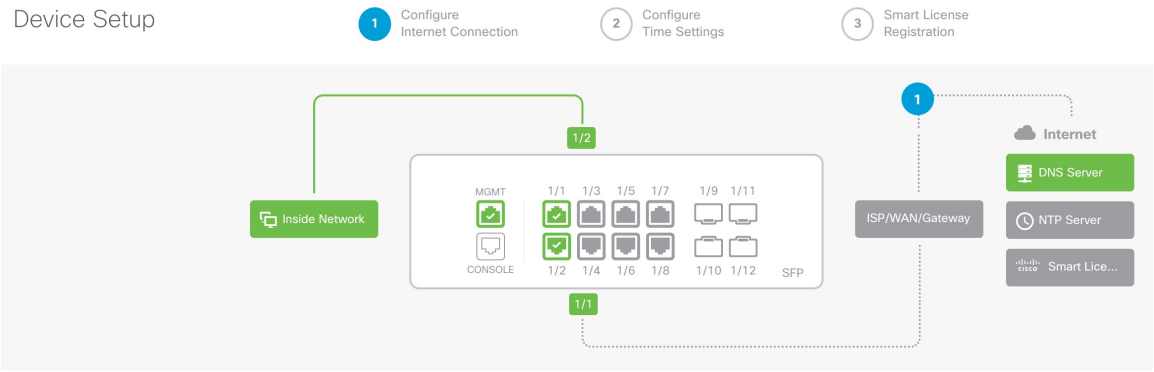
a) Go to https://192.168.95.1.

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.

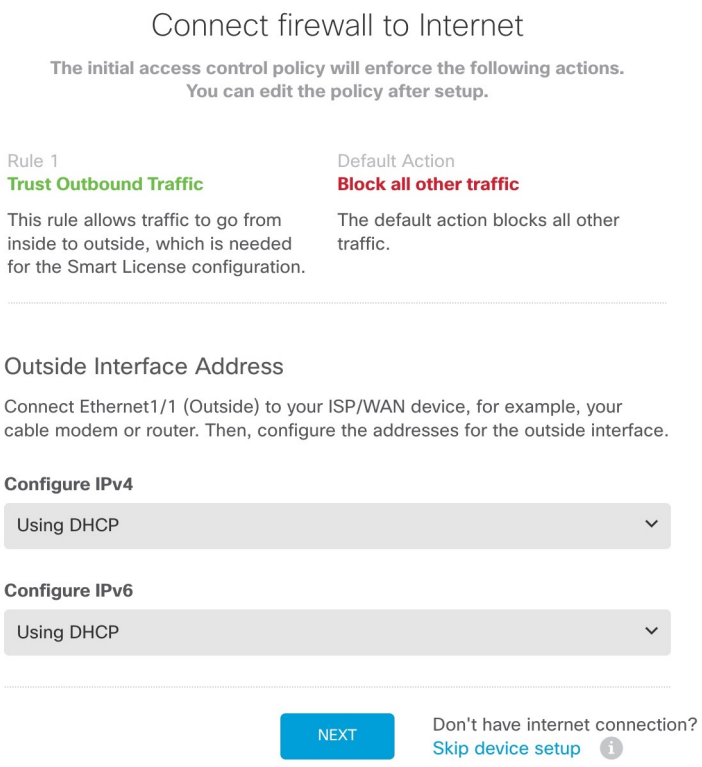
Figure 15: Device Setup



Note
The exact port configuration depends on your model.

a) Configure the outside and management interfaces.

