

VMware Infrastructure & Operations Management Solutions

Enable Zero-Touch Infrastructure and Policy-Driven Self-Service

AT A GLANCE

Today's IT organizations are under pressure to increase service levels, implement self-service provisioning and build the next-generation infrastructure for the cloud—all with the resources they have today. The existing infrastructure, management tools and processes they work with are siloed, inefficient and simply not designed to meet today's demands. As IT environments become increasingly dynamic and businesses move towards the cloud, a new approach is needed.

Virtualization and cloud environments provide tremendous opportunities to improve IT operational efficiency and deliver IT as a service. As the leader in virtualization and cloud infrastructure, VMware offers purpose-built infrastructure and operations management solutions for dynamic environments to fundamentally improve how organizations manage IT and deliver services. These solutions build on the embedded automation and management capabilities of VMware vSphere™, enabling IT teams to create a zero-touch compliant infrastructure for delivering self-service with policy-driven controls that meet the most stringent business requirements.

New Infrastructure and Operations Management Challenges

Virtualization and cloud computing can deliver substantial gains in IT operational efficiency, allowing IT organizations to transition from cost centers to service providers. However, traditional approaches to IT management rely heavily on manual tasks and processes that make it difficult to realize the full benefits of virtualization. These limitations have given rise to several new challenges for organizations making the journey to the cloud:

- **Complexity** – Current management solutions are siloed and rely on static and manual processes to work, making agility impossible. When business demand calls for changes to servers and applications, it can take weeks or months to get them implemented. With long provisioning times, infrastructure can present an obstacle to the organization's success.
- **Operational costs** – In the traditional datacenter, IT teams must understand, manage and integrate a disparate set of after-market enterprise management tools for each layer of the infrastructure. This requires manual processes that result in time-consuming, error-prone and expensive datacenter operations. As a result, IT organizations often spend USD \$3 on operations management for every USD \$1 invested in infrastructure.¹
- **Efficiency** – In a dynamic virtual environment, capacity planning and management becomes more critical. However, existing processes and tools aren't designed to deal with variable demand, making it difficult to manage infrastructure resource pools efficiently and reclaim unused resources.
- **Availability** – Most business recovery processes are labor-intensive, slow and unreliable, making it costly and difficult to meet increasingly demanding recovery objectives. This forces IT staff to make trade-offs about which applications to protect.
- **Compliance and security** – The increasing rate of change and the mobility of applications in dynamic virtual environments exposes the organization to more significant security and compliance challenges. Without the right information, IT organizations can't manage risk effectively.
- **Scaling and staffing** – Every business competes for the best staff. In IT environments with 40:1 server-to-admin ratios, this can make it expensive to scale operations when a handful of new servers or applications requires additional staff to manage them.

¹ IDC. Quantifying the Business Value of VMware View, Michael Rose and Randy Perry, September 2009

