



VMware IT Automates Application Provisioning in Private Cloud

In response to decreasing satisfaction and productivity levels among business-application developers, the VMware application operations team (AppOps) used a private cloud based on a software-defined data center architecture to automate provisioning throughout the software development life cycle (SDLC). By accelerating the process—from weeks to hours—AppOps improved business agility, developer productivity, and provisioning quality while reducing annual costs.

The Challenge

The enterprise application group within VMware corporate IT maintains a portfolio of 215 business applications. Within that group, AppOps deploys development and test instances for developers undertaking 30-50 major application upgrades each year. The manual process used to provision instances at multiple points in the SDLC process was slow, inconsistent, and error-prone, and took an average of 4 weeks to complete.

AppOps met with developers and discovered the provisioning process was a major cause of inefficiency and dissatisfaction for more than 600 developers supporting the VMware business application portfolio. To eliminate developer complaints ranging from “I can’t develop or test” to “I’m late with projects and missing my goals,” AppOps had to decide how best to optimize provisioning test and development instances.

Instead of trying to fix what AppOps called the “human-middleware” problem, IT management chose to replace and completely automate the SDLC instance provisioning process in a private-cloud environment using blueprints, policies, and VMware vCloud® Suite automation and management capabilities.

The Solution

VMware IT had deployed a private cloud that delivered low-cost and agile infrastructure-as-a-service capabilities for many different tenant groups at VMware. To meet specific demands, AppOps—as one tenant—added advanced vCloud Suite automation and management capabilities to streamline ongoing management and maintenance tasks. Because their private cloud was based on a software-defined data center architecture, the solution enabled unprecedented efficiency, agility, and control of compute, storage, and network resources.

AppOps used the private cloud to replace and automate the SDLC process, reducing provisioning time from several weeks to just over a day. AppOps also used the solution to transition thousands of non-production SDLC workloads to the private cloud, eliminating the need for the application team to maintain the infrastructure to support them.

BUSINESS GROUP

AppOps team
within corporate IT

KEY CHALLENGES

- Manual process to provision each development and test instance was slow, unreliable, and process bound
- Developer work was disrupted multiple times during a major project with wait-time gaps up to 5 weeks for each instance
- Inefficient provisioning process was identified as top developer challenge during AppOps review

SOLUTION

AppOps chose to replace the manual “human-middleware” process with complete process automation in a private-cloud environment

BUSINESS BENEFITS

- Reduced provisioning time from 4-week average to 36 hours
- Increased developer productivity by 20 percent
- Improved consistency of provisioned instances
- Reduced annual infrastructure and operating costs by USD \$6M

“With this capability, we moved our service delivery model into true agile mode.”

Job Simon
Vice President, IT Strategy and
Architecture, VMware

KEY TAKEAWAY

Corporate IT’s investment in agility to better meet business needs also resulted in lower costs and improved service quality.

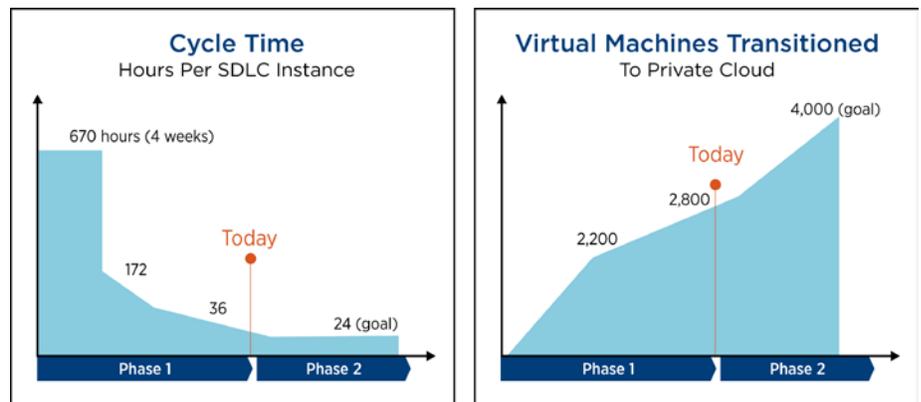
Achieving results required executive-level support and investment to drive architecture and operations transformation. IT had to shift from the traditional data center environment to the private cloud, and deploy cloud management and automation capabilities to provision complex stacks and multistep workflows. IT also had to convert the manual “human-middleware” process to an end-to-end, automated process with blueprint-based provisioning. Key tasks included training personnel, updating processes and procedures, and aligning incentives to ensure success. The AppOps team transitioned 2,800 development, functional test, and user acceptance test (UAT) workloads to the private cloud.

Benefits

Automating SDLC provisioning in a private cloud has resulted in the following significant benefits:

- Reduced application environment provisioning time from an average of 4 weeks to 36 hours; on target to achieve goal of 24 hours.
- Increased productivity of 600 developers by as much as 20 percent.
- Improved capacity and service quality so that AppOps can now consistently respond “yes” to all project requests.
- Saved the business USD \$6M per year in infrastructure and operating costs.
- Improved quality of instances because blueprint-based provisioning ensures identical outputs.

Corporate IT’s investment in agility to better meet business needs also resulted in lower costs and improved service quality. This approach—with its subsequent results—is in stark contrast to the cost-cutting strategy that many IT organizations follow, which reduces spending but leaves IT unable to effectively respond to business needs. By replacing and automating rather than fixing an inefficient workflow, VMware created an effective way to simultaneously meet business needs and reduce IT costs without hindering innovation.



Summary of Key Metrics and Progress Toward Goals

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As the leading exemplar of our own products, VMware is committed to passing on the lessons learned by our internal IT group in applying virtualization and cloud management technology to solve business challenges.

Looking Ahead

AppOps expects to transition 1,200 more load-test and staging virtual machines to the private cloud (for a total of 4,000 virtual machines) in the first half of 2014. Additionally, AppOps plans to increase the use of virtual network and virtual storage capabilities to further improve agility, and adjust the cost-performance profile of resources at different stages of the SDLC. VMware transformation continues as IT transitions from a project-infrastructure funding model to a service-consumption and chargeback model.

