



Configure the FMC Endpoint Update App

The following task enables you to configure the FMC endpoint update app to communicate with the FMC.

- [Prerequisites for Configuration](#), on page 1
- [Configure the FMC Endpoint Update App](#), on page 3
- [JSON Configuration Reference](#), on page 5
- [FMC Cleanup Reference](#), on page 6

Prerequisites for Configuration

The following topics discuss prerequisite tasks you must complete before configuring the FMC Endpoint Update App.

Related Topics

- [Configure the FMC Domains and Subdomains](#), on page 1
- [Create Users for the FMC Endpoint Update App](#), on page 2

Configure the FMC Domains and Subdomains

Data in one APIC tenant is pushed and merged to one particular FMC domain you configure. APIC does *not* modify or delete any other object in another FMC domain. Note that objects defined in a domain are visible and usable in an FMC's subdomains, and that can be a way to share an object across subdomains.

For more information about domains, see the chapter on domain management in the [Cisco Firepower Management Center Configuration Guide](#).

Create domains and subdomains

Before you continue, make sure you have created all users, domains, and subdomains on the FMC. Subdomain users must be created in the correct domain (**System** (⚙️) > **Users** > **Create User**). If necessary, click **Add Domain** to add the user to the desired domain.)

To create a domain on the FMC:

1. Log in to the FMC.
2. Click **System** (⚙️) > **Domains** > **Add Domain**.
3. Enter the required information.

4. Click **Save**.
5. Click **Save**.

Examples

When you create a device in the FMC Endpoint Update App:

- Enter a username only to push and merge the configuration to the default Global domain on the FMC.
- Enter a domain and username in the format *domain\user* to get dynamic data from the tenant and access the FMC as *user* and update the objects of the subdomain named *domain* of the Global domain.
- Enter a domain and username in the format *domain1/domain2\user2* to get dynamic data from the APIC tenant and access the FMC as *user2* and update the objects of the subdomain *domain2*, which is a subdomain of *domain1*, which is a subdomain of Global.

For example, to push the APIC configuration for a tenant named ExampleTenant to the **Global \ domain1 \ domain2** domain on an FMC with IP address 192.0.2.25 as a user named SampleUser:

1. Log in to APIC.
2. Click **Apps > Apps**.
3. Under FMC Endpoint Update, click **Open**.
4. Click **Add Tenant/FMC**.
5. Add the following row to the table.

<input type="checkbox"/>	APIC Tenant Name	Type	IP	Domain	Username	Network Groups	Automatic Deploy	Status
<input type="checkbox"/>	DocumentationTest	FMC	192.0.2.25	GLOBAL/DOMAIN1/DOMAIN2/SAMPLEUSER	admin	Yes	Yes	Enabled

Related Topics

[Create Users for the FMC Endpoint Update App](#), on page 2

Create Users for the FMC Endpoint Update App

You must create one dedicated FMC user for the FMC Endpoint Update App to update network object and dynamic object configuration:

- The dedicated user is exclusively for the FMC endpoint update app to update the FMC network object configuration
- In addition, you must have a second administrative user that can be shared between the FMC endpoint update app and other FMC functions. (This can be an existing user or a new user.)

Each user must have the Administrator role. Each ASA user must have privilege level 15. It's necessary to have to users to avoid the FMC endpoint update app logging out the administrator unexpectedly.

The task that follows discusses how to create users on the FMC only. To create ASA users, see the *Cisco ASA Series General Operations ASDM Configuration Guide*.

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- Step 1** Log in to the FMC if you haven't done so already.
- Step 2** Click **System** > **Users** > **Users**.
- Step 3** Click **Create User**.
- Step 4** Under User Role Configuration, check **Administrator**.
- Step 5** (Optional.) Click **Add Domain** to give the user access to a particular domain.
Both FMC users must be administrators in the same domains.
- Step 6** Enter the other information required to configure the user; consult the online help for assistance.
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What to do next

See [Configure the FMC Endpoint Update App, on page 3](#).

Configure the FMC Endpoint Update App

To configure the FMC endpoint update app, complete the following procedure:

Before you begin

Before you configure and use the FMC Endpoint Update App, complete all of the following tasks:


- Configure the APIC application at minimum with:
 - A tenant for the FMC
 - In the tenant configuration, an application profile and an endpoint group (EPG)

For more information about configuring APIC, see the chapter on Basic User Tenant Configuration in the [Cisco APIC Basic Configuration Guide](#).

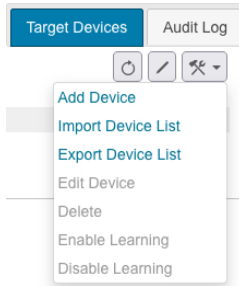
- Create one dedicated FMC user with the Administrator role.

