



Red Hat Satellite 6.5

Release Notes

Product notes, new features, and known bugs for Red Hat Satellite.

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Abstract

This document contains product notes, brief descriptions of new features, and known bugs for Red Hat Satellite.

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CHAPTER 1. INTRODUCTION

Red Hat Satellite is a system management solution that enables you to deploy, configure, and maintain your systems across physical, virtual, and cloud environments. Satellite provides provisioning, remote management and monitoring of multiple Red Hat Enterprise Linux deployments with a single, centralized tool.

Red Hat Satellite Server synchronizes the content from Red Hat Customer Portal and other sources, and provides functionality including fine-grained life cycle management, user and group role-based access control, integrated subscription management, as well as advanced GUI, CLI, or API access.

Red Hat Satellite Capsule Server mirrors content from Red Hat Satellite Server to facilitate content federation across various geographical locations. Host systems can pull content and configuration from the Capsule Server in their location and not from the central Satellite Server. The Capsule Server also provides localized services such as Puppet Master, DHCP, DNS, or TFTP. Capsule Servers assist you in scaling Red Hat Satellite as the number of managed systems increases in your environment.

1.1. SATELLITE 6 COMPONENT VERSIONS

Red Hat Satellite is a combination of a number of upstream projects. For the full details of the major projects included, and the version of those projects included in each major and minor release of Red Hat Satellite, see [Satellite 6 Component Versions](#).

1.2. RED HAT SATELLITE AND PROXY SERVER LIFE CYCLE

For an overview of the life cycle phases for Red Hat Network Satellite and Red Hat Satellite and the status of support for these products, see [Red Hat Satellite and Proxy Server Life Cycle](#).

1.3. RED HAT SATELLITE FAQ

For a list of frequently asked questions about Red Hat Satellite 6, see [Red Hat Satellite 6 FAQ](#).

CHAPTER 2. CONTENT DELIVERY NETWORK REPOSITORIES

This section describes the repositories required to install Red Hat Satellite 6.5.

You can install Red Hat Satellite 6.5 through the Content Delivery Network (CDN). To do so, configure **subscription-manager** to use the correct repository for your operating system version and variant.

Run the following command to enable a CDN repository:

```
# subscription-manager repos --enable=[reponame]
```

Run the following command to disable a CDN repository:

```
# subscription-manager repos --disable=[reponame]
```

The following sections outline the repositories required by Red Hat Satellite 6.5. When one of these repositories is required to install a package, the steps to enable the required repositories are included in the documentation.

2.1. RED HAT SATELLITE

The following table lists the repositories for Red Hat Satellite Server.

Table 2.1. Red Hat Satellite

Channel	Repository Name
Red Hat Satellite 6.5 (for RHEL 7 Server) (RPMs)	rhel-7-server-satellite-6.5-rpms
Red Hat Satellite 6.5 (for RHEL 7 Server) (ISOs)	rhel-7-server-satellite-6.5-isos

2.2. RED HAT SATELLITE CAPSULE

The following table lists the repositories for Red Hat Satellite Capsule Server.

Table 2.2. Red Hat Satellite Capsule

Channel	Repository Name
Red Hat Satellite Capsule 6.5 (for RHEL 7 Server) (RPMs)	rhel-7-server-satellite-capsule-6.5-rpms
Red Hat Satellite Capsule 6.5 (for RHEL 7 Server) (ISOs)	rhel-7-server-satellite-capsule-6.5-isos

2.3. RED HAT SATELLITE MAINTENANCE

The following table lists the repositories for Red Hat Satellite Maintenance.

Table 2.3. Red Hat Satellite Maintenance

Channel	Repository Name
Red Hat Satellite Maintenance 6 (for RHEL 7 Server) (RPMs)	rhel-7-server-satellite-maintenance-6-rpms

2.4. RED HAT SATELLITE TOOLS

The following table lists the repositories for Red Hat Satellite Tools.

