

Red Hat Satellite

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Red Hat Satellite is a scalable platform to manage patching, provisioning, and subscription management of your Red Hat infrastructure.

RED HAT PLATFORM MANAGEMENT

Prescriptive analytics, automated remediation, Life-cycle management

RED HAT[®] SATELLITE

BUILD A TRUSTED & SECURE
RED HAT ENVIRONMENT

- Manage content and patches
- Provision and configure at scale
- Define and implement your SOE



CENTRALIZED AUTOMATION GOVERNANCE

- Centralized control
- Team & user delegation
- Audit trail

RED HAT[®] INSIGHTS

PROACTIVE AUTOMATED
RESOLUTIONS

- Continuous insights
- Verified knowledge
- Proactive resolution



PHYSICAL



VIRTUAL



PRIVATE CLOUD



PUBLIC CLOUD

STANDARD OPERATING ENVIRONMENT (SOE)

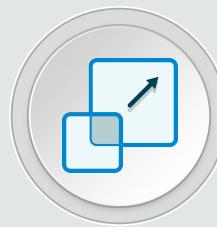
WHY RED HAT SATELLITE?



MANAGE RED HAT
INFRASTRUCTURE



STREAMLINED
CONTENT
MANAGEMENT



BUILT TO SCALE

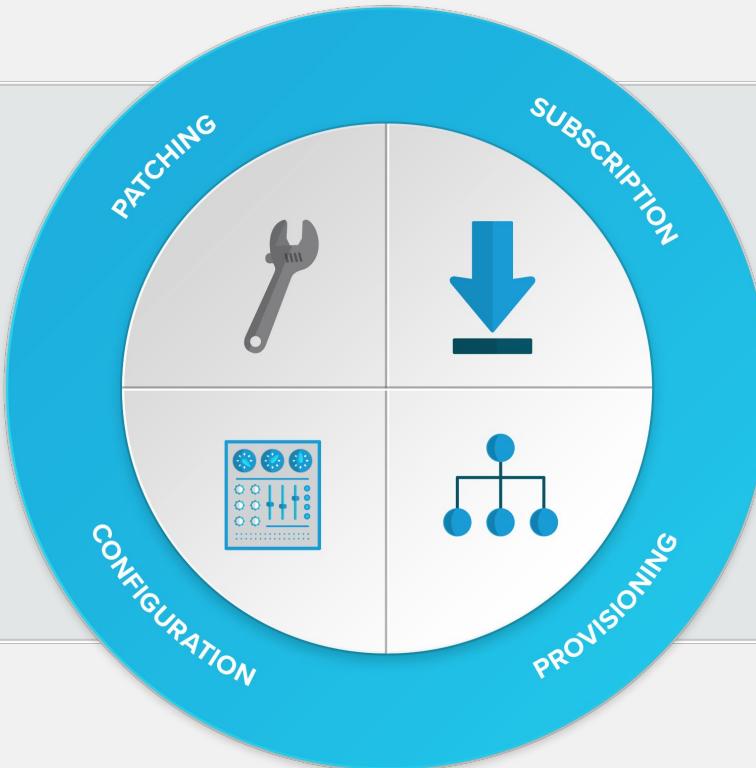


SIMPLIFIED SYSTEM
INTEGRATION



ENHANCED DRIFT &
CONFIGURATION
MANAGEMENT

EFFICIENT SYSTEMS MANAGEMENT



- Simplifies management of content, including security errata
- Makes it easy to manage and track subscriptions
- Enables provisioning on bare metal, virtualized and cloud-based infrastructures
- Provides centralized configuration and drift management
- Provides life-cycle management for Red Hat infrastructure

PATCHING & SOFTWARE MANAGEMENT



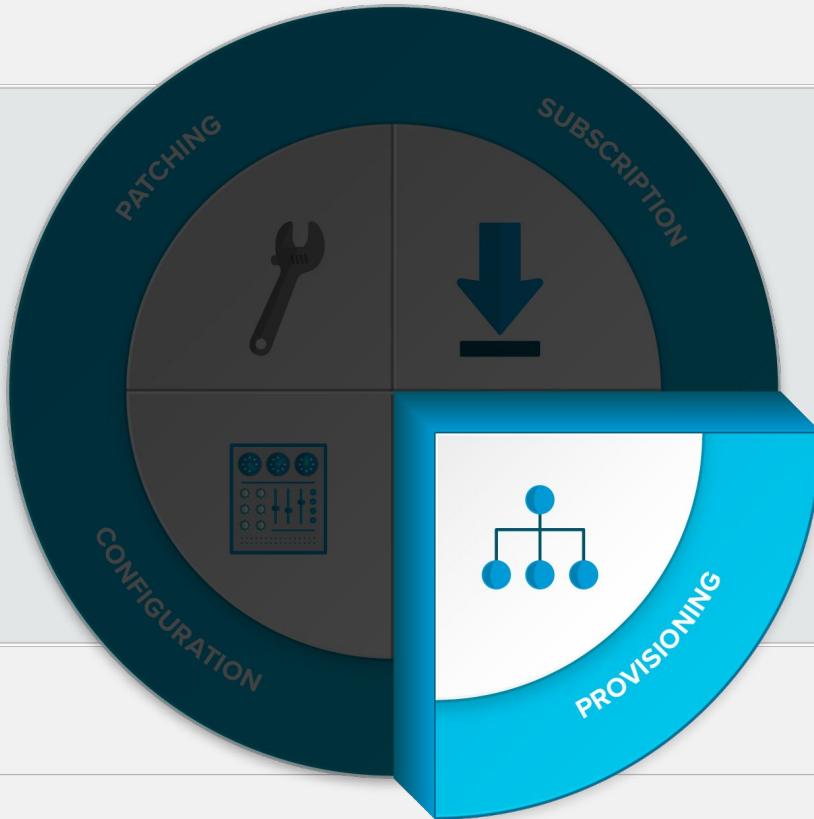
- Define & manage Standard Operating Environments
- Quickly respond to security vulnerabilities (Heartbleed/ShellShock)
- Comply with your organization's security policies
- Deploy all Red Hat Infrastructure as well as third-party software

