# Red Hat Satellite 6.4

# Release Notes

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

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## Legal Notice

## 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 6.4.

You can install Red Hat Satellite 6.4 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 6.4. 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 6.4 (for RHEL 7 Server) (RPMs) | **rhel-7-server-satellite-6.4-rpms** |
| Red Hat Satellite 6.4 (for RHEL 7 Server) (ISOs) | **rhel-7-server-satellite-6.4-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 6.4 (for RHEL 7 Server) (RPMs) | **rhel-7-server-satellite-capsule-6.4-rpms** |
| Red Hat Satellite Capsule 6.4 (for RHEL 7 Server) (ISOs) | **rhel-7-server-satellite-capsule-6.4-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 6.4 (for RHEL 5 for System Z – ELS) (RPMs) | **rhel-5-for-system-z-els-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 5 Server – AUS) (RPMs) | **rhel-5-server-aus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 5 Server – ELS) (RPMs) | **rhel-5-server-els-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 Desktop) (RPMs) | **rhel-6-desktop-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 for Scientific Computing – EUS) (RPMs) | **rhel-6-for-hpc-node-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 for Scientific Computing) (RPMs) | **rhel-6-for-hpc-node-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 for IBM Power – EUS) (RPMs) | **rhel-6-for-power-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 for IBM Power) (RPMs) | **rhel-6-for-power-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 for System Z – EUS) (RPMs) | **rhel-6-for-system-z-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 for System Z) (RPMs) | **rhel-6-for-system-z-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 Server – AUS) (RPMs) | **rhel-6-server-aus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 Server – EUS) (RPMs) | **rhel-6-server-eus-satellite-tools-6.4-rpms** |

| Channel | Repository Name |
|---------|-----------------|
| Red Hat Satellite Tools 6.4 (for RHEL 6 Server) (RPMs) | **rhel-6-server-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 6 Workstation) (RPMs) | **rhel-6-workstation-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 Desktop) (RPMs) | **rhel-7-desktop-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for ARM) (RPMs) | **rhel-7-for-arm-64-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for Scientific Computing – EUS) (RPMs) | **rhel-7-for-hpc-node-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for Scientific Computing) (RPMs) | **rhel-7-for-hpc-node-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for POWER9) (RPMs) | **rhel-7-for-power-9-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for IBM Power – EUS) (RPMs) | **rhel-7-for-power-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for IBM Power LE – Update Services SAP Solutions) (RPMs) | **rhel-7-for-power-le-e4s-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for IBM Power LE – EUS) (RPMs) | **rhel-7-for-power-le-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for IBM Power LE) (RPMs) | **rhel-7-for-power-le-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for IBM Power) (RPMs) | **rhel-7-for-power-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for IBM System z – Structure A) (RPMs) | **rhel-7-for-system-z-a-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for System Z – EUS) (RPMs) | **rhel-7-for-system-z-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 for System Z) (RPMs) | **rhel-7-for-system-z-satellite-tools-6.4-rpms** |

| Channel | Repository Name |
| --- | --- |
| Red Hat Satellite Tools 6.4 (for RHEL 7 Server – Update Services SAP Solutions) (RPMs) | **rhel-7-server-e4s-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 Server – AUS) (RPMs) | **rhel-7-server-aus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 Server – EUS) (RPMs) | **rhel-7-server-eus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 Server) (RPMs) | **rhel-7-server-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 Server – TUS) (RPMs) | **rhel-7-server-tus-satellite-tools-6.4-rpms** |
| Red Hat Satellite Tools 6.4 (for RHEL 7 Workstation) (RPMs) | **rhel-7-workstation-satellite-tools-6.4-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.

**Architecture Guide**

The *Architecture Guide* included in the Red Hat Satellite 6.3 documentation suite has now been renamed *Planning for Red Hat Satellite 6* to more closely reflect the content it contains:

- [Planning for Red Hat Satellite 6](#)

**Installation Guide**

The *Installation Guide* included in the Red Hat Satellite 6.3 documentation suite has now been broken out into the following three titles to clarify the separate workflows required:

- [Installing Satellite Server from a Connected Network](#)

- [Installing Satellite Server from a Disconnected Network](#)

- [Installing Capsule Server](#)

**Hammer Cheat Sheet**

The *Hammer Cheat Sheet* included in the Red Hat Satellite 6.3 documentation suite as a KBase article has now been converted into a standard title so that it can be downloaded in PDF format:

- [Hammer Cheat Sheet](#)

**Load Balancing Guide**

The *Load Balancing Guide* is a new title that describes how to configure load balanced Capsule pools:

- [Load Balancing Guide](#)

**Monitoring Red Hat Satellite**

The *Monitoring Red Hat Satellite* guide is a new title that describes how to gather metrics from Red Hat Satellite 6 for analysis:

- [Monitoring Red Hat Satellite](#)

# CHAPTER 4. NEW FEATURES AND ENHANCEMENTS

This chapter introduces new features in Red Hat Satellite 6.4, and links to further information.

