

Red Hat Satellite

Jacek Skórzyński

Senior Solution Architect

jacek@redhat.com

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



RED HAT[®]
ANSIBLE[®]
Automation

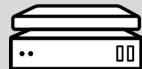
CENTRALIZED AUTOMATION
GOVERNANCE

- 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)

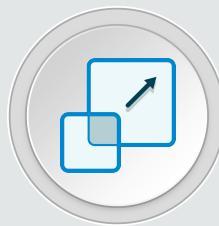
WHY RED HAT SATELLITE?



MANAGE RED HAT
INFRASTRUCTURE



STREAMLINED
CONTENT
MANAGEMENT



BUILT TO SCALE

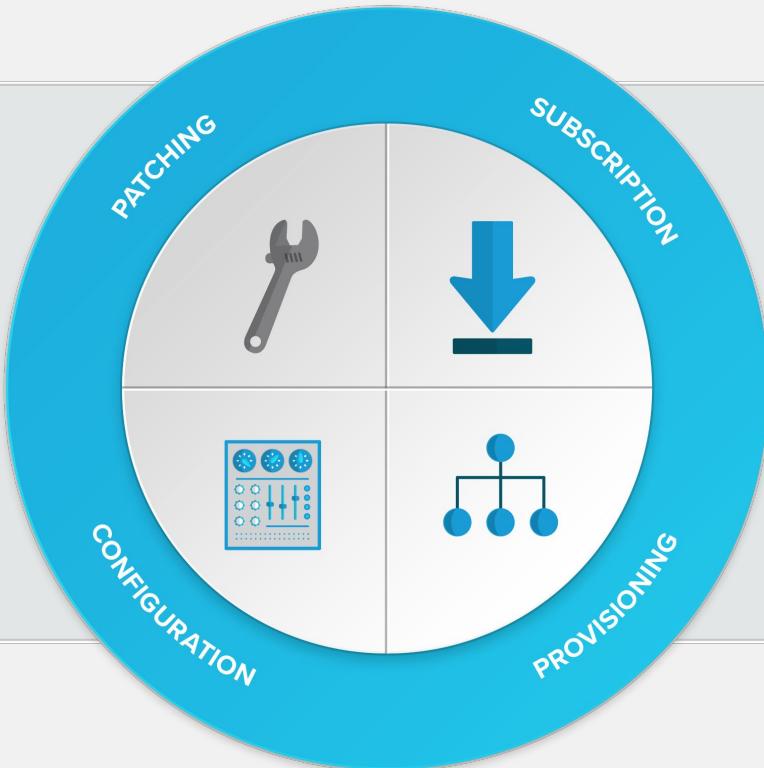


SIMPLIFIED SYSTEM
INTEGRATION



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



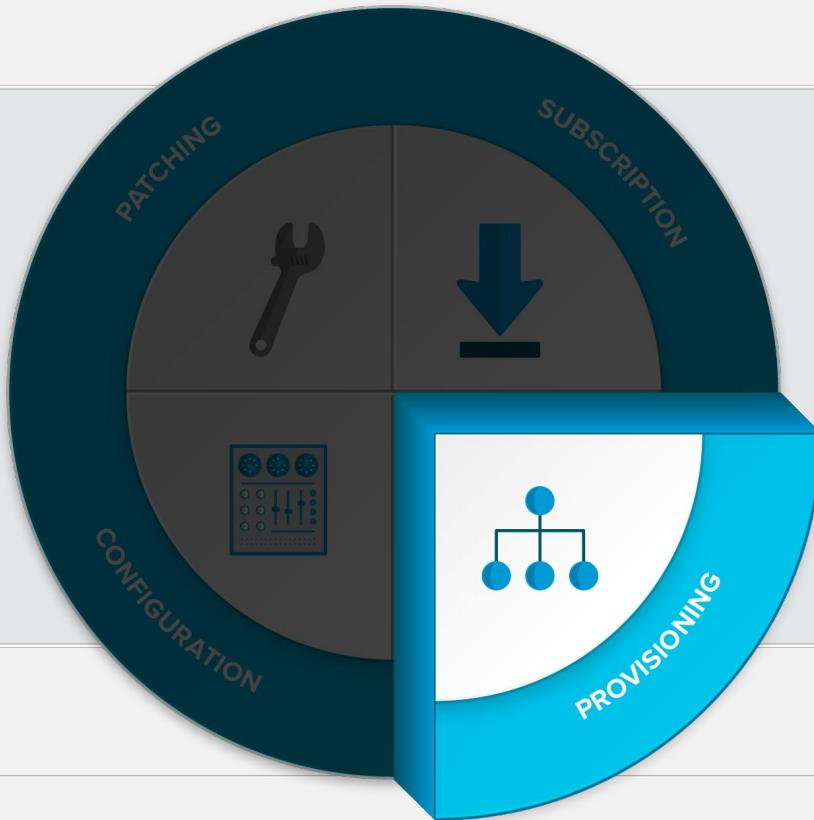
- Define & manage Standard Operating Environments
- Quickly respond to security vulnerabilities (Heartbleed/ShellShock)
- Comply with your organization's security policies
- Deploy all Red Hat Infrastructure as well as third-party software