For more information, see [Create Users for the FMC Endpoint Update App, on page 2](#).

- (Optional.) Create domains on the FMC as discussed in [Configure the FMC Domains and Subdomains, on page 1](#).

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- Step 1** Log in to APIC.
- Step 2** Click **Apps** > **Apps** > **FMC Endpoint Update**.
- Step 3** Locate the FMC endpoint update app.
- Step 4** Click **Open**.
- Step 5** Click  (Config Devices) > **Add Device**.

The following figure shows an example.



Step 6 For **Type**, click either **FMC** or **ASA**.

Step 7 Enter or edit the following information.

Item	Description
Update Interval	Enter the interval, in seconds, to update the FMC. Default is 60. The minimum interval is 30 seconds because updating too frequently might negatively impact system performance with a large number of FMCs.
Add Tenant/FMC	<p>Click to add a row to the table and enter the following information:</p> <ul style="list-style-type: none"> • APIC Tenant Name: Enter the name of an existing tenant. • FMC IP: Enter the FMC's IP address or fully-qualified host name. If your FMC is behind a NAT device, separate the IP address from the port with a colon character; for example, 192 . 2 . 0 . 9 : 5001. • FMC Domain/Username: Enter the alphanumeric username used by the app to sign in to the FMC. The username must be different than the username you use to sign in to the FMC. Otherwise, if they're the same, your sessions might get disconnected. Enter the domain and subdomain name, if any, to which to push data. Domain names can consist of alphanumeric characters or the \ and / characters only. For more information, see Configure the FMC Domains and Subdomains, on page 1. • FMC Password: Enter the FMC user's password. <p>Click Remove at the end of the row to remove an FMC tenant.</p>
Site Prefix	Enter a unique alphanumeric string to create a network group object on the FMC. In a multi-tenant environment, different network group objects prevent the configuration sent by APIC from being confused with any other configuration.

Item	Description
Automatic Deploy	FMC Check the box to start an FMC policy deployment after the app completes a periodic endpoint update. Consider disabling this option during periods of desired manual control of FMC configuration, such as during a maintenance window for FMC policy changes.
Download Config to JSON File	See JSON Configuration Reference, on page 5 .
Cleanup FMC Objects	(FMC only.) See FMC Cleanup Reference, on page 6 .
Failed Logins	Validates the configured FMC user name and password. The app displays login information with a UTC timestamp to identify each one.

Step 8 After you've configured all your FMCs, click **Submit Data**.

JSON Configuration Reference

You can optionally upload and download the FMC endpoint update app in JSON format. This might be useful to create a large configuration at once and then to back up that configuration later.

The JSON format follows:

```
{ "interval": "value", "site_prefix": "prefix", "tenant_1": "name", "user_1": "username",
  "password_1":
  "<hidden>", "deploy_n": "{true|false}", "status_n": "enabled|reachable|Connectivity is
  OK", "domain_n": domain name }
```

We recommend you download a configuration (even an empty one), edit the JSON file, then upload it.

After you upload a configuration, you must click **Submit Data** to save it.

An example follows.

Update Interval is seconds, and Site Prefix will be used to uniquely identify this site.

Load Config File: No file chosen [Download Config to JSON File](#)

	APIC Tenant Name	FMC IP	FMC Domain/Username	FMC Password	Automatic Deploy
<input type="button" value="Remove"/>	Example	192.0.2.1	admin	*****	<input type="checkbox"/>

Opening config.json

You have chosen to open:

config.json
which is: json File (741 bytes)
from: **data:**

What should Firefox do with this file?

Open with

Save File

Do this automatically for files like this from now on.

JSON for the preceding configuration:

```
{"interval":"60","site_prefix":"TEST","tenant_1":"Example","ip_1":"192.0.2.1","user_1":"admin","password_1":"<hidden>","deploy_n":"false"}
```

FMC Cleanup Reference

You can optionally clean up the APIC configuration pushed to the FMC in the event any of the following occur:

- You remove the APIC application entirely.
- You move the APIC configuration to another FMC.

The FMC endpoint update app cleans up the FMC object group configuration *only* for the site that is displayed in the app. No other configuration is removed either; for example, if Domain1 is defined for Site 1 and Domain2 is defined for Site 2, if you clean the configuration of Site 2, Domain 1 is not affected.

When disabling learning, check **Erase all objects** to erase the pushed object information on configured devices. To avoid configuration conflicts, we prevent pushing a new configuration to the FMC at the same time as cleaning up an existing configuration.

If the object group you clean up is used in any access control rule on the FMC, the following happens:

- The FMC network object is not deleted.
- The IP address is replaced by 127.0.0.1.

