Red Hat Satellite Server 6.7

Introduction

Red Hat® Satellite Server is a system management solution that makes Red Hat infrastructure easier to deploy, scale, and manage across physical, virtual, and cloud environments. Satellite Server lets users provision, configure, and update systems to help ensure that they are running efficiently and with more security while remaining compliant with relevant standards. By automating most tasks related to maintaining systems, Satellite Server helps organizations increase efficiency, reduce operational costs, and respond to strategic business needs more effectively.

Red Hat Satellite Server overview

Question: Why should I use Red Hat Satellite Server when I already get updates from my Red Hat Enterprise Linux® subscription?

Answer: While you can do many administrative tasks with the services included with your Red Hat Enterprise Linux subscription, Red Hat Satellite Server adds extensive life-cycle management capabilities, including:

- Patching.
- Subscription management.
- Provisioning.
- Configuration management.

From a single console, you can manage thousands of systems as efficiently as one, which can help increase system availability, reliability, and auditability. Organizations with growing Red Hat Enterprise Linux environments often need these management capabilities.

Question: What are the advantages to using Red Hat Satellite Server?

Answer: Red Hat Satellite Server is a system management solution that makes Red Hat infrastructure easier to deploy, scale, and manage across physical, virtual, and cloud environments. Satellite Server lets users provision, configure, and update systems to help ensure that they are running efficiently, with more security, and in compliance with various standards. By automating most tasks related to maintaining systems, Satellite Server helps organizations reduce operational costs and respond to strategic business needs more effectively.

Question: What is Red Hat Satellite Capsule Server?

Answer: Red Hat Satellite Capsule Server extends the management of Red Hat Satellite Server to remote datacenters. Typically, a Red Hat Satellite Capsule Server instance is deployed in each remote datacenter to combine services like provisioning so they can be performed locally. Red Hat Satellite Capsule Server focuses on providing a local repository of certified content for Red Hat Enterprise Linux. This model extends Red Hat Satellite Server to deliver updates, errata, and software in a highly scalable way while using less network bandwidth. Red Hat Satellite Capsule Server replaces Red Hat Satellite Proxy Server.

Red Hat Satellite Server 6 details

Question: When did Red Hat Satellite Server 6 become generally available?

Answer: Red Hat Satellite Server 6.7 became generally available on April 14, 2020.

- Blog post
- Release notes

Red Hat Satellite Server 6.6 became generally available on Oct. 22, 2019.

- Blog post
  Release notes

Red Hat Satellite Server 6.5 became generally available on May 14, 2019.

- Blog post
  Release notes

Red Hat Satellite Server 6.4 became generally available on Oct. 16, 2018.

- Blog post
- AnsibleFest launch announcement
- Release notes

Red Hat Satellite Server 6.3 became generally available on Feb. 21, 2018.

- Blog post
- Release notes

Red Hat Satellite Server 6.2 became generally available on July 27, 2016.

- Blog post
- Red Hat Satellite 6 datasheet
- Release notes

Red Hat Satellite Server 6.1 became generally available on Aug. 12, 2015.

- Press release
- Blog post

Red Hat Satellite Server 6.0 became generally available on Sept. 10, 2014.

- Press release
- Blog post

Question: What are some of the new features in each version of Red Hat Satellite Server 6?

Answer: The major features of each Satellite Server 6 release are listed below. In addition to the major features listed, each release also contains a number of fixes for stability, supportability, and performance. Red Hat recommends upgrading to the latest version of Satellite Server.

Red Hat Satellite Server 6.7

The release of Red Hat Satellite Server 6.7 focuses on new and improved integrations as well as enhanced security and content management features.