SUBSCRIPTION MANAGEMENT



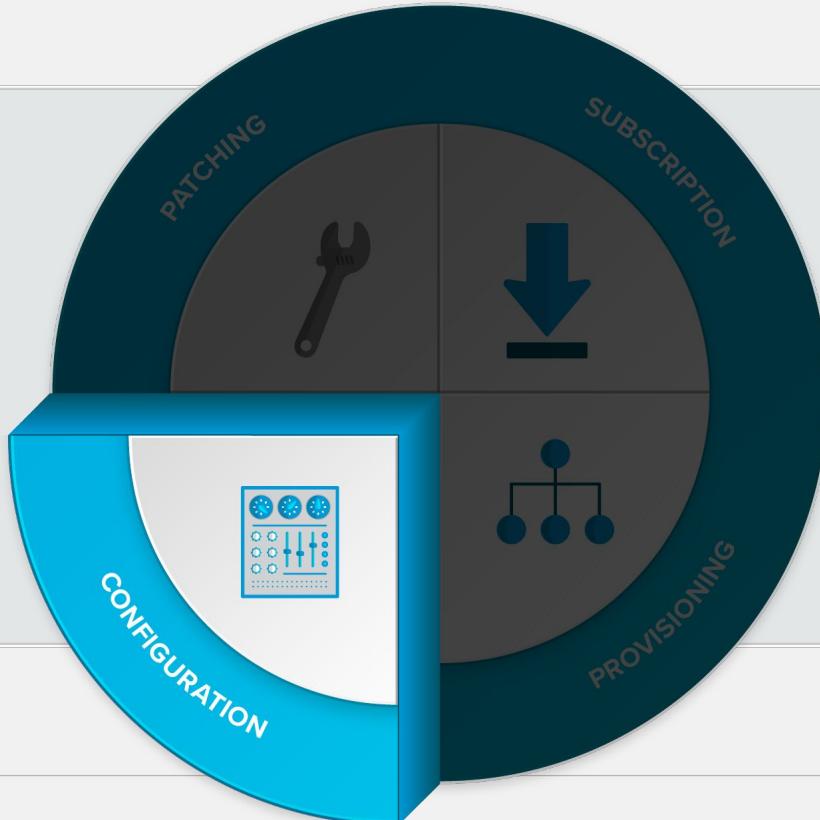
- Centrally manage subscription usage
- Maintain accurate inventory and utilization information
- Report on subscription consumption on a group-by-group basis

