



Installing Cisco Business Dashboard Probe

An instance of Cisco Business Dashboard 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 Dashboard.

This chapter contains the following sections:

- [Obtaining and Verifying Cisco Business Dashboard Probe Software, on page 1](#)
- [Installing Cisco Business Dashboard Probe with Hyper-V, on page 2](#)

Obtaining and Verifying Cisco Business Dashboard Probe Software

Cisco Business Dashboard Probe is distributed as a zipped **Microsoft Hyper-V** virtual machine. The Probe is also included as part of the Cisco Business Dashboard virtual machine image, allowing a single VM to act as both Dashboard and Probe for a particular site. To obtain the virtual machine image, navigate to <https://www.cisco.com/go/cbd-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
CISCO_BUSINESS_DASHBOARD_KEY-CCO_RELEASE.cer	The code signing certificate used to sign the virtual machine image
Cisco_Business_Dashboard_Probe-2.2.0.xxxxxxxx.zip	The virtual machine image
Cisco_Business_Dashboard_Probe-2.2.0.xxxxxxxx.zip.signature	A file containing the cryptographic signature for the virtual machine image

Filename	Description
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
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 Cisco Business Dashboard Probe with Hyper-V

Once you have obtained and verified the Cisco Business Dashboard 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 Cisco Business Dashboard 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 Probe application. Refer to the [Cisco Business Dashboard Quick Start Guide](#) for details on how to access the application and perform the initial setup.

