How IT Organizations Can Achieve Relevance in the Age of Cloud

A NEW APPROACH TO CLOUD OPTIMIZATION HELPS IT MEET BUSINESS DEMANDS FOR RAPID SERVICE DELIVERY.

EXECUTIVE SUMMARY

Outside forces are driving IT organizations to transform how they are perceived and how they function within the enterprise. Instead of cost centers that provide capabilities IT organizations must become internal service providers supplying business-enabling solutions that drive innovation and deliver value. Enterprises regard IT organizations that adopt this more strategic role as true business partners rather than as increasingly irrelevant, cost-centric technology suppliers.

For many IT organizations, cloud computing holds the promise of transforming and elevating IT within the enterprise because it addresses the need for rapid service delivery. Today, clouds can be implemented in a variety of ways:

- **PUBLIC CLOUDS** offer IT resources as a service shared across multiple organizations and are managed by an external service provider.
- **PRIVATE CLOUDS** dedicate IT resources on demand to a single organization.
- **HYBRID CLOUDS** are a mix of public and private clouds. They are managed as a single entity to extend capacity across clouds as needed.

This combination of private, public and hybrid cloud puts IT in the critical role of a service broker enabling it to provide a range of service delivery options so applications and data can be placed in the appropriate locations based on business requirements.
Problem: The Need for IT Transformation

GONE ARE THE DAYS when business users were content with the applications and computing resources that IT provided. Market dynamics and recent technology advancements have fundamentally changed user expectations. Users have seen what is possible: user-friendly design, anytime/anywhere access to applications and data, and innovative solutions to long-existing business problems. What’s more, the low barrier to entry makes these technologies accessible to anyone. Obtaining services that deliver business value and enable users to complete work tasks more efficiently is as easy as downloading a mobile application or opening a free or low-cost user account with a cloud service provider. As a result, workers are procuring their own technologies, for both personal and business use.

External providers are now doing what IT organizations have tried and largely failed to do: meet users’ business requirements easier and faster. Why should a user wait days for IT to consider a request for a project management application when she can simply try out several different applications online and find one that meets her needs in that same amount of time? End users are tapping the public cloud as a shadow IT department to get what they need easier and faster.

While this scenario may sound like a win-win, businesses have cause for concern. When users go directly to external service providers, IT organizations risk losing control of applications, business processes and data. With no way to ensure that users are meeting security and regulatory compliance requirements, the danger can quickly escalate.

IT organizations must win back their end-user customers by addressing their needs as well as external providers do. Doing so requires a fundamental transformation in how IT operates. But how can IT transform itself? And what will that change look like?

The Answer: IT Embraces the Cloud

IN REALITY, businesses do not need to relinquish control. Instead, they can provide a range of service delivery options—including public, private and hybrid clouds—to ensure that applications and data are placed in the appropriate locations based on business imperatives rather than on who can get access to resources the fastest. Increasingly, IT organizations are taking this route to achieve the agility and efficiency that their business users desire, while retaining the visibility and control that IT needs.

While it is important to automate initial provisioning, it is equally important to automate the entire end-to-end service delivery process. IT will also need to provide personalized, business-aware governance and controls so it can standardize services while still meeting business-specific needs.

Each type of cloud provides a set of similar characteristics but different delivery methods and business benefits. Similarities include on-demand self-service, broad network access, resource pooling, rapid elasticity and measured service. These traits allow services to be provisioned and released rapidly and with minimal effort. However, each cloud type has its own unique characteristics:

- Public clouds can be offered as a shared service across multiple organizations and managed by an external service provider. It is important for IT to be able to leverage public cloud services when appropriate for their businesses.
- Private clouds are dedicated to a single organization and exist behind the corporate firewall, enabling IT to maintain visibility and control.
- Hybrid clouds are a mix of public and private clouds managed as a single entity to extend capacity across clouds as needed.

Through a combination of cloud approaches, IT can securely deliver resources to users in hours or even minutes, where it once took days. The resulting business agility allows individual line-of-business stakeholders to develop applications on a variety of platforms quickly and in an environment that IT controls and manages.

Steps Toward Cloud Service Delivery

FOR MANY ORGANIZATIONS, the first step toward building a cloud is data center virtualization. By consolidating many virtual machines onto a single physical server, organizations can improve efficiency when provisioning and deprovisioning servers. However, this is just the first step. Transformation is often stalled because IT fails to automate the additional key components.
Initial provisioning is a prime candidate for automation, since infrastructure silos can make storage, network and security provisioning times unacceptable. While it may take less than five minutes to deploy a virtual machine, it can take some companies several days because so many people have to touch it. Different people manually manage virtual machines, the network, storage and applications—and they all work in silos. However, coordinating the process can be automated—a ticket goes to one person for step A, then another person for step B and so on. Yet even with automation, the process of provisioning IT services can still take several days, and possibly up to a week.

While it is important to automate initial provisioning, it is equally important to automate the entire end-to-end service delivery process. IT will also need to provide personalized, business-aware governance and controls so it can standardize services while still meeting business-specific needs. Finally, the cloud must integrate with existing tools, infrastructure and processes.

Lack of automation can impact IT staff performance. Inconsistent and complex automation processes throughout the cloud lifecycle also introduce unnecessary and increased business risk—the very things IT was trying to mitigate in the first place by offering users services via a cloud.