Integration:

- Inventory sharing with Red Hat Insights
- Ability to generate playbooks on Insights and run them via Satellite Server using Cloud Connector
- Improved performance for Red Hat Ansible® Tower dynamic inventory
- Use of Ansible Runner with Satellite Server for improved Ansible integrations
- Red Hat Enterprise Linux web console integration
- Red Hat Enterprise Linux system purpose enhancements
- Red Hat Enterprise Linux module stream enhancements

Security features:

- User impersonation
- HTTP proxy update
- Tech preview of Common Access Card (CAC) support via Red Hat single sign-on (SSO)

Content management:

- New entitlement report template
- Ability to import and export templates via the user interface
- Support for uploading source RPM Package Managers (RPMs)

Provisioning:

- Microsoft Azure provisioning support
- Google Compute Engine enhancements

Performance and scale:

- Improved tuning assistant
- Task performance enhancements

Red Hat Satellite Server 6.6

The release of Red Hat Satellite Server 6.6 focused on enhancements across reporting, automation, and supportability.

Automation:

- Ansible 2.8 upgrade
- Ansible variables usable as smart class parameters
- OpenSCAP deployed by Ansible

Reporting:

- Ability to schedule reports
- Ability to email reports
- Reporting performance enhancements
- New default applied errata report

Supportability:

- Red Hat Insights rules for Satellite Server
- Content view dependency resolution
- Composer integration
- Improved upgrade workflows
- Scale improvements and tuning parameters
- Task dashboard
- Additional notification drawer items (paused tasks or tasks need attention)

Red Hat Satellite Server 6.5

The release of Red Hat Satellite Server 6.5 focused on support for hosts running Red Hat Enterprise Linux 8 and support for Federal Information Processing Standards (FIPS) on the Satellite Server host.

- Red Hat Enterprise Linux 8
- Red Hat Enterprise Linux 8 patching
- Red Hat Enterprise Linux 8 provisioning
- Red Hat Enterprise Linux 8 application streams
- Red Hat Enterprise Linux 8 system purpose
- Red Hat Enterprise Linux system roles

Security features:

- Ability to install Satellite Server on a FIPS-enabled Red Hat Enterprise Linux 7 host
- OpenSCAP enhancements
- Satellite Server administrator role

Content management:

- Ability to export content views
- Container administrator

Support:

- Ability to run Satellite Server or capsules in major cloud providers[1]
  - Amazon Web Services
  - Microsoft Azure
  - Google Cloud Platform
  - Alibaba Cloud
  - IBM Cloud
- Infoblox internet protocol address management (IPAM) support

Reporting:

- New reporting engine

[1] Other providers require a support exception. Host provisioning is supported only on Amazon Web Services and Google Cloud Platform.

- Pre-canned reports for:
  - Host status
  - Subscriptions
  - Registered hosts
  - Applicable errata
- Ability to customize or create your own

Red Hat Satellite Server 6.4

The release of Red Hat Satellite Server 6.4 focused on enhancements in the user interface and improved integrations with Ansible.

Content management:

- Ansible embedded for remote execution
- Red Hat Insights deployed through Ansible
- Ansible integration and Ansible roles
- Puppet 5 support
- Ability to pull templates from Git

Usability:

- Vertical navigation
- Updated Red Hat repositories page
- Notification drawer enhancements
- Automatic republishing of component content views
- Ability to update a manifest inside of Satellite Server
- Auditing of user events

Supportability:

- Provision to Amazon Web Services (AWS) GovCloud
- Load balanced capsules
- Ability to offload databases from Satellite Server
- Support for docker private repositories
- Preservation of custom configurations

Performance and stability:

- Red Hat Enterprise Linux
- Performance co-pilot integration
- Rebase of MongoDB to 3.x
- Tuning for PostgreSQL
- Other performance and stability fixes

Red Hat Satellite Server 6.3

The release of Red Hat Satellite Server 6.3 included key features that increased product stability and usability.