VMware vCenter: A New Approach to IT Management

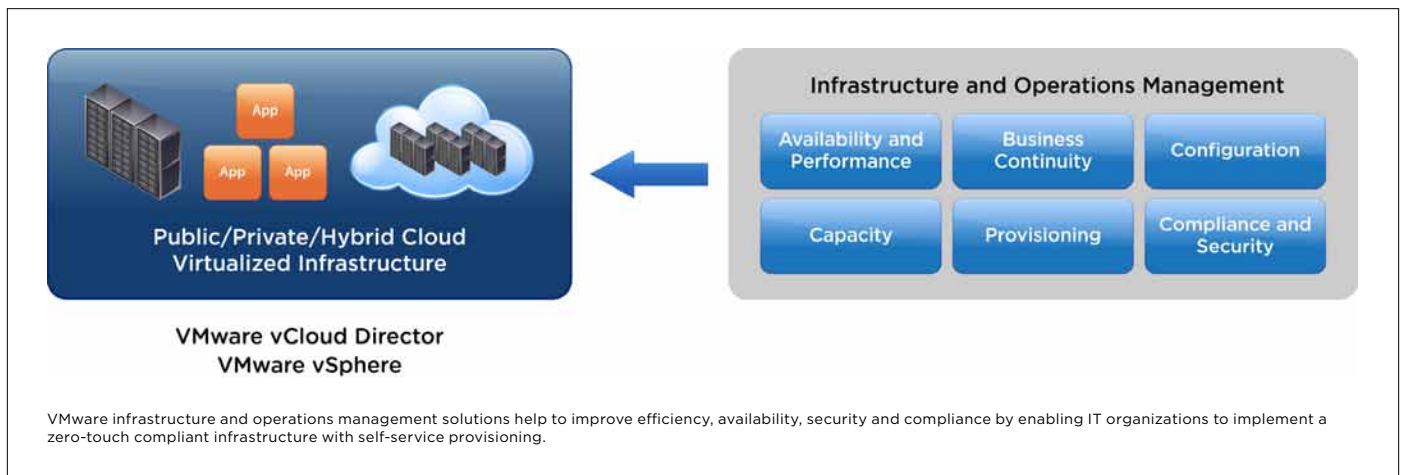
As the recognized leader in virtualization², VMware is uniquely positioned to build on this foundation in an evolutionary manner with next-generation management solutions designed specifically for dynamic virtual and cloud environments.

These new solutions replace fragmented tools and archaic management frameworks that are inefficient, costly and oriented around error-prone manual processes. Instead, VMware solutions provide the policy-driven automation and control needed for inherently dynamic virtual environments and cloud infrastructures.

This new approach to management can help IT organizations achieve the efficiency, control and compliance needed to move from cost center to service provider. With vSphere, customers have simplified and transformed their infrastructures. Now, through its virtualization and cloud management solutions, VMware is helping customers automate and evolve their management tools, their processes and the services they deliver.

“It’s not just all the money we’ve saved on hardware, power, cooling and co-location costs because of server consolidation. It’s also the ability to recover right away if a piece of hardware dies, the capacity to roll out servers on the fly, the freedom we’ve gained from automated management tools, and the flexibility to use our resources where we most need them. If you look at the big picture, I guess you could say that VMware has freed up the way we do things around here. It not only makes things easier for us in IT, it helps us ensure that IT aligns with the firm’s business goals, from saving money with a leaner datacenter to improving client service with a more reliable computing infrastructure.”

— Brian Doyle,
Network Specialist, Jenner & Block



² Gartner, Inc. Magic Quadrant for x86 Server Virtualization Infrastructure, Thomas J. Bittman, Philip Dawson, George J. Weiss, 26 May 2010. <http://www.vmware.com/company/news/releases/gartner-magic-quadrant-10.html>

Key Benefits

Built-in Automation

With VMware vSphere, management is a built-in part of the platform, providing customers with an opportunity to transform management, create standardized and repeatable services and ultimately deliver higher levels of service.

The maturity and expansiveness of the platform drives efficiency and lowers operating expenses by streamlining operations. Building blocks such as live migration and distributed resource scheduling let IT teams balance workloads on the fly in response to changing business conditions. Automated failover and fault tolerance features protect critical workloads against unplanned server downtime.

VMware solutions also leverage key automation capabilities that allow IT organizations to improve management efficiency by optimizing performance and capacity. By adopting these solutions, customers can achieve a five-fold increase in datacenter resource utilization—up to 80 percent—delivering significant cost savings.

Zero-Touch Compliant Infrastructure

IT processes are often built on static technologies with rigid bindings throughout the architecture. This results in brittle, slow applications, frequent outages and slow, risky change management. Maintaining compliance can be difficult and costly.

VMware frees IT from these limitations, while helping to assure compliance and performance in the face of growing expectations and accelerating change. VMware solutions help to automate change management so that customers can dynamically provision services and more easily assure compliance with internal policies, as well as industry and government regulations. VMware infrastructure and operations management solutions also help increase management efficiency by up to 270 percent. Organizations with advanced management tools and processes have improved server-to-admin ratios dramatically, ranging up to 1800:1.³

Policy-Driven Self Service

Delivering IT services to users is time-consuming since each new request must be processed manually. New services or solutions that rely on IT can take months to bring online, reducing the organization's competitive edge.