PROVISIONING MANAGEMENT



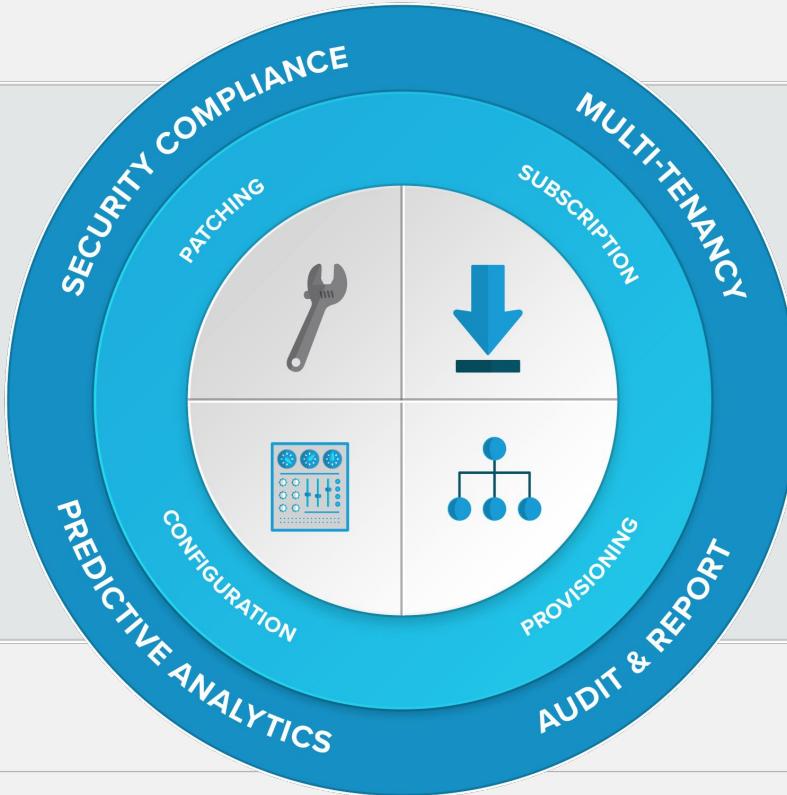
- Provision to bare metal, virtual, private, and public clouds
- Federate content delivery
- Support build-based and image-based deployments
- Discover non-provisioned hosts

CONFIGURATION MANAGEMENT



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

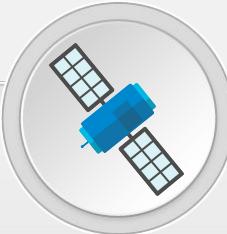
RED HAT SATELLITE



- 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

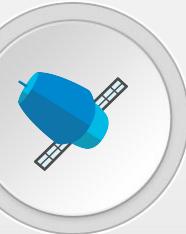
HOW SATELLITE WORKS

RED HAT SATELLITE COMPONENTS



SATELLITE SERVER

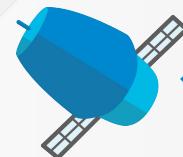
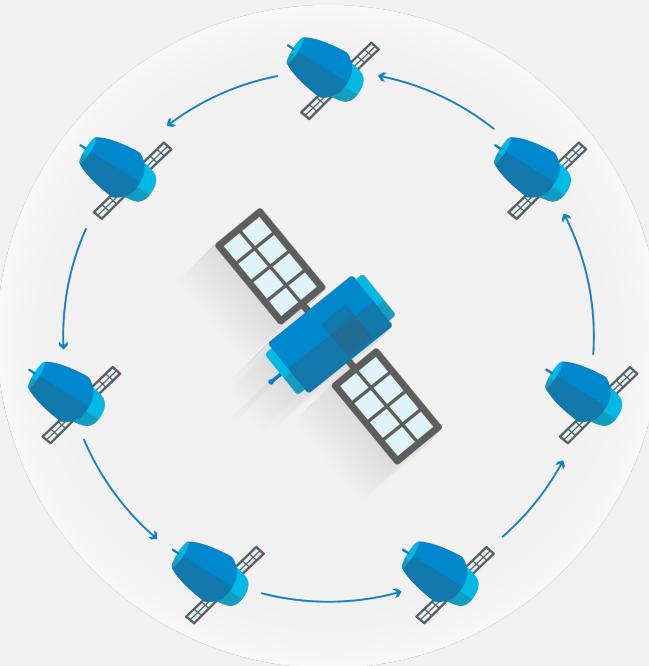
- Multi-tenant
- On-premise repository management
- User and group role-based access control (RBAC)
- Powerful user interfaces (GUI, API & CLI)
- Advanced subscription management



SATELLITE CAPSULE SERVER

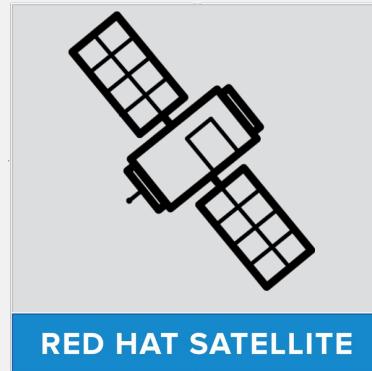
- Enables scaling of your Satellite environment
- Provides local content, provisioning, and integration services
- Discovery of new physical & virtual machines

