Simplify and Automate IT Management in Your Business

VMware vRealize Operations
Get More from Your IT Investments

Your customers and your employees rely on your IT applications and infrastructure to perform at peak service levels. Yet traditional monitoring tools require manual troubleshooting and cannot keep up with the virtualized environment you now operate. Traditional tools do not warn your business in advance of performance degradation or downtime. Instead, they overwhelm your IT administrators with alert storms and false positives, leading to fire drills and resource overprovisioning. To be more efficient, your business must have greater visibility into application and infrastructure dependencies.

IT staff is already overburdened; it cannot afford to spend more time, budget, and resources identifying and resolving performance and capacity issues manually. In many cases a small IT team has to support a large organization, and demanding business conditions and complex siloed management tools add additional time and expense. Yet your business cannot afford costly downtime either. You need better IT management tools with automation, standardization, and customization capabilities for a dynamic environment. And you need a solution that grows with your business: a solution that enables your resource-constrained IT staff to improve performance, right-size capacity, and gain better control and visibility from applications to storage so your business can quickly respond to changing conditions and stay one step ahead of your competitors.

Experience the Benefits of Operations Management

With VMware vRealize™ Operations™, your business gains intelligent operations management across physical, virtual, and cloud infrastructures from vSphere and Hyper-V to Amazon Web Services to physical hardware. Built for businesses of all sizes and priced competitively, the solution dramatically simplifies IT management from applications to storage. It helps you improve performance and avoid disruption with self-learning management tools. It also enables your IT staff to become more efficient by automating key IT processes with control.

Management Insight benchmarked the benefits of vRealize Operations for IT management with small and midsized companies. The 2014 study results revealed that customers experienced significant operational and business benefits from the suite, including decreased cost of infrastructure management, higher application availability, improved capacity planning, and greater visibility across layers.
Customers deploying vRealize Operations reported the following improvements:

- **Key performance metrics increases of 20 - 40 percent** in addition to the benefits gained from deploying vSphere
- 34 percent improvement in capacity utilization
- 30 percent more uptime for tier 1 apps
- 26 percent additional cost savings on IT infrastructure management

Another advantage customers gained from the additional visibility into their vSphere environments was increased IT administrator confidence. With vRealize Operations, IT can more aggressively leverage its physical infrastructure. Operations customers revealed far higher abilities in problem management, capacity planning, change management, application dependency mapping, multihypervisor management, and many other areas than those that had not deployed vRealize Operations.

Customers deploying vRealize Operations also experienced a strong return on investment (ROI):

- **Average ROI was 2.4 times** for customers that deployed vRealize Operations
- More than 50 percent of respondents said it took fewer than six months to realize value

![Figure 1: Overall ROI from Deploying vRealize Operations in a vSphere Environment](image)
Simplify and Automate IT with vRealize Operations

Your business can trust vRealize Operations to help IT staff improve system performance, right-size capacity, and gain better visibility and control from applications to storage. The suite features intelligent operations, policy-based automation, and unified management capabilities that seamlessly work together to simplify and automate operations so IT staff can be more proactive and efficient.

Figure 2: Manage the Health, Risk, Efficiency, and Compliance of Virtual Infrastructure and Applications
Improve Performance and Right-Size Capacity

IT keeps your business running. Because your applications must always be available, vRealize Operations manages the health, risk, efficiency, and compliance of your infrastructure. Across physical, virtual, and even cloud infrastructure, vRealize Operations capabilities help IT staff proactively resolve issues before they impact your business.

Improve Responsiveness with Predictive Analytics and Smart Alerts
Self-learning analytics, dynamic thresholds, and the automated correlation of application and infrastructure performance in vRealize Operations help IT staff immediately identify emerging capacity, performance, and compliance issues. Dynamic thresholds automatically adapt to your environment to deliver fewer and more specific alerts about health degradations, performance, bottlenecks, and capacity shortfalls. Smart Alerts combine multiple symptoms into a single alert that surfaces the underlying issue and provides clear remediation recommendations. Smart Alerts also accelerate troubleshooting and root-cause analysis by providing meaningful insights into problems and reducing your overall alert volume.

Optimize and Model Capacity Requirements
Automated, flexible capacity optimization capabilities in vRealize Operations support better resource planning. They enable IT staff to reclaim overprovisioned capacity and increase resource utilization while eliminating the need for scripts and spreadsheets. vRealize Operations also includes advanced capacity modeling capabilities. Using “what-if” scenarios and models, IT staff can save and commit capacity projects to the Operations Management analytics engine to influence capacity calculations and alerts. Extending beyond vSphere and across physical and application-level metrics, including data from third-party management packs, capacity planning and project management features include demand-based models that increase consolidation ratios and allocation-based models that meet SLAs.

Customize Views, Dashboards, and Reports to Increase Transparency
IT staff can use vRealize Operations to customize dashboards, reports, and views for stakeholders across your business in ways they can understand. These tailored reports can improve collaboration by giving everyone visibility into key performance indicators (KPIs). IT staff can also use Operations Management to enable role-based access to information and applications.
Enforce Configuration and Streamline Compliance

Without adding complexity to your IT environment, vRealize Operations provides more advanced capabilities to meet the needs of your business and IT staff as they grow.

Reduce Mean Times to Incident and Resolution
vRealize Operations streamlines the creation and customization of remediation workflows with preconfigured actions. Recommendations can be triggered manually or automated. IT staff can maintain better control over IT systems by using flexible group policies with access management and by defining specific capacity thresholds, alert types, notifications, and configuration settings to prioritize operational activities for business-critical applications or production workloads.

