Cisco UCS Director

Cisco UCS® Director enables automated delivery of physical and virtual data center resources, empowering data centers to move at the speed of business.

Product overview

Workloads are growing by 26 percent per year, but IT funding is increasing by only 3 percent. In addition, technology complexity and the number of business services are increasingly. Data center resources are delivered with a high error rate, slowing down business and leaving IT professionals to focus on troubleshooting rather than innovative services. And when IT is slow, your business is slow. In the fast-paced digital world, slow is deadly.

Automation delivers the essential scale, speed, and repeatable accuracy that your business needs to increase productivity and respond quickly to business opportunities. Cisco UCS Director replaces manual configuration and provisioning processes with automation to optimize and simplify delivery of data center resources. Automated workflows configure, deploy, and manage infrastructure resources across Cisco® and third-party computing, network, and storage resources and industry-leading converged and hyperconverged solutions. Productivity is increased through the use of a single operations console and the inclusion of more than 2500 multivendor tasks for creating standard integrated services across data center stacks. The modern service catalog allows IT professionals and development team to order and manage infrastructure services on demand.

Cisco UCS Director allows your data center to keep pace with business. Manage more resources without increasing staff. Efficiently deliver error-free services, freeing IT professionals to focus on projects that increase your business's ability to compete.

Features and benefits

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

Table 1.   Main features and benefits

Feature	Benefit
Increased productivity	80% of automated operations completed from a single console - On-demand rollout of infrastructure components, bare-metal servers, and all-inclusive infrastructure stacks - Automation, orchestration, and management of physical and bare-metal components - Metering of resource utilization and consumption for showback reports that can be exported to third-party billing systems - More than 400 predefined and certified code samples available from a free community site
Operation efficiency	- Operation efficiency and reduced costs with automated configuration, deployment, and management of data center infrastructure stacks - Discovery, mapping, and monitoring of physical and logical data center topologies - Detection of resource changes coupled with resource movement to update workflows - Library of more than 2500 multivendor tasks for creating end-to-end infrastructure services - Increased operation efficiency by extending automation to tasks such as Domain Name Service (DNS) changes; SAN zoning; name changes; database installation; disaster-recovery failover; and decommissioning of servers, hosts, and virtual machines - Faster time to value with real-time **validation of configurations and resource assignments,** reducing the time spent on troubleshooting and bug fixes

Feature	Benefit
Broad support	• Broad range of Cisco and third-party hardware components, see Compatibility Matrix • Automated setup of industry-leading converged and hyperconverged solutions • 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 • Growing ecosystem of partner integrations into the Cisco UCS Director platform using the Cisco UCS Director Open Automation Development Kit
Intuitive IT	• Integration into Cisco Workload Optimization Manager to autonomically provision or decommission host servers, virtual machines and storage. This action will occur when Cisco Workload Optimization Manager determines that the demand for these commodities exceeds supply and new instances are required. Cisco Workload Optimization Manager will migrate commodities across the two environments to assure workload performance.

The Cisco difference

Manual configuration, provisioning, and upgrade tasks across computing, network, and storage resources are slowing IT. Pressure continues for IT to move faster to keep pace with business.

Cisco's model-based automation allows IT staff to provision, pool, and schedule resources for delivery within minutes. By abstracting hardware and software into programmable tasks, IT organizations can build automated workflows for virtual, physical, converged, and hyperconverged solutions, delivering significant cost and time savings.

- Completion of 80% of virtual and physical automation tasks from a single console
- Creation of automated workflows that span Cisco and multi-vendor 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
- Native Java editor to build custom tasks
- 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
- Native execution of commands or scripts on Microsoft's PowerShell agent

Platform support

Table 2.   Cisco and third-party infrastructure support

	Vendor or OS Support	OS Versions or Supported Models
Bare Metal	CentOS	6.x, 7.1, 7.2, 7.3
	VMware ESXi	ESXi 5.0, 5.1, 5.5, 6.0, 6.5
	Microsoft Windows	Windows 2008 R2, Windows 2012, Windows 2012 R2, Windows 2016
	Red Hat Enterprise Linux	RHEL 6.x, 7.0, 7.1, 7.2, 7.3
	SUSE Linux	SUSE 11 SP3 on local disk; SUSE 12 and above on local disk
Server Support	Cisco	Cisco UCS Mini, UCS C-Series Rack, Cisco 8-socket C-Series Rack, UCS E-Series Servers
	HPE	Any server model or platform that supports iLO2, iLO3, iLO4, HP OA chassis with c7000 blade servers
	Dell	Any Dell server model that supports IPMI 2.0

