



Cisco FindIT Network Manager & Probe Installation Guide for Microsoft Hyper-V, Version 2.x

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CHAPTER 1

Cisco FindIT Network Management Overview

This chapter contains the following sections:

- [About Cisco FindIT Network Management](#) , on page 1
- [Audience](#), on page 1
- [Related Documents](#), on page 2
- [Terminology](#), on page 2
- [System Requirements for FindIT Network Manager](#), on page 3
- [System Requirements for FindIT Network Probe](#), on page 4

About Cisco FindIT Network Management

Cisco FindIT Network Management provides tools that help you monitor and manage your Cisco 100 to 500 Series network. FindIT Network Management automatically discovers your network, and allows you to configure and monitor all supported Cisco 100 to 500 Series devices such as Cisco switches, routers, and wireless access points. It also notifies you the availability of firmware updates, and about any devices that are no longer under warranty or covered by a support contract.

FindIT Network Manager is a distributed application which is comprised of two separate components or applications: one or more Probes referred to as FindIT Network Probe and a single Manager called FindIT Network Manager.

An instance of FindIT Network Probe is installed at each site in the network, performs network discovery and communicates directly with each Cisco device. A single instance of FindIT Network Manager is installed at a convenient location in the network and each Probe is associated with the Manager. From the Manager interface, you can get a high-level view of the status of all the sites in your network, or concentrate on a single site or device to see information specific to that site or device.

Audience

This guide is primarily intended for network administrators who are responsible for Cisco FindIT Network Management software installation and management.

Related Documents

The documentation for Cisco FindIT Network Manager & Probe is comprised of a number of separate guides. These include:

- **Installation Guides**

The following table lists all the installation guides of FindIT software that can be deployed on different platforms. Refer the path provided in the location column for details:

Supported Platforms	Location
Microsoft Hyper-V	This document.
Oracle VirtualBox	Cisco FindIT Network Manager & Probe Installation Guide for Oracle VirtualBox
VMWare vSphere, Workstation and Fusion	Cisco FindIT Network Manager & Probe Installation Guide for VMWare
Amazon Web Services	Cisco FindIT Network Manager & Probe Installation Guide for Amazon Web Services
Ubuntu Linux (Manager and Probe) and Raspbian Linux (Probe only)	Cisco FindIT Network Manager & Probe Installation Guide for Linux

- **Quick Start Guide**—This provides details on performing the initial setup for FindIT Network Manager & Probe using the most commonly selected options. Refer to [Cisco FindIT Network Manager and Probe Quick Start Guide](#).
- **Administration Guide**—This is a reference guide that provides details about all the features and options provided by the software and how they may be configured and used. Refer to [Cisco FindIT Network Manager and Probe Administration Guide](#).

Terminology

Term	Description
Hyper-V	A virtualization platform provided by Microsoft Corporation.
Open Virtualization Format (OVF)	A TAR archive containing one or more virtual machines in OVF format. It is a platform-independent method of packaging and distributing Virtual Machines (VMs).
Open Virtual Appliance or Application (OVA) file	Package that contains the following files used to describe a virtual machine and saved in a single archive using .TAR packaging: <ul style="list-style-type: none"> • Descriptor file (.OVF) • Manifest (.MF) and certificate files (optional)

Term	Description
Raspberry Pi	A very low cost, single board computer developed by the Raspberry Pi Foundation. For more information, see https://www.raspberrypi.org/ .
Raspbian	A Debian-based linux distribution optimized for the Raspberry Pi. For more information, see https://www.raspbian.org/ .
VirtualBox	A virtualization platform provided by Oracle Corporation.
Virtual Hard Disk (VHD)	Virtual hard disk is a disk image file format for storing the complete contents of a hard drive.
Virtual Machine (VM)	A virtual computing environment in which a guest operating system and associated application software can run. Multiple VMs can operate on the same host system concurrently.
<ul style="list-style-type: none"> • VMWare ESXi • VMWare Fusion • vSphere Server • VMWare Workstation 	A virtualization platform provided by VMWare Inc.
vSphere Client	User interface that enables users to connect remotely to vCenter Server or ESXi from any Windows PC. You can use the primary interface for vSphere Client to create, manage, and monitor VMs, their resources, and the hosts. It also provides console access to VMs.

System Requirements for FindIT Network Manager

Cisco FindIT Network Manager is distributed as a zipped virtual machine image suitable for use with Microsoft Hyper-V version 10.0 or above. The following table lists the compute resources required for FindIT Network Manager based on the number of devices under management.