Figure 16: Connect firewall to internet



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**—The Management interface settings are used even though you are using manager access on the outside interface. For example, management traffic that is routed over the backplane through the outside

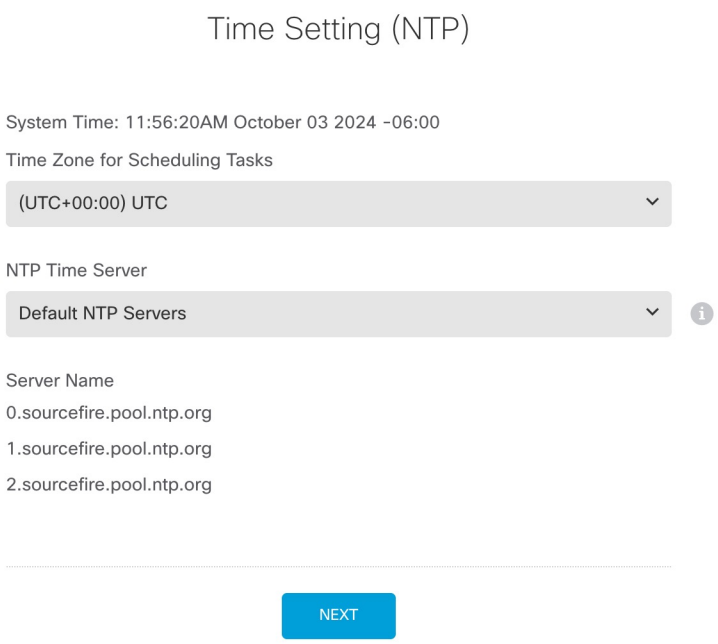
interface will resolve FQDNs using these Management interface DNS servers, and not the outside interface DNS servers.

DNS Servers—The DNS server for the system's management address. The default is the OpenDNS public DNS servers. These will probably match the outside interface DNS servers you set later since they are both accessed from the outside interface.

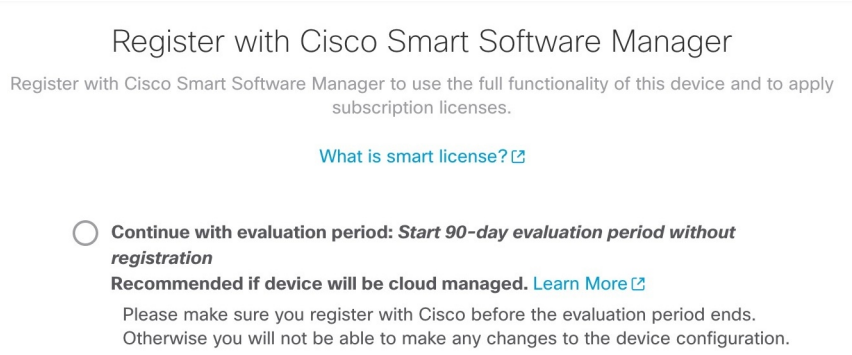
Firewall Hostname

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

Figure 17: Time Setting (NTP)



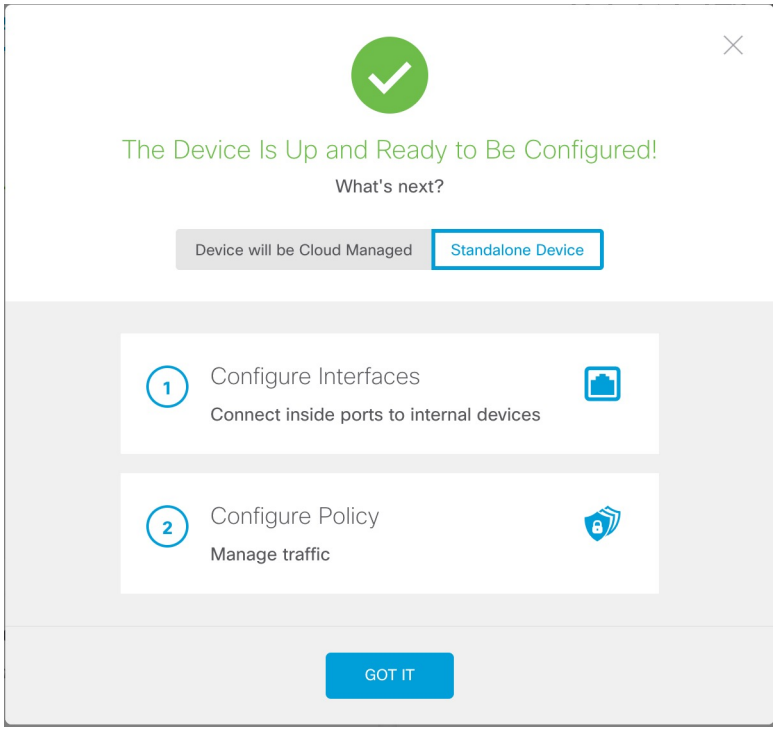
c) Select **Start 90 day evaluation period without registration**.