IMPROVED SCALABILITY AND AUTOMATION WITH CAPSULES

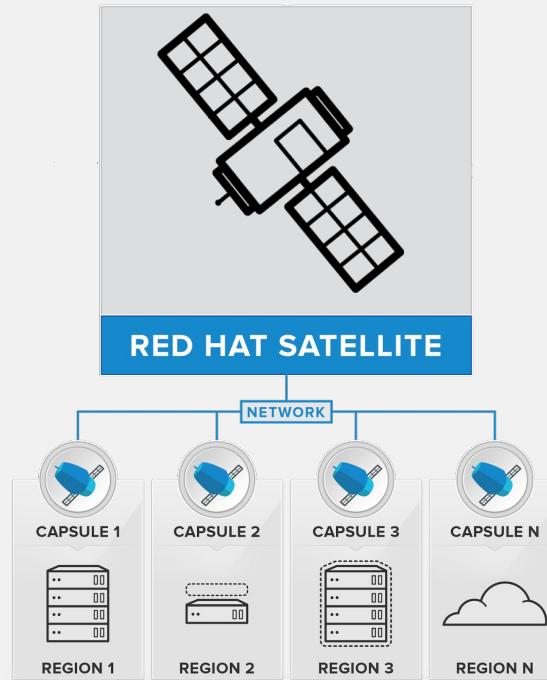


- Ansible
- Puppet master
- Content mirror
- Provision, discover, configure
- Vulnerability scanner
- Enrollment in identity
- Remote execution
- SSH engine
- Power on/off

