Four Steps to Private Cloud Implementation Success

Best practices for private cloud automation and orchestration can help you overcome complexity and deliver services with speed, reliability, and affordability.

In most enterprises, IT is constantly looking for new ways to provide better service to users without increasing budgets. Many IT departments are embracing the private cloud to automate key stages of service delivery, including provisioning, management, and governance. But a private cloud can be a complex proposition without best practice guidance for implementation.

"When it comes to service delivery, business decision makers want to understand the cost of the service and the availability timeframe," says Mark Peterson, cloud product manager, Cisco Intelligent Automation Solutions. "Prior to the private cloud, IT decision makers would evaluate individual business service requests based on the staff and budget required for the implementation. There was a certain level of IT staff time commitment required to provide, provision, and run that service."

Defining the Service Strategy

IT can simplify service and infrastructure provisioning, management, and governance through service standardization, service entitlement policies, and automation. As a first step, it is critical to identify the services that you want to automate. Considerations for determining which services will deliver the best return to both the business and IT include: frequency and complexity of requirements for provisioning and ongoing operation, services that are notoriously problematic, potential for cost savings and error reduction, and importance to the business.

Once you have identified the services to automate, you can proceed to step two—defining the service catalog and self-service interface. The process involves describing the services in terms of their key elements: service components, service-level agreement (SLA), price, billing, and approvals. By building this information into a self-service interface, business users can evaluate the service to decide if they want to subscribe, understand how much the service costs, and gain insight into the approval process. And all of this is automated to remove the time and budget strain on IT.
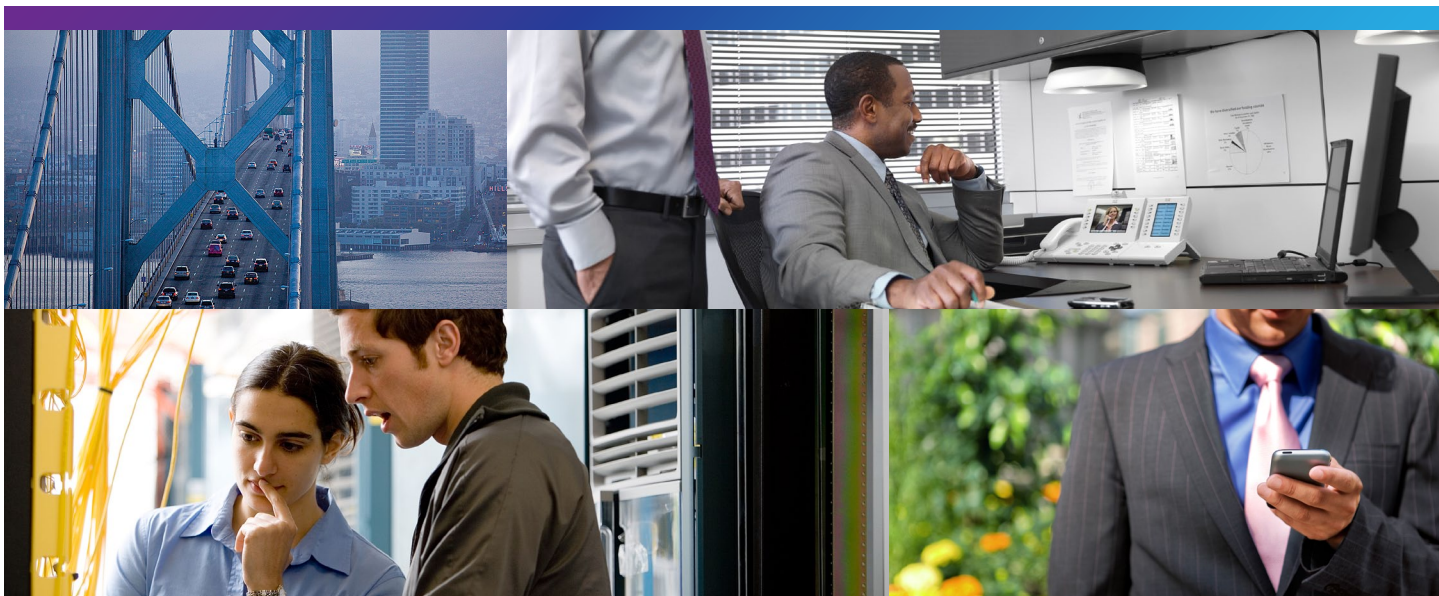
Service Delivery Automation

Step three focuses on orchestrating and automating the back-end processes for service delivery. This step includes automating the provisioning and configuration of each component that makes up the service in the right order and in compliance with policy. "In this stage of the implementation, a client will execute the entire provisioning exercise until the service comes online by working across the resource pools, dealing with any errors that arise, and reserving resources as required," says Peterson. "After the infrastructure implementation, IT can trigger all associated workflows—such as billing, metering, change management, help desk, and monitoring—and present the service on the portal."

Step four encompasses updates to operational processes and systems, which are critical components of effective service management. The automated service becomes a part of the standard IT operations and management systems used to control the overall environment. Automated health, compliance, and capacity checks with associated corrective actions help manage and optimize the resource pools to ensure service health, speedy issue resolution, and problem remediation.

Advantages of a Private Cloud

A provider of software and hardware performance management products implemented Cisco® Intelligent Automation for Cloud to address requirements for virtual and physical provisioning of demo servers. The company needed help automating the ordering of virtual machines (VMs) and dropping a Linux OS on them prior to live customer demos. The machines are only provisioned for a few hours and then released to others.

"The client implemented IA for cloud managing a Cisco Unified Computing System™ (UCS) blade farm, allowing sales engineers to leverage automation and self-service for ordering, confirming approvals, receiving server IP addresses and provisioning, and running the VM," says Wayne Greene, director of product management for the Intelligent Automation Solutions Business Unit at Cisco. "Prior to IA for cloud, it took three to five days to provision the machines manually. Now it all happens in less than an hour. As a result, the client has chosen to purchase approximately a dozen Cisco UCS blades to help enable automated provisioning of demo VMs."

In addition to time savings, companies can gain efficiencies in how they leverage internal expertise. Traditionally, when provisioning a service, IT must coordinate the actions of network, storage, and compute for service delivery. But the private cloud environment empowers individual experts to encode their expertise into the environment, allowing others to take advantage of that expertise in an automated way.

"When setting up infrastructure, companies typically have different teams involved in a siloed way," says Peterson. "With an automated approach in the private cloud, those groups define their standards for provisioning and resource pools, but the actual work is automated. It eliminates those teams coming together for every provisioning instance and allows them to focus on high value activities."

Complimentary Consultation

To qualify for a complimentary, 30-minute ROI Consultation and Introduction to Cisco Intelligent Automation for Cloud, and to download an IDC paper on automated provisioning and orchestration, see Intelligent Automation and Orchestration at www.UnleashingIT.com.

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