Table 2.4. Red Hat Satellite Tools

Channel	Repository Name
Red Hat Satellite Tools 6.5 (for RHEL 5 Server -AUS) (RPMs)	rhel-5-server-aus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 5 Server - ELS) (RPMs)	rhel-5-server-els-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 5 for System Z- ELS) (RPMs)	rhel-5-for-system-z-els-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 6 Desktop) (RPMs)	rhel-6-desktop-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 6 Server) (RPMs)	rhel-6-server-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 6 Server - AUS) (RPMs)	rhel-6-server-aus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 6 Workstation) (RPMs)	rhel-6-workstation-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 6 for System Z (RPMs)	rhel-6-for-system-z-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 6 for IBM Power) (RPMs)	rhel-6-for-power-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 6 for Scientific Computing) (RPMs)	rhel-6-for-hpc-node-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 Desktop) (RPMs)	rhel-7-desktop-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 Server) (RPMs)	rhel-7-server-satellite-tools-6.5-rpms

Channel	Repository Name
Red Hat Satellite Tools 6.5 (for RHEL 7 Server - EUS) (RPMs)	rhel-7-server-eus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 Server - E4s) (RPMs)	rhel-7-server-e4s-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 Server - TUS) (RPMs)	rhel-7-server-tus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 Server -AUS) (RPMs)	rhel-7-server-aus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 Workstation) (RPMs)	rhel-7-workstation-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for System Z) (RPMs)	rhel-7-for-system-z-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for System Z - EUS) (RPMs)	rhel-7-for-system-z-eus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for IBM Power) (RPMs)	rhel-7-for-power-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for IBM Power LE) (RPMs)	rhel-7-for-power-le-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for IBM Power - EUS) (RPMs)	rhel-7-for-power-eus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for IBM Power LE - EUS) (RPMs)	rhel-7-for-power-le-eus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for IBM Power LE - E4S) (RPMs)	rhel-7-for-power-le-e4s-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for Scientific Computing) (RPMs)	rhel-7-for-hpc-node-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for Scientific Computing - EUS) (RPMs)	rhel-7-for-hpc-node-eus-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for POWER9) (RPMs)	rhel-7-for-power-9-satellite-tools-6.5-rpms

Channel	Repository Name
Red Hat Satellite Tools 6.5 (for RHEL 7 for ARM) (RPMs)	rhel-7-for-arm-64-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 (for RHEL 7 for IBM System z - Structure A) (RPMs)	rhel-7-for-system-z-a-satellite-tools-6.5-rpms
Red Hat Satellite Tools 6.5 for RHEL 8 x86_64 (RPMs)	satellite-tools-6.5-for-rhel-8-x86_64-rpms
Red Hat Satellite Tools 6.5 for RHEL 8 IBM z Systems (RPMs)	satellite-tools-6.5-for-rhel-8-s390x-rpms
Red Hat Satellite Tools 6.5 for RHEL 8 Power, little endian (RPMs)	satellite-tools-6.5-for-rhel-8-ppc64le-rpms
Red Hat Satellite Tools 6.5 for RHEL 8 ARM 64 (RPMs)	satellite-tools-6.5-for-rhel-8-aarch64-rpms

CHAPTER 3. KEY CHANGES TO THE DOCUMENTATION SET

Several notable changes were made to the Red Hat Satellite documentation set for this release. The following list outlines and explains these changes.

Load Balancing Guide

Added new sections to the Load Balancing Guide for:

[Configuring Capsule Server with Custom SSL Certificates for Load Balancing without Puppet](#)

[Configuring Capsule Server with Custom SSL Certificates for Load Balancing with Puppet](#)

[Promoting SCAP Content to Clients](#)

Managing Hosts

Added a new section for:

[Generating Host Monitoring Reports](#)

The documentation about using Red Hat Insights to monitor hosts in Satellite has been improved and moved from the *Administering Red Hat Satellite* guide to the *Managing Hosts* guide:

[Using Red Hat Insights with Hosts in Satellite](#)

Administering Red Hat Satellite

Removed the section for:

Foreman Hooks

Content Management Guide

The Content Management Guide has been updated to remove the academic language and training-manual voice of the guide.

