



VMware vRealize Suite

Getting Started Guide

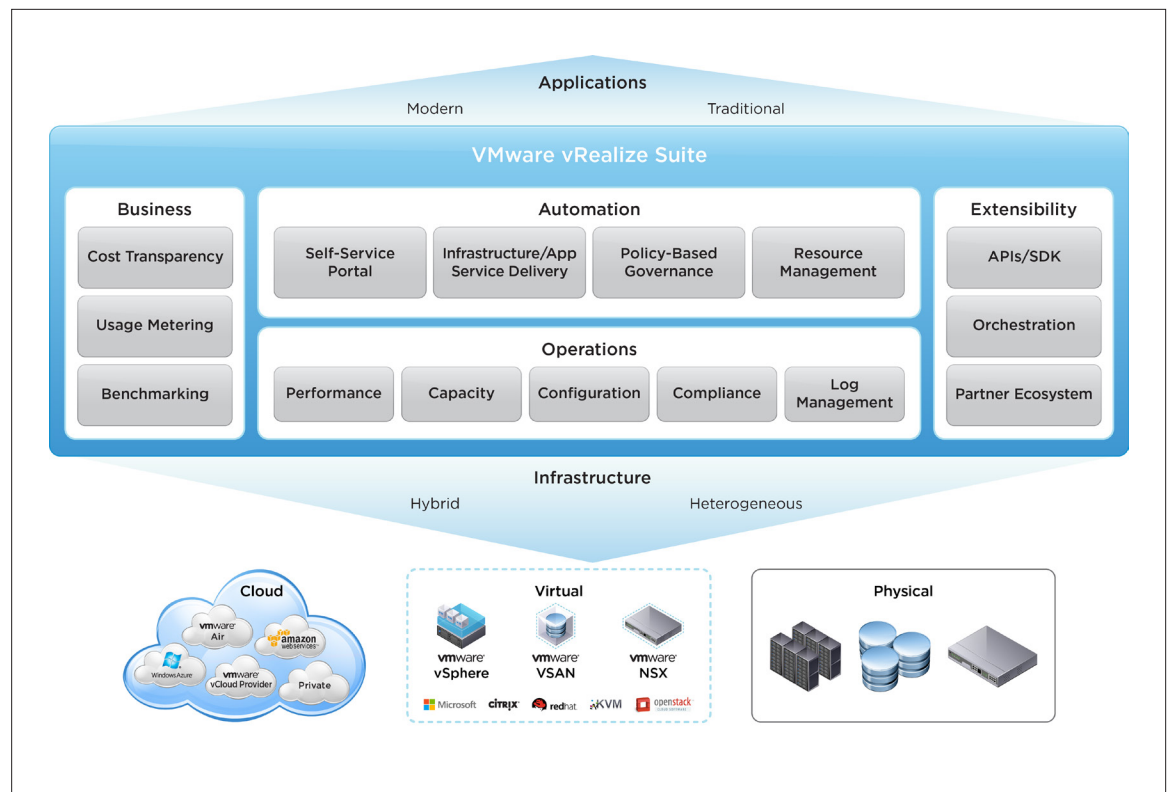
TECHNICAL WHITE PAPER

VMware vRealize Suite Overview

VMware vRealize™ Suite delivers a cloud management platform purpose-built for the hybrid cloud. It is designed to deliver and manage infrastructure and applications quickly but with the control IT needs. It provides a comprehensive management stack for IT services on VMware vSphere® and other hypervisors, physical infrastructure, and external clouds such as VMware vCloud® Air™ and Amazon Web Services — all with a unified management experience.

It provides:

- **Automation** – automated provisioning of infrastructure, applications and custom IT services across multiple hypervisors, private and public clouds delivered through a self-service portal and catalog
- **Intelligent Operations** – manage infrastructure and applications across physical, virtual and cloud environments using predictive analytics and an integrated approach to performance, capacity, configuration, compliance and log management.
- **Business Insight** – Align IT spending with business priorities by getting full transparency of infrastructure and application service cost and quality, accelerating IT transformation.
- **Unified Management** – Simply management while leveraging existing investments in tools and skills by using a single, extensible management platform for physical, virtual and cloud environments.



VMware vRealize Suite Editions

VMware vRealize Suite is available in two editions.

