

Release Notes for Cisco UCS Tools

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Cisco UCS Tools

Cisco UCS Tools is a host utility vSphere Installation Bundle (VIB) that collects information about the Operating System and driver versions and makes this information available in Cisco Intersight.

This information helps Cisco Intersight evaluate compliance with the Hardware Compatibility Tool (HCL). Cisco UCS Tools uses Intelligent Platform Management Interface (IPMI) over Keyboard Controller Style (KCS) to send the information collected to Cisco IMC.

Cisco UCS Tools includes the following:

- Scripts to collect the ESXi driver inventory and OS information using **esxcli** commands and send this information to Cisco IMC
- Scripts to read configuration files from Cisco IMC and use it to configure the management network on the ESXi host
- The **ipmitool** binary, customized by Cisco to read or write files on Cisco IMC
- **init** scripts to invoke the inventory collection and network configuration during boot. The host inventory is collected every 24 hours starting with version 1.0.3-1OEM for ESXi 6.0/6.5 and 1.1.0-1OEM for ESXi 6.7 and above.

Revision History

If your ESXi version did not previously include UCS Tools, you can download and install it manually. The following table shows the release history of Cisco UCS Tools VIB Versions and the compatibility information with the ESXi versions. Ensure that you install the appropriate version of UCS Tools that corresponds to your Cisco OEM ESXi version to evaluate HCL compliance of your systems. If you want to download a Cisco Custom ESXi OEM image bundled with UCS Tools, search for the Cisco Custom OEM Images for preferred ESXi version on the VMware software download site.



Important

- The images on VMware.com might not contain the latest compatible VIB version. Cisco recommends that you refer to column 2 in the table for the latest VIB version and install it manually.
- For HyperFlex clusters, use the latest ESXi upgrade image posted on the Cisco.com Software Download page for [HyperFlex HX Data Platform](#). The HyperFlex Data Platform upgrade bundle comprises of latest version of UCS tools at time of release. Do not use any other non-HyperFlex ESXi upgrade bundle (including the Cisco Custom OEM bundles on VMware.com) for HyperFlex clusters.

Table 1: Cisco UCS Tools Release History and Compatible VIB Versions

ESXi Version	Latest Compatible VIB Version available on Cisco.com	Download location of the Cisco Custom Images on VMware.com	Download location of HyperFlex Upgrade bundles on Cisco.com
6.0	1.0.7-1OEM*	Download CISCO Custom Image for ESXi	HyperFlex HX Data Platform
6.5	1.0.12-1OEM		
6.7	1.1.12-1OEM		
7.0	1.2.1-1OEM		



Note *Starting from Cisco UCS Tools VIB version **1.0.12-1OEM** VMware ESXi 6.0 will be not be supported.

System Requirements

Supported Operating Systems

- Cisco OEM VMware ESXi image

For information about the exact versions of the supported Operating System, see [https://intersight.com/help/resources#compliance_with_hardware_compatibility_list_\(hcl\)](https://intersight.com/help/resources#compliance_with_hardware_compatibility_list_(hcl)).

Driver Requirements

Cisco UCS Tools needs IPMI drivers to communicate with Cisco IMC. The following IPMI drivers are installed and enabled by default on the ESXi system:

- ipmi-ipmi-devintf
- ipmi-ipmi-msghandler
- ipmi-ipmi-si-drv

New Software Features

New Software Features in Cisco UCS Tools VIB Version 1.0.12-1OEM, 1.1.12-1OEM, and 1.2.1-1OEM

- Added the ability to inventory management network information such as uplink, vSwitch and port group information.
- Added the ability to change network configuration without requiring a full host reboot.
- Added the ability to rename Management vSwitch.
- Added optimization to reduce the number of periodic inventory updates.

New Software Features in Cisco UCS Tools VIB Version 1.0.7-10EM and 1.1.5-10EM

HCL GPU Support

- Capability to determine hardware compliance for Cisco UCS and Cisco HyperFlex HX-Series servers with GPUs.

New Software Features in Cisco UCS Tools VIB Version 1.1.2-10EM

VMware ESXi Support

- UCS Tools is supported on ESXi version 7.0

New Software Features in Cisco UCS Tools VIB Version 1.0.3-10EM and 1.1.0-10EM

GPU Driver Inventory Support

- Cisco UCS Tools enhanced to support GPU driver inventory collection.
- Enhanced driver inventory collection to occur daily.