SUBSCRIPTION MANAGEMENT



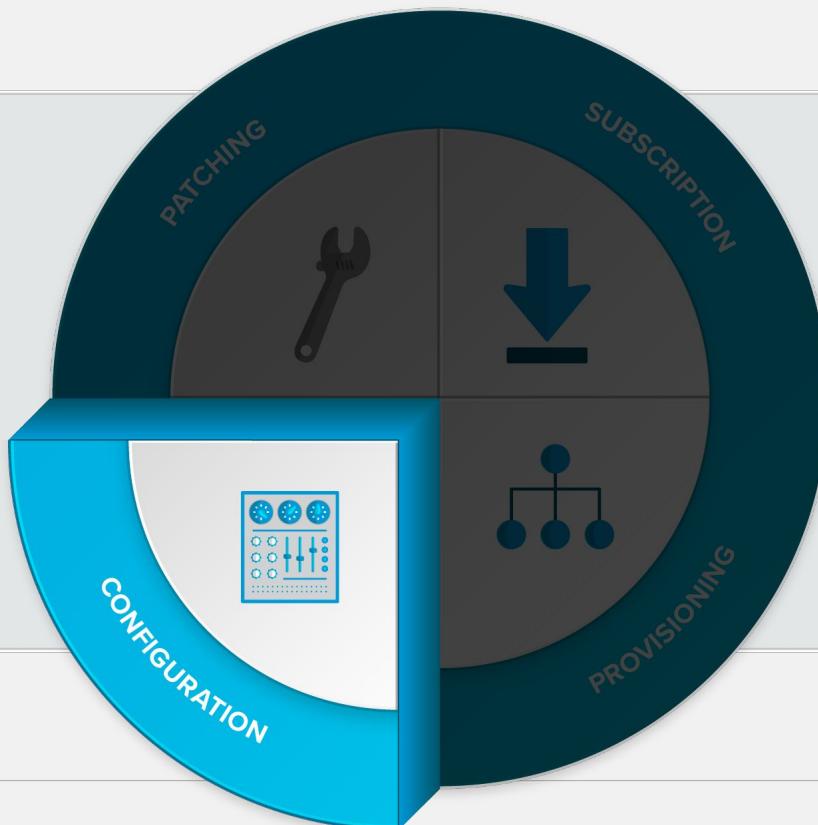
- Centrally manage subscription usage
- Maintain accurate inventory and utilization information
- Report on subscription consumption on a group-by-group basis

PROVISIONING MANAGEMENT



- Provision to bare metal, virtual, private, and public clouds
- Federate content delivery
- Support build-based and image-based deployments
- Discover non-provisioned hosts

CONFIGURATION MANAGEMENT



- Define desired state of systems
- Manage and remediate drift
- Audit & report when changes are made

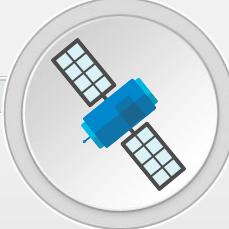
RED HAT SATELLITE



- Define & manage Standard Operating Environments
- Quickly respond to security vulnerabilities (Heartbleed/ShellShock)
- Comply with your organization's security policies
- Deploy all Red Hat Infrastructure as well as third-party software

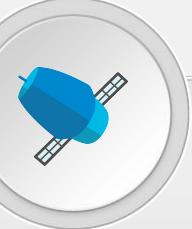
HOW SATELLITE WORKS

RED HAT SATELLITE COMPONENTS



SATELLITE SERVER

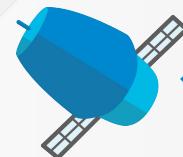
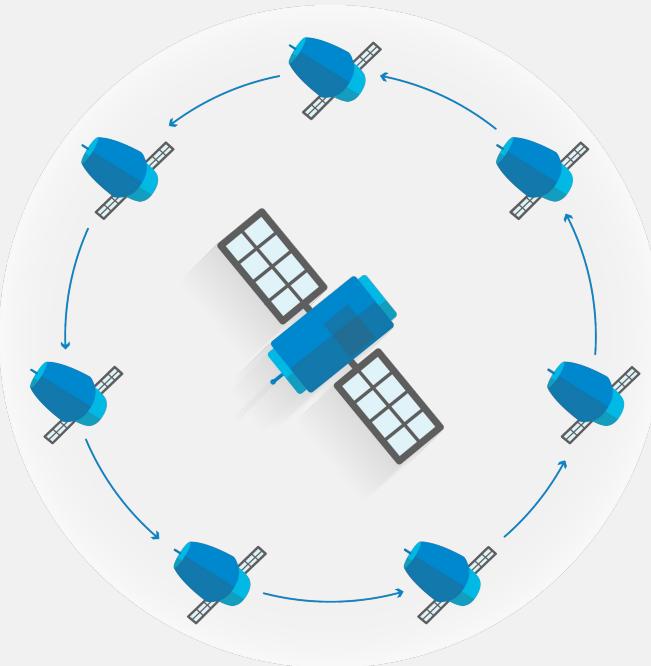
- Multi-tenant
- On-premise repository management
- User and group role-based access control (RBAC)
- Powerful user interfaces (GUI, API & CLI)
- Advanced subscription management



SATELLITE CAPSULE SERVER

- Enables scaling of your Satellite environment
- Provides local content, provisioning, and integration services
- Discovery of new physical & virtual machines

