

# Cisco UCS Management with Cisco UCS Manager and Cisco UCS Central Software



## Benefits

- Streamline operations by automating routine tasks and significantly reduce support costs.
- Gain flexibility and efficiency to help make IT teams more agile and responsive to the business.
- Simplify your transition to DevOps through integration with a wide range of third-party management tools.
- Unify management across data center, cloud-scale, and edge-scale workloads.
- Scale to manage and support thousands of servers with local storage and network connections.
- Customize your environment through the unified API, Python software development kit (SDK), and Cisco UCS PowerTool for Microsoft Windows PowerShell.

## Automate and Streamline Daily Operations

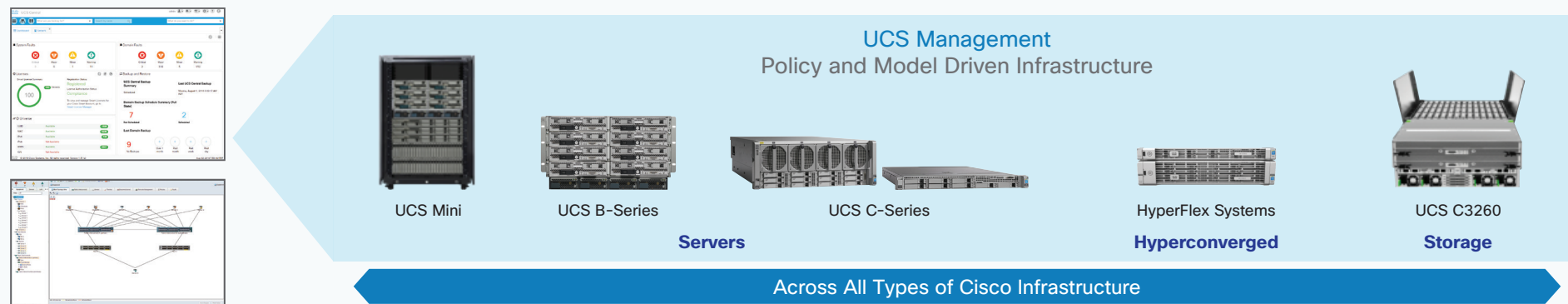
Cisco Unified Computing System™ (Cisco UCS®) management software delivers policy-based automation capabilities and role-based access to help you effectively administer and manage data center infrastructure at scale. This tightly integrated management solution features a DevOps-friendly architecture that treats infrastructure as code: every component is programmable. It provides a model-based foundation for simplifying the day-to-day processes of provisioning, monitoring, and managing computing and local storage resources and storage and network connections. Cisco UCS management software uses software-defined policies that enable you to define connectivity, computing, and firmware settings once and then roll them out the same way every time. The policy- and model-based approach also helps ensure that the environment does not drift from the intended configuration.

This approach increases speed and flexibility, helps ensure consistency, and reduces the risk of manual errors.

Cisco UCS Manager provides unified, embedded management of the components of Cisco® [Unified Computing](#) and [hyperconverged infrastructure](#), including the associated storage and networks. Components include the following (Figure 1):

- Cisco UCS B-Series Blade Servers
- Cisco UCS C-Series Rack Servers
- Cisco HyperFlex™ HX Series hyperconverged infrastructure
- Cisco UCS C3260 Rack Server storage
- Cisco UCS Mini

Figure 1. Cisco UCS Management Supports the Entire Cisco UCS and Cisco HyperFlex Portfolios



## Facilitate Change While Preserving Investments

Cisco UCS Manager provides a single point of management for an entire Cisco UCS domain. The software object model and XML API in Cisco UCS Manager work in conjunction with the Cisco fabric interconnect to treat the infrastructure as code. This approach facilitates a policy-based model for provisioning servers, networking and storage resources, applying a desired configuration to physical infrastructure.

Cisco UCS Central Software extends the capabilities of Cisco UCS Manager to support up to 10,000 servers from a single management console. It manages multiple, distributed domains with configuration capabilities for service profiles, pools, policies, and firmware. It allows you to work easily on a global scale, putting computing capacity close to users while centrally managing infrastructure.

Both Cisco UCS Manager and Cisco UCS Central Software offer easy-to-use HTML 5 user interfaces. The multidomain dashboard in Cisco UCS Central Software provides inventory, health, and fault information; statistics; and keyboard, video, and mouse (KVM) access. Initial domain setup establishes operation policies, ID pools, and more. Policy management provides global policies and service profiles that help you standardize across domains. The interface allows you to operate and consistently manage a multidomain, multiple-data center environment across thousands of systems to centrally manage reporting, firmware updates, and other operational tasks.

You can access global resource information and policies through the API. It collects and monitors inventory, fault, and audit information across multiple domains to help provide service assurance for the Cisco UCS infrastructure. This open API supports integration of Cisco UCS Manager with a wide range of monitoring, analysis, configuration, deployment, and orchestration tools from Cisco and independent software vendors (ISVs). The API also facilitates custom development through Cisco UCS PowerTool for Microsoft Windows PowerShell and a Python software development kit (SDK).

Cisco UCS management software is open and heterogeneous, supporting both conventional and hyperconverged infrastructure. The unified API in Cisco UCS management software expedites the dynamic provisioning of computing, storage, and networking resources within Cisco UCS. The API offers deep integration with a broad range of systems, operations, orchestration, and change-management tools. It also supports cloud-native applications that are written to the API for integration into higher-level data center management frameworks. Cisco has a mature ecosystem of proven integrations, and we provide resources for interoperability validation through the Cisco Solution Partner Program and the Cisco Interoperability Verification Testing (IVT) Program.



### Average Savings from Cisco UCS Manager

According to analysis of more than 160 case studies, on average, customers achieved the following savings:

- 83 percent decrease in provisioning time
- 75 percent reduction in project execution time
- 66 percent lower ongoing administrative and management costs

### Next Steps

Through a unified view of your data center resources, Cisco and our industry-leading partners deliver services that can help you migrate to Cisco's unified computing architecture and optimize ongoing operations to better meet your business needs.

For more information, please visit:

- [Cisco UCS Manager](#)
- [Cisco UCS Central Software](#)
- [Cisco Unified Computing](#)
- [Cisco HyperFlex Systems](#)