Install and Upgrade Guidelines

Downloading Cisco UCS Tools VIB

The Cisco UCS Tools VIB is packaged in the Cisco ESXi OEM images and is also available for download on [Cisco.com](https://www.cisco.com). The location for each VIB version is available in the [Revision History](#) table.

Installing and Upgrading UCS Tools



Attention

- UCS Tools is supported on ESXi version 6.0 and higher.
- If you are trying to evaluate the HCL compliance for HyperFlex servers, proceed to Step 3 directly.
- For all non-HyperFlex servers—If the Host Acceptance Level is **VMwareCertified** or **VMwareAccepted**, you cannot install the VIB unless you lower your Host Acceptance level to **PartnerSupported**. Steps 1 and 2 show the procedure to lower the Host Acceptance level. If your Host Acceptance level is already at **Community** or **PartnerSupported**, proceed to Step 3 directly.

For more information about Host Acceptance Levels, see [Understanding Acceptance levels for VIBs and Hosts](#).

• ESXi Versions 7.0

- If you are using ESXi version 7.0 run the command `esxcli software component apply -d <path to UCS Tool component file (.zip)>` to install UCS Tools.
- To ensure UCS Tools works with ESXi version 7.0:
 - Fabric Interconnect Attached Cisco UCS M5 servers must be running UCS Manager 4.0(4h) or 4.1(1c).
 - Standalone Cisco UCS M5 servers must be running Cisco IMC 4.0(4k) or 4.1(1f).

After downloading the appropriate version of the Cisco UCS Tools VIB, use the instructions below to install it on the supported ESXi hosts.

1. Run the command **esxcli software acceptance get** to obtain the current ESXi host acceptance level. To install the UCS Tools VIB, you must set the ESXi host acceptance level to `PartnerSupported`.

The following example shows that the supported current acceptance level is set to `VMwareAccepted`:

```
[root@hx-ucsm-qa-node-1:/opt/ucs_tool_esxi]
esxcli software acceptance get
VMwareAccepted
```

2. Run the command **esxcli software acceptance set --level=PartnerSupported** to set the current ESXi host acceptance level.

The following example shows that the supported current acceptance level is set to `PartnerSupported`:

```
[root@hx-ucsm-qa-node-1:/opt/ucs_tool_esxi] esxcli software acceptance set
--level=PartnerSupported
Host acceptance level that is changed to 'PartnerSupported'
```

3. Download or copy the VIB onto the ESXi host and run the command. Copy the VIB to `/tmp`.

- a. **For ESXi versions prior to 7.0**

Run the command **esxcli software vib install -v <path pointing to location of VIB>**

--viburl|-v Specifies the URLs to the VIB packages to install.

The following example shows the command for ESXi versions prior to 7.0:

```
[root@localhost:~] esxcli software vib install -v /tmp/ucs-tool-esxi-1.0.4.vib
Installation Result
  Message: Operation finished successfully.
  Reboot Required: false
  VIBs Installed: CIS_bootbank_ucs-tool-esxi_1.0.4-1OEM
  VIBs Removed:
  VIBs Skipped:
[root@localhost:~]
```

- b. **For ESXi version 7.0 and later**

Run the command **esxcli software component apply -d /tmp/ucs-tool-esxi.zip**

--depot | -d Specifies the full remote URL to the depot's index.xml, or a local file path to an offline bundle .zip file

The following example shows the command for ESXi version 7.0 and later:

```
[root@localhost:~] esxcli software component apply -d /tmp/ucs-tool-esxi.zip
Installation Result
  Components Installed: CIS-ucs-tool-esxi_1.1.2-1OEM
  Components Removed:
  Components Skipped:
  Message: Operation finished successfully.
  Reboot Required: false
[root@localhost:~]
```

4. Verify if the installation was successful and obtain more information about the installed VIBs.

- a. **For ESXi versions prior to 7.0**

Run the command **esxcli software vib list** to obtain more information about the installed VIBs.