VMware vRealize Suite Advanced: Comprehensive management solution for provisioning and on-going management of infrastructure services

- Rapid, self-service infrastructure provisioning
- Infrastructure health, performance and capacity monitoring across physical, virtual and hybrid cloud deployments
- Rapid creation of rate cards and automatic pricing of service catalog blueprints for use in a self-service portal
- Out-of-the-box benchmarks, usage metering, and public cloud comparison
- Plan, control, and recover cost expended in providing full IT Services stack, implementing cost transparency, cost optimization, and demand management
- Visibility into application dependencies and hypervisor change and configuration management

VMware vRealize Suite Enterprise: Complete management solution for deployment, on-going management and compliance for infrastructure and applications, with the following additional benefits:

- Rapid, self-service infrastructure and application provisioning
- Automated configuration and deployment of multi-tier cloud applications and custom services
- Visibility into application performance
- Regulatory compliance and OS-level change and configuration management
- IT service level management
- Transparency into IT performance and value measures for all services and vendors, enabling IT to govern contractual commitments

VMware vRealize Suite Components

VMware vRealize Suite consists of the following products and suites

- VMware vRealize™ Automation Advanced or Enterprise
- VMware vRealize Operations Advanced or Enterprise
- VMware vRealize™ Log Insight™
- VMware vRealize™ Business™ Standard
- VMware vRealize™ Business™ Advanced or Enterprise

Installing VMware vRealize Suite Components

I. vRealize Operations

vRealize Operations is used to monitor and manage the health, capacity, and performance of your virtual environment. VMware vRealize Suite will include either vRealize Operations Advanced or Enterprise Editions.

vRealize Operations includes:

- vRealize Operations Manager
- vRealize Infrastructure Navigator™
- vRealize Configuration Manager™ (Enterprise edition)
- vRealize Hyperic® (Full Hyperic functionality is in Enterprise Edition)

You will also need management packs to extend operations management to public clouds such as AWS and VMware vCloud Air (vCloud Hybrid Service).

1. Install & Configure vRealize Operations Manager

- a. Validate sizing requirements for vApp via sizing guidelines: By default, we offer Small, Medium, and Large configurations during installation. If you want to manage more virtual machines, you can manually resize the vApp using these guidelines.
Supporting Document: <http://kb.vmware.com/kb/2057607>
- b. Supporting Document for following steps:
<https://www.vmware.com/pdf/vcops-vapp-582-deploy-guide.pdf>
This document will enable you to perform the following steps
 - i. Validate System Requirements for vRealize Operations Manager
 - ii. Configure Network Parameters / IP Pools for the vRealize Operations Manager vApp
 - iii. Deploy & Power On the vRealize Operations Manager vApp
 - iv. Define the vCenter Server system to monitor
 - v. Assign the vRealize Operations license
 - vi. Log into vRealize Operations Manager. Verify vCenter & Inventory Objects appear. This confirms the installation and initial configuration has completed successfully
- c. The next step is to determine which Management Packs are required. In this example we detail downloading and installing Management Pack for Amazon Web Services (AWS)
Download vRealize Operations Management Pack for AWS:
<http://solutionexchange.vmware.com>
- d. Install & Configure vRealize Operations Management Pack for AWS supporting document:
https://c368768.ssl.cf1.rackcdn.com/product_files/16249/original/vCenter_Operations_Management_Pack_for_AWS_Installation_and_Configuration_Guide9ae52cdf919ef2258abc518fb879e372.pdf
- e. Verify AWS dashboards & objects appear in vRealize Operations Manager UI. This confirms the management pack installation and configuration has completed successfully.
- f. The next example is to install Management Pack for VMware vCloud Air, formerly known as vCloud Hybrid Service. Download vRealize Operations Management Pack for vCloud Hybrid Service:
<http://solutionexchange.vmware.com>
- g. Install & Configure vRealize Operations Management Pack for vCloud Hybrid Service.
- h. Verify vCloud Hybrid Service dashboards & objects appear in vRealize Operations Manager UI. This confirms the management pack installation and configuration has completed successfully.

2. Install & Configure vRealize Infrastructure Navigator

- a. Supporting Document for following Steps (Install Guide):
<http://pubs.vmware.com/infrastructurenavigator-58/topic/com.vmware.ICbase/PDF/vcenter-infrastructure-navigator-58-install-guide.pdf>
 - i. Deploy vRealize Infrastructure Navigator Virtual Appliance
 - ii. Apply License for vRealize Infrastructure Navigator
- b. Log into vSphere UI. Verify VIN data is showing up via the Application Dependencies tab. This confirms the installation and initial configuration has completed successfully.
 Supporting document (User's Guide): <http://pubs.vmware.com/infrastructurenavigator-58/topic/com.vmware.ICbase/PDF/vcenter-infrastructure-navigator-58-users-guide.pdf>

3. Install & Configure vRealize Configuration Manager

- a. Supporting Document for following Steps (Installation Guide):
<https://www.vmware.com/pdf/vcenter-configuration-manager-57-installation-guide.pdf>
 - i. Validate Hardware and software requirements
 - ii. Install and Configure Windows Server 2008 R2
 - iii. Add vRealize Configuration Manager Domain Account as Local Administrator:
 - iv. Install prerequisite software components:
 - v. Add vRealize Configuration Manager License key
- b. Supporting Document for following Steps (Administration Guide):
<https://www.vmware.com/pdf/vcenter-configuration-manager-57-administration-guide.pdf>
 - i. Configure vCenter Server Integration
 - ii. Configure Virtual Environments Collections
 - iii. Install/Deploy Agents
 - iv. Create and Run Virtual Environment Compliance, Patching, Change Management
 - v. Configure vRealize Operations Manager Integration:
 - vi. Create & Run Compliance Badge Mappings
 - vii. Log into vRealize Operations Manager. Verify vRealize Operations Manager Badge Mappings and Compliance are showing up. This confirms the installation and initial configuration has completed successfully.

