

The Value of Infrastructure Automation with Cisco UCS Director

Solution Brief
January 2014



Highlights

Introducing Cisco UCS Director

- Deliver IT infrastructure as a service through a single interface with point-and-click simplicity. Cisco UCS® Director provides:
 - Single-pane management
 - Policy-based provisioning
 - End-to-end process automation
 - Lifecycle management

Faster Time to Revenue

- Reduce time to value with comprehensive, automated, policy-based workflows.

Improved Consistency and Compliance

- Design workflows that are consistent and repeatable, increasing compliance. Use auditing tools to eliminate configuration drift.

Better Alignment Between IT and the Business

- Help your clients deliver on last-minute initiatives without having to use outside IT resources. Free your staff to build client relationships and focus on business-critical initiatives

Increased Collaboration

- Get your subject-matter experts and administrators talking. Increased collaboration yields better end-to-end architectures and fewer errors that can cause downtime.

Maintenance costs are too high. We can help you change the equation by automating infrastructure with Cisco UCS® Director.

Today, the vast majority of IT administrative expenditures are for maintenance. As much as 77 percent of your administrative costs go to deployment, monitoring, updating, and troubleshooting—not to activities that add new value to your business. That's because so many IT processes are manual, tedious, and error prone. Wouldn't you prefer to spend your limited funding on strategic business initiatives that can propel your business forward and make your IT department a strategic part of your company?

International Data Corporation (IDC) confirms that converged infrastructure is changing part of the equation by making it easy to purchase an integrated set of components to support your applications. IDC estimates that half of today's data center sales are converged infrastructure, with FlexPod from Cisco and NetApp the market leader.

Cisco UCS Director takes the next step and automates your IT processes to put these resources to work. The result: faster time to revenue, improved consistency and compliance, easier alignment between IT and the business, and optimized resource and personnel utilization.

Introducing Cisco UCS Director

Cisco UCS Director automates IT processes—not just any processes, the ones that you design. It provides a single point from which you can automate and orchestrate your IT infrastructure, including computing, networking, and storage, with physical and virtual resources treated equally. This holistic management helps makes your processes consistent and reliable. Cisco UCS Director supports multitenancy, helping you keep internal clients separate for better security and for resource

management and tracking that enables you to bill for your services (Figure 1).

Cisco UCS Director helps you deliver IT infrastructure through a single interface with point-and-click simplicity. A self-service portal lets administrators and trusted clients quickly request and receive the infrastructure they need, whether it is physical or virtual. It supports heterogeneous environments, so you can use Cisco UCS Director to automate a range of different specific technology stacks.

Cisco UCS Director is role and policy based, so your subject-matter experts can work together to define your policies and best practices once. Then, any level of administrator can use the policies to provision resources for clients. For example:

- **Network engineers** define the VLANs and network configurations for specific groups and applications.
- **Storage engineers** define data protection and SAN configurations.
- **Server administrators** define allowable resource configurations and pools.
- **Virtualization administrators** define the characteristics of virtual machines that can be created on demand.

Policies are implemented with workflows that automate the entire application lifecycle, including resource allocation, provisioning, monitoring, and management, and that allow resources to be reclaimed when they are no

