

Cisco UCS Director

Cisco UCS[®] Director enables a foundation for open private cloud Infrastructure as a Service (IaaS) and orchestration across Cisco[®] and third-party hardware.

Product overview

Automation delivers the essential scale, speed, and repeatable accuracy that your business needs to increase productivity and respond quickly to business opportunities. Cisco Unified Computing System[™] (Cisco UCS) Director replaces manual configuration and provisioning processes with orchestration to optimize and simplify delivery of data center resources.

This open private-cloud platform delivers on-premises Infrastructure as a Service (IaaS) from the core to the edge. Automated workflows configure, deploy, and manage infrastructure resources across Cisco and third-party computing, network, and storage resources and converged and hyperconverged infrastructure solutions. A self-service portal, modern service catalog, and the more than 2500 multivendor tasks enable the on-demand access to integrated services across data center stacks. This function allows IT professionals and development teams to order and manage infrastructure services on demand.

Cisco UCS Director is supported by a broad, well-established ecosystem. Third-party hardware and solution vendors support the platform using a publically available SDK with open southbound Application Programming Interfaces (APIs) that are downloadable. The SDK contains all of the required APIs and management functions for the third-party hardware or solution to be added into the Cisco UCS Director management model. Similarly, the north bound API is supported by the broader Cisco UCS ecosystem of DevOps and IT Operations Management (ITOM) tools, meaning you can transition to cloud using existing tools as you adopt new automation and continuous delivery processes.

Features and benefits

Table 1 lists the main features and benefits of Cisco UCS Director.

Table 1. Main features and benefits

Feature or function	Benefit
Orchestration engine	<ul style="list-style-type: none"> • On-demand rollout of infrastructure components, bare-metal servers, and virtualized resources with automated configuration, deployment, and management of data center infrastructure stacks. • Library of more than 2500 multivendor tasks for creating end-to-end infrastructure services. • Detection of resource changes coupled with resource movement to update workflows. • Extended automation of tasks such as Bare-metal server software installation; physical network and storage provisioning; Storage-Area Network (SAN) zoning; virtual machine provisioning with software stack and database installation; disaster-recovery failover; and decommissioning of servers, hosts, and virtual machines.
Cisco Intersight enabled CI/CD for Cisco UCS Director	<ul style="list-style-type: none"> • Ability to automatically download periodic software enhancements upgrades, bug fixes and updates to UCS Director installation through Cisco Intersight. • Enables Continuous Integration Continuous Delivery (CI/CD) to deliver Software-as-a-Services (SaaS) benefits for on premise UCS Director installed inside customers Data Center. • The entire UCS Director application, including Base Platform Pack, System Update Manager and infrastructure specific Connector Packs, can be automatically downloaded through Cisco Intersight.

Feature or function	Benefit
Cisco Intersight enabled Connected TAC support	<ul style="list-style-type: none"> Enables proactive notifications and "one-click" diagnostics collection for UCS Director installation from Cisco Intersight platform. Provides a consistent means of supporting all Cisco UCS and HyperFlex systems through Cisco Intersight.
Self-service portal	<ul style="list-style-type: none"> Allows end users to order and deploy new infrastructure instances conforming to IT-prescribed policies and governance with approval processes, budget validation, and lifecycle management. With integrated service capabilities, delivers IaaS in shared service model (VPC Shared); users can provision virtual machines and applications from a pool of assigned resources by using predefined policies and workflow service requests. Extensible service platform creates new service offers with ability to catalog services. Offers metering of resource usage and consumption for showback reports that can be exported to third-party billing systems.
Broad heterogeneous support	<ul style="list-style-type: none"> Ability to automate a wide array of tasks and use cases across a broad variety of supported Cisco and third-party hardware and software data center components (refer to Table 2). Automated setup of VCE VxBlock, NetApp FlexPod, IBM VersaStack, and Pure Storage FlashStack converged infrastructure. Automation for Cisco Unified Computing System™ (Cisco UCS®) servers, Cisco HyperFlex™ hyperconverged infrastructure, and Cisco Nexus® switches. Provisioning and management of physical and virtual switches and dynamic network technologies. Automated provisioning and management of storage virtual machines, filers, virtual filers, Logical Unit Numbers (LUNs), and volumes. Discovery, mapping, and monitoring of physical and logical data center topologies.
Optimized Multi-Node deployment for scaling	<ul style="list-style-type: none"> Multi-node configuration has been optimized to handle scale with one primary node and one database node.
Support for Cisco Application Centric Infrastructure (Cisco ACI®) and ACI Anywhere	<ul style="list-style-type: none"> Workflows orchestrate the Application Policy Infrastructure Controller (APIC) configuration and management tasks. Support for multitenancy, which enables policy-based and shared use of the infrastructure, and the ability to define contracts between different container tiers allow you to apply rules between tiers. Cisco ACI Multi-Site Controller Automation enables centralized automation, configuration, and management, including Policy-Based Redirect (PBR).
Developer functions	<ul style="list-style-type: none"> Native Java editor builds custom tasks with Cisco UCS Director Java libraries that enable orchestration operations. Native execution of commands or scripts is performed on Microsoft's PowerShell agent. More than 400 predefined and certified code samples are available from a free community site.