IMPROVED SCALABILITY AND AUTOMATION WITH CAPSULES

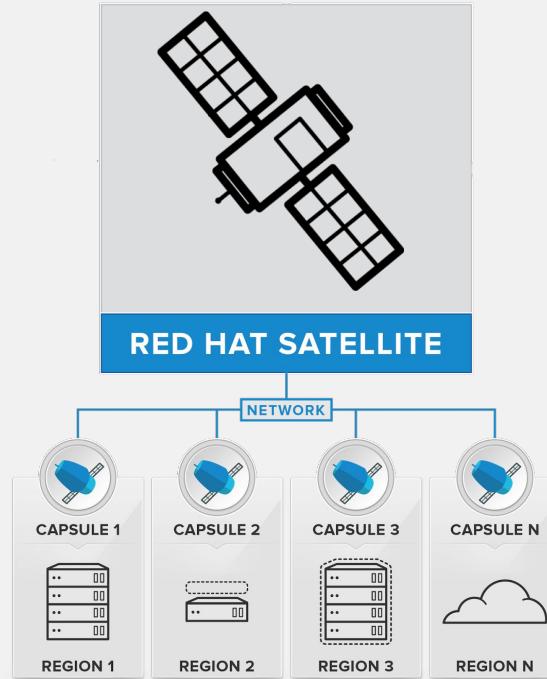


- Ansible
- Puppet master
- Content mirror
- Provision, discover, configure
- Vulnerability scanner
- Enrollment in identity
- Remote execution
- SSH engine
- Power on/off