Table 1: FindIT Network Manager Compute Resource Requirements

#Device Supported	# vCPU	RAM	Disk Space
Up to 300	2	4GB	60GB
Up to 2500	12	24GB	60GB

FindIT Network Manager is administered through a web user interface. To use this interface, your browser must be one of the following:

- Apple Safari version 11 (macOS only) or above
- Google Chrome version 72 (Recommended) or above

- Microsoft Edge version 42 or above
- Mozilla Firefox version 65 or above



Note When using Safari, check that the certificate from FindIT Network Probe is set to **Always Trust**. Otherwise, certain functions that depend on the use of secure websockets are expected to fail. This is a limitation of the Safari web browser.

Your network must allow all instances of FindIT Network Probe to establish TCP connectivity with FindIT Network Manager. For more details on the ports and protocols used, see *Frequently Asked Questions* in the [Cisco FindIT Network Manager and Probe Quick Start Guide](#).

System Requirements for FindIT Network Probe

Cisco FindIT Network Probe is distributed as a virtual machine image suitable for use with Microsoft Hyper-V version 10.0 or above. The compute resources required for FindIT Network Probe are:

- CPU: 1x 64-bit Intel architecture
- Memory: 512MB
- Disk space: 5GB

FindIT Network Probe is administered through a web user interface. To use this interface, your browser must be one of the following:

- Apple Safari version 11 (macOS only) or above
- Google Chrome version 72 (Recommended) or above
- Microsoft Edge version 42 or above
- Mozilla Firefox version 65 or above

FindIT Network Probe monitors and accesses the network devices that meet the following requirements:

- Must be in the same subnet as the PC that is running the FindIT Network Probe, or be directly attached to a managed device and reachable via TCP/IP
- Must be a Cisco 100 to 500 Series device with the Bonjour service enabled



CHAPTER 2

Installing FindIT Network Manager

This chapter contains the following sections:

- [Obtaining and Verifying FindIT Network Manager Software, on page 5](#)
- [Installing FindIT Network Manager with Hyper-V, on page 6](#)

Obtaining and Verifying FindIT Network Manager Software

Cisco FindIT Network Manager is distributed as a zipped **Microsoft Hyper-V** virtual machine. The virtual machine image also contains the FindIT Network Probe application, allowing a single VM to act as both Manager and Probe for a particular site. To obtain the virtual machine image, navigate to <https://www.cisco.com/go/findit-sw>.

The virtual machine image has been cryptographically signed by Cisco to ensure that the software has not been tampered with. The Hyper-V virtual machine image format does not provide a mechanism for cryptographically signing virtual machines. In order to sign the image, a signature has been generated for the image zip file and is recorded in a file separate to the virtual machine image. The signature file, the virtual machine image, and a number of supporting files have been packaged in to a single zip file. It is this zip file that is downloaded from the Cisco Software Center. The contents of this zip file are described in the following table:

Filename	Description
FINDIT_MANAGER_KEY-CCO_RELEASE.cer	The code signing certificate used to sign the virtual machine image
Cisco_FindIT_Manager-2.0.0.xxxxxxxx.zip	The virtual machine image
Cisco_FindIT_Manager-2.0.0.xxxxxxxx.zip.signature	A file containing the cryptographic signature for the virtual machine image
README.txt	The README file describes the contents of the zip file and how to validate the signature
scripts/cisco_x509_verify_release.py	A python script to verify the signature

Filename	Description
verify.bat	A script to verify the signature in a format suitable for use on Microsoft Windows
verify.sh	A script to verify the signature in a format suitable for use on Unix-like operating systems

To verify the virtual machine image signature, do the following:

1. Ensure you have the OpenSSL package and the Python programming language installed on the PC where you will verify the signature.
2. Unzip the file you downloaded from the software center into a convenient location on the PC
3. Validate the signature by running either the verify.bat file or the verify.sh file, depending on the PC operating system. The script will download the Cisco root certificate and intermediate certificate from cisco.com, verify that the code signing certificate has not been tampered with, and then validate the signature of the virtual machine image. The success or failure of the process will be reported in the script output.