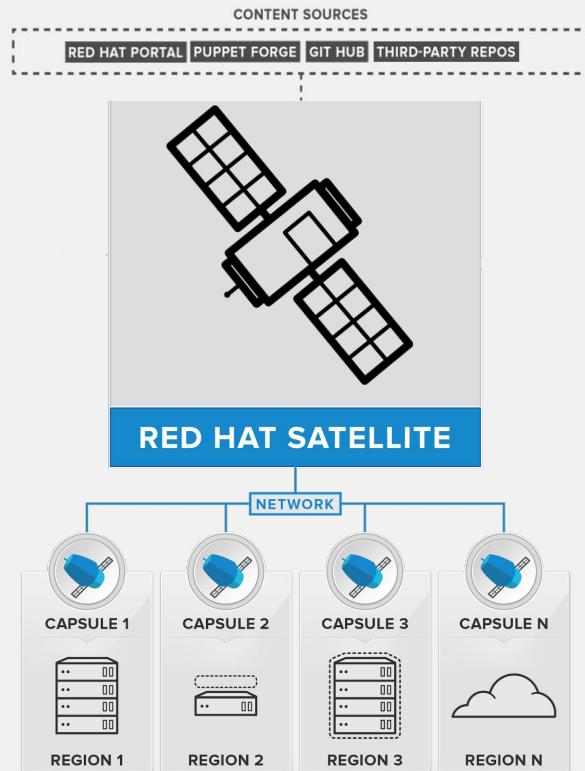
SATELLITE 6 DEPLOYMENT



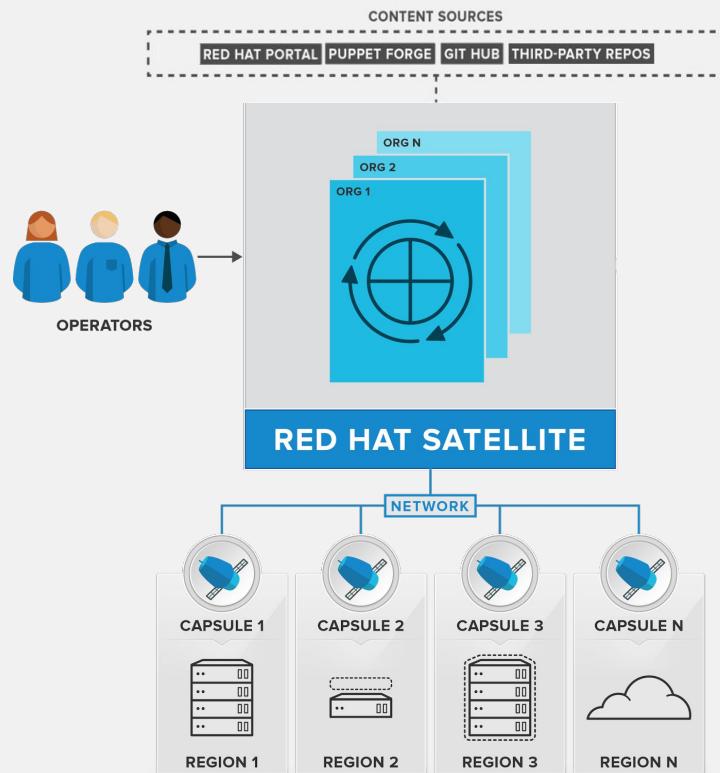
SATELLITE 6 DEPLOYMENT



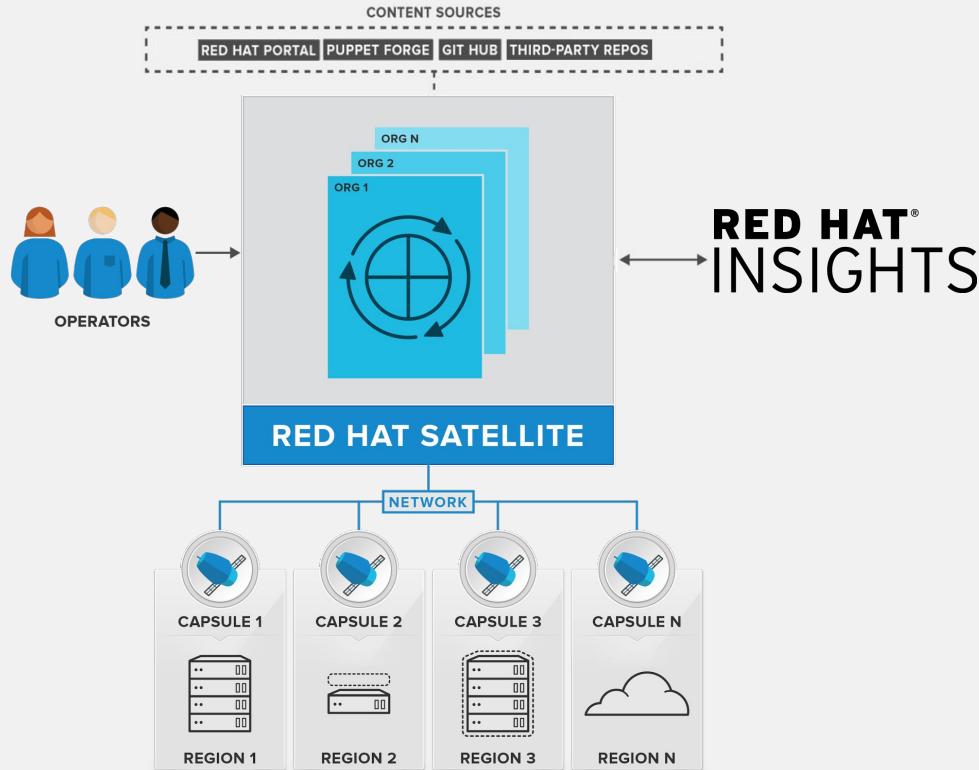
SATELLITE 6 DEPLOYMENT



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

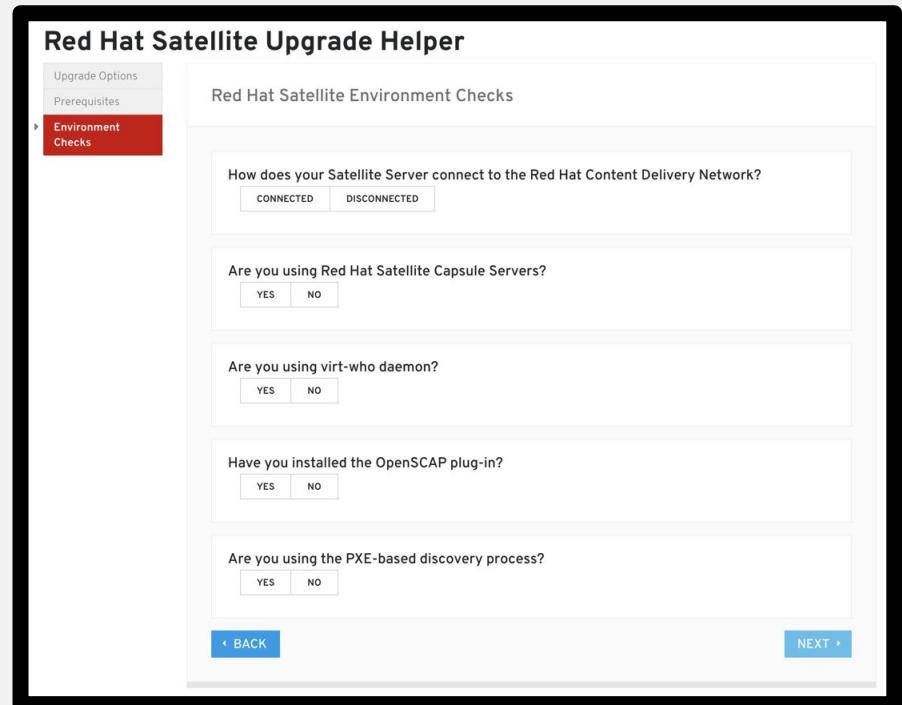
Red Hat Satellite Upgrade Helper

<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.



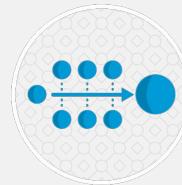
Red Hat Satellite 6.4 New Features

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



