

Cisco UCS Central Software

Cisco Unified Computing System Multidomain Management

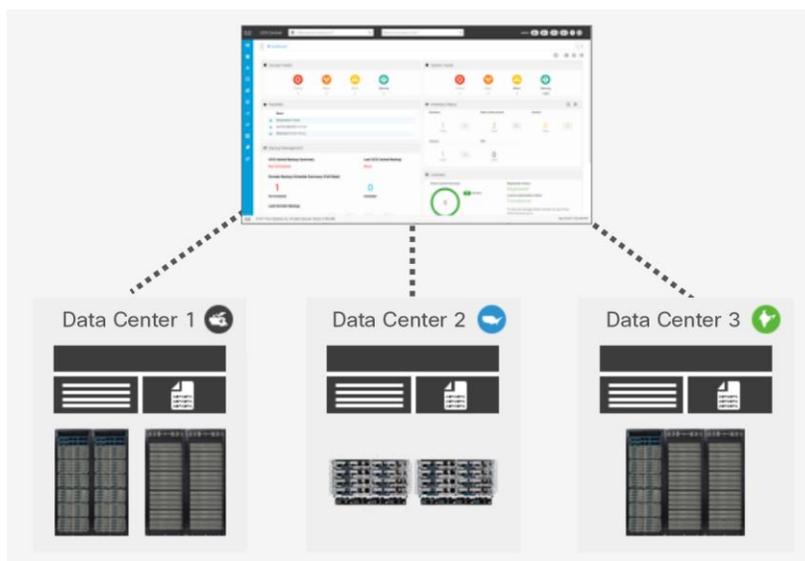
Efficient management of distributed servers continues to be a challenge whether you have a handful of systems in multiple locations or thousands of servers in multiple data centers. Although virtualization has helped reduce some of the management constraints by allowing greater workload densities, virtual infrastructure still runs on physical servers that need to be monitored, maintained, and updated.

The Cisco Unified Computing System™ (Cisco UCS®) was designed to help organizations efficiently manage servers at scale. This capability is achieved through the policy-based management first introduced in Cisco UCS Manager to efficiently manage up to 20 chassis. To address the challenge of managing multiple Cisco UCS domains with scale, redundancy, and location requirements, Cisco offers Cisco UCS Central Software.

Product Overview

Cisco UCS Central Software extends the capabilities and concepts of Cisco UCS Manager to enable the streamlined management of up to 10,000 servers across hundreds of sites from a single, intuitive HTML5 user interface. It dramatically simplifies operations, automates routine tasks, enhances consistency, and reduces risk for environments with multiple Cisco UCS domains. It is an easy-to-install, secure virtual appliance. Once you deploy it, you can manage servers in multiple data centers and remote locations as easily as you can manage a single Cisco UCS domain. The software addresses the need to deploy workloads and infrastructure and enforce policy compliance across disparate locations. Cisco UCS Central Software uses Cisco UCS service profiles to implement automated, role and policy-based management on a global scale (Figure 1).

Figure 1. Global Management Across Domains, Systems, and Locations



Using Cisco UCS service profiles, administrators can quickly and accurately reproduce existing physical environments, including I/O configuration, firmware, and settings. The policy-based management function continuously monitors the deployed state in comparison to the desired state, enabling straightforward updates to the environment, helping ensure consistency, and preventing configuration drift. Existing Cisco UCS configurations defined in Cisco UCS Manager can be globalized to take full advantage of the capabilities and management efficiencies offered by Cisco UCS Central. After configurations are globalized, making changes or deploying new domains is much simpler because you do not need to re-create a configuration for each domain separately. Everything can be managed together, simplifying deployment, upgrades, and ongoing operations.

