



Install the OVA Using a Virtualization Software

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Install the OVA Using a VMware ESXi Server

Before you begin

This procedure focuses on installing the OVA using VMware ESXi server. You can use any virtualization software of your choice.

- Log in to the IP address of a VMware ESXi server running 6.5 and above via a web browser with your user credentials.
- Ensure that you meet the following VMware server machine (VM CPU and memory) requirements:
 - 24 GB memory
 - 4 vCPUs
 - Hard disk: 540 GB
- Use the following credentials for SSH access after installing OVA
 - Username: fnduser
 - Password: C!sco123

Procedure

Step 1

Use the steps provided in Broadcom's documentation to [Deploy a Virtual Machine From an OVF or OVA File in the VMware Host Client](#).

Note

- After choosing the data store, choose the provisioning type and enable the **Power on automatically** option. This ensures to power on the virtual machine once the deployment process is complete. Click **Next**.

- **Thick Provisioning** — Absolute reservation on the disk space. For the Cisco IoT FND OVA deployment, the disk space required is 600 GB on the ESXi server.
- **Thin Provisioning** — The disk space grows on demand. For the Cisco IoT FND OVA deployment, the disk space is approximately 50 GB initially and the disk space occupied by VM will grow as per the scale of deployment.
- If the selected storage location doesn't have sufficient storage for the largest file installation option, a message displays noting insufficient storage. If the warning message appears, select another storage resource with greater capacity and click **Next**.

Step 2 The deployed VM gets listed in the left pane. Choose the IoT FND machine name.

Step 3 Click **Console** and login with root/cisco123 once the OS is up.

Step 4 Once you enter the default password, you are prompted to reset your password.

- The default root user password is C!sco123.
- The following conditions are applicable to reset the default password:
 - The password must be at least 8 characters in length
 - The password must have at least 1 uppercase character
 - The password must have at least 1 lowercase character
 - The password must have at least 1 special character
 - The password must have at least 1 digit
 - The password cannot be the same as any of the previous 5 passwords used

After you complete the password reset, Cisco IoT FND is fully deployed.

Step 5 Assign a static IP address and a DNS server on a Red Hat Enterprise Linux system for managing and configuring the Cisco IoT FND.

Note

Follow the same steps for TPS OVA installation as well. In order to upgrade the TPS OVA, delete the existing TPS and reinstall the TPS OVA `iot-tps-version_number.ova` with the updated version number.

Step 6 Open a terminal window, and set up Health Monitoring for the Fog Director Container from FND.

Example:

```
[root@iot-fnd ~]# cd /opt/monitor/
[root@iot-fnd monitor]# .setup.sh

Starting setup...
Configuring environment...
Setup completed successfully.
```

Cisco IoT FND starts monitoring the Fog Director container on the **ADMIN > SERVERS** page.

What to do next

Configure hostnames in Cisco IoT FND and TPS servers.

Configure Hostnames

When onboarding Cisco IoT FND, configure domain names in the **/etc/hosts** file. Use this configuration for the Zero Touch Deployment (ZTD) and Plug and Play (PNP) of FAR devices. The domain name resolves the FND or TPS hostname to an IP address, facilitating communication with Cisco IoT FND.

Use the following instructions to configure hostnames in FND and TPS servers:

Procedure

Step 1 Edit hostname in the **/etc/hosts** file.

Example:

```
root@iot-fnd ~]# nano /etc/hosts
```

This displays the **/etc/hosts** file, allowing you to edit it by adding or updating hostnames with their corresponding IP addresses.

Step 2 Enter the domain name for the host IP address separated by a space or a tab.

Example:

```
209.165.200.225 fnd.iot.cisco.com
209.165.201.1 tps.iot.cisco.com
```

Step 3 Save the changes by selecting **Y** and exit.

Step 4 Validate the updated hostname using the following command:

Example:

```
[root@iot-fnd-oracle ~]# ping fnd.iot.cisco.com
64 bytes from fnd.iot.cisco.com (209.165.200.225): icmp_seq=1 ttl=64 time=0.052 ms
64 bytes from fnd.iot.cisco.com (209.165.200.225): icmp_seq=2 ttl=64 time=0.058 ms
64 bytes from fnd.iot.cisco.com (209.165.200.225): icmp_seq=3 ttl=64 time=0.048 ms
```

The updated hostname is displayed along with the corresponding IP address.

Step 5 To view the hostnames with the corresponding IP addresses, use the following command:

Example:

```
[root@iot-fnd ~]# cat /etc/hosts
127.0.0.1 iot-fnd-oracle localhost localhost.localdomain localhost4 localhost4.localdomain4
::1 iot-fnd-oracle localhost localhost.localdomain localhost6 localhost6.localdomain6
209.165.200.225 fnd.iot.cisco.com
209.165.201.1 tps.iot.cisco.com
```

You've successfully configured hostnames on Cisco IoT FND and TPS servers.

What to do next

Configure NTP servers and IP host entries.

Configure NTP Server and IP Host Entries on HER Devices

Enhance the manageability of your network infrastructure by configuring the NTP server and IP host entries on a HER device.

Follow these instructions to configure the NTP server and IP host entries on HER devices:

Procedure

Step 1 Access the HER device using the SSH terminal

Step 2 Enter the global configuration mode

Example:

```
config t
```

Step 3 Use the `ntp server` command to specify the IP address or hostname of the NTP server.

Example:

```
ntp server 192.168.1.100
ntp server ntp.example.com
```

Step 4 Exit the configuration.

Example:

```
config t
ntp server 192.168.1.100
exit
```

Step 5 To remove an existing IP host entry, use the no form of the `ip host` command:

Example:

```
no ip host caserver.fnd.iot.com 192.168.1.100
```

Step 6 Add the new IP address for the hostname:

Example:

```
ip host caserver.fnd.iot.com 192.168.1.100
```

Step 7 Exit the configuration.

Example:

```
config t
ip host fndserver.fndiot.com 192.168.1.100
exit
```

You've successfully configured the NTP servers and IP host entries.