

# Tech Tips: VMware vSphere with Operations Management

As VMware® vSphere® environments grow, users need proactive management that can deliver monitoring, performance and capacity information at a glance. This information empowers IT staff and vSphere administrators with immediate knowledge of issues, helps streamline problem resolution and enhances root cause analysis procedures. vCenter™ Operations Management Suite™ Standard is part of a new solution from VMware, vSphere with Operations Management™, which provides users operational insight into a vSphere environment. vSphere with Operations Management adds the following capabilities to the vSphere platform:

- **Health Monitoring and Performance Analytics** – to help anticipate performance bottlenecks and enable vSphere infrastructure health with patented self-learning analytics.
- **Capacity Management and Optimization** – to ensure capacity consumption is right-sized and not over-provisioned to allow for the most efficient use of virtualized resources.
- **Operations Dashboard and Root Cause Analysis** – to provide intuitive operations dashboards and actionable recommendations.

To ensure successful implementation of vCenter Operations Management Suite in your vSphere environment, keep in mind the following tips from installation to best practices for users:

## 1 Prepare carefully for the install to optimize resource utilization

Through careful planning of a right-sized environment with vCenter Operations Manager, you can increase hardware consolidation ratios and maximize return on investment (ROI). Before you install, determine the parameters of your environment, such as how many hosts and virtual machines you will be monitoring, along with the IP addresses, storage, and cluster that you will use. Create an IP Pool, download and install the vApp in an open virtualization format (OVF) and set the licensing for vCenter Operations Manager.

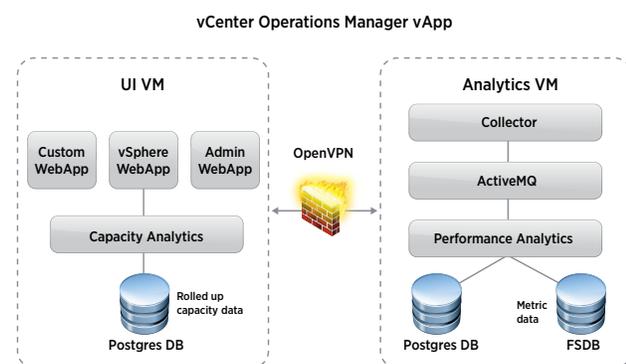


Figure 1: Overview of vCenter Operations Manager 5 as vApp

## 2 Grant users access to vCenter Operations Manager with different permissions

vCenter Operations Manager requires that you configure permissions and security for use, so make sure you assign privileges in the vSphere Client to grant access to users. Assign the vCenter Operations Admin global privilege to provide administrators access to all operations at the individual or global level. Assign vCenter Operations User global privilege to all other users to provide access to all of the operations and customization options in the main vCenter Operations interface that do not affect global settings or thresholds. Multiple user permission levels maintain the security of the environment while allowing all staff members the ability to fix day-to-day problems as they arise to keep your business moving.

## 3 Configure groups to ease management and increase flexibility

Structure your operations views with intelligent groups in a way that makes the most sense for your business to ease management and increase flexibility of your vSphere environment. Group objects based on specific business needs, departments, locations, and more to create a simplified view of your environment from the vCenter Operations dashboard. Tailoring groups to your business needs simplifies IT, which means staff can manage more systems, lowering administrator overhead and freeing up staff for innovation elsewhere.

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## 4 Create policies for efficient resource management

Policies are sets of standardized rules that administrators can apply to groups of resources to simplify resource management and adhere to management strategies and service levels. Use vCenter Operations Manager to assign policies to certain groups of resources, geographic locations, or business units to customize badge thresholds, alerts and capacity management settings. vCenter Operations Manager provides out-of-the-box policies that will meet most of your business needs (e.g., Production or Test Environments, Batch or Interactive Workloads) or you can create your own personalized policies.