The following example shows the list of VIBs installed on the ESXi host.

```
[root@hx-ucsm-qa-node-1:/opt/ucs_tool_esxi] esxcli software vib list
ucs-tool-esxi      1.0.1-10EM
Cisco_Systems_Inc. PartnerSupported 2017-11-06
```

b. For ESXi version 7.0 and later

Run the command `esxcli software component list | grep ucs` to obtain more information about the installed VIBs.

```
esxcli software component get -n CIS-ucs-tool-esxi
```

```
[root@localhost:~] esxcli software component list | grep ucs
CIS-ucs-tool-esxi 1.1.2-10EM
Cisco 06-04-2020 PartnerSupported
```

5. Get detailed information about the VIB.

a. For ESXi versions prior to 7.0

Run the command `esxcli software vib get --vibname ucs-tool-esxi` to view detailed information about the VIB.

b. For ESXi version 7.0 and later

Run the command `esxcli software component get -n CIS-ucs-tool-esxi` to view detailed information about the VIB.

```
root@localhost:~] esxcli software component get -n CIS-ucs-tool-esxi
CIS-ucs-tool-esxi_1.1.2-10EM
  Name: CIS-ucs-tool-esxi
  Display Name: CIS-ucs-tool-esxi
  Version: 1.1.2-10EM
  Display Version: 1.1.2-10EM
  VIBs: CIS_bootbank_ucs-tool-esxi_1.1.2-10EM
  Vendor: Cisco
  Summary: ucs_tool_esxi: [Fling] Cisco Out-of-band Host Inventory and Network
  Configuration
  Severity: general
  Urgency: important
  Category: enhancement
  Release Type: extension
  Kurl:
  https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/release/notes/UCS-Tools-ESXi-RN.html

  Description: Out-of-band host inventory and network configuration using Cisco
  CIMC.
  Contact: Cisco Technical Assistance Center (TAC)
  http://tools.cisco.com/ServiceRequestTool/create/
  ReleaseDate: 06-04-2020
```



Note

- Starting from Cisco UCS Tools VIB version **1.0.12-10EM**, **1.1.12-10EM**, and **1.2.1-10EM** you can change network configuration without requiring a full host reboot and rename Management vSwitch.
- Starting from Cisco UCS Tools VIB version **1.0.12-10EM** VMware ESXi 6.0 will be not be supported.

Viewing Logs

You can view the following logs in `syslog (/var/log/syslog.log)`:

- Run the command `cat /var/log/syslog.log | grep ucs-tool-esxi-inv` to obtain the logs for inventory collection.
- Run the command `cat /var/log/syslog.log | grep ucs-tool-esxi-cfg` to obtain the logs for host configuration.

Manually Triggerring Inventory Collection

Run the command `python /opt/ucs_tool_esxi/ucs_host_inventory.py` to manually trigger inventory collection.

```
[root@localhost:~] python /opt/ucs_tool_esxi/ucs_host_inventory.py
```

Resolved Caveats

Version 1.1.6-10EM

The following caveats are resolved in Version 1.1.6-10EM.

Table 2: Resolved Caveats in Version 1.1.6-10EM

Defect ID	Description	First Bundle Affected	Resolved in Release
CSCvw46864	VMware vSphere 7.0 shows incorrect UCS Tools version.	1.1.2	1.1.6

Version 1.1.0-10EM

The following caveats are resolved in Version 1.1.0-10EM.

Table 3: Resolved Caveats in Version 1.1.0-10EM

Defect ID	Description	First Bundle Affected	Resolved in Release
CSCvo23711	GPU driver inventory is collected from Cisco UCS Tools.	1.0.1	1.0.3, 1.1.0

Version 1.0.3-10EM

The following caveats are resolved in Version 1.0.3-10EM.

Table 4: Resolved Caveats in Version 1.0.3-10EM

Defect ID	Description	First Bundle Affected	Resolved in Release
CSCvo23711	GPU driver inventory must be collected from Cisco UCS Tools.	1.0.1	1.0.3

Version 1.0.1-10EM

The following caveats are resolved in Version 1.0.1-10EM.

Table 5: Resolved Caveats in Version 1.0.1-10EM

Defect ID	Description	First Bundle Affected	Resolved in Release
CSCvf53511	UCS tools host inventory needs ESXi update version, patch version. Network config should set gateway.	1.0.1	1.0.1