Manage the Capability Catalog in Cisco UCS Manager

Capability Catalog

The Capability Catalog is a set of tunable parameters, strings, and rules. Cisco UCS uses the catalog to update the display and configurability of components such as newly qualified DIMMs and disk drives for servers.

The catalog is divided by hardware components, such as the chassis, CPU, local disk, and I/O module. You can use the catalog to view the list of providers available for that component. There is one provider per hardware component. Each provider is identified by the vendor, model (PID), and revision. For each provider, you can also view details of the equipment manufacturer and the form factor.

For information about which hardware components are dependent upon a particular catalog release, see the component support tables in the Service Notes for the B- Series servers. For information about which components are introduced in a specific release, see the Cisco UCS Release Notes.

Contents of the Capability Catalog

The contents of the Capability Catalog include the following:

Implementation-Specific Tunable Parameters

- Power and thermal constraints
- Slot ranges and numbering
- Adapter capacities

Hardware-Specific Rules

- Firmware compatibility for components such as the BIOS, CIMC, RAID controller, and adapters
- Diagnostics
- Hardware-specific reboot

User Display Strings

- Part numbers, such as the CPN, PID/VID
- Component descriptions
- Physical layout/dimensions
- OEM information

Updates to the Capability Catalog

The Cisco UCS Infrastructure Software Bundle includes capability catalog updates. Unless otherwise instructed by Cisco Technical Assistance Center, you only need to activate the capability catalog update after you've downloaded, updated, and activated a Cisco UCS Infrastructure Software Bundle.

As soon as you activate a capability catalog update, Cisco UCS immediately updates to the new baseline catalog. You do not have to perform any further tasks. Updates to the capability catalog do not require you to reboot or reinstall any component in a Cisco UCS domain.

Each Cisco UCS Infrastructure Software Bundle contains a baseline catalog. In rare circumstances, Cisco releases an update to the capability catalog between Cisco UCS releases and makes it available on the same site where you download firmware images.

Note The capability catalog version is determined by the version of Cisco UCS that you are using. You can upgrade a capability catalog within the same major release version. For example, Cisco UCS 4.0(1) releases work with any 4.0(2) release of the capability catalog, but not with any version of 3.2, 3.1, 3.0, or earlier releases. Similarly, you can use a Release 3.2(2) capability catalog with a 3.2(1) system, but not with a 3.0(1) system.

For information about capability catalog releases supported by specific Cisco UCS releases, see the *Release Notes for Cisco UCS Software* accessible through the *Cisco UCS B-Series Servers Documentation Roadmap* available at the following URL: http://www.cisco.com/go/unifiedcomputing/b-series-doc.

Activating a Capability Catalog Update

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope system**	Enters system mode.
Step 2	UCS-A /system # **scope capability**	Enters system capability mode.

	Command or Action	Purpose
Step 3	UCS-A /system/capability # **activate firmware** *firmware-version*	Activates the specified Capability Catalog version.
Step 4	UCS-A /system/capability # **commit-buffer**	Commits the transaction to the system configuration.

Example

The following example activates a Capability Catalog update and commits the transaction:

Verifying that the Capability Catalog is Current

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope system**	Enters system mode.
Step 2	UCS-A /system # **scope capability**	Enters system capability mode.
Step 3	UCS-A /system/capability # **show version**	Displays the current Capability Catalog version.
Step 4	On Cisco.com, determine the most recent release of the Capability Catalog available.	For more information about the location of Capability Catalog updates, see Obtaining Capability Catalog Updates from Cisco, on page 6.
Step 5	If a more recent version of the Capability Catalog is available on Cisco.com, update the Capability Catalog with that version.	

Example

The following example displays the current Capability Catalog version:

Restarting a Capability Catalog Update

You can restart a failed Capability Catalog file update, modifying the update parameters if necessary.

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope system**	Enters system command mode.

	Command or Action	Purpose
Step 2	UCS-A /system # **scope capability**	Enters capability command mode.
Step 3	UCS-A /system/capability # **show cat-updater** [*filename*]	(Optional) Displays the update history for Capability Catalog file update operations.
Step 4	UCS-A /system/capability # **scope cat-updater** *filename*	Enters the command mode for the Capability Catalog file update operation.
Step 5	UCS-A /system/capability/cat-updater # **set userid** *username*	(Optional) Specifies the username for the remote server.
Step 6	UCS-A /system/capability/cat-updater # **set password** *password*	(Optional) Specifies the password for the remote server username. If no password is configured, you are prompted for a password when you start the update.
Step 7	UCS-A /system/capability/cat-updater # **set protocol** {**ftp** | **scp** | **sftp** | **tftp** | **usbA** | **usbB**}	(Optional) Specifies the file transfer protocol for the remote server. **Note** TFTP has a file size limitation of 32 MB. Because catalog images can be much larger than that, we recommend that you do not use TFTP for catalog image downloads.
Step 8	UCS-A /system/capability/cat-updater # **set server** {*hostname* | *ip-address*}	(Optional) Specifies the hostname or IP address of the remote server.
Step 9	UCS-A /system/capability/cat-updater # **set path** *pathname/filename*	(Optional) Specifies the path and file name of the Capability Catalog file on the remote server.
Step 10	UCS-A /system/capability/cat-updater # **restart**	Restarts the Capability Catalog file update operation.