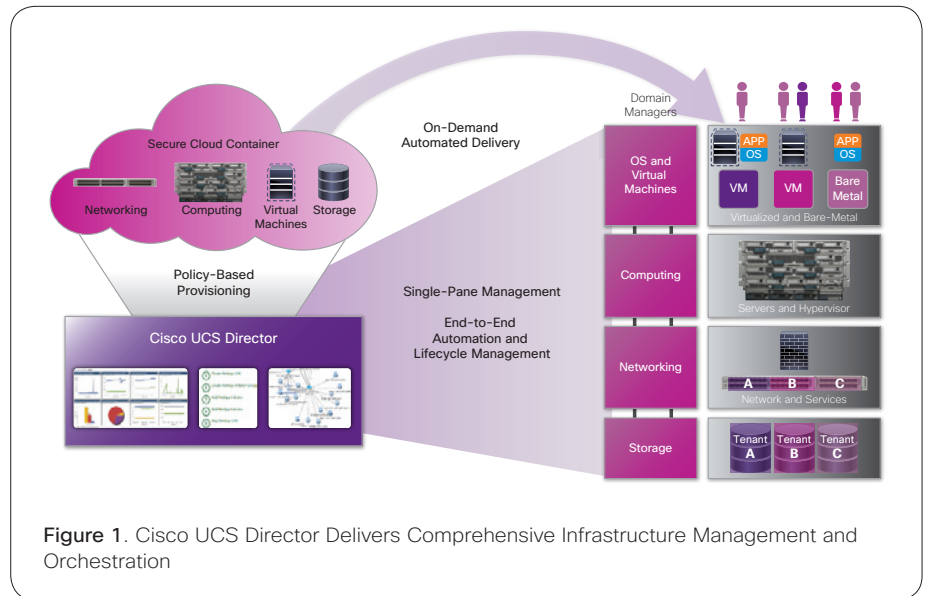


Figure 1. Cisco UCS Director Delivers Comprehensive Infrastructure Management and Orchestration

longer needed. The product comes with more than 500 predefined tasks that you can combine into workflows. Cisco UCS Director lets you test workflows, and it is designed so that workflows are completed successfully or not at all.

Accelerate Time to Revenue

We've been listening to customers who tell us how long it takes to deploy applications. Even virtualized applications take time: physical storage needs to be deployed for virtual disks, and physical components and the network need to be configured. They require interaction between subject-matter experts, which tends to progress slowly over weeks.

Imagine deploying applications and have them generating revenue for you

in minutes rather than days or weeks. One Cisco service provider customer reported that Cisco UCS Director helped the organization shorten its deployment time from 2 weeks to

Earn Revenue Sooner

"Before, creating every virtual machine required efforts from specialists in Cisco UCS, Nexus®, NetApp, or VMware. Now, after we've created a template for a certain type of server, Cisco UCS Director automatically provisions all components end-to-end. Our customers can start using cloud resources sooner, and we start earning revenues sooner."

Pablo Lambert
Director of Innovation and Development
Entel

(See case study)

20 minutes. Customers can start using services earlier, and the service provider can start earning revenue sooner.

Cisco UCS Director shortens deployment time by automating the processes that your organization would otherwise perform with step-by-step, manual procedures. With infrastructure automation, you not only deploy solutions more quickly through software: you also improve accuracy, so less testing and debugging is necessary before you take your applications live.

Improve Consistency and Compliance

Consistency and compliance are difficult to achieve without infrastructure automation. Human error is the number-one source of downtime in the data center. It happens when administrators have to divert their attention to too many tedious, repetitive manual tasks that could be performed better by software.

Siloed infrastructure often leads to siloed IT administrator teams, and each team is influenced by each member's own goals and experience. For example, a storage administrator might bring best practices from the storage industry and apply them to your enterprise database management system. These practices can cause problems for administrators from other groups—administrators for enterprise applications, for example—who are then confronted with an unfamiliar environment. The lack of

communication between disciplines and between isolated, separate teams can lead to problems.

We get your subject-matter experts talking. Everyone must get together and agree how each application ideally should be provisioned (Figure 2). Your subject-matter experts determine best practices together and codify them into workflows. From then on, Cisco UCS Director configures your environment consistently and without errors. No longer do you have to worry about variation between administrators or about errors and inconsistency that result from tedious, repetitive processes.

As long as your workflows implement configurations that are in compliance with industry and government regulations, your infrastructure will

be in compliance. We help you even more with auditing and change control, which helps prevent configuration drift. Rollback helps you return resources to their original state, ready to be used for other purposes.

Align IT with Your Business

What could be better than making your IT department a strategic asset to your business—one that can quickly respond to changing business priorities?

Suppose that someone in marketing wants to produce a new campaign practically yesterday. Sound familiar? We empower you to meet these last-minute needs—and because you can provide a service that is fast, simple, and easy to use, we make outside IT resources unnecessary. Keeping IT internal lets you better manage the security of your business-critical data.