4. Install & Configure Hyperic

- a. Supporting Document for following Steps (Installation & Configuration Guide):
<http://pubs.vmware.com/hyperic-58/topic/com.vmware.ICbase/PDF/vcenter-hyperic-58-installation-and-configuration-guide.pdf>
 - i. Validate System Requirements
 - ii. Install and Configure Hyperic vApp
 - iii. Install/Deploy Hyperic Agents
- b. Supporting Document for following steps (Admin Guide):
<http://pubs.vmware.com/hyperic-58/topic/com.vmware.ICbase/PDF/vcenter-hyperic-58-admin-guide.pdf>
 - i. Discover and Import Resources to Inventory
 - ii. Log into Hyperic UI. Verify objects and metrics appear. This confirms the installation and initial configuration has completed successfully.
 - iii. Configure unique identify mapping for vRealize Operations Manager

- c. Download Management Pack for vRealize Hyperic:
<http://solutionexchange.vmware.com>
- d. Install & Configure the vRealize Operations Management Pack for Hyperic:
Supporting document: https://c368768.ssl.cf1.rackcdn.com/product_files/17294/original/vCenter_Operations_Management_Pack_for_vCenter_Hyperic_Installation_and_Configuration_Guide_V5.811193ee078bd1d10295a834942c56268.pdf
- e. Verify Hyperic objects and metrics appear in vRealize Operations Manager UI. This confirms the management pack installation and configuration has completed successfully.
- f. Download and install any additional vRealize Operations Management Packs for specific third-party App/Middleware: <http://solutionexchange.vmware.com>

II. vRealize Log Insight

Log Insight provides real-time log analytics and integrates with vRealize Operations, combining structured and unstructured data for complete operational visibility. Log Insight is delivered as a virtual appliance that you must deploy in your environment. To deploy the Log Insight virtual appliance, follow the standard OVF deployment procedure.

1. Install & Configure Log Insight

- a. Supporting Document (Getting Started Guide):
<http://pubs.vmware.com/log-insight-20/topic/com.vmware.ICbase/PDF/log-insight-20-getting-started-guide.pdf>
 - i. Requirements & Sizing
 - ii. Deploying Log Insight virtual appliance
- b. Supporting Document (Administration Guide):
<http://pubs.vmware.com/log-insight-20/topic/com.vmware.ICbase/PDF/log-insight-20-administration-guide.pdf>
 - i. Configure Integration with vSphere
 - ii. Configure Integration with vRealize Operations
 - iii. (Optional) Deploy/Configure Windows Agents
 - iv. Validate Log Insight Integration to vRealize Operations is working; test launch in Context from vRealize Operations UI.
- c. Validate vSphere log events are being received.
Supporting Document: <http://pubs.vmware.com/log-insight-20/topic/com.vmware.ICbase/PDF/log-insight-20-users-guide.pdf>
- d. Download and Configure Management Pack for vRealize Automation:
<http://solutionexchange.vmware.com>
- e. (Optional) Download and Configure Management Pack for Microsoft Windows:
<http://solutionexchange.vmware.com>
- f. Validate content pack data is visible in Log Insight:
Supporting Document: <http://pubs.vmware.com/log-insight-20/topic/com.vmware.ICbase/PDF/log-insight-20-users-guide.pdf>

III. vRealize Automation

vRealize Automation enables IT administrators to automate delivery and life cycle management of infrastructure and application services.

There are three primary components to vRealize Automation:

- Identity server, which provides authentication services
- vRealize Automation Appliance, which provides administration and self-service capabilities
- Infrastructure as a Service (IaaS) Windows Server, which supports cross-product infrastructure capabilities.

You must use the SSO provided with vRealize Automation. You cannot use other implementations, including the SSO provided with vSphere.

After installation, system administrators can customize the installation environment and configure one or more tenants, which sets up access to out-of-the-box self-service provisioning and life cycle management of cloud services.

By using the secure portal web interface, administrators, developers, or business users can request IT services and manage specific cloud and IT resources based on their roles and privileges. Users can request infrastructure, applications, desktops, and virtually any type of IT service through a common service catalog.