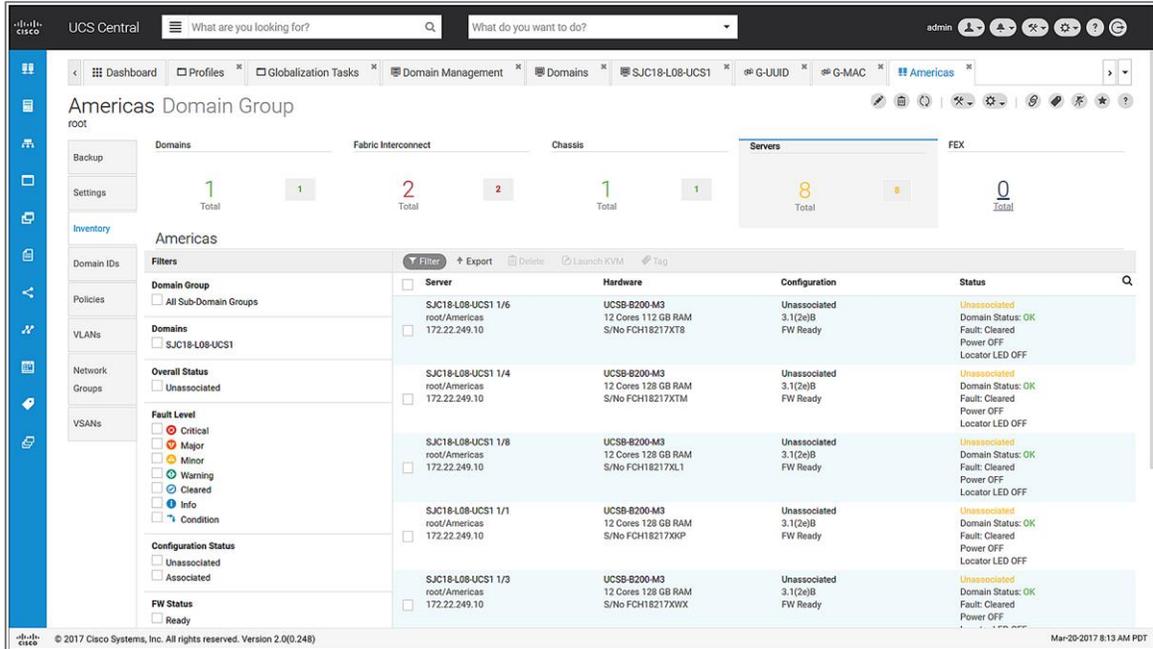
Cisco UCS Central supports the full range of Cisco UCS server models, including Cisco UCS B-Series Blade Servers, C-Series Rack Servers, S-Series Storage Servers and Cisco UCS Mini, as well as Cisco HyperFlex™ Systems. It collects health, fault, and inventory information for all infrastructure elements managed by Cisco UCS Manager. A dashboard and reports help you more easily monitor distributed environments and quickly isolate and address problems when they occur. Intelligent reports can tell you about new firmware that is available from Cisco and its compatibility with your deployed operating system and drivers. Policy-based firmware upgrades can be coordinated and automatically applied to automate activities and reduce the potential for errors. Cisco UCS Central integrates with Lightweight Directory Access Protocol (LDAP) and Microsoft Active Directory authentication and provides a flexible role-based access control (RBAC) model to help ensure the security of system configurations, increasing compliance and further reducing risk.

Features and Benefits

Cisco UCS Central enables global management of multiple Cisco UCS domains, both local and remote, making staff more efficient and effective. Cisco UCS administrators can manage and gain a high-level view of all, or groups of, Cisco UCS domains with these capabilities:

