



Overview

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About Cisco UCS Director for VMware vSphere

Cisco UCS Director supports the VMware vSphere product family and enables access to advanced features such as vMotion, Dynamic Resource Scheduling, and Site Recovery Manager.

Cisco UCS Director integrates with VMware vCenter server to provide automation and life cycle management of virtual infrastructure. Beginning with the physical infrastructure, Cisco UCS Director provides automated deployment of ESXi hypervisor onto compute infrastructures such as UCS, and then presents the hypervisor hosts to vCenter for hosting virtual machines.

During this process, Cisco UCS Director also provides the capability to provision physical storage and present the storage as datastores that host the data for virtual machines. You can automate the creation of virtual machines and their dependent infrastructure, such as virtual switches, port groups and datastores, as per the environmental needs of tenant users and private cloud consumers.

You can launch the virtual machine console for troubleshooting purposes. You can also create complex 3-tier applications using the application container feature.

For more information about the application container feature, see the [Cisco UCS Director Application Container Guide](#).

You can even deploy virtual machines in a highly available environment by configuring DRS rules or HA clusters. Site level redundancy can be achieved using the SRM integration feature, which allows VMs to have site level protection.

For more information about supported VMware vSphere versions and limitations on support, see the [Cisco UCS Director Compatibility Matrix](#).

Cisco UCS Manager Orchestration Tasks

Cisco UCS Director includes orchestration features that allow you to automate the configuration and management of tasks performed by Cisco UCS Manager in one or more workflows. The same workflow can include Cisco UCS Manager, network, and storage tasks.

For more information about orchestration in Cisco UCS Director, see the [Cisco UCS Director Orchestration Guide](#).

Location of Orchestration Tasks

A complete list of the Cisco UCS Manager orchestration tasks is available in Workflow Designer, in the Task Library, and the **Cisco UCS Tasks** folder. The Task Library, which includes a description of the orchestration tasks, can be accessed from the following locations in Cisco UCS Director:

- **Orchestration > Workflows**

- `http://IP_address/app/cloudmgr/onlinedocs/cloupiatasklib.html` where *IP_address* is the IP address of Cisco UCS Director.

Types of Orchestration Tasks

The Cisco UCS Manager orchestration tasks include tasks to configure and manage the following:

- Servers
- Server boot
- Pools
- Policies
- VLANs
- VSANs
- vNICs
- Service profiles
- Service profile templates
- Organizations

Virtual Machine Provisioning

You can create reference virtual machines, which contain all the required configurations and applications to meet your business needs. These reference virtual machines are called templates, which allow for VM provisioning and standardization of software in your environment.

There are two approaches to VM provisioning:

- VM provisioning using a standardized template: All configuration is custom, which allows for rapid prototyping and standardization.

- VM provisioning using an ISO image: A base OS image is typically required in a development or QA environment, or for customers of a service provider. This can become an interactive installation.

Once a VM is provisioned using either a standardized template or ISO image, you can perform various post-provisioning actions using the VIX scripts tasks in the orchestration workflow task library.