The language and layout of the Content Management guide is now streamlined to match the other Satellite guides:

[Content Management Guide](#)

Installing Satellite Server from a Connected Network

The documentation about using Red Hat Insights to monitor Satellite Server has been updated and moved from the *Administering Red Hat Satellite* guide to the *Installing Satellite Server from a Connected Network* guide.

[Using Red Hat Insights with Satellite Server](#)

CHAPTER 4. NEW FEATURES AND ENHANCEMENTS

This chapter introduces new features in Red Hat Satellite 6.5.

Red Hat Enterprise Linux 8 Provisioning and Patching

Satellite 6.5 supports the same provisioning and patch support for Red Hat Enterprise Linux 8 that is currently available with Red Hat Enterprise Linux 6 and Red Hat Enterprise Linux 7. Previous versions of Red Hat Satellite do not support Red Hat Enterprise Linux 8.

Red Hat Enterprise Linux 8 Application Streams

Satellite 6.5 introduces support for Red Hat Enterprise Linux 8 Application Stream (AppStreams). This is referred to as module streams in Satellite. With AppStream's additional options, you can reduce the complexity of your work flows. For example, you can select PostgreSQL 10 or PostgreSQL 9.6, depending on your needs, without having to configure additional repositories or consider RPM dependency conflicts.

Red Hat Enterprise Linux 8 System Purpose

You can now state the intended use of a Red Hat Enterprise Linux 8 host by setting the system purpose attribute. System purpose attributes define which subscriptions to attach automatically on host creation. Benefits include:

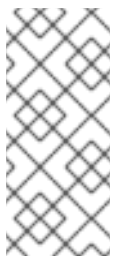
- In-depth system-level information for system administrators and business operations
- Reduced overhead when determining why a system was provisioned and its intended purpose
- Improved customer experience of Subscription Manager auto-attach as well as automated discovery and reconciliation of system usage

Red Hat Enterprise Linux System Roles

Satellite 6.5 provides support for Red Hat Enterprise Linux system roles. These are Ansible playbooks that can be run on the hosts managed by Satellite. This includes roles for setting SELinux, setting the system time, and deploying the Red Hat Insights client.

Install Satellite 6.5 on a FIPS-enabled Red Hat Enterprise Linux 7 Host

You can now install Satellite Server and Capsule Server on a FIPS-enabled Red Hat Enterprise Linux 7 host. With this feature, Satellite 6.5 inherits the FIPS level of Red Hat Enterprise Linux.



NOTE

You must perform a new installation of Satellite 6.5 on a FIPS-enabled Red Hat Enterprise Linux 7 host. You cannot enable FIPS on an existing host with Satellite installed; therefore, you also cannot upgrade an existing system to Satellite 6.5 and enable FIPS. If you enable FIPS on Satellite Server, you must enable FIPS on all Capsule Servers connected to that Satellite.

OpenSCAP Enhancements

In Satellite 6.5 you can view all hosts that fail a specific OpenSCAP rule.

Satellite Admin Role

Satellite 6.5 includes a new Satellite Admin role. This user type can manage the Satellite infrastructure and create new organizations, but cannot manage the hosts.

Export Content Views

You can now export a Content View from one Satellite and import that Content View into another Satellite using the Hammer CLI tool. You can use the Hammer CLI to export, import, publish, and create Content View versions. This also simplifies the process for disconnected Satellites.

Changes to the hammer content-view version export command

The new **hammer content-view version export** and **hammer content-view version import** commands work differently from the commands in the previous versions of Satellite. The old feature is still available with the **hammer content-view version export-legacy** command.