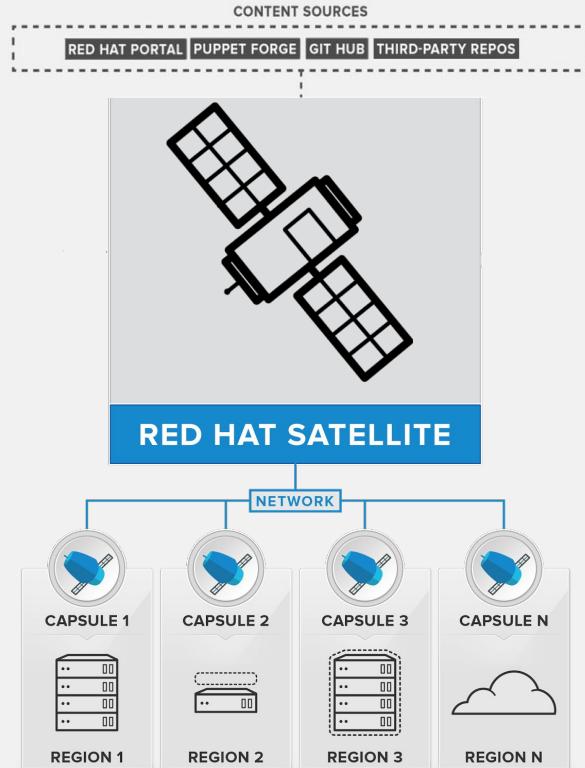
SATELLITE 6 DEPLOYMENT



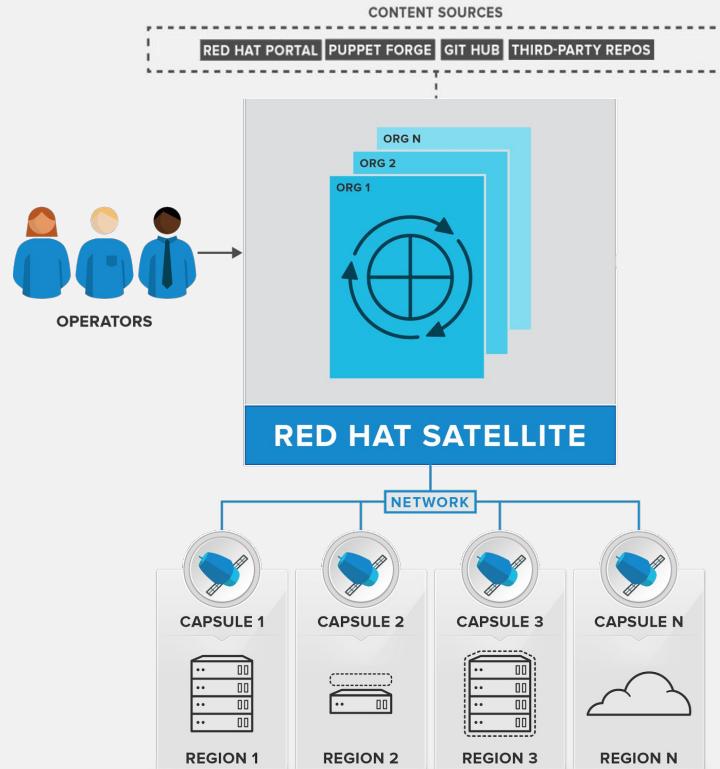
SATELLITE 6 DEPLOYMENT



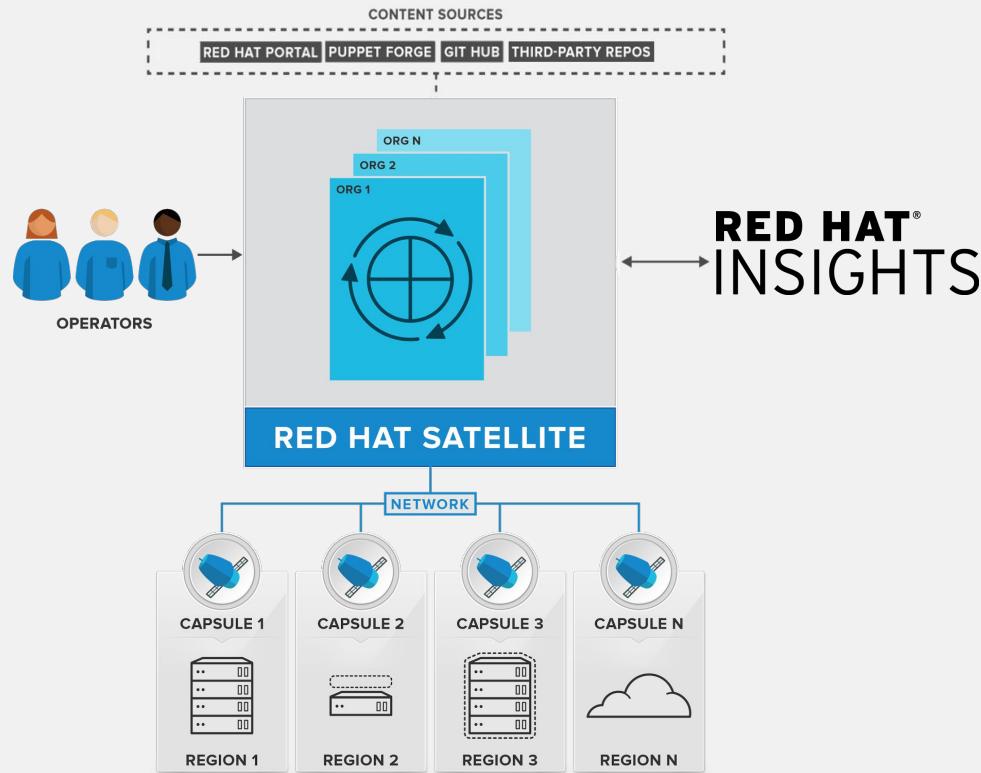
SATELLITE 6 DEPLOYMENT



SATELLITE 6 DEPLOYMENT



SATELLITE 6 DEPLOYMENT



REAL WORLD CHALLENGES

OUR CUSTOMERS TELL US THEY ARE ALWAYS THINKING ABOUT THEIR ENVIRONMENTS



ARE THEY CONFIDENT
THEY CAN QUICKLY
RESPOND?



WILL THEIR
PROCESSES
SCALE?



ARE THEIR
SYSTEMS
COMPLIANT?



RED HAT SATELLITE CAN HELP



ARE THEY CONFIDENT
THEY CAN QUICKLY
RESPOND?



Easily Address
Security



WILL THEIR
PROCESSES
SCALE?



Increase
Efficiency



ARE THEIR
SYSTEMS
COMPLIANT?



Audit & Remediate
Systems

Red Hat Satellite Upgrade

Red Hat Satellite Upgrade Information

Product docs page: https://access.redhat.com/documentation/en-us/red_hat_satellite/

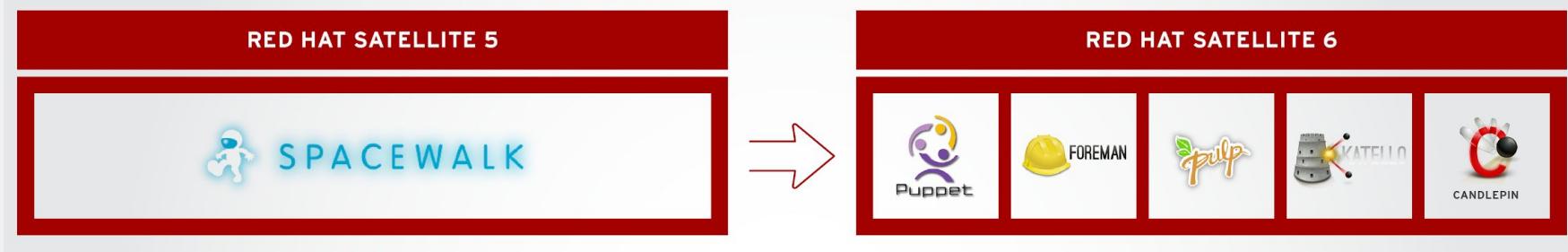
Satellite 6.x to 6.4

- Follow the Upgrading and Updating Red Hat Satellite Guide

Satellite 5.x to 6.4

- Read the Transitioning Guide and FAQ to help plan the migration from Satellite 5 to Satellite 6
- Reach out to your account manager to discuss consulting options

Satellite 5 & 6 Core Capabilities



- Provision systems
- Configuration management
- Automated software distribution
- Life cycle management*
- Drift reporting

* Satellite 5 provided life cycle management via channel-cloning.

- Provision to bare metal, private, and public clouds
- Declarative configuration management
- Automated software distribution
- Life cycle management
- Drift remediation
- Simplified content management
- Federated services and management
- Red Hat® subscription management
- Localization

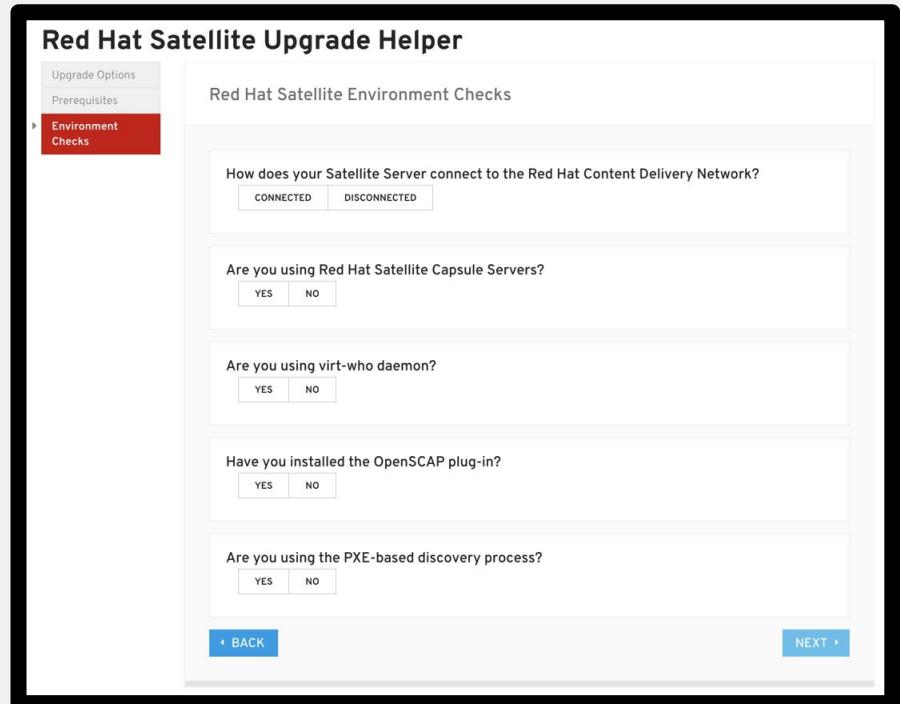
Red Hat Satellite Upgrade Helper

<https://access.redhat.com/labsinfo/satelliteupgradehelper>

Tool designed to help you upgrade from:

- 6.0 to 6.1
- 6.1 to 6.2
- 6.2 to 6.3
- 6.3 to 6.4

Upgrade helper presents upgrade steps
and includes extra steps to help prevent
any known issues.