Content management:

- Improved content download policies and synchronization (lazy sync tool)
- New custom file type repository

System provisioning:

- Improved ability to manage provisioning templates (pull templates from Git tool: tech preview)
- VMware boot disk image (tech preview)

Configuration management:

- Red Hat Ansible Tower integration best practices
- Full Red Hat support for Puppet 3.8 and Puppet 4

Supportability:

- Full Red Hat support for Satellite Server and Capsule Servers running on AWS Elastic Compute Cloud (EC2)

Security and user access:

- Newly defined and formalized organization administrator role
- New OpenSCAP tailoring files

Usability:

- Improved user interface (UI) notifications (notification drawer tool)
- New future-dated subscriptions
- Ability to clone an existing Satellite Server to a new host (cloning tool)
- Ability to change the Satellite Server hostname while changing configurations (renaming tool)
- New virtualization agent (virt-who) configuration wizard
- New tracer tool (tech preview)

Red Hat Satellite Server 6.2

Notable new features in Red Hat Satellite Server 6.2 included:

- Automated workflows. Capabilities include remote execution and scheduling for remote execution jobs, as well as expanded bootstrap and provisioning options.
- Air-gapped security and federation. Users can sync to export RPM content from one Satellite Server to another.
- Software management improvements. Simplified smart variable management is available.
- Capsule improvements. Users have extended insight into capsule health and overall performance. Capsules are more lightweight and can be configured to store only content requested by clients. In addition, capsules have a new reference architecture that includes the ability to deploy a highly available Red Hat Satellite Server capsule.
- Atomic OSTree and containers. Users can mirror, provision, and manage Red Hat Enterprise Linux Atomic Host and content with Satellite Server. Also, they can mirror to container repositories, such as Red Hat Registry, Docker Hub, and other third-party sources. Satellite Server provides a curated and more secure point of entry for container content.
- Enhanced documentation.

New documentation:

- Virtual instance guide with information on how to configure virt-who
- Hammer command-line interface (CLI) guide explains how to use Red Hat Satellite Server CLI
- Content management guide
- Quick start guide

Updated documentation:

- User guide divided into sections on server administration and host configuration for easier use
- Cheat sheets available for specific topics

Lazy sync:

- Satellite Server 6.2.3 introduces the "lazy sync" function, which provides users with additional flexibility for downloading content and a series of new download policies that govern how content is downloaded
- Lazy sync was included as a technology preview in earlier Satellite Server 6.2 releases (6.2.0 through 6.2.2)
- Lazy sync transitioned to full support with Satellite Server 6.2.3

Red Hat Satellite Server 6.1

Red Hat Satellite Server 6.1 included many other enhancements and fixes to improve stability, reliability, and scalability.

- Errata management
- Container management
- Provisioning enhancements
- Support for disconnected environments
- SCAP operations
- Enhanced bare-metal discovery
- Active Directory groups for user roles

Red Hat Satellite Server 6.0

Notable new features in Red Hat Satellite Server 6.0 included:

- Provisioning across bare-metal, private, and public clouds.
- Puppet Forge and Git integration.
- Federated life-cycle management.
- Drift remediation.
- Content views for life-cycle management.
- System discovery.

Question: Where can I download Red Hat Satellite Server 6?

Answer: Red Hat Satellite Server 6 is available for download on the Red Hat Customer Portal as part of your Red Hat Satellite Server subscription.

Question: Where are the release notes, technical notes, and official documentation for Red Hat Satellite Server 6?

Answer: Documentation is available on the Red Hat Customer Portal.

Question: What infrastructures are supported by Red Hat Satellite Server 6?

Answer: Bare metal, Red Hat Virtualization, Red Hat OpenStack® Platform, and VMware are supported.

Question: What open source projects serve as the upstream for Red Hat Satellite Server 6

Answer: Key projects include Foreman, Katello, Pulp, Candlepin, and Puppet.

Question: What is the supported usage for these components in Red Hat Satellite Server 6?

Answer: All Red Hat Satellite Server components (such as Foreman, Katello, Pulp, Candlepin, and Puppet) and their usage are supported within the context of Red Hat Satellite Server only. Third-party usage of any components falls beyond supported usage. Refer to the Red Hat Satellite Server 6 supported usage chapter in Planning for Red Hat Satellite Server 6 for details.

