AUTOMATE IT
Speed Application Delivery and Boost Efficiency and Agility

Increasing IT Focus on Agility

Digital transformation is not only changing businesses and operating models, it's putting more pressure on IT organizations to build and deliver applications faster than ever. To keep pace, IT teams are exploring new ways to accelerate application development and delivery, so they can respond better to business needs, speed time to market, and build competitive advantage. To gain agility, they need to provide faster delivery of infrastructure and applications.

Extending the Value of Automation

Many IT teams have already achieved some efficiencies by virtualizing and automating compute resources. However, delivery of infrastructure, including networking and security, to development and production groups is still challenging for IT organizations and continues to require a disproportionate amount of resources to properly execute. The management and delivery of provisioned resources on top of critical compute, storage, and network resources also needs improvement.

AUTOMATION UNLOCKS REAL BENEFITS

VMware automated application deployment was successful in reducing application provisioning from three-to-four weeks to less than a day.[1]

Automation solves these problems. It enables IT teams to speed the delivery of applications by automating the delivery of the resources they require, including networking, security, and the infrastructure that supports application development. Automation enables this agility in a way that's standardized, consistent, scalable, repeatable, and secure. A fully automated environment can reduce the time it takes to deliver production-ready resources to business stakeholders from weeks to less than a day.

Addressing IT Challenges Requires Automation

Organizations often spend a significant amount of time deploying the infrastructure to support applications. Businesses that are running hardware-based data center architectures face many challenges, including lengthy network provisioning, manual steps that can lead to configuration errors, and other costly processes. Without automation, organizations rely on manual processes, scripting, and numerous hand-offs between teams to get new applications to market.

At the same time, as IT environments grow and diversify, technology teams are becoming more shackled by complexity. This complexity can distract IT teams from strategic priorities and projects—and add weeks or even months to project lead times. Operational environments are often inefficient, based on siloed IT groups with disparate processes and organizational bureaucracy.

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[1] Forrester Total Economic Impact™ of VMware Automated Application Deployment

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VMware automated application deployment enabled developers and test engineers to boost productivity by 25 percent per project; IT staff were able to recapture 2 hours per application supported.[2]

IT organizations need solutions that can help them with the following tasks:

• Reduce provisioning time, improve resource utilization, and eliminate error-prone processes by automating the delivery and management of production-ready infrastructure and application components

• Reduce the operational bottlenecks caused by manually configuring and provisioning security policies, networking, and infrastructure resources for applications, so IT staff can deliver applications and services faster

• Meet security and compliance requirements by templating networking and security services and policies to deliver standard, consistent applications

Automate IT for Agility, Efficiency, and Manageability

By evolving to a software-centric approach, organizations can automate and manage IT processes in software to unleash powerful capabilities. A software-defined approach abstracts functionality from hardware into software, enabling organizations to quickly provision applications, move virtual systems across and between data centers, and automate labor-intensive, error-prone tasks.

VMware solutions to automate IT processes include industry-leading virtualization, cloud management, and automation technologies as part of a software-defined data center (SDDC). With VMware vRealize® Automation™ (part of the VMware vRealize® Suite), IT teams can model infrastructure and application resources as blueprints that embed both automation and policies. This blueprint approach dramatically reduces the time it takes to provision production-ready infrastructure and application components.

By implementing vRealize Suite together with VMware NSX®, the comprehensive network virtualization platform, IT teams can extend capabilities to address slow networking and security provisioning, and fully automate the provisioning of a complete application stack. The result is improved flexibility and speed in responding to the needs of the business.

In addition to the automation capabilities that speed resource delivery, VMware vRealize® Operations™ capabilities in vRealize Suite deliver day-two capabilities that support the continuous monitoring of resource utilization and the ability to resize and reclaim capacity as needed. With vRealize Suite advanced business management capabilities, delivered through VMware vRealize® Business™ for Cloud, organizations optimize budgets by comparing the cost of running workloads in private and public cloud environments.

Virtualize and Automate for Agility and Improved Management

VMware solutions enable organizations to automate their IT environments with the native integration of NSX and vRealize Suite.

Automation for Full-Stack Provisioning of Infrastructure and Applications

Manual configuration and provisioning takes time and strains resources while increasing the potential for errors. VMware technology enables IT teams to minimize manual efforts and eliminate bottlenecks by automating the provisioning of all infrastructure and application components. Organizations can turn templates of their infrastructure into blueprints, including networking and security profiles, to more quickly create and deliver the applications they need as standardized services. VMware solutions also help organizations make processes more flexible,

[2] Forrester Total Economic Impact™ of VMware Automated Application Deployment

IDC ranked VMware as the market share leader for data center automation.[3]

enabling choice and self-service consumption of infrastructure and services through a GUI, as code (CLI), or via APIs. They include built-in policy-based governance, so users get the right-size service at the appropriate service-level agreement (SLA) for the job.

Virtualization of All Networking and Security Components Into the Hypervisor Layer

Maintaining consistent operations and compliance can be challenging in diverse infrastructure environments. With VMware solutions, IT organizations can replicate all networking and security functions in software embedded in the hypervisor, regardless of the topology of their physical infrastructures. They can also automate the provisioning of networking and security policies that are attached to applications, and help ensure compliance—regardless of their location in the data center or cloud. The solution enables IT to take advantage of central management capabilities not only for compute and storage, but also for networking and security functions.

Infrastructure and Application Lifecycle Management

IT requires constant insight and control over the state of enterprise infrastructure, regardless of where resources and applications are located. With VMware solutions, IT organizations can centrally manage the provisioning, delivery, and ongoing maintenance of infrastructure and applications. They can govern IT resources with consistent policies across public and private cloud environments. When business and technical requirements change, they can easily optimize and scale with day-two operations for infrastructure and application components. Moreover, the performance, availability, and capacity of provisioned services can be aligned to meet the specific needs of the environment and business demands.

VMware Delivers a Rich Portfolio of Solutions for IT Automation

VMware, the industry leader in data center virtualization, automation and cloud management, delivers rich automation solution capabilities for organizations seeking to automate IT to support a modern data center environment.

vRealize Suite

vRealize Suite makes provisioning resources faster, with better utilization of data center resources and IT staff time. It delivers VMware's cloud management platform (CMP) and is the control plane for the software-defined data center. It supports IT teams' efforts to automate infrastructure delivery, as well as application level resources. Within the suite, vRealize Automation automates the delivery of personalized infrastructure, applications, and custom IT services. It enables IT to embed automation and policies within blueprints, preparing production-ready infrastructure and applications to be stood up in minutes rather than weeks.

NSX

NSX is the network virtualization platform that delivers the operational model of   a virtual machine for the data center network. It enables reproduction of entire networks in software by moving networking and security services such as switching, load balancing, firewalling, and routing into the hypervisor. With NSX,

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[3] Worldwide Datacenter Automation Software Market Shares, 2015: Year of Suite Success, IDC, June 2016

IT organizations can programmatically create, snapshot, store, move, delete, and restore entire networks with the same point-and-click simplicity and speed of a virtual machine. They can tap into security, agility, and availability that had never before been feasible with hardware-centric or traditional operational approaches.

Automate IT with VMware

VMware's solutions empower IT teams to achieve the speed and agility they require through capabilities that enable the full automation, delivery, and ongoing management of networking, security, infrastructure, and application components. The result is faster, more consistent delivery of applications and services that drive competitive advantage. With a fully automated SDDC in place, organizations can take a dramatic step forward on their journey toward digital transformation through software that helps them to build exactly what they need for today and tomorrow.

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