Enhancements to Container Functionality

Satellite 6.5 has new container image management enhancements. New functionality includes:

- Repository enhancements
- Docker repository discovery, where you can search a registry for image names and create a local repository from the search results
- A new authenticated registry
- Customized image naming

Run Satellite or Capsules in Major Cloud Providers

Customers who are using Cloud Access can now deploy Satellite or Capsules without a support exception on the following cloud providers:

- AWS
- Azure
- Google
- Alibaba
- IBM



NOTE

Other providers require a support exception. Host provisioning is currently only supported on AWS and Google.

Infoblox IPAM Support

Satellite 6.5 now provides support for Infoblox IPAM. You can use Infoblox applications to manage DNS and DHCP.

Reporting Engine

Satellite 6.5 now has a reporting engine with reporting templates for:

- Host status
- Subscriptions
- Registered Hosts
- Applicable Errata

You can copy the templates and customize them to suit your needs, or create your own reports.

MongoDB Storage Engine

Satellite 6.5 supports the new MongoDB WiredTiger storage engine. For more information about the WiredTiger storage engine, see [WiredTiger Storage Engine](#) in MongoDB Manual.

On new installations, Satellite version 6.4 and later uses WiredTiger as a MongoDB storage engine by default. On earlier installations, you must upgrade to Satellite 6.5 or later to upgrade the MongoDB storage engine to WiredTiger. For more information, see [Upgrading the MongoDB Storage Engine](#) in *Upgrading and Updating Red Hat Satellite* .

satellite-maintain alias added

The **satellite-maintain** alias has been added for the **foreman-maintain** command.

CHAPTER 5. RELEASE INFORMATION

These release notes highlight technology preview items, recommended practices, known issues, and deprecated functionality to be taken into consideration when deploying this release of Red Hat Satellite 6.

Notes for updates released during the support lifecycle of this Red Hat Satellite 6 release will appear in the advisory text associated with each update.

5.1. TECHNOLOGY PREVIEW

The items listed in this section are provided as Technology Previews. For further information on the scope of Technology Preview status, and the associated support implications, see <https://access.redhat.com/support/offerings/techpreview/>.

Kernel Execution (**kexec**) Template

The Kernel execution template for PXE-less boot methods is available as a Technology Preview feature.

Tracer

Integration with the Tracer tool, which was introduced in Satellite 6.3, continues to be available as a Technology Preview feature.

RHV 4 API Support

Using Red Hat Virtualization (RHV) 4 API to evaluate the new engine API feature, which was introduced in Satellite 6.4, continues to be available as a Technology Preview feature.

5.2. DEPRECATED FUNCTIONALITY

Red Hat Access plugin

The Red Hat Access plugin has been removed in Red Hat Satellite 6.5.

Docker plug-in

With this release, the Foreman Docker plug-in is deprecated and will be removed as part of a future release. This affects the container functionality that you can find in the Containers section of Satellite web UI.

Template Deprecation

The following template features are removed or flagged for deprecation in Satellite 6.5. Ensure that you update your templates to match these changes.

The **modulepath** Template Setting

The **modulepath** setting has been removed.

Kernel and initramdisk Naming Convention Changes

In this release, the naming conventions of kernel and initramdisk in the TFTP folder have changed. For more information, see [BZ#1447963](#).

Template Web UI Changes

Two-pane layout is deprecated and will be removed in the next version.

Snippets Template Macro

The snippets template macro is deprecated and will be removed in the next version. Use **snippet()** instead.

Operating System Boot Files API

The Operating System API `/api/operatingsystems/:id/bootfiles` endpoint for boot files is deprecated and will be removed in next version. Calculate boot files for each host.

Operating System `medium_uri` method

The MediumProviders `medium_uri` method replaces the Operating System `medium_uri` method. The Operating System `medium_uri` method will be removed in the next version. Update any templates that use this method to use the new method. In all customized templates, replace `host.operatingsystem.medium_uri(@host)` with `medium_uri`. For more examples, see the read-only templates that ship with Satellite 6.