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

d) Click **Finish**.

Figure 18: What's Next



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

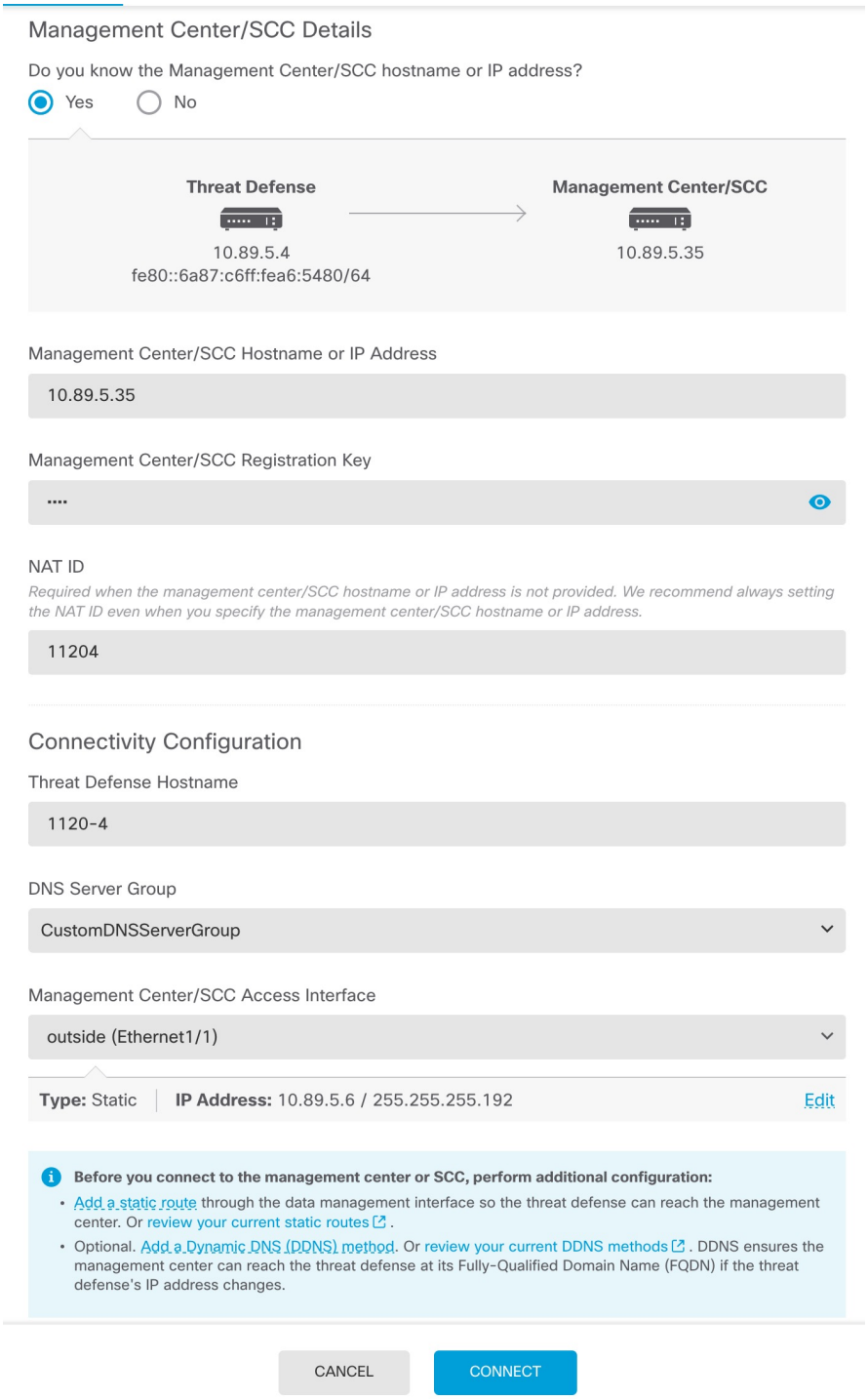
Step 4 If you want to configure additional interfaces, choose **Device**, and then click the link in the **Interfaces** summary.

