



## Overview

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## Cisco UCS Director

Cisco UCS Director is a complete, highly secure, end-to-end management, orchestration, and automation solution for a wide array of Cisco and non-Cisco data infrastructure components, and for the industry's leading converged infrastructure solutions based on the Cisco UCS and Cisco Nexus platforms. For a complete list of supported infrastructure components and solutions, see the [Cisco UCS Director Compatibility Matrix](#).

Cisco UCS Director is a 64-bit appliance that uses the following standard templates:

- Open Virtualization Format (OVF) and Open Virtual Appliance (OVA) for VMware vSphere
- Virtual Hard Disk (VHD) for Microsoft Hyper-V

### Management through Cisco UCS Director

Cisco UCS Director extends the unification of computing and networking layers through Cisco UCS to provide you with comprehensive visibility and management of your data center infrastructure components. You can use Cisco UCS Director to configure, administer, and monitor supported Cisco and non-Cisco components. The tasks you can perform include the following:

- Create, clone, and deploy service profiles and templates for all Cisco UCS servers and compute applications.
- Monitor organizational usage, trends, and capacity across a converged infrastructure on a continuous basis. For example, you can view heat maps that show virtual machine (VM) utilization across all your data centers.
- Deploy and add capacity to converged infrastructures in a consistent, repeatable manner.
- Manage, monitor, and report on data center components, such as Cisco UCS domains or Cisco Nexus network devices.

- Extend virtual service catalogs to include services for your physical infrastructure.
- Manage secure multi-tenant environments to accommodate virtualized workloads that run with non-virtualized workloads.

### **Automation and Orchestration with Cisco UCS Director**

Cisco UCS Director enables you to build workflows that provide automation services, and to publish the workflows and extend their services to your users on demand. You can collaborate with other experts in your company to quickly and easily create policies. You can build Cisco UCS Director workflows to automate simple or complex provisioning and configuration processes.

Once built and validated, these workflows perform the same way every time, no matter who runs the workflows. An experienced data center administrator can run them, or you can implement role-based access control to enable your users and customers to run the workflows on a self-service basis, as needed.

With Cisco UCS Director, you can automate a wide array of tasks and use cases across a wide variety of supported Cisco and non-Cisco hardware and software data center components. A few examples of the use cases that you can automate include, but are not limited to:

- VM provisioning and lifecycle management
- Network resource configuration and lifecycle management
- Storage resource configuration and lifecycle management
- Tenant onboarding and infrastructure configuration
- Application infrastructure provisioning
- Self-service catalogs and VM provisioning
- Bare metal server provisioning, including installation of an operating system

## **Cisco UCS Director Shell**

The Cisco UCS Director Shell is a text-based menu that you access through a secure shell (SSH) application and Cisco UCS Director administrator credentials. With the Shell, you can execute commands to perform various system administration tasks, including:

- Patch updates
- Database backup and restore
- Certificate imports
- Services management

## **About Cisco UCS Director Shell Commands**

This guide describes all of the commands available to you when logging in to the Cisco UCS Director shell. You can use these commands to perform the following administrative tasks:

- Stopping/starting all Cisco services
- Display Service Status
- Stopping/starting the database
- Backing up/restoring the appliance database
- Changing ShellAdmin password
- Syncing up time
- Configuring network interface
- Enabling the database for a BMA Appliance
- Adding a BMA hostname/IP address to the appliance
- Displaying network details
- Pinging hostname/IP address
- Version (Cisco UCS Director appliance version)
- Importing CA (JKS) file
- Importing CA Cert (PEM) file for Virtual Network Computing (VNC)
- Shutdown of the Appliance
- Rebooting the Appliance
- Manage Root Access
- Troubleshooting by using Tail Inframgr logs
- Applying a patch to the appliance
- Login as Root
- Configuring Multi-node Setup
- Clean Up Patch Files
- Migrating from Single to Multi-Node
- Enabling HTTP access
- Configuring the defaulty UI
- Resetting MariaDB user password
- Applying signed patch to the appliance
- Terminating active GUI session(s)
- Regeneraing device connector REST API access key
- Granting/Denying client access to MariaDB port 3306
- Managing VMRC Tunneling Service
- Quitting the shell

For additional system administration information, refer to the *Cisco UCS Director Administration Guide*.

## Prerequisites

To successfully execute the commands described in this guide, you must meet the following prerequisites:

- Cisco UCS Director should be up and running (and reachable).




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**Note** The information in this guide is based on Cisco UCS Director, release 4.0, and later releases.

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## Logging in to the Shell

The login procedure requires the use of a Secure Shell (SSH) client and the proper login credentials. After gaining access to Cisco UCS Director, you can perform a wide variety of system administration tasks.




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**Important** We recommend you not to use Ctrl+C while executing the shelladmin options in the Secure Shell (SSH) client, because the user session will be terminated.

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**Note** If you have not reset the default SSH password for root and shelladmin users during OVF deployment, you will be prompted to change your default password when you login to the Cisco UCS Director using SSH for the first time. Once you reset the default SSH password for shelladmin user, you will be automatically logged out. After resetting the SSH password for shelladmin user, you need to login again and reset the default SSH password for the root user

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### Before you begin

Obtain proper access to Cisco UCS Director and a secure shell (SSH) application.

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**Step 1** Log in to Cisco UCS Director as shelladmin using your SSH terminal client.

**Step 2** Press the **Enter** key.

The following services are available for selection:

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Cisco UCS Director Shell Menu
Node:Standalone | Version:6.8.0.0 Build:68012 | UpTime: 05:44:00 up 21 days, 3:03

01
0) Quit
1) Change ShellAdmin Password
2) Display Services Status
3) Stop Services
4) Start Services
5) Stop Database

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- 6) Start Database
  - 7) Backup Database
  - 8) Restore Database
  - 9) Time Sync
  - 10) Ping Hostname/IP Address
  - 11) Show Version
  - 12) Generate Self-Signed Certificate and Certificate Signing Request
  - 13) Import CA/Self-Signed Certificate
  - 14) Configure Network Interface
  - 15) Display Network Details
  - 16) Enable Database for Cisco UCS Director Baremetal Agent
  - 17) Add Cisco UCS Director Baremetal Agent Hostname/IP
  - 18) Tail Inframgr Logs
  - 19) Apply Patch
  - 20) Shutdown Appliance
  - 21) Reboot Appliance
  - 22) Manage Root Access
  - 23) Login as Root
  - 24) Configure Multi Node Setup (Advanced Deployment)
  - 25) Clean-up Patch Files
  - 26) Collect logs from a Node
  - 27) Collect Diagnostics
  - 28) Enable/Disable HTTP
  - 29) Reset MariaDB User password
  - 30) Apply Signed Patch
  - 31) Terminate active GUI session(s) for user
  - 32) Regenerate Device Connector REST API Access Key
  - 33) Grant/Deny client access to MariaDB port 3306
  - 34) Manage VMRC Tunneling Service
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