## 5 Configure badge settings for easy monitoring

Badges are a visual representation with scores and metrics that show the health, risk and efficiency of the virtual environment or monitored object. Customize badge threshold settings as a part of your policy configuration. Badges are assigned a numerical value ranging from 0 to 100 and are then color-coded (green, yellow, orange or red), depending on the thresholds defined. This provides a single, integrated, real-time view of the status of all virtual infrastructure resources for administrators to easily monitor the environment.

## 6 Configure capacity settings for risk mitigation

Many organizations would like to better optimize capacity in the datacenter and need to assess the risk of the capacity settings they choose based on their varying business needs. For example, you might optimize a production environment for performance, but the test-development (test-dev) environment for higher density. You might use an allocation-based approach to assess risk and predict future needs and not over-commit at all in a production environment, but have high over-commit ratios for both CPU and memory in test-dev. With vCenter Operations Manager policies, you can easily fine-tune your capacity analysis to account for varying business needs and configure over-commit ratios, buffers, time periods, peak usage periods, and more.

## 7 Configure alerts to quickly identify and resolve issues

Smart alerts notify administrators when events occur on monitored objects or data analysis indicates deviations from normal metric values. vCenter Operations Manager learns typical behavior in your environment, so it provides fewer, more meaningful alerts that let administrators know when there really is a problem. Similar to capacity settings, alerts are configured based on policies that you define. Alerts also provide actionable recommendations so administrators can address problems before they affect the end user, keeping your environment healthy and minimizing downtime.



Figure 2: Smart Alerts in vCenter Operations Manager

## 8 Set up email notifications for administrative alerts for real-time issues

To monitor environment health and capacity from anywhere, configure an optional SMTP server to activate email service for notification messages when problems occur. You can set email notifications for all types of alerts, so you can address problems as they happen in real time, minimizing painful downtime for users. As an administrator, it is especially important to set up email notifications for administrative alerts to ensure vCenter Operations Manager is always running properly.

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## 9 Run reports to help anticipate and eliminate bottlenecks before they occur

vCenter Operations Manager makes it easy to monitor environment risk by providing reports in PDF or CSV format that monitor the capacity and efficiency of your vSphere environment and help you anticipate bottlenecks before they occur. Detailed reports, which you can schedule at regular intervals for predictable updates or generate on demand for real-time data, can help minimize infrastructure downtime. Historical reports also show growth patterns, which you can use to predict future capacity shortages as your business grows.

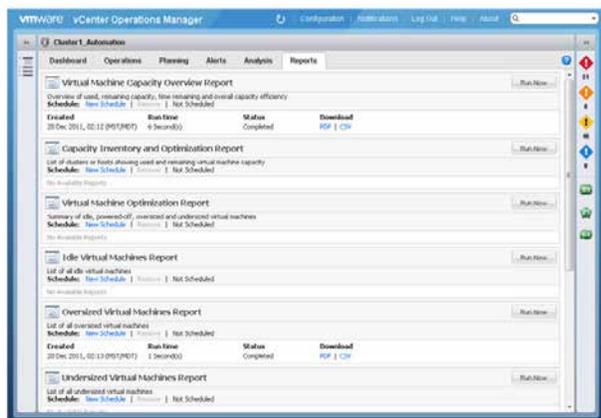


Figure 3: Reporting in vCenter Operations Manager

## Resources

### Learn more about vSphere with Operations Management

- [vSphere with Operations Management Features](#)
- [vSphere with Operations Management Datasheet](#)
- [vSphere with Operations Management Evaluation](#)
- [vCenter Operations Manager Evaluation Guide](#)
- [vCenter Operations Manager Getting Started Guide](#)
- [vCenter Operations Manager Advanced Getting Started Guide](#)

## 10 Stay up to speed on your environment with the central dashboard

Get a holistic view and deep insights into the health, risk and efficiency of infrastructure and applications to help ensure quality of service and early detection of performance, capacity and configuration issues. Use the dashboard super metrics to quickly recognize areas that need attention and look deeper into individual components of the environment when necessary. The consolidated dashboard helps you ensure that resources are being used efficiently and that all systems are performing and available, all from a single view that allows you to spend less time monitoring and more time optimizing.