VMware solutions help IT organizations deliver standardized, repeatable services using policy-driven controls, giving IT the ability to deliver services on-demand and on-time. These solutions give IT teams the power to shift their focus from costly, inefficient and siloed management of devices and components to efficient, agile, cost-effective service delivery.

Transform Infrastructure and Operations Management

Today, customers rely on VMware more than ever to run mission-critical applications—in fact, an estimated 84 percent of virtualized applications run on vSphere. As enterprises continue to expand their virtualization deployments to support a growing portfolio of applications, they must also account for the increased importance of capacity planning, configuration and compliance management, and availability. However, existing management tools can't keep pace with the dynamic nature of a virtual environment, leaving administrators with little visibility or control.

In contrast, VMware infrastructure and operations management solutions build on the strength of the vSphere platform and provide the underpinnings for successful cloud implementations, delivering the highest levels of visibility, efficiency, automation and security while reducing operational costs.

VMware solutions also allow customers to simplify virtual datacenter operations across virtual and physical environments with policy-driven administration and automated IT processes to optimize capacity, streamline disaster recovery, and ensure continuous configuration compliance.

Manage Private Clouds with Ease

Building on vSphere and VMware management solutions, VMware vCloud Director enables enterprises to build multi-tenant private clouds by pooling infrastructure resources into virtual datacenters and exposing them to users through Web-based portals and programmatic interfaces as a fully-automated, catalog-based service.

By building secure and cost-effective private clouds, internal IT teams can achieve the benefits of cloud computing within the datacenter. As a result, the IT organization becomes a service provider for the business, driving innovation and agility, while increasing datacenter efficiency and enhancing security. VMware provides an evolutionary path to cloud computing, leveraging existing investments and maintaining flexibility to extend capacity between clouds.

³ Enterprise Management Associates, "Reducing Operational Expense (OpEx) with Virtualization and Systems Management" <http://www.vmware.com/files/pdf/vmware-solution-opex-reducing-opex-wp-en.pdf>

VMware Infrastructure and Operations Management Products

VMware vCenter Server

The foundation of the VMware infrastructure and operations solutions is VMware vCenter Server, the industry's most advanced virtualization management platform and the central management server for organizing, monitoring and configuring an IT environment through a single interface.

Used daily by tens of thousands of customers worldwide, vCenter Server has become the proven management platform at the heart of the virtual datacenter, and the only choice for centrally managing services across the private cloud. vCenter Server also includes vCenter Orchestrator, giving administrators the ability to use out-of-the-box workflows to automate any of more than 800 virtualization management tasks.

Additionally, VMware vCenter Server Heartbeat (licensed separately) delivers maximum uptime for the virtual datacenters, ensuring consistent operation, even when vCenter Server is threatened by unplanned or planned downtime.

VMware vCenter CapacityIQ

vCenter CapacityIQ guarantees the efficiency and predictability of virtualized datacenter or desktop infrastructure capacity, ensuring an optimal balance between business demand and IT supply. CapacityIQ empowers IT users with the capacity insight and intelligence to effectively and efficiently analyze, forecast and plan their capacity needs.

VMware vCenter Site Recovery Manager

vCenter Site Recovery Manager makes disaster recovery rapid, reliable and manageable by providing leading disaster recovery management and automation for virtualized environments. Site Recovery Manager simplifies the setup of recovery procedures, enables non-disruptive testing of recovery plans, and automates failover when failures occur.

VMware vCenter Configuration Manager

vCenter Configuration Manager automates configuration management across virtual and physical servers, workstations, and desktops. This product helps customers increase efficiency by eliminating manual, error-prone and time-consuming work, and to avoid configuration drift by automatically detecting and comparing changes to policies.

Find Out More

For information or to purchase VMware products, call 877-4-VMWARE (outside of North America dial 650-427-5000), or visit www.vmware.com/products.

For detailed product information and systems requirements, please refer to additional detail online.