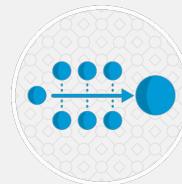
Red Hat Satellite 6.4 New Features

Satellite 6.4 Theme



Enhanced Usability

- Vertical Navigation
- New Repositories Page
- Enhanced Subscription Page
- Enhanced Notification Drawer
- Enhanced Auditing of events
- Automatic Republish of Component Content Views



Enhanced Automation

- Ansible integration for remote execution
- Desired state using Ansible
- Deploy Insights via Ansible
- RHEL System Roles

Key Focus Areas



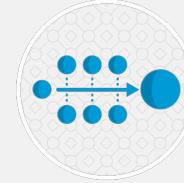
Usability



Configuration management



Supportability



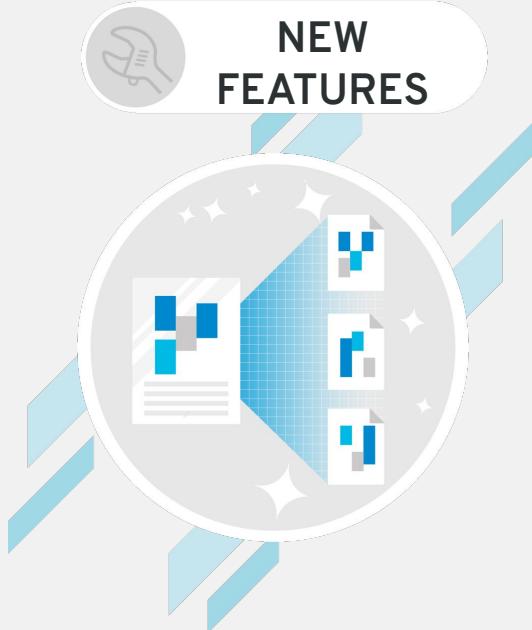
Performance / Stability

USABILITY



UPDATED USER INTERFACE

Several usability changes in Satellite 6.4



NEW FEATURES

Vertical Navigation

Consistent with other Red Hat Products, improved scalability

Notification Drawer Enhancements

Increased event transparency and RSS feed

New Repositories Page

Easily find and enable repos

Subscription Enhancements

Add subscriptions to a manifest from within Satellite

Automatic Republish of Composite Content Views

If you update a component of a CCV, the CCV is automatically updated.

Auditing of User Events

Enhanced auditing of user events



Monitor >

Content >

Containers >

Hosts >

Configure

Infrastructure >

Insights >

Administer >

Overview

Filter ...

Search



Generated at 11 Sep 17:33

Manage ▾



Documentation

Red Hat Insights Risk Summary

2 system(s) have critical issues.

Risk Level	Percentage
Low	20.0%

Red Hat Insights Actions

Category	Number of Actions
Availability	0
Stability	0
Performance	0
Security	10
Compliance	10

VERTICAL NAVIGATION

Host Configuration Status for All

Hosts that had performed modifications without error

0

Hosts in error state

0

Good host reports in the last 5 minutes

0

Hosts that had pending changes

0

Host Configuration Chart for Puppet

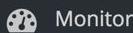


NOTIFICATION DRAWER

The screenshot shows a notification drawer with a dark header bar containing a bell icon with a red dot, a user profile icon, and a 'User' dropdown menu. Below the header is a title bar with the text 'Notifications' and a close button ('X'). The main content area displays several sections and individual notifications:

- Subscriptions**: 1 New Event
- Jobs**: 1 New Event
- Community**: 2 New Events
- Satellite 6.3.3 is now available** (info icon): 9/11/2018 | 4:04:30 PM
- Red Hat Satellite 6.4 Beta is now available** (info icon): 9/11/2018 | 4:04:30 PM

At the bottom of the drawer is a blue 'Mark All Read' button.



Monitor >



Content >



Containers >



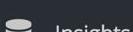
Hosts >



Configure >



Infrastructure >



Insights >



Administer

Red Hat Repositories

Available ▾

label = rhel-7-server-ansible-2.5-rpms

Search

Nothing selected ▾

Export Enabled as CSV

Available Repositories

OFF

★ Recommended Repositories ⓘ

20 ^ per page

1-1 of 1

<<

<

1

of 1

>

>>



Red Hat Ansible Engine 2.5 RPMs for
Red Hat Enterprise Linux 7 Server



rhel-7-server-ansible-2.5-rpms

x86_64



Enabled Repositories

20 ^ per page

1-5 of 5

<<

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1

of 1

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Red Hat Enterprise Linux 7 Server -
Extras RPMs x86_64

x86_64



Red Hat Enterprise Linux 7 Server
Kickstart x86_64 7Server

x86_64 7Server



REPOSITORIES PAGE



Red Hat Enterprise Linux 7 Server -
Optional RPMs x86_64 7Server

x86_64 7Server



Red Hat Enterprise Linux 7 Server

Monitor >

Content >

Containers >

Hosts >

Configure

Infrastructure >

Insights >

Administer >

Red Hat Subscriptions

 Search

Add Subscriptions

Manifest Export CSV Delete

	Name	Type	SKU	Contract	Start Date	End Date	Consumed	Entitlements
<input type="checkbox"/>	Ansible Tower by Red Hat, Premium(10000 Managed Nodes)	Physical	[REDACTED]	[REDACTED]	2018-04-05 00:00:00 -0400	2019-04-05 19:59:59 -0400	0	50