Understand How Changes Affect Compliance
Automated detection, enforcement, and remediation of vSphere security hardening guidelines, configuration standards, and regulatory compliance requirements across environments can help IT staff ensure infrastructure compliance. Visual correlation of change events with performance data across physical and virtual infrastructure and operating systems (OSes) provides visibility into performance degradation from configuration changes.

Gain Comprehensive Visibility from a Single Console
With unified management in vRealize Operations, your business gains comprehensive visibility from a single console across multiple hypervisors such as vSphere and Hyper-V, storage, and physical hardware. IT staff can examine the health, risk, and efficiency of your IT environment with integrated insights into performance, capacity, and configuration issues.

“For the first time ever we are able to capacity plan, to look ahead and forecast what we are going to need for the next one, three, or five years.”

– Ricky Caldwell, Director of Server Operations, Architecture and Infrastructure, Cornerstone
Extend Visibility from Applications to Storage

Because cost is always a key consideration, vRealize Operations integrates with your existing monitoring tools. It provides increased visibility across your entire IT infrastructure from storage to applications and supports rapid recovery when outages occur. Moreover, as your business considers and moves to a cloud computing model, vRealize Operations supports monitoring of on-premises infrastructure and hybrid cloud.

Map Application Dependencies
Application awareness and dependency mapping simplify impact analysis to help IT staff more quickly identify root cause or build recovery plans. Your business gets comprehensive visibility from applications to host, virtual machines, and datastores to switch port and LUN levels for faster troubleshooting and disaster recovery.

Achieve Application-to-Storage Visibility
Storage analytics provide deep visibility into infrastructure topology, statistics, and events across host bus adapters, fabric, and arrays using standard protocols. The automated correlation of application and infrastructure performance together with self-learning analytics increases operational visibility and helps IT staff quickly identify any issues.

Expand Analytics to Any Data
vRealize Operations is an open and extensible platform. IT staff can use Operations Management to extend predictive analytics and Smart Alerts to third-party management packs (e.g., Microsoft and SAP) by integrating third-party monitoring data into the vRealize Operations analytics engine, where it is correlated with data from other infrastructure and application metrics.
Choose a Solution to Meet Your Business Needs

<table>
<thead>
<tr>
<th></th>
<th>vREALIZE OPERATIONS STANDARD</th>
<th>vREALIZE OPERATIONS ADVANCED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview</strong></td>
<td>Provides intelligent vSphere operations management for businesses of all sizes. It correlates data across the vSphere environment in a unified management tool that is easy to use and competitively priced. It enables vSphere performance and capacity optimization with predictive analytics, Smart Alerts, and policy-based automation.</td>
<td>Delivers all of the benefits of Standard Edition plus intelligent operations management across physical, virtual, and cloud infrastructures. Supported by third-party management packs. Advanced capacity projects and customizable automation actions. Application-to-storage visibility. Complete control over performance, capacity, and configuration management.</td>
</tr>
<tr>
<td><strong>Optimized for</strong></td>
<td>IT staff managing vSphere virtual environments.</td>
<td>IT staff managing virtual, physical, and hybrid cloud environments, including vSphere, Hyper-V, and Amazon Web Services, with responsibility across compute, storage, and networking resources up to and including the OS level.</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>vSphere</td>
<td>vSphere, Amazon Web Services, Hyper-V, and physical infrastructure (e.g., servers, storage, and networking)</td>
</tr>
<tr>
<td>Key Capabilities</td>
<td>vREALIZE OPERATIONS STANDARD</td>
<td>vREALIZE OPERATIONS ADVANCED</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Performance analytics</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Predictive analytics and Smart Alerts</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Policy management</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Automation and guided remediation</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>vSphere performance and health monitoring</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>vSphere resource monitoring and capacity optimization</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Capacity models and what-if scenarios</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Capacity model-driven analytics</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Scale-out platform</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Platform high availability</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Customized reports, views, and dashboards</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Application discovery and dependency mapping</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>SAN storage analytics</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>OS monitoring (e.g., Windows, Linux, Solaris, and physical infrastructure)</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>vSphere hardening and compliance</td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>


“It was almost jaw dropping in terms of the memory and resources we would get back by using vSphere with Operations Management.”

– Leon Ravenna, VP of Infrastructure and Operations, Information Security Officer, Millennium Pharmacy Systems
Transform Operations Management with VMware

Your business can achieve cost savings, agility, and security benefits by replacing time-consuming, error-prone manual IT management tasks, including performance and capacity management and storage optimization, with automation. You can free IT staff from maintenance to focus on opportunities that will help grow your business.

IT staff can be more proactive, increase your service quality, and prevent service delivery issues before they occur, saving your end users from downtime. Across virtual, physical, and cloud environments, vRealize Operations enables IT staff to be proactive and report back to the business about IT performance in views that make sense to everyone.


Case Study: Healthcare Services Company

IT Initiative – Virtualization Management

Challenges
• Drive down costs due to growing economic pressures
• Centralize management and increase efficiency of IT infrastructure

Benefits
• Comprehensive visibility into two data centers through a single, unified console
• Fast recognition and resolution of issues that saved time and reduced end-user impact
• 25 percent efficiency increase from fewer resources delivering more value
• Server optimization resulting in 20 percent increase in virtual machine density and 20 percent decrease in operational costs