1. Install & Configure vRealize Automation

- a. Supporting Document for following Steps (Installation & Configuration Guide):
<http://pubs.vmware.com/vCAC-60/topic/com.vmware.ICbase/PDF/vcloud-automation-center-60-installation-and-configuration.pdf>
 - i. If not using vCenter for your Single Sign On source, deploy and configure an Single Sign On Identity Appliance
 - ii. Optional: deploy load balancer for vRealize Automation Appliances
 - iii. Deploy and configure and connect vRealize Automation Appliance to the Single Sign On service
 - iv. Complete pre-requisites for Infrastructure as a Service server
 - v. Download the Infrastructure as a Service setup file from the vRealize Automation server to the Infrastructure as a Service server
 - vi. Install all components of the Infrastructure as a Service functionality
 - vii. Verify Infrastructure as a Service services
- b. Configure vRealize Automation tenants
 Supporting Document: <http://pubs.vmware.com/vCAC-60/topic/com.vmware.ICbase/PDF/vcloud-automation-center-60-system-administration.pdf>
- c. Log into the tenant as the Infrastructure as a Service Administrator, click on the Infrastructure tab, and confirm that the page is able to load with no errors popping up at the top of the screen. This confirms that the installation has completed successfully.
- d. Create a hypervisor or cloud endpoint in order to be able to connect to the deployment target
 Supporting Document: <http://pubs.vmware.com/vCAC-60/topic/com.vmware.ICbase/PDF/vcloud-automation-center-60-iaas-configuration-for-virtual-platforms.pdf>
- e. Create a new Fabric Group. If the compute resources from the endpoints configured show up in the list at the bottom of the screen, the connection to the endpoint has been established successfully.

IV. vRealize Business Standard

VMware vRealize Business Standard Edition provides capabilities that allow users to gain greater visibility into financial aspects of their infrastructure and lets them optimize and improve these operations. vRealize Business provides service costing data, showback and chargeback capabilities and cost benchmarking against known public clouds.

vRealize Business Standard Edition has tight integration with vRealize Automation. vRealize Business Standard Edition appears as a tab, named as Business Management, in the vRealize Automation user interface shell. vRealize Business Standard Edition uses the common services of vRealize Automation such as SSO authentication and authorization.

The infrastructure as a Service (IaaS) component of vRealize Automation consumes the base rate APIs of vRealize Business Standard Edition to compute blueprint price of virtual machine. vRealize Business Standard Edition also has data integration with the IaaS component of vRealize Automation Center. You can define rules and categorize according to vRealize Automation hierarchy.

The installation requires the following steps:

- Configure VMware Identity Appliance (SSO for vRealize Automation)
- Configure vRealize Automation Appliance
- Configure vRealize Business Standard Appliance
- Connect vRealize Business to existing vCenter Server (required)
- Connect vRealize Business to Public Cloud Provider (optional)

vRealize Business Standard Edition virtual appliance should be deployed and registered with existing vRealize Automation Center.

1. Install and Configure IT Business Management Standard

- a. Supporting Document for following steps (Admin Guide):
<https://www.vmware.com/pdf/itbms-installation-administration-101.pdf>
 - i. Validate Hardware Requirements for Identity Appliance (SSO) and vRealize Business Standard Appliance
 - ii. Download virtual appliances: <https://my.vmware.com>
 - iii. Deploy & Configure VMware Identity Appliance (SSO)
 - iv. Deploy & Configure vRealize Business Standard Appliance
 - v. Register vRealize Business with SSO and existing vRealize Automation Server
 - vi. Connect vRealize Business to existing vCenter Server
 - vii. (Optional) Connect vRealize Business Management to Public Cloud Provider
 - viii. Access vRealize Business Standard UI by logging into vRealize Automation and accessing via vRealize Business Management tab.
 - ix. Set/Update License for vRealize Business Standard

In addition to vRealize Business Standard, vRealize Suite also includes vRealize Business Advanced or Enterprise, depending on which edition of vRealize Suite you have purchased.

vRealize Business Advanced includes additional capabilities for IT Financial Management to allocate or translate IT costs to each IT business service. Capabilities include TCO analysis, identifying top spenders and consumers, analyzing efficiency ratios, tracking actual versus planned spends and preparing a bill of IT services. This helps spot ongoing potential cost saving strategies, such as potential for virtualization, consolidation, retirement or refresh, SLA reduction, and tiering.

vRealize Business Enterprise includes additional service level management and vendor management capabilities to help customers better understand the trade-off between cost and quality and run IT more like a business.

The documentation referenced in this guide can also be downloaded from the documentation centers for vRealize Suite: <https://www.vmware.com/support/pubs/vmware-vrealize-suite-pubs.html>



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