- Centralized inventory and health status information for all Cisco UCS components for a definitive view of the entire infrastructure (Figure 2)
- Global service profiles and templates, which extend the power of policy-based management introduced in Cisco UCS Manager well beyond the boundary of a single Cisco UCS domain
- Centralized keyboard, video, and mouse (KVM) manager to launch KVM sessions anywhere in the Cisco UCS environment from a single pane
- Centralized, policy-based firmware upgrades that can be applied globally or selectively through automated schedules or as business workloads demand
- Hardware compatibility reports that retrieve the latest compatibility information from Cisco.com and compare that to your managed configuration to help ensure that current or future firmware is compatible with deployed operating system and driver versions
- Global ID pooling and multidomain ID visibility to eliminate identifier conflicts
- Global administrative policies that enable both global and local management of Cisco UCS domains and help ensure consistency and standardization across domains and eliminate any configuration drift typically experienced after servers are initially deployed
- An API that builds on the Cisco UCS Manager API for easy integration into higher-level data center management frameworks

Figure 2. Server Inventory Generated by Centralized Inventory Feature



These are just a few of the many features and benefits that Cisco UCS Central brings to data centers. Table 1 provides a more complete list of the features and benefits.

Table 1. Cisco UCS Central Software Features and Benefits

Feature	Benefit
Globalization and Centralized Functionality	
Globalization	Migrate existing policies and profiles from Cisco UCS Manager to globalized configuration and take full advantage of all the capabilities of Cisco UCS Central. The simple click-through process allows simple migration of VLANs, VSANs, service profiles, and policies. In most cases, globalization will be completed without requiring a reboot of the associated servers.
Global search	Easily search through thousands of servers, policies, and other elements of configuration to find what you are looking for by name, tag, serial number, and other attributes. You can then quickly navigate to the desired object and complete the necessary task.
Global Cisco UCS service profiles and templates	Just like Cisco UCS service profiles and templates, which have made IT departments so much more effective, Cisco UCS global service profiles and templates enable fast and simplified infrastructure deployment and help ensure consistency of configurations throughout the enterprise. This feature enables global bare-metal workload mobility in much the same way as a hypervisor enables virtualized workload mobility.
Centralized fault summary	Quickly and easily view the status of all Cisco UCS infrastructure with a quick-look global fault summary panel. This panel provides a fault summary organized by domain and fault type, with views into individual Cisco UCS Manager domains for greater fault detail and more rapid problem resolution. You can view faults in increasing levels of detail, opening Cisco UCS Manager in context for an integrated experience.
Centralized inventory	You no longer need manual inventory spreadsheets. Cisco UCS Central automatically aggregates a global inventory of all Cisco UCS components, organized by domain, with customizable refresh schedules. Cisco UCS Central provides even easier integration with ITIL processes, with direct access to the inventory through an XML interface.
Centralized KVM manager	Quickly and easily launch KVM sessions in any managed Cisco UCS domain from a single screen. Search capabilities help ensure that users find the intended service profile or server quickly. The KVM manager allows you to select the most appropriate IP address from all the available KVM IP addresses available for a particular system.