Cloud Automation: The Key to Making Cloud Work for Business

CLOUD AUTOMATION INCLUDES all of the lifecycle management functions of IT service delivery, from initial provisioning to post-provisioning changes, scaling, reconfiguring, snapshotting, reclaiming inactive resources and archiving. Simply put, cloud automation is the piece that transforms a virtualized data center into a cloud.

When manual processes are automated, the result is the speed, agility and governance needed for effective cloud automation. IT services can be provisioned more rapidly. Policies can be defined that govern which services users can provision, to what extent and when.

By eliminating manual tasks, automation also provides quantifiable improvements in efficiency because staff is freed up to focus on more strategic initiatives. In addition to improving the productivity of systems administrators, automation enables organizations to reduce capital expenditures. Policies regarding overprovisioning and the reclamation and reuse of inactive resources ensure that computing resources are optimized.

How to Achieve Cloud Automation

THE LAST WAVE OF IT efficiency was achieved via virtualization and consolidation. The next wave will be driven by automation, and the benefits will be seen in improved delivery times and both operational and capital cost savings. But automation is not as simple as implementing a piece of stand-alone software. The technology has to work with the organization’s existing tools, infrastructure and processes—and extend beyond IT service provisioning. Full lifecycle management is critical for moving beyond manual processes operating in silos. This includes reprovisioning, reconfiguring, snapshotting, backing up, decommissioning and archival.

When you automate the entire end-to-end lifecycle of IT services, the roles and responsibilities of IT staff members must change. The systems administrator, storage administrator, server administrator and network administrator will necessarily relinquish control of their part of the process. A welcome byproduct of this change is that these staff members will have more time to dedicate to strategic responsibilities.

Cloud automation technology includes self-service portals that allow users to provision their own resources. When provisioning processes are taken out of the hands of the IT experts (e.g., silos), controls must be in place that govern workflow approval, resource limits, user and group resources, and usage, etc. Users should be presented with a catalog of appropriate applications and services with the appropriate permissions.

VMware Provides the Answer to Cloud Automation

MANY IT ORGANIZATIONS have achieved new levels of efficiency via data center virtualization enabled by VMware. Optimizing the cloud is an important step to improving delivery
times, increasing cost savings and, ultimately, achieving relevance among business users. IT organizations can take this next step with the name they have come to trust in virtualization.

VMware Cloud Automation brings IT executives modern capabilities to ensure that IT aligns with and responds to the increasing needs of the business. By giving your administrators the ability to automate, standardize and govern the complete end-to-end delivery of cloud services—from business request to activation to retirement—VMware helps you meet business demands for rapid service delivery. VMware accelerates the deployment of any service—application or infrastructure—while it delivers the control you need to better leverage public cloud resources where appropriate for the business. VMware gives your organization new capabilities to move at the speed of business.

VMware reshapes the economics and speed of IT infrastructure, operations and applications teams by leveraging existing investments in vSphere to pool siloed resources into a single infrastructure service and offer logically isolated environments to different parts of the organization. Policy-based governance mitigates business risk and puts IT in control of valuable resources and what gets the provisioning process. The net result is rapid service delivery and the transformation and elevation of IT within the enterprise.

**Case Study:**

**DOW JONES**

DOW JONES & COMPANY, a global provider of news and business information, recognized the need for a cloud automation solution when it could not deliver IT resources to meet business demand—even after an infrastructure virtualization effort. Without automation, virtualization could not be extended as quickly, resulting in higher costs and increasing time-to-market for new products.

“We wanted to internally innovate our infrastructure,” says Altaf Rupani, vice president of global systems services at Dow. “We wanted to automate; speed up the process; and institute controls for the proper deployment, management and use of IT resources.”

During a rigorous three-month technology comparison, Dow Jones evaluated automation software based on several criteria: flexibility and ability to integrate into the Dow Jones environment, ability to unify resource management of both public and private clouds, scalability, cost effectiveness and speed to deployment. VMware vCloud Automation Center met all of the company’s requirements.

The Dow Jones enterprise private cloud consists of the self-service portal and a catalog of IT services. Depending on their rights, a user or manager can select certain resources. By applying the VMware solution to the cloud environment, Dow Jones can standardize and automate this process, and have more control over where IT resources are deployed.

“With VMware, we have reduced the time needed to deploy virtual machines as well as the effort of individuals required to focus on manual steps to provision,” Rupani says. “This is saving money by refocusing resources toward strategic activities rather than building servers.”

**Conclusion**

REALIZING THAT THEY NEED TO IMPROVE IT service delivery speed and efficiency, savvy IT organizations have looked to private, public and/or hybrid clouds to enhance service delivery. But the benefits promised are not always realized. IT service delivery is not as rapid as it should be, and users continue to provision their own services through external providers.

To optimize their cloud infrastructure and elevate IT within the business, IT organizations must implement cloud automation throughout the entire IT service provisioning lifecycle. VMware’s cloud automation solution brings the agility that business needs, along with the controls IT requires, through a flexible platform for automating the delivery of IT services.

For more information on VMware vRealize Automation and how it can help optimize your enterprise private cloud, visit www.vmware.com/products/vrealize-automation