Cisco UCS Director: Simplify Management of Converged Infrastructure

What You Will Learn

To increase operating efficiency and business agility, chief information officers (CIOs) and IT managers are seeking to simplify their data centers and manage them more easily. Cisco UCS® Director automates end-to-end IT processes across virtualization, server, computing, network, and storage resources to help achieve these business goals.

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 for 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 now need a solution that increases the time available for everything else. Their organizations need to embrace holistic, centralized automation for configuring, deploying, and managing applications and infrastructure. By doing so they can reduce the percentage of time spent on managing infrastructure and increase time available for everything else. This shift allows more time for data center strategy and business strategy to align through the delivery of innovative new services that help the organization succeed.

Virtualization is often sold as a solution to IT complexity, yet the virtualized infrastructure is the largest and fastest-growing element of operating expenses in the data center, according to IDC. Provisioning of a virtual machine can be completed in minutes, while infrastructure dependencies and configurations are separate manual tasks and responsibilities. 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.

Solution: Holistic 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 have burdened IT organizations.

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. It allows resource delivery across the virtualization, computing, network, and storage layers, using a single web-based view. With this self-service portal, IT administrators, or end users who are infrastructure consumers, can quickly request and take delivery of their infrastructure resources.

Figure 1.   Single-View Portal to Manage Converged Infrastructure Products
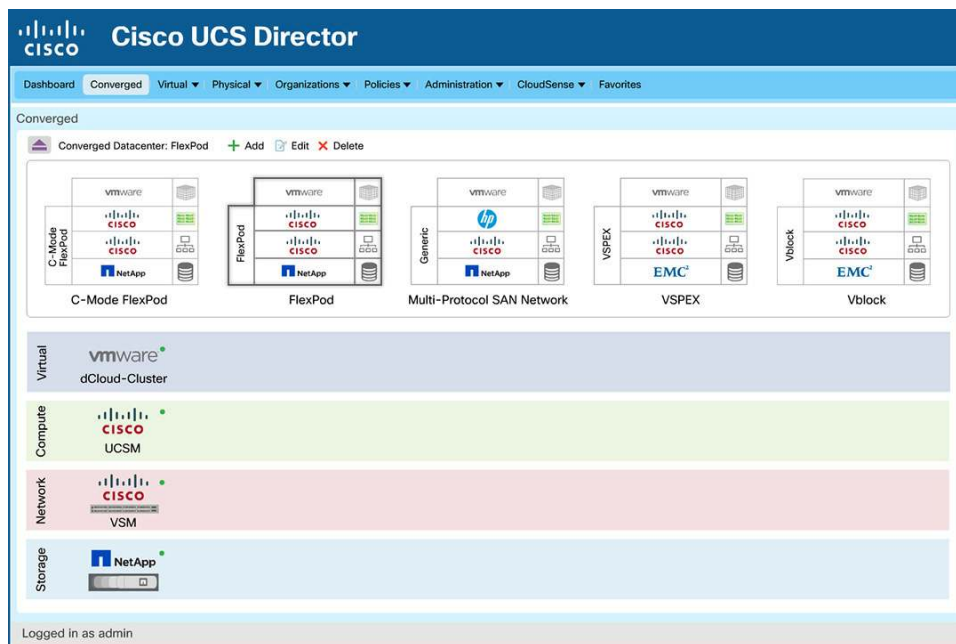
Cisco UCS Director provides role-based access control for different types of IT users, which can be matched to your company's organizational structure. Dashboards showing system health and utilization are available to IT operational teams responsible for the setup and maintenance of infrastructure. Administrators 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 utilize infrastructure according to the policies and entitlements defined by your IT organization.

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 customer data centers.

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
- API and a software development kit (SDK) that can be integrated into existing customer tools that operate at the application layer

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 represents complete infrastructure deployments.

Ultimately, the benefits delivered by Cisco UCS Director help your company gain a competitive advantage.

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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