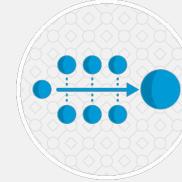
Usability



Configuration management



Supportability



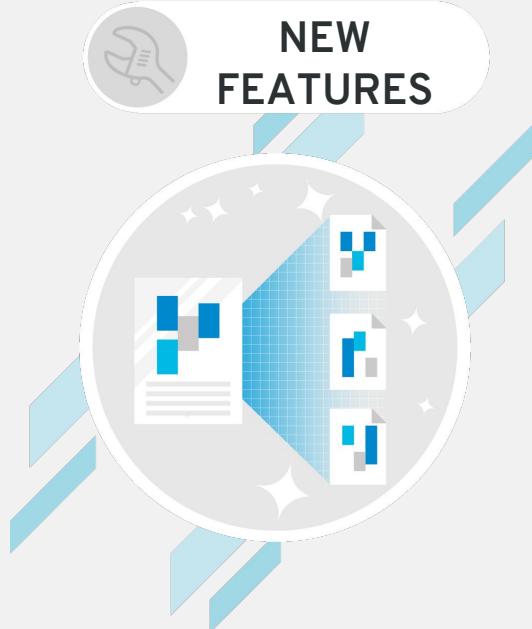
Performance / Stability

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
- Hosts in error state
- Good host reports in the last 5 minutes
- Hosts that had pending changes

Host Configuration Chart for Puppet



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.

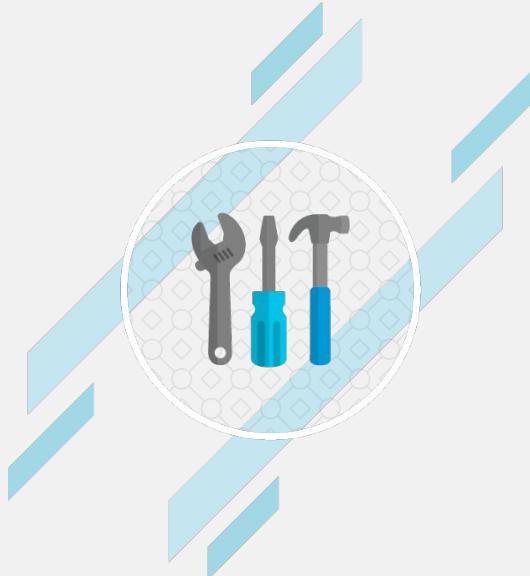
Before upgrading to Satellite 6.4, you must upgrade to Satellite 6.3 and Puppet 4.