SUBSCRIPTIONS PAGE

L3 Only)									
<input type="checkbox"/>	Oracle Java Add-On (Unlimited Virtual Nodes)	Physical	[REDACTED]	[REDACTED]	2018-04-19 00:00:00 -0400	2019-04-18 19:59:59 -0400	✓	0	10
<input type="checkbox"/>	Puppet Forge	Physical	[REDACTED]	[REDACTED]	2018-07-30 06:17:40 -0400	2048-07-22 05:17:40 -0500	—	0	Unlimited
<input type="checkbox"/>	Red Hat Ceph Storage for Management Nodes, Premium (Up to 6 Physical Nodes)	Physical	[REDACTED]	[REDACTED]	2017-11-14 00:00:00 -0500	2018-11-13 18:59:59 -0500	—	0	50

Monitor >

Content >

Containers >

Hosts >

Configure >

Infrastructure >

Insights >

Administer >

Subscriptions » Add Subscriptions

	Subscription Name	Contract	Start Date	End Date	Available Entitlements	Quantity to Allocate
<input type="checkbox"/>	Red Hat Enterprise Linux Server with Smart Management, Premium (Physical or Virtual Nodes)	[REDACTED]	2018-09-13T04:00:00+0000	2019-09-12T23:59:59+0000	100	<input type="text" value="50"/>
<input checked="" type="checkbox"/>	Smart Management (Unlimited guests)	[REDACTED]	2018-09-13T04:00:00+0000	2019-09-12T23:59:59+0000	Unlimited	<input type="text" value="50"/>
<input type="checkbox"/>	Red Hat Enterprise Linux Server, Premium (1-2 sockets) (Unlimited guests) with Smart Management	[REDACTED]	2018-09-13T04:00:00+0000	2019-09-12T23:59:59+0000	100	<input type="text"/>
<input type="button" value="5 ^"/> per page		11-15 of 218		<input type="button" value="«"/>	<input type="button" value="<"/>	<input type="button" value="3 of 44"/>
<input type="button" value="Submit"/>		<input type="button" value="Cancel"/>		<input type="button" value="»"/>	<input type="button" value="»"/>	

SUBSCRIPTIONS PAGE

 Monitor > Content > Containers > Hosts > Configure Infrastructure > Insights > Administer

Create Content View

Content Views » New Content View

Name

Auto Publish CCV

Label

Auto_Publish_CCV

AUTO PUBLISH OF COMPOSITE CONTENT VIEWS

 Auto Publish

Composite views. Auto publish composite view when component content view is created. Also note auto when the component is marked "latest".

Applicable only to new versions

 Save Cancel

Monitor >

Content >

Containers >

Hosts >

Configure >

Infrastructure >

Insights >

Administer >

Hello Application with RHEL7 SOE

Publish New Version

Select Action < >

Content Views » Hello Application with RHEL7 SOE » Versions

Details Versions Content Views History Tasks

Filter...

Search < >

Version	Status	Environments	Content
Version 1.0	Published (2018-09-11 16:59:02 -0400)	Library	37593 Packag... 3026 Errat... 489 1 Files

20 < > per page

1 of 1 < > >>

Description

Auto Publish - Triggered
by 'Hello Application 1.0'

AUTO PUBLISH OF COMPOSITE CONTENT VIEWS

 Monitor > Content > Containers > Hosts > Configure Infrastructure > Insights > Administer >

Audits

Filter ...

Search

Documentation

Katello/Content View Environment

11 Sep 16:59

 **Admin** added Katello/Content View Environment: [Library>Hello_Application_with_RHEL7_SOE](#) / [Hello Application with RHEL7 SOE](#)

- Added Library/Hello_Application_with_RHEL7_SOE to Hello Application with RHEL7 SOE

Katello/Repository

11 Sep 16:58

 **Admin** (23.125.61.137) added Katello/Repository: [Hello Java App](#)

- Added Hello Java App to Missing(ID: 1-Hello_Application-v1_0-aa808327-4226-46e1-bc6f-188d74694d80)

Katello/Content View Environment

11 Sep 16:58

 **Admin** (23.125.61.137) added Katello/Content View Environment: [Library>Hello_Application](#) / [Hello Application](#)

- Added Library/Hello_Application to Hello Application

Katello/Content View Version

11 Sep 16:58

CONFIGURATION MANAGEMENT



SATELLITE AND ANSIBLE TOWER INTEGRATION

6.3 introduced documented best practices for use of both products



By integrating Red Hat Satellite with Red Hat Ansible® Tower, administrators can now perform the following functions:

Dynamic inventory

Allows Ansible Tower to use Satellite as a dynamic inventory source.

Provisioning callbacks

Allows systems provisioned via Satellite to “callback” to Ansible Tower so that playbook runs can happen post-provisioning.

ENHANCED SATELLITE AUTOMATION



Satellite makes use of basic Ansible capabilities for key functionality



Satellite executes an Ansible Playbook on RHEL hosts for remote execution, patch application, and remediation

This is different than the multi-platform and application-centric orchestration Ansible Tower provides

Remote Execution

Target Satellite-managed RHEL hosts with an Ansible Playbook

Deploy Insights using Ansible

Install Insights on all your RHEL hosts

RHEL System Roles

Deploy RHEL System Roles to RHEL hosts managed by Satellite

ANSIBLE & SATELLITE

Satellite can use Ansible to automate specific RHEL use cases.
Ansible Tower is still critical for enterprise-wide automation.