Question: How can I upgrade from Red Hat Satellite Server 5 to Red Hat Satellite Server 6, and can I upgrade in place?

Answer: The product architectures differ between Red Hat Satellite Server 5 and Red Hat Satellite Server 6. As such, Red Hat Satellite Server 6.x requires a fresh install. Upgrading in place from Red Hat Satellite Server 5.x to Red Hat Satellite Server 6.x is not possible. Current Red Hat Satellite Server 5 customers will have many options to manage their Red Hat Enterprise Linux environment with Red Hat Satellite Server 6. For a detailed review of transitioning from Red Hat Satellite Server 5 to Red Hat Satellite Server 6, consult Red Hat Satellite Server 5 to 6 transition FAQ and Transitioning from Red Hat Satellite Server 5 to Satellite Server 6.

There also is a Red Hat Consulting offering to help you with your transition. Read the datasheet for more information.

Question: Can Red Hat Satellite Server 6 manage Red Hat Enterprise Linux 7 client systems?

Answer: Yes. Red Hat Satellite Server versions 5.6 and above are capable of Red Hat Enterprise Linux 7 content and system management.

Question: Can Red Hat Satellite Server 6 manage Red Hat Enterprise Linux 8 client systems?

Answer: Yes. Red Hat Satellite Server versions 6.5 and above are capable of Red Hat Enterprise Linux 8 content and system management.

Question: Does Red Hat Satellite Server feature high availability?

Answer: Satellite Server 6.4 introduced support for load balanced capsules, but this does not offer high availability of the Satellite Server. The recommended method for Satellite Server high availability is to virtualize the host running Satellite Server and use the high-availability capabilities offered by your hypervisor of choice. Refer to High Availability with Satellite Server 6.5, 6.6, and 6.7 for more information.

Question: What is the upgrade path for beta customers?

Answer: There is no supported upgrade path from beta to general availability. Fresh install only. Upgrading and updating Red Hat Satellite Server provides documentation. There also is an interactive upgrade helper on the Red Hat Customer Portal.

Question: What Red Hat products can Red Hat Satellite Server manage?

Answer: Red Hat Satellite Server can manage any RPM-based product. This includes Red Hat Enterprise Linux, Red Hat Virtualization, Red Hat OpenStack Platform, Red Hat JBoss® Enterprise Application Platform, Red Hat Storage, and others.

Question: Does Satellite Server 6 support Puppet Enterprise?

Answer: No. Red Hat takes the community version of Puppet and weaves that into Red Hat Satellite Server 6. This means, generally speaking, that any feature in the community version of Puppet will be in Satellite Server 6 but that if a feature is exclusive to Puppet Enterprise, then it is not included in Satellite Server 6. See the Red Hat Satellite Server 6 and Puppet Enterprise integration solution brief for more information.

Question: Where can I find end-of-life (EOL) information for Red Hat Satellite Server?

Answer: Learn about the Satellite Server release and EOL cycles on the Satellite Server life-cycle support page.

Security Features

Question: My environment will not let me have a network connection from Red Hat Satellite Server back to Red Hat. What other options do I have?

Answer: You can download content from the Red Hat content delivery network (CDN) to a staging system and store it on physical media so that your organization can keep certified content up to date. Many organizations that have tight security requirements use the disconnected Red Hat Satellite Server configuration.

Question: How is security enhanced between Red Hat Satellite Server and its managed nodes?

Answer: From a features perspective, Red Hat Satellite Server lets administrators implement a full audit trail of all activities taken through Red Hat Satellite Server and assign policies and permissions for simple role-based administration.

Interoperability

Question: Does Red Hat Satellite Server work with other management products from vendors like Hewlett Packard (HP) or IBM?

Answer: You can use the application programming interface (API) in Red Hat Satellite Server to script commands inside the product and exchange information with other management products. Customers have used the API in Red Hat Satellite Server to integrate it with other management tools from vendors like HP and IBM.

