

Cisco UCS Management and VMware Management Tools Integration



Benefits

- Simplify operations by managing your Cisco UCS and Cisco HyperFlex hyperconverged infrastructure with familiar VMware management tools.
- Reduce TCO by automating routine tasks, simplified by the integration of VMware vCenter and vRealize Orchestrator with the policy-based automation of Cisco UCS management products.
- Troubleshoot problems faster through the integration of Cisco UCS management products with VMware vRealize Operations and Log Insight.
- Accelerate application and infrastructure deployment to improve time to market and business agility.

Tight Integration Simplifies Operations and Lowers TCO

The integration of Cisco Unified Computing System™ (Cisco UCS®) management tools with VMware vCenter and vRealize Operations can dramatically simplify management of your Cisco UCS and [Cisco HyperFlex™ Systems](#). It provides significant provisioning, configuration, and operation efficiencies for the entire portfolio, from blade and rack servers and Cisco UCS Mini to Cisco composable and hyperconverged infrastructure. With integrated management, you can increase your business agility and lower your total cost of ownership (TCO).

The integrated solutions allow you to quickly and easily reconfigure and repurpose physical and software-defined infrastructure resources using your familiar VMware management tools. From firmware revisions to settings, all your I/O device configuration is managed through software and Cisco UCS service profiles.

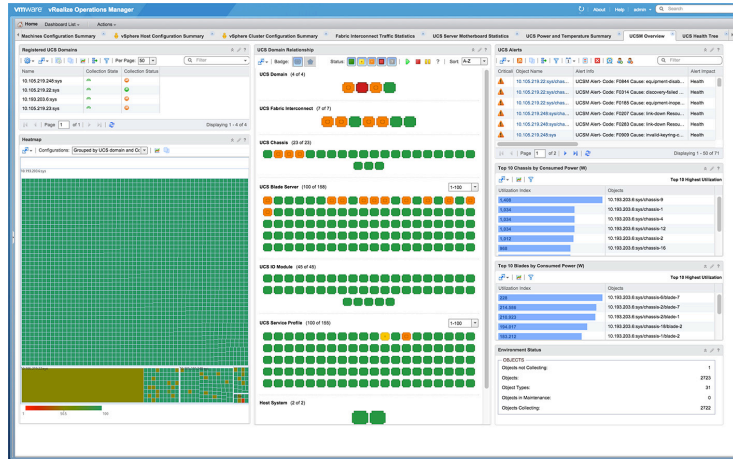
The Cisco UCS Manager Plug-in for VMware vSphere integrates the Cisco UCS and Cisco HyperFlex platforms with critical vSphere capabilities such as VMware vMotion, Distributed

Resource Scheduler (DRS), High Availability (HA), and Fault Tolerance (FT). The plug-in lets you provision servers and storage while maintaining the policy-based provisioning and configuration drift protection of Cisco UCS Manager.

vROps Integration Facilitates DevOps

[The Cisco UCS Management Pack for VMware vRealize Operations](#) (vROps) automates the delivery and lifecycle management of infrastructure and application services while maintaining policy-based control of Cisco UCS resources. This integration significantly improves the monitoring and problem analysis phases of the infrastructure lifecycle, so it provides important benefits as your organization implements DevOps methodologies. Tight integration allows you to proactively manage performance, capacity, compliance, and logs across applications and infrastructure. It also simplifies data collection, because Cisco UCS Manager serves as a single source of data for each domain. Cisco UCS Central Software extends this approach across multiple Cisco UCS domains in one or more physical locations, working in conjunction with vRealize to simplify your management tasks (Figure 1).

Figure1. User Dashboard for Cisco UCS Integration with VMware vRealize Operations Manager



Faster Application and Infrastructure Deployment

With Cisco HyperFlex Systems, the Cisco HyperFlex HX Data Platform controller handles all I/O requests from virtual machines. The vSphere plug-In allows you to perform all daily storage operations from within vCenter, enabling simple provisioning and monitoring from a single management interface.

VMware vStorage API for Array Integration (VAAI) allows vSphere to offload advanced file system operations such as snapshots and cloning to the HX Data Platform. The native file-system capabilities of the platform provide instant and space-efficient snapshots and clones, enabling vSphere administrators to rapidly provision and protect their virtual machines.

The integration of Cisco UCS management with VMware vSphere and vRealize simplifies role- and policy-based management. It supports better communication between administrative staff while automating and simplifying application and infrastructure deployment to facilitate implementation of DevOps methodologies. Cisco service profiles deploy consistent and accurate server and storage configurations in minutes, dynamically configuring Cisco UCS virtual interface cards (VICs) to support the I/O requirements of both the vSphere hypervisor and individual virtual machines. The result of this integration can give you up to 30 percent more network throughput.

Cisco and VMware have also developed additional plug-ins and content packs to unify Cisco UCS management with vSphere and the vRealize software suite.

- [VMware vSphere Auto Deploy](#) with Cisco UCS Service Profiles establishes Cisco UCS service profiles in VMware for rapid and simple deployment of bare-metal servers and lets you deploy new hypervisors with a single click.
- [Cisco UCS Manager Plug-in for VMware vRealize Orchestrator](#) brings Cisco UCS infrastructure automation and composable infrastructure into the realm of vCenter Orchestrator. This integration allows the library of VMware-provided workflows to work in harmony with Cisco UCS workflows.
- [Cisco UCS Content Pack for VMware vRealize Log Insight](#) provides detailed log data and insight into one or more VMware clusters at the infrastructure level. This integration lets you generate comprehensive analytics for Cisco UCS components, including blades, servers, chassis, I/O modules, fabric extenders, and fabric interconnects.

Cisco UCS management integration with VMware tools is one example of our broad, mature partner ecosystem. Our open [API](#) supports the integration of Cisco UCS Manager with a wide range of ISV monitoring, analysis, configuration, deployment, and orchestration tools. This open approach to management helps preserve your investments in your current tools and processes, and increases the efficiency of your existing IT staff, skills, tools, and processes for even greater TCO savings.

Next Steps

For additional information, visit:

- Cisco UCS and VMware partner page: <http://www.cisco.com/c/en/us/solutions/data-center-virtualization/dc-partner-vmware/index.html>
- Cisco UCS Management page: http://www.cisco.com/c/en/us/products/servers-unified-computing/cisco_ucs_management.html
- Cisco UCS Management Ecosystem At-a-Glance: http://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-manager/at_a_glance_c45-616613.pdf