Example

The following example changes the server IP address and restarts the Capability Catalog file update operation:

Viewing a Capability Catalog Provider

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope system**	Enters system command mode.
Step 2	UCS-A /system # **scope capability**	Enters capability command mode.
Step 3	UCS-A /system/capability # **show** {**chassis** | **cpu** | **disk** | **fan** | **fru** | **iom** | **memory** | **psu** | **server**} [*vendor model revision*] [**detail** | **expand**]	Displays vendor, model, and revision information for all components in the specified component category. To view manufacturing and form factor details for a specific component, specify the *vendor* , *model* , and *revision* with the **expand** keyword. If any of these fields contains spaces, you must enclose the field with quotation marks.

Note If the server contains one or more SATA devices, such as a hard disk drive or solid state drive, the **show disk** command displays ATA in the Vendor field. Use the **expand** keyword to display additional vendor information.

Example

The following example lists the installed fans and displays detailed information from the Capability Catalog about a specific fan:

```
UCS-A# scope system
UCS-A /system # scope capability
UCS-A /system/capability # show fan

Fan Module:
    Vendor                   Model                    HW Revision
    ------------------------ ------------------------ ------------
    Cisco Systems, Inc.      N20-FAN5                 0
    Cisco Systems, Inc.      N10-FAN1                 0
    Cisco Systems, Inc.      N10-FAN2                 0
    Cisco Systems, Inc.      N5K-C5548P-FAN           0
    Cisco Systems, Inc.      N5K-C5596P-FAN           0
    Cisco Systems, Inc.      UCS-FAN-6248UP           0
    Cisco Systems, Inc.      UCS-FAN-6296UP           0

UCS-A /system/capability # show fan "Cisco Systems, Inc." N10-FAN1 0 expand

Fan Module:
    Vendor: Cisco Systems, Inc.
    Model: N10-FAN1
    Revision: 0

    Equipment Manufacturing:
```

```
            Name: Fan Module for UCS 6140 Fabric Interconnect
            PID: N10-FAN1
            VID: NA
            Caption: Fan Module for UCS 6140 Fabric Interconnect
            Part Number: N10-FAN1
            SKU: N10-FAN1
            CLEI:
            Equipment Type:

        Form Factor:
            Depth (C): 6.700000
            Height (C): 1.600000
            Width (C): 4.900000
            Weight (C): 1.500000

UCS-A /system/capability #
```

Obtaining Capability Catalog Updates from Cisco

Procedure

Step 1 In a web browser, navigate to http://www.cisco.com.

Step 2 Under **Support**, click **All Downloads**.

Step 3 In the center pane, click **Unified Computing and Servers**.

Step 4 If prompted, enter your Cisco.com username and password to log in.

Step 5 In the right pane, click **Cisco UCS Infrastructure and UCS Manager Software** > **Unified Computing System (UCS) Manager Capability Catalog**.

Step 6 Click the link for the latest release of the Capability Catalog.

Step 7 Click one of the following buttons and follow the instructions provided:

- **Download Now**—Allows you to download the catalog update immediately
- **Add to Cart**—Adds the catalog update to your cart to be downloaded at a later time

Step 8 Follow the prompts to complete your download of the catalog update.

What to do next

Update the Capability Catalog.

Updating the Capability Catalog from a Remote Location

You cannot perform a partial update to the Capability Catalog. When you update the Capability Catalog, all components included in the catalog image are updated.

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope system**	Enters system command mode.
Step 2	UCS-A /system # **scope capability**	Enters capability command mode.
Step 3	UCS-A /system/capability # **update catalog** *URL*	Imports and applies the specified Capability Catalog file. Specify the URL for the operation using one of the following syntax: • **ftp:**// *username***@***hostname* / *path* • **scp:**// *username@hostname* / *path* • **sftp:**// *username@hostname* / *path* • **tftp:**// *hostname* **:** *port-num* / *path* • **usbA:**/ *path* • **usbB:**/ *path* When a username is specified, you are prompted for a password.
Step 4	UCS-A /system/capability # **show version**	(Optional) Displays the catalog update version.
Step 5	UCS-A /system/capability # **show cat-updater** [*filename*]	(Optional) Displays the update history for a Capability Catalog file, if specified, or for all Capability Catalog file update operations.

Cisco UCS Manager downloads the image and updates the Capability Catalog. You do not need to reboot any hardware components.

Example

The following example uses SCP to import a Capability Catalog file:

```
UCS-A# scope system
UCS-A /system # scope capability
UCS-A /system/capability # update catalog
scp://user1@192.0.2.111/catalogs/ucs-catalog.3.1.1a.T.bin
Password:
UCS-A /system/capability # show version
Catalog:
    Update Version: 3.1(1a)T

UCS-A /system/capability # show cat-updater ucs-catalog.3.1.1a.T.bin

Catalog Updater:
    File Name                 Protocol Server          Userid          Status
    ---------                 -------- --------------- --------------- ------
    ucs-catalog.3.1.1a.T.bin  Scp      192.0.2.111     user1           Success

UCS-A /system/capability #
```