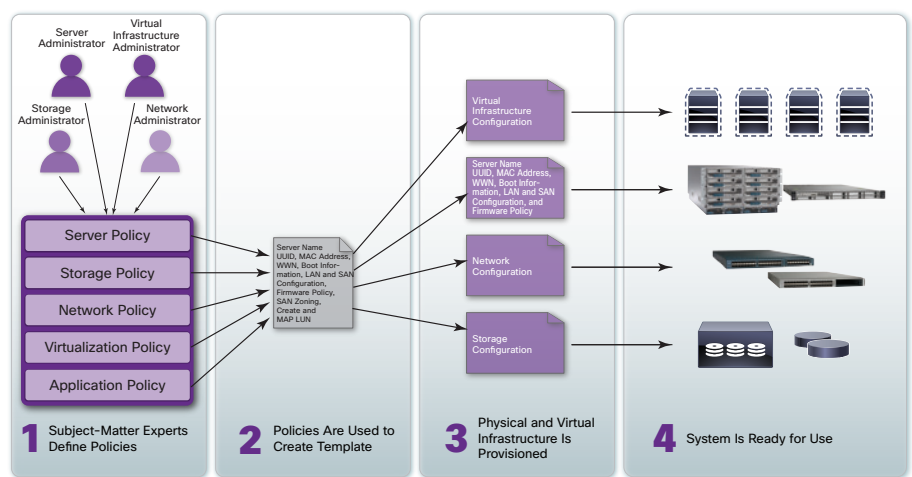


Figure 2. Cisco UCS Director Delivers Comprehensive Infrastructure Management and Orchestration

Aligning IT with your business means building and maintaining good relationships with your clients. We can help you deliver IT assets to them in minutes, helping reduce “shadow IT,” in which your applications and data run in someone else’s cloud.

We give you insight into resource consumption with an at-a-glance status panel, resource tracking, and predefined resource utilization and status reports. Now you can sit down with your clients and work with them to reduce costs.

Cisco UCS Director helps you identify abnormally high resource consumption to find places where your clients may be able to adjust an algorithm for better performance. It also helps you identify underutilized resources, so that clients can decommission idle virtual machines. Both of these steps can help you and your clients work together to eliminate virtual machine sprawl.

Collaborate for More Innovation

Nothing spurs innovation more than collaboration by subject-matter experts and administrators to determine your best practices. The Cisco UCS Director workflow makes this happen in your organization.

Cisco UCS Director brings together your subject-matter experts so that they work in unison to determine the best ways to provision and maintain applications. It requires them to think about when each discipline’s processes should be followed, and about each other’s roles in server, storage, and networking management. In this context, questions like “Is there a better way to do this?” can finally be asked.

The result is improved processes and increased clarity, with high visibility between roles. Now your organization can focus less on maintenance and more on the to-do list of strategic initiatives that are begging for your attention. You get more from your staff because you have eliminated many of their time-consuming, manual tasks. The result is better optimized, end-to-end architecture.

Automate Today

Comprehensive infrastructure management and orchestration can reduce costs and help you transform your organization.

First, achieve the cost savings of using converged infrastructure. A recent Forrester Research report, “[The Total Economic Impact of NetApp’s and Cisco’s FlexPod Data Center Platform](#)” cites a US\$264,000 savings over three years

Next use Cisco UCS Director to get to the next level of automation and savings. Deliver IT infrastructure as a service through a single interface with point-and-click simplicity:

- **Reduce time to value** with comprehensive, automated, policy-based workflows.
- **Increase compliance** with consistent, repeatable workflows and use auditing tools to eliminate configuration drift.
- **Make your organization indispensable** by helping your clients deliver on last-minute initiatives—then free your staff to focus on business-critical initiatives.
- **Get your subject-matter experts and administrators talking**—for better end-to-end architectures and fewer errors that can cause downtime.

As these possibilities become realities in your organization, you can use Cisco UCS Director to incrementally extend your comprehensive infrastructure orchestration and automation across your data center to include servers, networking, and storage resources from both Cisco and third-party vendors.

Learn More

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



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