Satellite's use of Ansible is for RHEL-specific purposes

- Ansible Playbooks can be executed against managed RHEL hosts
- Ansible Roles provide desired state
- Automation will be limited to RHEL use cases only
- Only supported playbooks are RHEL System Roles and Insights deployment

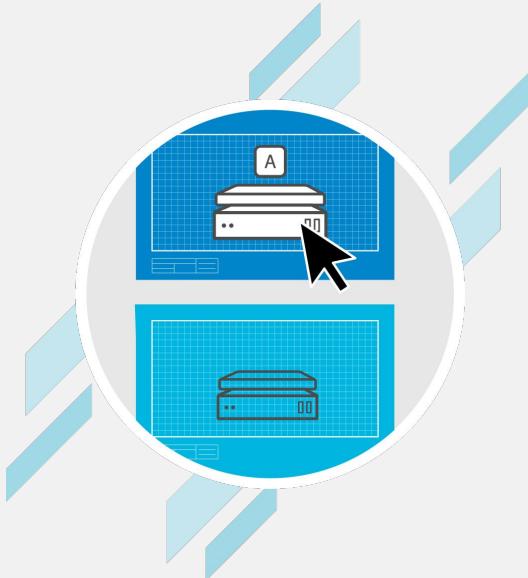
Satellite connected to Ansible Tower

- For enterprise-wide, open-ended IT orchestration and automation
- Management of non-RHEL systems alongside RHEL systems
- Automate Satellite actions alongside other enterprise requirements

PULL TEMPLATES FROM GIT



Improved ability to manage provisioning templates, similar to content versioning



Manage and Deploy

Edit templates and clone them using
GIT branching and versioning, or any
version control system.

SUPPORTABILITY



PUPPET 5 REQUIRED



Satellite 6.4 ships with Puppet OpenSource 5.

Supported Puppet Open Source Release

Puppet 5 is a fully supported release

Note for anyone upgrading from Satellite 6.3

Satellite 6.3 supports Puppet 3.8 and Puppet 4.

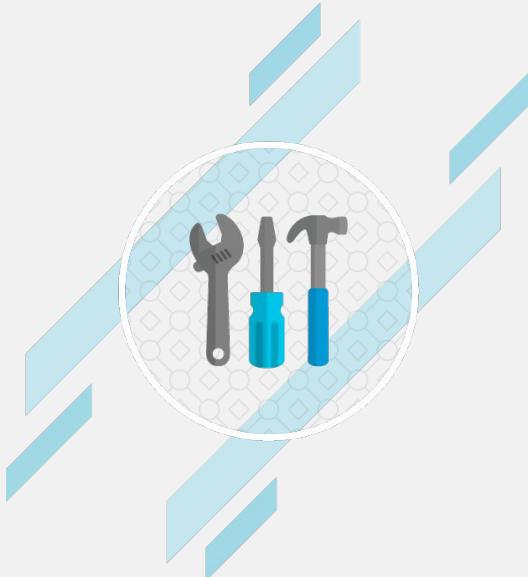
Before upgrading to Satellite 6.4, you must upgrade to Satellite 6.3 and Puppet 4.

The Satellite 6.4 upgrade process will update Puppet 4 to Puppet 5.

SUPPORTABILITY



Enhanced Architectural Flexibility



Provisioning to AWS GovCloud

Support for a critical Public Sector workload

Load Balanced Capsules

Documentation on how to setup Capsules to be load balanced

Database Offload

Documentation on how to offload databases

Docker Private Repo

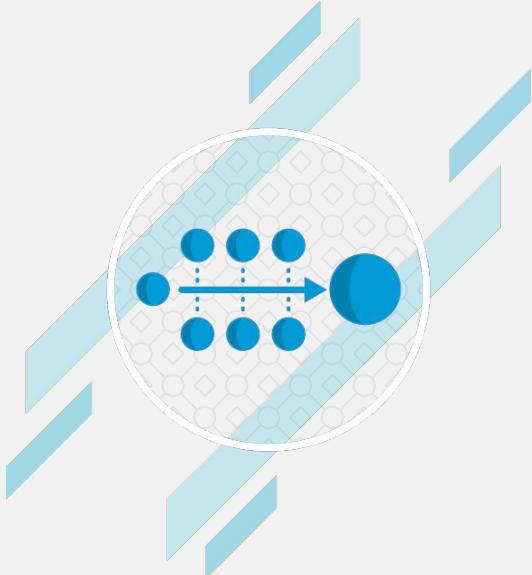
Support for private Docker repositories

Preservation of Custom Configs

When you upgrade Satellite, custom tunings will be preserved

Performance / Stability

PERFORMANCE / STABILITY



NEW FEATURES

Continuing focus on performance and stability enhancements

RHEL Performance Co-Pilot Integration

Integration with RHEL PCP starting with RHEL 7.6

Rebase of MongoDB to 3.x

Update underlying Satellite Mongo database to a newer release

Tuning for Postgres

Tune the underlying Satellite Postgres database

Other Performance and Stability Fixes

Big pile of Bugzillas

Smart Management - Pricing & Packaging Update

SIMPLIFIED PRICING AND PACKAGING

Get the most out of your Red Hat infrastructure investment

OLD MODEL

RED HAT® SATELLITE

Purchase each of the following:

- Red Hat Satellite Server
- Red Hat Satellite Capsule Server
- Smart Management Add-On

RED HAT® INSIGHTS

Purchase the following separately:

- Red Hat Insights Add-On

NEW MODEL

LAUNCHING MARCH 1

RED HAT® SATELLITE + RED HAT® INSIGHTS

Receive all Satellite and Insights elements (servers & clients) with the purchase of **Smart Management**

NEXT STEPS & RESOURCES

NEXT STEPS

Use the Upgrade Helper to plan your upgrade-

<https://access.redhat.com/labs/satelliteupgradehelper/>

Attention Satellite 5 customers:

- End of support for versions 5.7 & below is January 31, 2019 - access to content will not be provided after this date!
 - **Recommended action ASAP: Upgrade to Satellite 5.8** (supported thru May 2020)
 - Consider moving to Satellite 6, when ready

RESOURCES

- [Red Hat Satellite Blog](https://satelliteblog.redhat.com/) - <https://satelliteblog.redhat.com/>
- [Red Hat Satellite Product page](#)
- [Red Hat Satellite Customer Portal](#)
- [Red Hat Satellite Documentation](#)
- [Red Hat Consulting offering: Transition to Red Hat Satellite 6](#)

TRAINING

- NEW COURSE - [RH053: Satellite Technical Overview](#)
- RH053 is also available on [Udemy](#)
- [RH403: Red Hat Satellite 6 Administration](#)

Satellite Videos to be aware of:

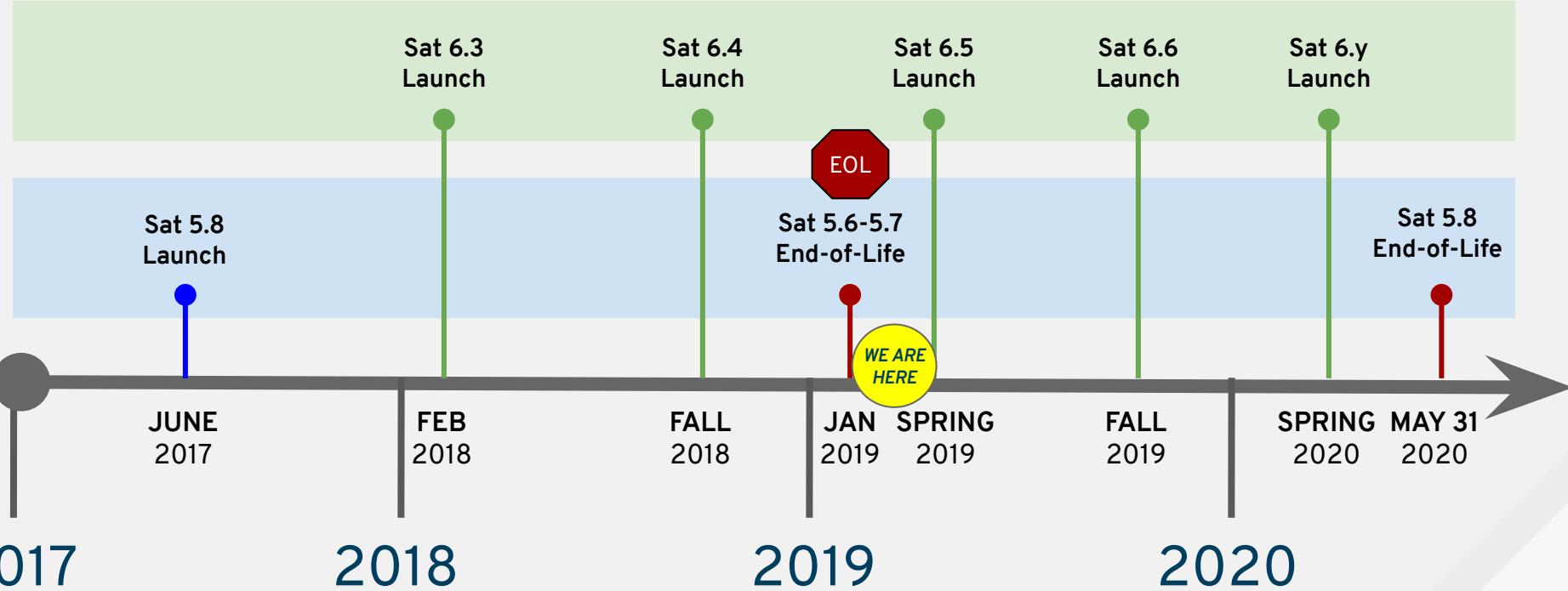
The sessions below are recordings from Summit 2018 that reference Satellite

- 10 things you didn't know about Red Hat Satellite 6: <https://youtu.be/Dd-74Wko0r0>
- Red Hat Satellite 6: Securing the Linux life cycle in the public sector: <https://youtu.be/NpiV6uhFfig>
- Smarter infrastructure management with Red Hat Satellite & Red Hat Insights: <https://youtu.be/EVanFpZlrYE>
- Red Hat Satellite 6 power user tips and tricks: <https://youtu.be/tUNo3nndlSo>
- Live demonstration: Find it. Fix it. Before it breaks: <https://youtu.be/CzGdqGF8ygU>
- How Walmart uses sys mgmt tools to manage its massive IT operation at scale: <https://youtu.be/1SOXmMh9EsY>
- Using Ansible and Redfish to Automate Systems Management: <https://youtu.be/9tAXBvuyXJU>
- Push-button deployments with Red Hat Management, 3rd edition: https://youtu.be/3The3Ki_o-U

These additional recordings may be of interest:

- YouTube Video: Find It. Fix It. Before It Breaks: <https://youtu.be/mCBhUuxRCgA>

RED HAT SATELLITE 5 & 6 ROADMAP TIMELINE



RED HAT SATELLITE

Satellite 6.5

Expected First-Half 2019 / Beta Winter 2018

Major Themes: Integrations, Performance, Usability

Key Features:

- Modularity Integration
- FIPS Certification
- Improved Reporting
- Enhanced Intra-Satellite Sync
- Improved UX Workflows

Satellite 6.6

Expected Q4 2019

Major Themes:

Candidate Features (and **subject to change**):

- Support Satellite running on next RHEL major
- Advanced Modularity Management
- Pull based Remote Execution Provider
- Improved UX Workflows
- Composer Integration
- SAML / SSO Integrations



redhat.

THANK YOU



plus.google.com/+RedHat



facebook.com/redhatinc



linkedin.com/company/red-hat



twitter.com/RedHat



youtube.com/user/RedHatVideos