Operating System `repos` method

The MediumProviders `additional_media` method replaces the Operating System `repos` method. The Operating System `repos` method will be removed in the next version. Update any templates that use this method to use the new method.

Operating System Boot File URI method

The MediumProviders `host.operatingsystem.boot_files_uri` method replaces the Operating System boot file URI `host.operatingsystem.boot_files_uri` method. The Operating System `host.operatingsystem.boot_files_uri` method will be removed in the next version. Replace any occurrences of `@host.operatingsystem.boot_files_uri(@host.medium,@host.architecture)` with `@host.operatingsystem.boot_files_uri(medium_provider)`.

5.3. KNOWN ISSUES

These known issues exist in Red Hat Satellite 6 at this time.

BZ#1465521 - [RFE] API to cancel/delete Remote Execution tasks before their scheduled time

Known Issue

This action cannot be done using the CLI. It will be added in a future release.

BZ#1508957 - Host uniqueness determined by hostname → Registering a host with the same hostname as another host unregisters the original host

Known Issue

This has been fixed upstream and will be resolved in a future release.

BZ#1585272 - Content View Errata Include by Date Filters include more than desired

Workaround

To avoid this issue, use exclude filters to set up your Content View filters.

BZ#1607550 - Ansible Tower inventory integration is slow

Workaround

For a workaround to this issue, see the KCS Solution at <https://access.redhat.com/solutions/3596821>.

BZ#1655233 - First line of a request transaction (Started GET...) does not contain request id

Known Issue

This has been fixed upstream and will be resolved in a future release.

BZ#1671319 - Unable to export "Default Organization View 1.0" Content View

Known Issue

The ID field is currently failing.

Workaround

Use different attributes to export.

BZ#1672802 - Satellite Registry does not accept HEAD requests

Known Issue

This has been fixed upstream and will be resolved in a future release.

BZ#1673447 - Capsule sync planning in foreman-tasks sometimes takes too long

Known Issue

This has been fixed upstream and will be resolved in a future release.

BZ#1676626 - Pulp Crane not returning correct headers

Known Issue

This has been fixed upstream and will be resolved in a future release.

BZ#1678339 - Provisioning with AWS Compute fails for eu-north-1 region with errors

Known Issue

This region does not exist in the fog library. This will be resolved in a future release.

BZ#1682953 - Module Stream Search not being saved during pagination

Workaround

You must reset the search criteria on each page.

BZ#1686979 - [RFE] Searching and Filtering on the Red Hat Repositories page is inconsistent and confusing

Known Issue

Additional text will be added in a future release to clarify the page.

BZ#1692425 - Turn on task cleanup ON by default

Workaround

This can be turned on manually.

BZ#1694727 - [RFE] Main Recurring logics page does not display recurring logic ID

Known Issue

The recurring logic ID will be added in a future release.

BZ#1695159 - Repo sync not pulling in yum metadata file changes

Known Issue

This has been fixed upstream and will be resolved in a future release.

BZ#1696790 - System purpose status is displayed as "Invalid" instead of "Mismatched"

Known Issue

The text will be updated in a future release.

BZ#1696960 - fsLayers error during sync - Unable to sync coredns from the <https://gcr.io>

Known Issue

This has been fixed upstream and will be resolved in a future release.

BZ#1698945 - [6.5.1 REQUIRED] Update libsolv to >= 0.6.35

Known Issue

This has been fixed upstream and will be resolved in a future release..

BZ#1700715 - [RFE] Improve Insights proxying (to be not affected by other loads on RHSAT)**Known Issue**

The root cause is still being investigated.

BZ#1703391 - ValidationError (Modulemd:<UUID>) (Field is required: ['context']) when upgrading to 6.5**Known Issue**

This has been fixed upstream and will be resolved in a future release.

BZ#1707298 - Insufficient input validation for compute_attributes**Known Issue**

This has been fixed upstream and will be resolved in a future release.