**Ansible Enhancements**

- The Satellite installer now installs Ansible Core and required Foreman modules.

- Remote execution of Ansible jobs is now handled by the Capsule Server.

- Ansible integration in Satellite has been improved.

- Red Hat Insights can now be deployed to hosts using Ansible, either when hosts are provisioned or later.

**Support for Ansible in Satellite**

- Satellite 6.4 supports importing Red Hat Enterprise Linux System Roles, which were introduced in Red Hat Enterprise Linux 7.4.

- Satellite 6.4 supports Red Hat Enterprise Linux System Roles to add Ansible roles to make configuration faster and easier.

- Satellite 6.4 does not support any other roles or playbooks unless you also have a valid Ansible Engine subscription.

- You can import custom Ansible roles from external locations such as Ansible Galaxy. However, these additional roles and playbooks are not supported through your Satellite or Smart Management subscription.

- Ansible playbooks that you create, from a support perspective, are considered part of a scripting framework. Red Hat Support will assist in the usage and syntax of commands. For debugging or authoring of a playbook on behalf of a customer, Red Hat Consulting services might be engaged to meet this requirement. For more information, see How does Red Hat support scripting frameworks? and the *Scope of Coverage* section of Red Hat Ansible Engine Life Cycle.

**Auditing Enhancements**

Auditing of management events has been improved to include:

- Changes to role-based access control configuration

- Changes to the content management life cycle

- Changes to Satellite's taxonomy

- User interactions

**Discovery plug-in**

You can now enable a Capsule Server to be a Template Capsule for a discovery subnet. Template Capsule provides a proxy service for provisioning templates for a discovery subnet.

**Composite Content View Republishing**

A Composite Content View is now republished when a component Content View is republished.

**Custom Configuration Enhancements**

Custom configuration values recommended by Red Hat are no longer overwritten by the Satellite installer.

### Load Balancing

You can now set up a load-balanced Capsule pool to provide resilience against planned and unplanned outages.

### Manifest and Subscription Management Enhancements

You can now edit your imported manifest and manage the subscription allocations directly in the Satellite web UI.

### Puppet 5 Support

Red Hat Satellite 6.4 now uses Puppet 5.

### Provisioning on AWS GovCloud

You can use Amazon Web Services GovCloud regions in host provisioning.

### RHV 4 API Support

You can now use RHV 4 API to evaluate the new engine API. This item is provided as a technology preview feature.

### RSS Feed Support

With the new RSS feed, you can access the Red Hat Satellite blog from the Satellite web UI. You can also enable or disable update notifications for the RSS feed.

### Support for External Databases

You can now use a remote database that runs on a separate server to Satellite Server. You can either migrate an existing internal database to a server or create a database on another server. This helps improve performance in larger deployments.

### Support for Private Docker Registries

You can now synchronize images from your custom repositories that you create in private registries on Docker Hub.

### Support for Performance Co-Pilot

You can now access Red Hat Enterprise Linux 7's Performance Co-Pilot(PCP) suite of tools for acquiring, storing, and analyzing system-level performance measurements.

### User Interface Enhancements

Satellite introduces vertical navigation that is optimized for large screens, as well as improvements to navigation and search functionality for easier repository retrieval.

### **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. RELEASE NOTES

This section outlines important details about the release, including recommended practices and notable changes to Red Hat Satellite. You must take this information into account to ensure the best possible outcomes for your deployment.

### BZ#1625263

Starting with Satellite 6.4, two discovery rules in the same organization cannot have the same priority number. This was causing unexpected results previously. After the upgrade, discovery rules are prioritized according to the discovery framework.

### BZ#1615372

Starting from Satellite 6.4, new **postcreate** and **postupdate** hook events are added to Satellite. In previous versions of Satellite, some host and hostgroup parameters were not passed to the hook object file by the **create** and **update** hook events. If you want all the host parameters fields in the hook object file, rename hooks directories from **create** to **postcreate** and from **update** to **postupdate**. No changes are required in the hook scripts.

### BZ#1610970

Puppet Enterprise is not supported on Satellite Server. If you have it installed, perform the following actions to avoid conflicts after the upgrade:

1. Move the cache from **/var/lib/puppet/foreman_cache_data** to **/opt/puppetlabs/puppet/cache/**:

   ```
   # mkdir -p /opt/puppetlabs/puppet/cache/
   # cp -r /var/lib/puppet/foreman_cache_data /opt/puppetlabs/puppet/cache/
   ```

2. Run the **satellite-installer --upgrade** script to apply changes.

### BZ#1598001

Starting from Satellite 6.4, the cron job to delete old reports is reconfigured to delete reports in batches of 1000 records with a fractional delay between tasks. This reduces the likelihood of updating workers becoming blocked. After the upgrade, monitor the number of reports in the database and the output of the report expiration tasks. In case of concurrency problems, update the check-in time for both the Puppet client, which is 30 minutes by default, and RHSM, which is four hours by default. This decreases the load on Satellite Server.