Question: What type of hardware do you need in order to run Red Hat Satellite Server 6?

Answer: Refer to the latest version of the Installing Satellite Server guide. There should be at least one networked host with the following minimum specifications:

- 64-bit architecture
- The latest version of Red Hat Enterprise Linux 7
- 4-core 2.0GHz CPU
- A minimum of 20GB memory
- A recommended minimum of 4GB of swap space
- A unique hostname, which can contain lower-case letters, numbers, dots (.), and hyphens (-)
- A current subscription to Red Hat Satellite Server
- Administrative user (root) access
  A system umask of 0022
- Full forward and reverse DNS resolution using a fully qualified domain name

Before you install Satellite Server or Capsule Server, ensure that your environment meets the requirements for installation.

Satellite Server must be installed on a freshly provisioned system that serves no other function except to run Satellite Server.

Note: The versions of Red Hat Satellite Server and Capsule Server must match. For example, a Satellite Server 6.6 cannot run a 6.7 Capsule Server, and a Satellite Server 6.7 cannot run a 6.6 Capsule Server. Mismatched Satellite Server and Capsule Server versions result in the Capsule Server failing silently.

Question: What kind of database is required to run Red Hat Satellite Server in my environment?

Answer: Red Hat Satellite Server 6 includes an embedded PostgreSQL database and an embedded MongoDB database.

Question: Are there installation and consulting services available for Red Hat Satellite Server?

Answer: Yes. Red Hat offers consulting specifically for Red Hat Satellite Server customers. Contact Red Hat Sales for more information.

Question: What options do I have to try Red Hat Satellite Server in my environment?

Answer: Red Hat is currently offering a 30-day trial evaluation. Contact a Red Hat sales representative for details.

Question: What level of service is included with Red Hat Satellite Server?

Answer: For Red Hat Satellite Smart Management Add-On entitlements, customers get the same service-level agreement (SLA) as their current subscription for the operating system. The Red Hat Satellite Server and Red Hat Satellite Capsule Server models include a subscription to Red Hat Enterprise Linux premium, which provides customers access to Red Hat premium support.

Virtualization

Question: Can Red Hat Satellite Server manage virtual instances of Red Hat Enterprise Linux?

Answer: Red Hat Satellite Server can manage any system running Red Hat Enterprise Linux on any supported hypervisor, including Red Hat Virtualization and VMware. To do this, each Red Hat Enterprise Linux system managed by Red Hat Satellite Server must have the necessary Smart Management Add-On entitlement.

Question: Can you run Red Hat Satellite Server as a virtual instance using Red Hat's virtualization technology? Can you run it using VMware?

Answer: Red Hat Satellite Server and Red Hat Satellite Capsule Server are currently supported on Red Hat Enterprise Linux guests hosted by supported hypervisors like Xen, Kernel-based Virtual Machine (KVM), and VMware hypervisors.

Resources and information

Question: Where can I get more information?

Answer:

- Red Hat Satellite Server landing page on Red Hat customer portal
- Red Hat Satellite Server 6 documentation
- Red Hat Satellite Server blog

Training:

- RH053: Red Hat Satellite Server technical overview (Red Hat Training)
- RH053: Red Hat Satellite Server technical overview (on Udemy)
- RH403: Red Hat Satellite Server 6 administration

Additional resources:

- Red Hat Satellite Server upgrade helper
- Red Hat Satellite Server 5 and 6 Puppet Guide
- Red Hat Satellite Server 6: Core Standard Operating Environments (SOE) Recommended Practices
- Red Hat support

North America
1 888 REDHAT1
www.redhat.com

Europe, Middle East, and Africa
00800 7334 2835
europe@redhat.com

Asia Pacific
+65 6490 4200
apac@redhat.com

Latin America
+54 11 4329 7300
info-latam@redhat.com

O-F25068

About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry leading operating system, and automate, secure, and manage complex environments. Award winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.