Feature	Benefit
Global administrative policies	Help ensure compliance and staff efficiency with global administrative policies. You define these policies at the domain group level, and they can manage anything in the infrastructure, from date and time and user authentication to equipment power and system event log (SEL) policies.
Centralized, policy-based firmware upgrades	Eliminate the guesswork and manual errors from infrastructure firmware updates. You can download firmware updates automatically from the Cisco.com website to a firmware library within Cisco UCS Central. Then update firmware, globally or selectively, on an automated schedule or as your business workloads allow. Centralized firmware management helps ensure compliance with IT standards and makes reprovisioning of resources a point-and-click operation.
Global ID pooling	Eliminate identifier conflicts and help ensure portability of software licenses with Cisco UCS Central. Centralize the sourcing of all IDs, such as universal user IDs (UUIs), MAC addresses, IP addresses, and World Wide Names (WWNs), from global pools and gain real-time ID use summaries. With centralized server identifier information, you can easily, for example, move a server identifier between Cisco UCS domains anywhere in the world and reboot an existing workload to run on the new server. Global pools even support domain-specific ID ranges so that service profiles can be assigned different IDs depending on the domain to which the server belongs.
Centralized network configuration	Cisco UCS Central provides a single place to configure network settings, network policies, and ports for Cisco UCS fabric interconnects in one or more Cisco UCS domains.
Ease of Use Functionality	
HTML5 UI	A fully HTML5 user interface supports all major browsers and allows you to easily access the full set of Cisco UCS Central features.
Personalized dashboard	Users can personalize their Cisco UCS Central dashboard with summary widgets and pins to provide a custom view of the information that is most important to them.
Role-based access control (RBAC)	RBAC simplifies operating tasks that span server, network, and storage administrator teams, while preserving the specialized knowledge that exists in each group. This approach allows subject-matter experts to continue with their normal procedures, but all the configuration data is captured in a single, unified device manager, instead of in the separate, individual device managers that exist in today's data centers.
Hardware compatibility reports	Reports integrate with the Cisco UCS Hardware and Software Compatibility tool to tell you whether your firmware, operating system, and driver versions have been validated by Cisco for compatibility. In addition to helping you understand your current state, reports support "what if" analysis to evaluate compatibility for a potential firmware version upgrade.
Domain grouping and subgrouping	Simplify policy management by creating domain groups and subgroups. A domain group is an arbitrary grouping of Cisco UCS domains that can be used to group systems into geographical or organizational groups. Each domain group can have up to five levels of subdomains, which helps you more easily manage policy exceptions when administering large numbers of Cisco UCS domains. Each subdomain has a hierarchical relationship with the parent domain.
Policy, template, resource, and ID pool import	Policies, templates, resources, and ID pools from existing Cisco UCS domains can be imported into Cisco UCS Central, optionally including any dependent policies and resources, eliminating the need to create all new global items and accelerating deployment times.
Backup	Cisco UCS Central has an automatic backup facility that enables quick and efficient backup of the configuration information for the registered Cisco UCS Manager instances and Cisco UCS Central.
Additional Features	
APIs and Integrations	Cisco UCS Central, just like Cisco UCS Manager, has a high-level industry-standard XML API for interfacing with existing management frameworks and orchestration tools. The XML API for Cisco UCS Central is similar to the XML API for Cisco UCS Manager, making integration with high-level managers very fast. Cisco UCS PowerTool for UCS Central and the Python Software Development Kit (SDK) help automate and manage configurations in Cisco UCS Central.
Localization	Cisco UCS Central supports multiple languages, including English, Spanish, German, Italian, Japanese, Korean, and Chinese.
Multiple-platform support	Some Cisco UCS platforms have platform-specific releases of Cisco UCS Manager. Cisco UCS Central supports all releases of Cisco UCS Manager 2.1(2a) and later, including the platform-specific releases, helping ensure that customers can manage their complete Cisco UCS environment from a single management tool. In addition, Cisco UCS Central supports both local and remote domain management to better support remote and branch offices.
High availability	As with all Cisco UCS solutions, Cisco UCS Central is designed with no single point of failure. High availability for Cisco UCS Central allows organizations to run Cisco UCS Central using an active-standby model with a heartbeat that automatically fails over if the active Cisco UCS Central instance does not respond.

Ordering and Licensing Information

You can purchase Cisco UCS Central directly from Cisco or from any Cisco UCS partner. Cisco UCS Central is available both as standalone software and through the Cisco ONE™ Enterprise Cloud Suite. Cisco UCS Central can be licensed either using the traditional product activation key (PAK) or using Cisco Smart Licensing (Table 2).

Table 2. Licensing and Ordering Information

Standalone License Type	License
Cisco UCS Central Per Server license through the Cisco Smart Licensing	UCS-MDMGR-LIC= Suboptions that include discounts are available based on the quantity of licenses ordered.
Cisco UCS Central Per Domain license using traditional PAK-based licensing	UCS-MDMGR-1DMN=

Service and Support

You can purchase support for either the Per Server or Per Domain licensing model.

For more information about Cisco® Software Application Support plus Upgrades (SASU), please visit http://www.cisco.com/en/US/services/ps2827/ps2993/services_data_sheet0900aecd803f3d93.pdf.

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