Installing FindIT Network Manager with Hyper-V

Once you have obtained and verified the FindIT Network Manager software, you may install it using the following steps:

1. Ensure you have a working Microsoft Hyper-V environment available to host the virtual machine. For assistance in setting up your environment, refer the Microsoft Hyper-V documentation. The following links provide a useful starting point:
 - For Windows 10—<https://docs.microsoft.com/en-us/virtualization/#pivot=main&panel=windows>
 - For Windows Server—<https://docs.microsoft.com/en-us/virtualization/#pivot=main&panel=server>
2. Unzip the signed archive file to a convenient location on your PC. Optionally, use the `verify.*` scripts to validate the cryptographic signature as described above.
3. Unzip the virtual machine image archive to a convenient directory on your PC.
4. Open **Hyper-V Manager** and select **Action > Import Virtual Machine ...**
5. Follow the prompts and make sure you have selected the directory created when you extracted the archive in step 2. Consider whether you want the VM files to be copied, moved, or left in place when you select the import type.
6. Check that the network adapter is connected to a virtual switch that is mapped to the correct external network on the host machine.
7. Start the virtual machine.

The virtual machine will boot and automatically start the FindIT Network Manager application. Refer to the [Cisco FindIT Network Manager and Probe Quick Start Guide](#) for details of how to access the application and perform initial setup.



CHAPTER 3

Installing FindIT Network Probe

An instance of FindIT Network Probe is required for each site in your network that you want to manage. The Probe discovers the network, collects performance and configuration data from the discovered devices, and reports that information back to the Manager.

This chapter contains the following sections:

- [Obtaining and Verifying FindIT Network Probe Software, on page 9](#)
- [Installing FindIT Network Probe with Hyper-V, on page 10](#)

Obtaining and Verifying FindIT Network Probe Software

FindIT Network Probe is distributed as a zipped **Microsoft Hyper-V** virtual machine. The Probe is also included as part of the FindIT Network Manager virtual machine image, allowing a single VM to act as both Manager and Probe for a particular site. To obtain the virtual machine image, navigate to <https://www.cisco.com/go/findit-sw>.

The virtual machine image has been cryptographically signed by Cisco to ensure that the software has not been tampered with. The Hyper-V virtual machine image format does not provide a mechanism for cryptographically signing virtual machines. In order to sign the image, a signature has been generated for the image zip file and is recorded in a file separate to the virtual machine image. The signature file, the virtual machine image, and a number of supporting files have been packaged in to a single zip file. It is this zip file that is downloaded from the Cisco Software Center. The contents of this zip file are described in the following table:

Filename	Description
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Cisco_FindIT_Probe-2.0.0.xxxxxxxx.zip	The virtual machine image
Cisco_FindIT_Probe-2.0.0.xxxxxxxx.zip.signature	A file containing the cryptographic signature for the virtual machine image
README.txt	The README file describes the contents of the zip file and how to validate the signature
scripts/cisco_x509_verify_release.py	A python script to verify the signature

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verify.bat	A script to verify the signature in a format suitable for use on Microsoft Windows
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2. Unzip the file you downloaded from the software center into a convenient location on the PC
3. Validate the signature by running either the verify.bat file or the verify.sh file, depending on the PC operating system. The script will download the Cisco root certificate and intermediate certificate from cisco.com, verify that the code signing certificate has not been tampered with, and then validate the signature of the virtual machine image. The success or failure of the process will be reported in the script output.

Installing FindIT Network Probe with Hyper-V

Once you have obtained and verified the FindIT Network Probe software, you may install it using the following steps:

1. Ensure you have a working Microsoft Hyper-V environment available to host the virtual machine. For assistance in setting up your environment, refer the Microsoft Hyper-V documentation. The following links provide a useful starting point:
 - For Windows 10—<https://docs.microsoft.com/en-us/virtualization/#pivot=main&panel=windows>
 - For Windows Server—<https://docs.microsoft.com/en-us/virtualization/#pivot=main&panel=server>
2. Unzip the signed archive file to a convenient location on your PC. Optionally, use the `verify.*` scripts to validate the cryptographic signature as described above.
3. Unzip the virtual machine image archive to a convenient location on your PC.
4. Open **Hyper-V Manager** and select **Action > Import Virtual Machine ...**
5. Follow the prompts and make sure you have selected the directory created when you extracted the archive in step 2. Consider whether you want the VM files to be copied, moved, or left in place when you select the import type.
6. Check that the network adapter is connected to a virtual switch that is mapped to the correct external network on the host machine.

The network interface of the FindIT Network Probe should be connected to a VLAN containing the management interfaces for at least one of the network devices. If the Probe is not directly connected to at least one network device, it may be unable to fully discover the network.

7. Start the virtual machine.

The virtual machine will boot and automatically start the FindIT Network Probe application. Refer to the [Cisco FindIT Network Manager and Probe Quick Start Guide](#) for details on how to access the application and perform the initial setup.