Step 5 Register with the 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 19: Management Center/SCC Details



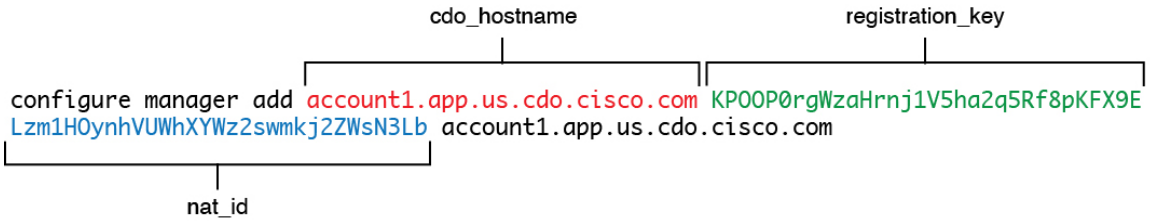
a) For **Do you know the Management Center/SCC Hostname or IP address**, click **Yes**.

Security Cloud Control generates the **configure manager add** command. See Onboard the firewall with manual provisioning, on page 6 to generate the command.

configure manager add *_hostname registration_key nat_id display_name*

Example:

Figure 20: configure manager add command components



b) Copy the *cdo_hostname*, *registration_key*, and *nat_id* parts of the command into the following fields:

- **Management Center/SCC Hostname/IP Address**
- **Management Center/SCC Registration Key**
- **NAT ID**

Step 6 Configure the **Connectivity Configuration**.

a) Specify the **Threat Defense Hostname**.

This FQDN will be used for the outside interface.

b) Specify the **DNS Server Group**.

Choose an existing group, or create a new one. The default DNS group is called **CiscoUmbrellaDNSServerGroup**, which includes the OpenDNS servers.

To retain the outside DNS server setting after registration, you need to re-configure the DNS Platform Settings in the Firewall Management Center.

c) For the **Management Center/SCC Access Interface**, click **Data Interface**, and then choose **outside**.

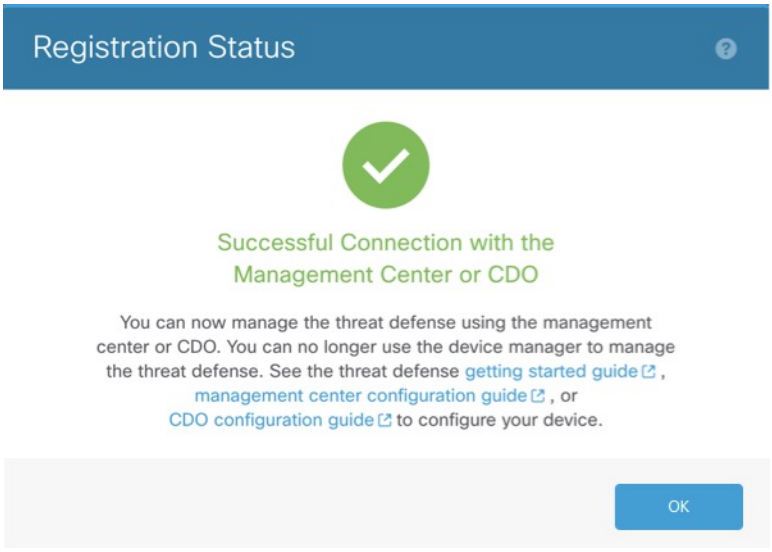
Step 7 (Optional) Click **Add a Dynamic DNS (DDNS) method**.

