

Cisco UCS Director: Integrated Infrastructure Management



Challenges

Data center strategy has become a critical part of business strategy. Today, more than ever, the methods of IT deployment can make the difference between an efficient, successful organization and an ineffective one. Better methods that include helpful management tools are more important than ever because IT support workloads are increasing along with the growing numbers of applications for business operations and new services that deliver competitive differentiation.

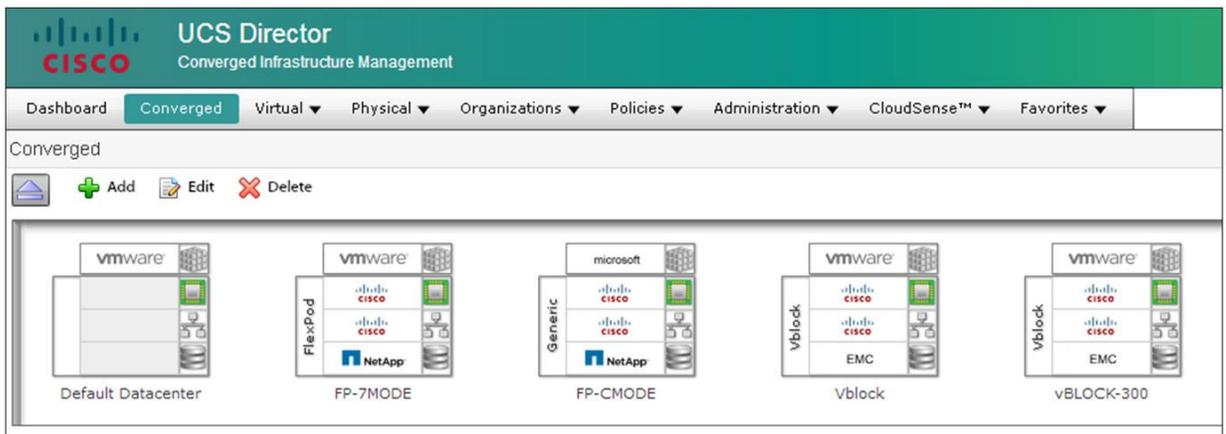
A recent IDC survey describes just how heavy this burden has become, and this trend shows no signs of stopping. The survey indicates that 77 percent of IT time is spent on managing infrastructure, leaving only 23 percent of staff time for “everything else.” CIOs and IT managers need centralized automated orchestration and management to consistently configure, deploy, and manage converged infrastructure solutions to service their applications. Centralized automation and orchestration can begin to reduce the time spent managing infrastructure while increasing time available to deliver innovative new services through the alignment of data center and business strategies.

Virtualization has been viewed as the solution to IT complexity, yet virtualized infrastructure is the largest and fastest-growing element of operating expenses in the data center, according to IDC. This is a result of the freedom to provision a virtual machine within minutes while the remainder of the infrastructure stack configuration is completed as separate manual tasks. Computing, network, and storage equipment rarely integrates seamlessly with hypervisors, which compounds the problem. Cisco UCS Director addresses these issues and more. It provides a unified view and a single point of control over converged infrastructure solutions, such as Vblock, FlexPod, and VSPEX.

Solution: All-Inclusive Management for Converged Infrastructure

Cisco UCS Director is unique in the industry because it offers the ability to manage virtual and physical infrastructure and virtualization resources from a single self-service web portal (Figure 1). Cisco UCS Director operationally integrates the data center infrastructure stack, bare metal and virtual, to address the time-consuming, manual, and complex processes that burden IT organizations.

Figure 1. Cisco UCS Director Single-Pane Management of Infrastructure



Cisco UCS Director automates end-to-end IT processes, abstracting the complexity of individual devices, hypervisors, and virtual machines into a graphically viewable and easily manageable context (Figure 2). It allows resource delivery across the virtualization, computing, network, and storage layers using a single web-based view. With a self-service infrastructure portal (Figure 3), IT administrators or users authorized to order infrastructure can quickly request and take delivery of their infrastructure resources.