### BZ#1384035

Satellite 6.4 introduces tighter restrictions around resource filter limitations. In previous versions of Satellite, the search query applied incorrect permissions to resources, which allowed users to perform tasks that were not permitted. This is now fixed.

### BZ#1347748

In previous versions of Satellite, Satellite was able to retrieve templates from Capsules via the TFTP feature. Users were asked to enable TFTP and Templates modules on Capsules to have templating ability.
Starting from Satellite 6.4, Satellite uses the Templates feature to retrieve templates from Capsules. During the upgrade, Satellite will automatically set the Templates feature for all Capsules that also have the TFTP feature.

After the upgrade, verify that Templates feature is enabled for all Capsules that are supposed to have it. If not, navigate to **Infrastructure** > **Capsules** and click **Refresh Features** for all required Capsules. Then manually associate these Capsules with required subnets.

### BZ#1578290

Starting from Satellite 6.4, the paths to the foreman discovery image are changed to conform with upstream:

- **boot/fdi-image-rhel_7-vmlinuz** > **boot/fdi-image/vmlinuz0**

- **initrd=boot/fdi-image-rhel_7-img** > **boot/fdi-image/initrd0.img**
  It was leading to issues with PXE templates previously. Now the new global templates already contains the new paths.

### BZ#1537078

Telemetry in Satellite 6.4 will be functional after the **pcp** package version 4.1 or above is added to Red Hat Enterprise Linux Server 7. That is expected with the Red Hat Enterprise Linux 7.6 release.

### BZ#1288420

In previous versions of Satellite, provisioning a host with VLAN interfaces on top of a bond interface resulted in an incorrect bond module configuration. It is now fixed with Satellite 6.4.

## 5.2. DEPRECATED FUNCTIONALITY

### 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.

### Hammer Docker Command

With this release, the **hammer docker** command is deprecated and will be removed in Satellite 6.5.

### Satellite Kickstart Default

With this release, the **Satellite Kickstart Default** provisioning templates are deprecated. All hosts consuming the now deprecated templates will be migrated automatically. Custom templates that are based on **Satellite Kickstart Default** are not considered during the migration, and need to be migrated manually.

Table 5.1. Deprecated Kickstart Default Templates

| Templates | Replacement Template |
| --- | --- |
| **Satellite Kickstart Default** | **Kickstart Default** |

| Templates | Replacement Template |
|---|---|
| **Satellite Kickstart Default User Data** | **Kickstart Default User Data** |
| **Satellite Kickstart Default Finish** | **Kickstart Default Finish** |
| **Satellite Atomic Kickstart Default** | **Atomic Kickstart Default** |
| **Satellite idm_register** | **freeipa_register** |
| **subscription_manager_registration** | **redhat_register** |

**Katello Service, Backup and Restore Commands**

With this release, the following commands are deprecated. Ensure that you update your scripts appropriately.

Table 5.2. Deprecated Katello Commands

| Options | Replacement Options |
|---|---|
| **katello-service** | **foreman-maintain service** |
| **katello-backup** | **foreman-maintain backup** |
| **katello-restore** | **foreman-maintain restore** |

**Installer Options**

With this release, the following installer options are deprecated and removed in Satellite 6.4:

Table 5.3. Deprecated Installer Options

| Options | Description |
|---|---|
| **--foreman-plugin-discovery-image-name**<br>**--foreman-plugin-discovery-install-images**<br>**--foreman-plugin-discovery-source-url**<br>**--foreman-plugin-discovery-tftp-root** | Superseded by **--foreman-proxy-plugin-discovery** |
| **--foreman-plugin-tasks-service** | Hardcoded value for **dynflowd**. |
| **--foreman-proxy-content-pulp-oauth-effective-user**<br>**--foreman-proxy-content-pulp-oauth-key**<br>**--foreman-proxy-content-pulp-oauth-secret** | Deprecated and replaced by certificates for authentication. |
| **--foreman-proxy-plugin-openscap-configure-openscap-repo** | Deprecated parameter for configuring a yum repository from copr for EL6. |

| Options | Description |
| --- | --- |
| **--foreman-proxy-realm-split-config-files** | Deprecated parameter for older environment compatibility. |
| **--katello-config-dir** **--katello-log-dir** | Replaced by **foreman** options. |
| **--katello-oauth-key** **--katello-oauth-secret** | Renamed to **--katello-candlepin-oauth-{key,secret}**. |
| **--puppet-agent-template** **--puppet-main-template** **--puppet-server-enable-ruby-profiler** **--puppet-server-main-template** **--puppet-server-template** | Not used. |
| -**-upgrade-puppet** | Deprecated with introduction of Puppet 5. |

## 5.3. KNOWN ISSUES

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

BZ#1638263

> Known Issue
> The change in navigation caused the Red Hat Access menu to no longer display. This issue will be fixed in an upcoming release.