DDNS ensures the Firewall Management Center can reach the Firewall Threat Defense at its FQDN if the Firewall Threat Defense's IP address changes.

Step 8 Click **Connect**.

The **Registration Status** dialog box shows the current status of the Security Cloud Control registration.

Figure 21: Successful Connection



Step 9 After the **Saving Management Center/SCC Registration Settings** step on the status screen, go to the Security Cloud Control and add the firewall. See Onboard the firewall with manual provisioning, on page 6.

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. Although you do not plan to use the Management interface, you must set an IP address, for example, a private address.

```
Configure IPv4 via DHCP or manually? (dhcp/manual) [manual]:
```

Guidance: Choose **manual**. DHCP is not supported when using the outside interface for manager access. Make sure this interface is on a different subnet from the manager access interface to prevent routing issues.

```
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]:
```

Guidance: Set the gateway to be **data-interfaces**. This setting forwards management traffic over the backplane so it can be routed through the outside interface.

```
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
```

Guidance: Set the Management interface DNS servers. These will probably match the outside interface DNS servers you set later, since they are both accessed from the outside interface.

```
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'
```

Guidance: Enter **routed**. Outside manager access is only supported in routed firewall mode.

```
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 Configure the outside interface for manager access.

configure network management-data-interface

After you press **Enter**, you are prompted to configure basic network settings for the outside interface.

Manual IP Address

```
> configure network management-data-interface
Data interface to use for management: ethernet1/1
Specify a name for the interface [outside]: internet
IP address (manual / dhcp) [dhcp]: manual
IPv4/IPv6 address: 10.10.6.7
Netmask/IPv6 Prefix: 255.255.255.0
Default Gateway: 10.10.6.1
Comma-separated list of DNS servers [none]: 208.67.222.222,208.67.220.220
```

Guidance: To retain the outside DNS servers after registration, you need to re-configure the DNS Platform Settings in the Firewall Management Center.

```
DDNS server update URL [none]:
Do you wish to clear all the device configuration before applying ? (y/n) [n]:

Configuration done with option to allow manager access from any network, if you wish to change the
manager access network
use the 'client' option in the command 'configure network management-data-interface'.

Setting IPv4 network configuration.
Network settings changed.

>
```

IP Address from DHCP

```
> configure network management-data-interface
Data interface to use for management: ethernet1/1
Specify a name for the interface [outside]:
IP address (manual / dhcp) [dhcp]:
DDNS server update URL [none]:
https://dwinchester:pa$$w0rd17@domains.example.com/nic/update?hostname=<h>&myip=<a>
Do you wish to clear all the device configuration before applying ? (y/n) [n]:

Configuration done with option to allow manager access from any network, if you wish to change the
manager access network
use the 'client' option in the command 'configure network management-data-interface'.

Setting IPv4 network configuration.
Network settings changed.
```

```
>
```

Step 4 Identify the Security Cloud Control that will manage this Firewall Threat Defense using the **configure manager add** command that Security Cloud Control generated. See Onboard the firewall with manual provisioning, on page 6 to generate the command.

Example:

```
> configure manager add account1.app.us.cdo.cisco.com KPOOP0rgWzaHrnj1V5ha2q5Rf8pKFX9E
Lzm1HOynhVUWhXYWz2swmkj2ZWsN3Lb account1.app.us.cdo.cisco.com
Manager successfully configured.
```

Step 5 Shut down the Firewall Threat Defense so you can send the device to the remote branch office.

It's important that you shut down your system properly. Simply unplugging the power or pressing the power switch can cause serious file system damage. Remember that there are many processes running in the background all the time, and unplugging or shutting off the power does not allow the graceful shutdown of your system.

a) Enter the **shutdown** command.
b) Observe the Power LED and Status LED to verify that the chassis is powered off (appear unlit).
c) After the chassis has successfully powered off, you can then unplug the power to physically remove power from the chassis if necessary.