Figure 2. Cisco UCS Director Abstracts Infrastructure Layers into Single Pane of Glass

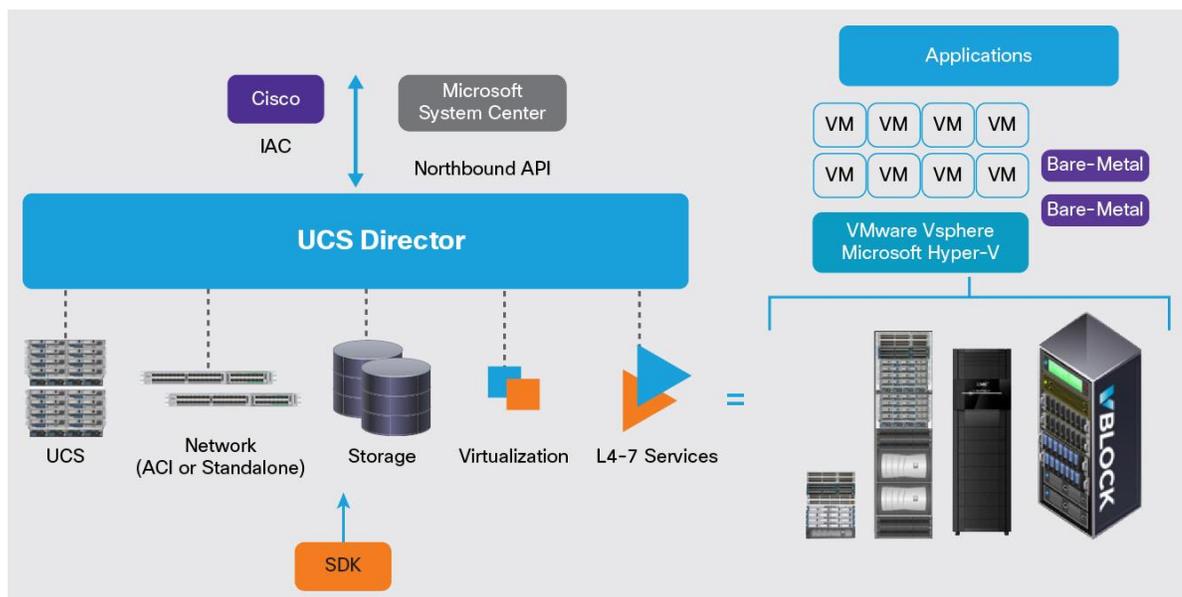
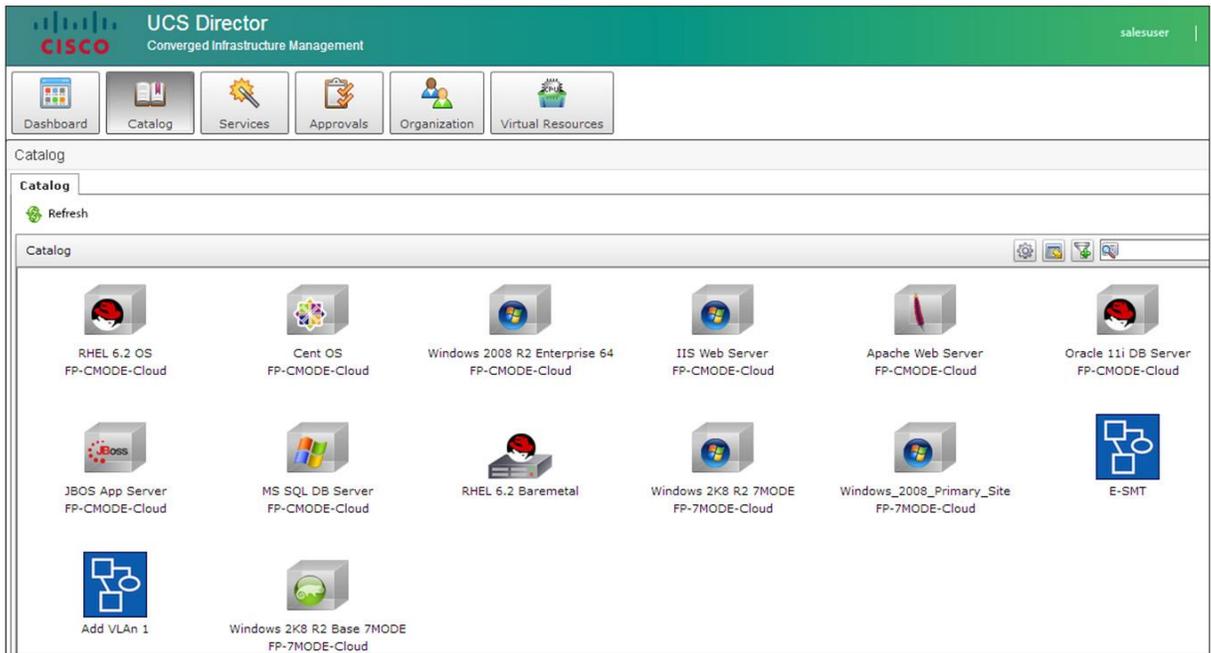
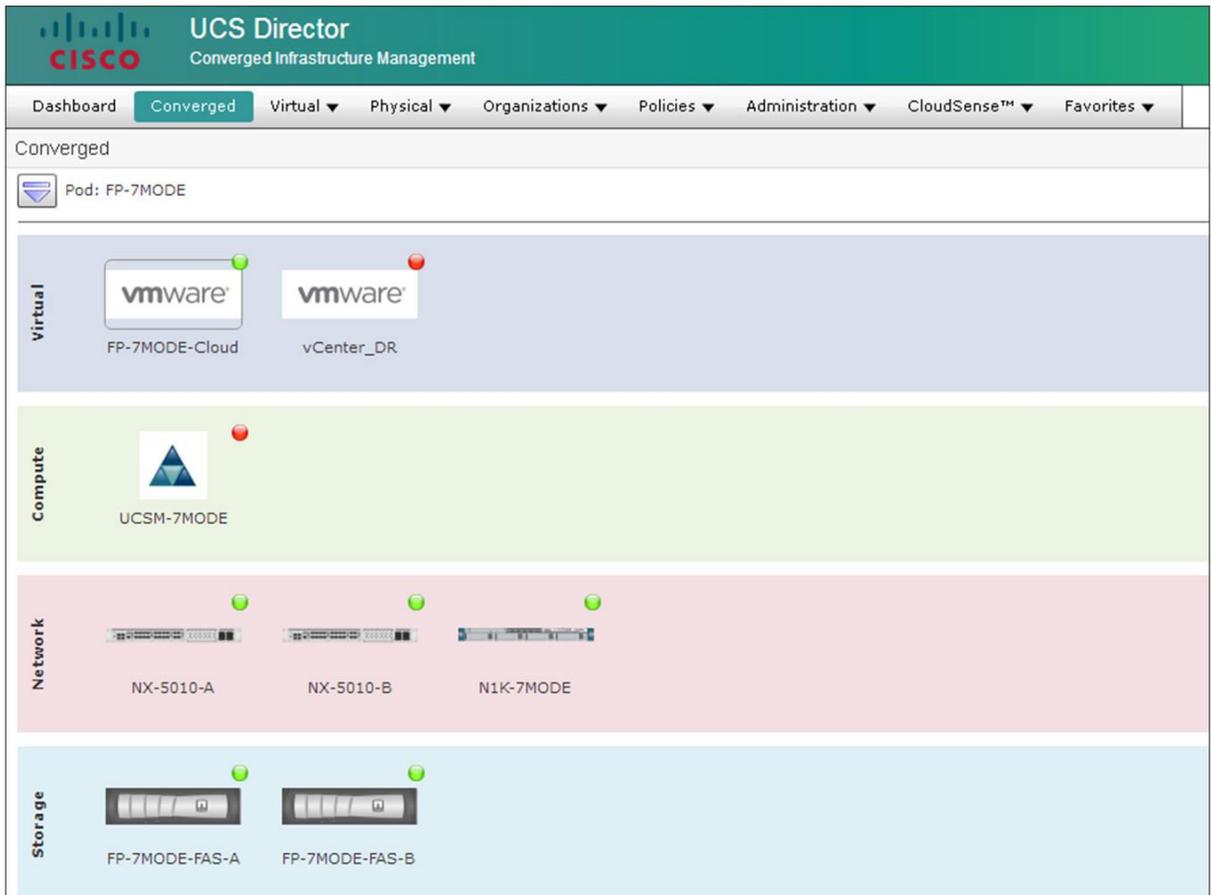