Platform support

Cisco UCS Director support a broad range Data Center infrastructure from Cisco and third-party infrastructure vendors. For a complete and detailed information about vendor-specific models and supported operating systems is available in the [Cisco UCS Director 6.7 Compatibility Matrix](#).

The Cisco difference

Cisco model-based automation allows IT staff to provision, pool, and schedule resources for delivery within minutes, delivering [significant cost and time savings](#). By abstracting hardware and software into programmable tasks, IT organizations can build automated workflows for virtual, physical, converged, and hyperconverged infrastructure solutions. Cisco UCS Director [increases operational efficiency](#) by validating configurations and resource assignments, reducing the time spent on troubleshooting and bug fixes. Cisco UCS Director offers the following additional features:

- Creation of automated workflows that span Cisco and multivendor hardware as well as converged and hyperconverged solutions
- Automated discovery, mapping, and monitoring of data center topologies to validate workflows in real time and update existing automated services
- Guaranteed mutual exclusion across workflows, helping ensure resource synchronization

- Support for VMware vCenter 6.5 and vSAN 6.2 and Microsoft System Center Virtual Machine Manager (SCVMM) and Hyper-V Server 2016
- Support for new VMware Remote Console (VMRC) HTML-based console SDK

Licensing

Cisco UCS Director has a perpetual-based license model with five quantity tier options. The more you buy in a single order the better the price point. Use the PID “CUIC-SVR-OFFERS=” and select from the following:

- Select “CUIC-BASE-K9” in all cases unless you have previously ordered this base license.
- Select “CUIC-PHY-SVR” and identify the quantity of licenses desired between 1 and 9.
- Select “CUIC-PHY-SVR-10” and identify the quantity of licenses between 10 and 49.
- Select “CUIC-PHY-SVR-50” and identify the quantity of licenses between 50 and 99.
- Select “CUIC-PHY-SVR-100” and identify the quantity of licenses between 100 and 249.
- Select “CUIC-PHY-SVR-250” for any quantity more than 250 servers.

Be sure to select “CUIC-TERM” under “UCS Director License Term”.

For more details, contact your Cisco partner or account team.

System requirements

Cisco UCS Director can be hosted on VMware vSphere or vCenter as well as Microsoft HyperV Manager. Minimum system requirements depend on the number of virtual machines that Cisco UCS Director will manage. For example, if you plan to manage up to 2000 virtual machines, use Table 3 to determine the minimum system requirements.

Table 2. Minimum system requirements for up to 2000 virtual machines

Element	Minimum supported requirement
vCPU	4
Memory	16 GB
Primary disk (hard disk 1)	100 GB
Secondary disk (hard disk 2)	100 GB

Please refer to the [Cisco UCS Director 6.6 Installation Guide](#) for minimum system requirements for larger environments as well as minimum database and memory configurations.

Ordering information

Please contact your Cisco sales representative or partner for ordering information.

Warranty information

Refer to the Cisco [software warranty policy](#) for more details.

Cisco and partner services

Services from Cisco and our certified partners can help you transform your data center and accelerate business innovation and growth. For more information, visit <https://www.cisco.com/go/services>.

Be competitive now

To remain competitive, your organization needs to deliver scale and speed while increasing operation efficiency. Resolve these challenges with Cisco UCS Director. It optimizes the delivery of data center resources with model-based automation that delivers infrastructure within minutes. When combined with Cisco ONE Enterprise Cloud Suite, it provides the foundational automation layer for private cloud deployments. Learn more at <https://www.cisco.com/go/ucsdirector>.

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