

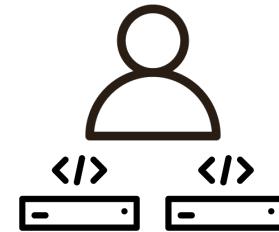


# Red Hat Smart Management

Main Slide Deck (October 2020)

# Real World Challenges

# Gartner: Customers losing \$300,000 per hour on average due to IT downtime



## Manage sprawl

More infrastructure and complexity than ever to manage

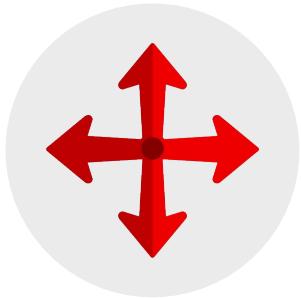
## Reducing risk

Lack of proactive assessment and management of known issues creates exposure

## Limited resourcing

Teams are stretched and lacking Linux skills being asked to do more with flat or decreasing budgets

# How do you currently manage your IT environment?



Do your processes scale?

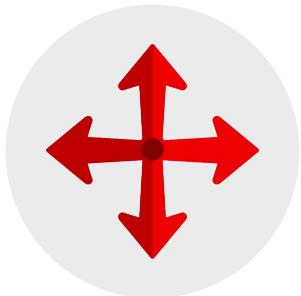


Are you confident you can  
quickly respond?



Are your systems compliant?

# Red Hat Smart Management can help



Do your processes scale?



Increase efficiency



Are you confident you can  
quickly respond?



Address security easily



Are your systems compliant?



Audit and remediate systems

# Red Hat Smart Management

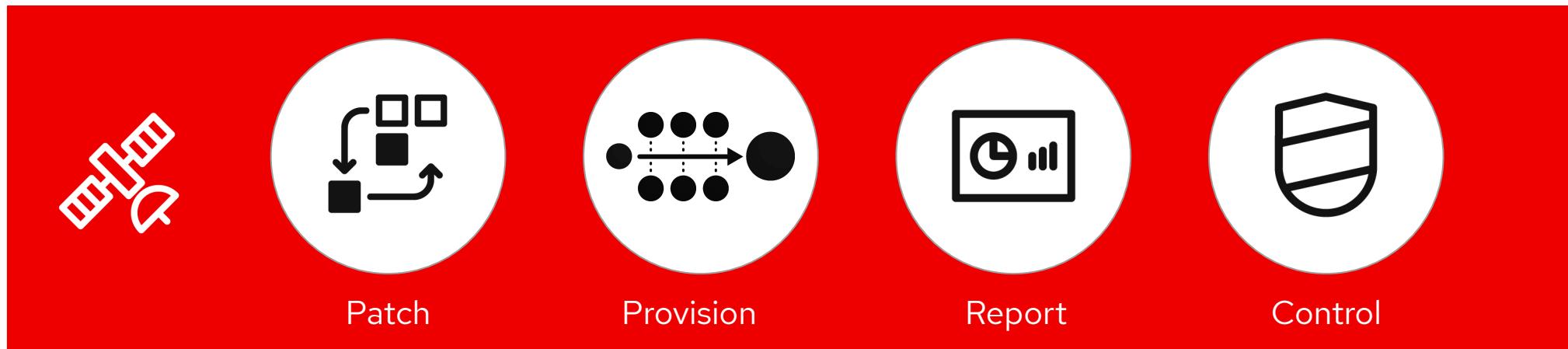
**Smart Management enables you to improve the reliability, availability, security and compliance of your RHEL systems, running on any platform, while reducing TCO and repetitive tasks**

# Smart Management for Red Hat Enterprise Linux

Combine the powerful infrastructure capabilities of Red Hat Satellite with the simplicity of cloud management

Improve operational efficiency by 28%\*

Overcome scale, skill, and security gaps



\*Source: [Satellite IDC Business Value Whitepaper](#)

# What's included with Smart Management?

As of April 2020, Smart Management includes:



Red Hat Satellite



Cloud Connector

Additional functionality coming in future releases

# Introduction to Cloud Connector

# Cloud Connector



## Cloud Connector

Cloud Connector manages the communication between Satellite and Red Hat Insights at [cloud.redhat.com](https://cloud.redhat.com) and enables push-button remediation from Insights.