	Vendor or OS Support	OS Versions or Supported Models
Network Fabric Support	Cisco	Nexus 1000V for VMware vSphere and Microsoft Hyper-V, Cisco Nexus 3000, Nexus 5000, Nexus 6000, Nexus 7000, Nexus 9000, MDS 9100, MDS 9300, MDS 9200, MDS 9500, MDS 9700, Cisco IOS Devices, Cisco Application Centric Infrastructure Controllers, Cisco Application Virtual Switch
	Citrix	NetScaler VPX, NetScaler SDX, NetScaler 1000V, ASA and ASAv
	Brocade	DCX 8510-4 Backbone, VDX 6700 Series, Brocade 300 SAN Switch, Brocade 300 SAN Switch
	F5	Load Balancer (physical device only)
Firewall Support	Cisco	ASA 5500 Series, ASA 5500-X Series, ASAv, Virtual Security Gateway, Prime Network Services Controller, Identify Services Engine
Storage	EMC Storage	Symmetric VMAX, VMAX3, VNX (File, Block, Unified), VNX2, VPLEX, VNXe, RecoverPoint, Isilon, EMC Unity, XtremIO
	NetApp Storage	NetApp FAS Data-ONTAP 7-mode, FAS supporting Clustered Data-IOTAP, except All Flash FAS, NetApp OnCommand 7-mode only, All Flash FAS, Virtual Storage Console
	IBM Storwize	V5000, V7000 Unified, V7000, V9000, IBM SAN Volume Cluster
Hyperconverged	Cisco	Cisco HX-Series Server
Converged Infrastructure	VCE	

More detailed information on vendor specific models and supported operating systems can be found in the UCS Director Compatibility Matrix.

Licensing

UCS Director has a perpetual-based license model with 5 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 this base license has been previously ordered
- 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 quantity of above 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 will be managed by Cisco UCS Director. For example, if you plan to manage up to 2,000 virtual machines, the table below provides the minimum system requirements:

Table 3.   Minimum system requirements for up to 2,000 VMs

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 6.5 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 Cisco's 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.

Cisco ONE Enterprise Cloud Suite

Cisco UCS Director is a component of Cisco ONE™ Enterprise Cloud Suite. Enterprise Cloud Suite provides your business with five offers needed to create and optimize your automated data center as well as create a hybrid cloud. Each of the offers can be used alone or in combination with others to deliver comprehensive data center automation or a hybrid cloud.

- Infrastructure Automation
  - Automated delivery of virtual and physical data center infrastructure and converged and hyperconverged resources
  - Performance monitoring and capacity planning
  - Unified management of Cisco Unified Computing System™ (Cisco UCS) domains
- Cloud Management
  - Modeling and deployment of single application profiles across data center, on-premises, and public cloud environments
  - Real-time benchmark capabilities, helping ensure cost-effective placement of workloads in hybrid cloud environments
- Service Management
  - Unified self-service portal and catalog that increases end-user satisfaction
  - Process automation to integrate business processes and third-party solutions into the self-service portal
- Big Data Automation
  - Single-touch deployment of Apache Hadoop clusters on Cisco UCS architecture
  - Integration with major distributions, including Cloudera, MapR, Hortonworks, and Splunk Enterprise
  - Comprehensive diagnostics for infrastructure and Hadoop configurations
- Workload Optimization
  - Automated optimization and cost efficiency for data center infrastructure
  - Cost and efficiency data for on-premises and public cloud platforms
  - Action data within one hour, with three-day assessment for global environment

Cisco ONE Software

Cisco ONE™ Software offers a valuable and flexible way to buy software for the WAN, access, and data center domains. At each stage in the product lifecycle, Cisco ONE Software helps make buying, managing, and upgrading your network and infrastructure software easier. Cisco ONE Software provides:

- Flexible licensing models to smoothly distribute customers' software spending over time
- Investment protection for software purchases through software services–enabled license portability
- Access to updates, upgrades, and new technology from Cisco through Cisco® Software Support Services (SWSS)
- Lower cost of entry with the new Cisco ONE Subscription for Data Center Cloud and Compute model

Cisco ONE Enterprise Cloud Suite provides the automation tools you need to deliver a self-service experience for all users, freedom of choice for application teams and the solutions required to transform IT.

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.

Cisco Capital

Financing to help you achieve your objectives

Cisco Capital can help you acquire the technology you need to achieve your objectives and stay competitive. We can help you reduce CapEx. Accelerate your growth. Optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there's just one predictable payment. Cisco Capital is available in more than 100 countries. Learn more.

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