Figure 3. Cisco UCS Director Self-Service Infrastructure Portal



Cisco UCS Director provides role-based access control, which can be matched to your company's organizational structure, for different types of IT users. Dashboards showing system health and utilization (Figure 4) are available to IT operational teams responsible for the setup and maintenance of infrastructure. Administrators or other authorized users may define the policies and entitlements for the data center as a whole or for specific domains and resources across computing, network, and storage. Application owners outside the core IT organization may also be granted access to the self-service console to request and use infrastructure according to the policies and entitlements defined by your IT organization.

Figure 4. Cisco UCS Director Unified Health Dashboard



Effective alignment of people and processes is crucial for efficient and successful IT projects. Cisco UCS Director follows the successful operating model in Cisco UCS Manager and UCS Central Software, with subject matter experts defining the policies that are used when resources are deployed. Cisco UCS Director expands the scope of these capabilities beyond the core Cisco UCS elements, so they can include all the resources necessary to host applications, including Microsoft, Oracle, SAP, big data, LAMP stacks, and custom workloads.

Cisco UCS Director operates across multiple infrastructure stacks in a single data center and across multiple data centers globally. IT policies define the resource groupings for specific user entitlements to access and manage infrastructure resources, allowing a common set of best practices across a global organization.

Cisco UCS Director generates the best results when deployed with solutions based on Cisco Unified Computing System™ (Cisco UCS), Cisco Nexus®, and Cisco® MDS products. However, it can also manage resources from multiple vendors, without changes to those resources, to improve manageability across your data center.

Business Benefits

- Effective alignment of people and processes to ensure successful IT projects
- Consistency based on policies set by experts and used throughout workflows that cross virtualization, computing, network, and storage layers
- Support of industry-leading converged infrastructure solutions using Cisco UCS and Cisco Nexus, as well as third-party infrastructure and virtualization solutions
- Software development kit (SDK) allowing for the creation of connectors to integrate custom tools or devices into the Cisco UCS Director user interface
- Scalable architecture that can support up to 5,000 devices or 50,000 virtual machines

Cisco UCS Director is an exciting solution that allows CIOs and IT managers to work together to achieve IT efficiency and business agility. Delivering simplicity and teamwork to the data center, Cisco UCS Director can be installed and operational within hours.

Quality and business velocity are not trade-offs. Customers demand both. Today's IT environment is unforgiving of mistakes as organizations work quickly to meet customer expectations. Cisco UCS Director helps ensure that the correct systems are deployed as intended with policies and a smart data model that represent complete infrastructure deployments.

Ultimately, Cisco UCS Director delivers benefits that facilitate your company's competitive innovation.

For More Information

Learn more about Cisco UCS Director at <http://www.cisco.com/go/ucsdirector>.

View an animated video showing how Cisco UCS Director works on the Cisco YouTube channel at <http://youtu.be/q-NX772MR78>.



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