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

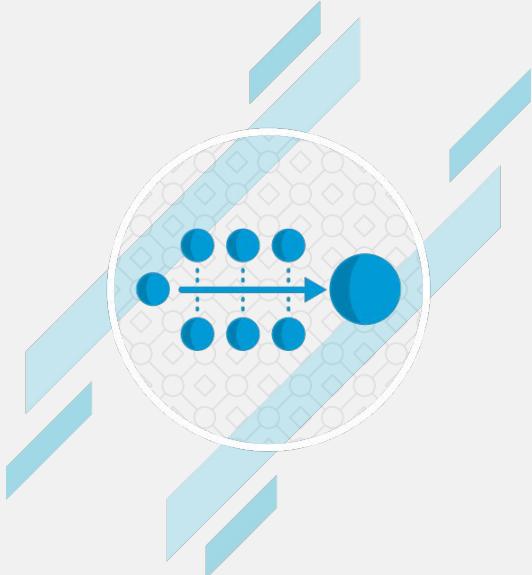
Support for private Docker repositories

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

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/EVanFpZIrYE>
- 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/mCBhUuxRCqA>



redhat.

THANK YOU



plus.google.com/+RedHat



facebook.com/redhatinc



linkedin.com/company/red-hat



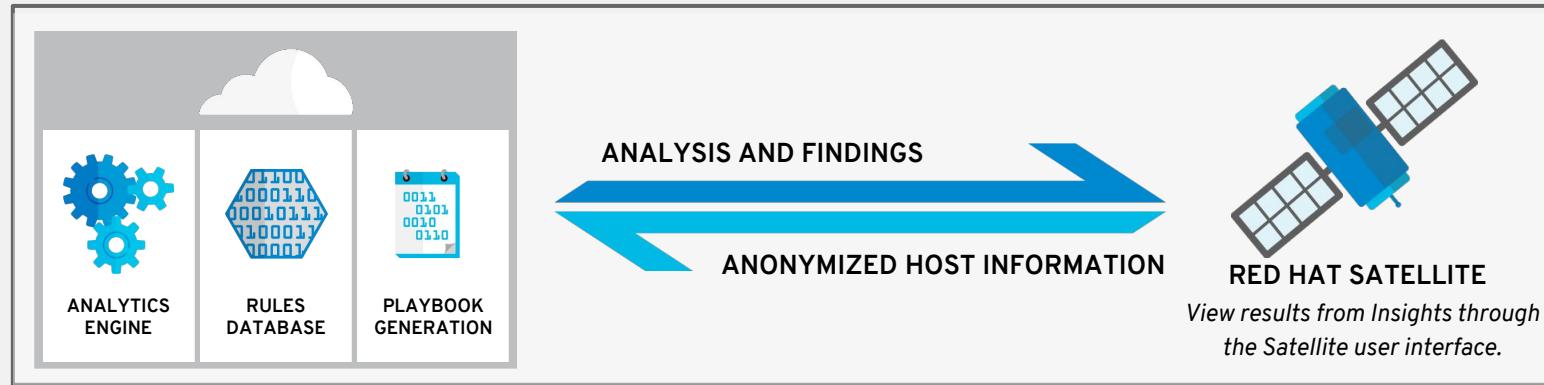
twitter.com/RedHat



youtube.com/user/RedHatVideos

WHY USE INSIGHTS WITH SATELLITE?

Stop reacting to problems once they occur. Predict & fix them now.



ACTIONABLE INTELLIGENCE POWERED BY RED HAT

Confidently scale complex environments.



CONTINUOUS VULNERABILITY ALERTS

Maximize uptime and avoid fire-fighting.



INCREASED VISIBILITY TO SECURITY RISKS

Get ahead of security risks and fix them before it's a problem.



AUTOMATED REMEDIATION

Minimize human error, do more with less, and fix things faster.

SATELLITE + INSIGHTS CAPABILITIES

Getting more from the purchase of Smart Management

CATEGORIES	CAPABILITIES	SATELLITE	INSIGHTS
Red Hat subscription management	Subscription knowledge and control		
Provisioning	Bare-metal, VM, & cloud		
	System discovery		
Security & compliance	Automated remediation		
	Predictive IT analytics		
	Risk assessment		
	SCAP operations		
Configuration management	System configuration		
	Drift management		
Software management	Content repository		
	Patch management		