# Red Hat Insights

Included with all Red Hat Enterprise Linux subscriptions

Buy



**Red Hat**  
Enterprise Linux

Get



**Red Hat**  
Insights



# Red Hat Insights

**PREDICT RISK. GET GUIDANCE. STAY SECURE.**

**PREDICTIVE I.T. ANALYTICS**

**AUTOMATED EXPERT ASSESSMENT**

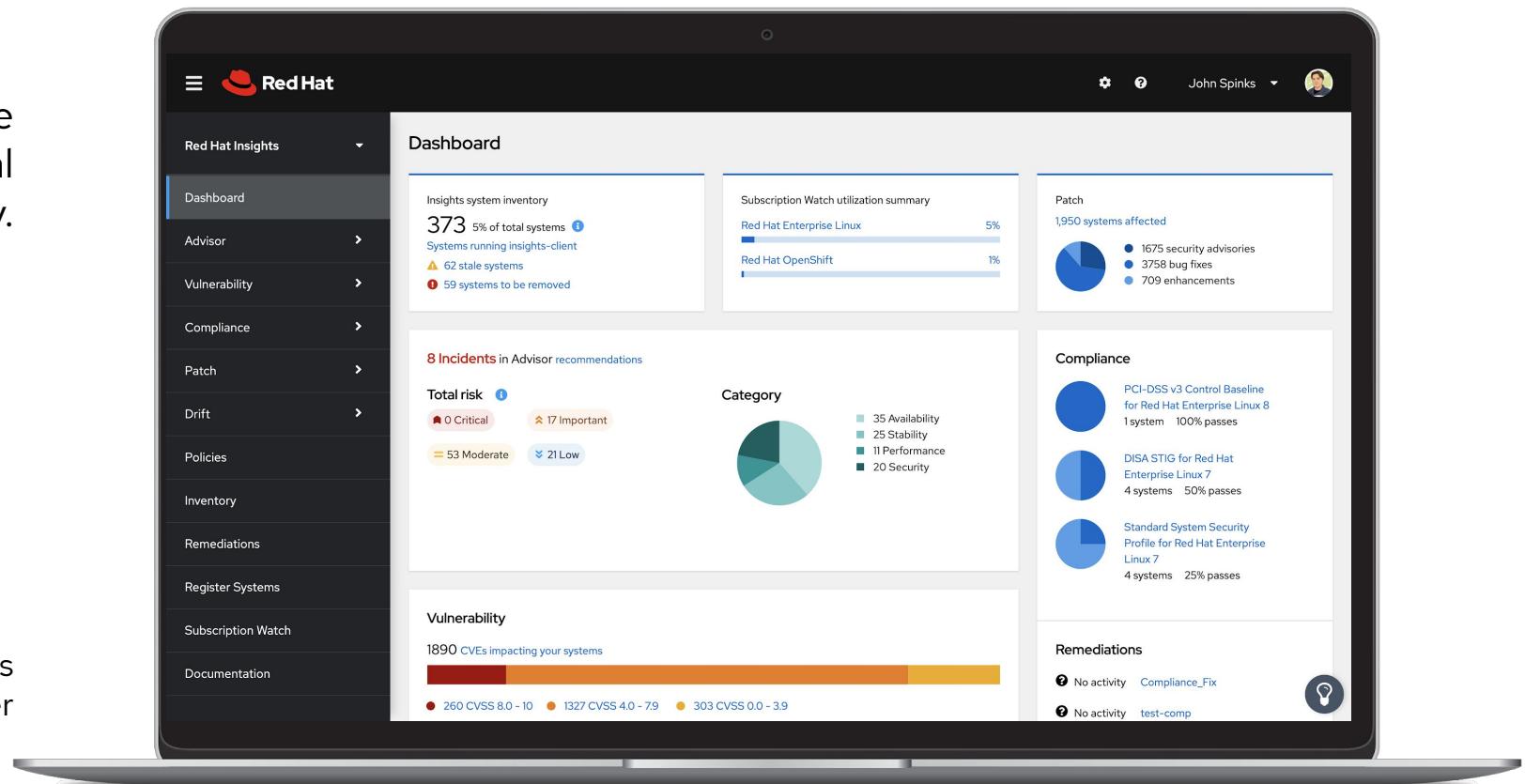
**SIMPLE REMEDIATION**

# Red Hat Insights

Included with Red Hat Enterprise Linux subscription, now with more value

New and expanded services provide additional security and operational efficiency.

\*Active RHEL subscriptions versions 6.4 & higher



# Red Hat Insights Services



## Advisor

Availability, performance, stability, and security risk analysis



## Vulnerability

Assess Common Vulnerabilities and Exposures (CVEs) with advisories



## Compliance

Assess and monitor compliance, built on OpenSCAP



## Subscriptions

Track progress of your Red Hat subscription usage efficiently and confidently



## Drift

Create baselines and compare system profiles



## Policies

Define and monitor against your own policies to identify misalignment



## Patch

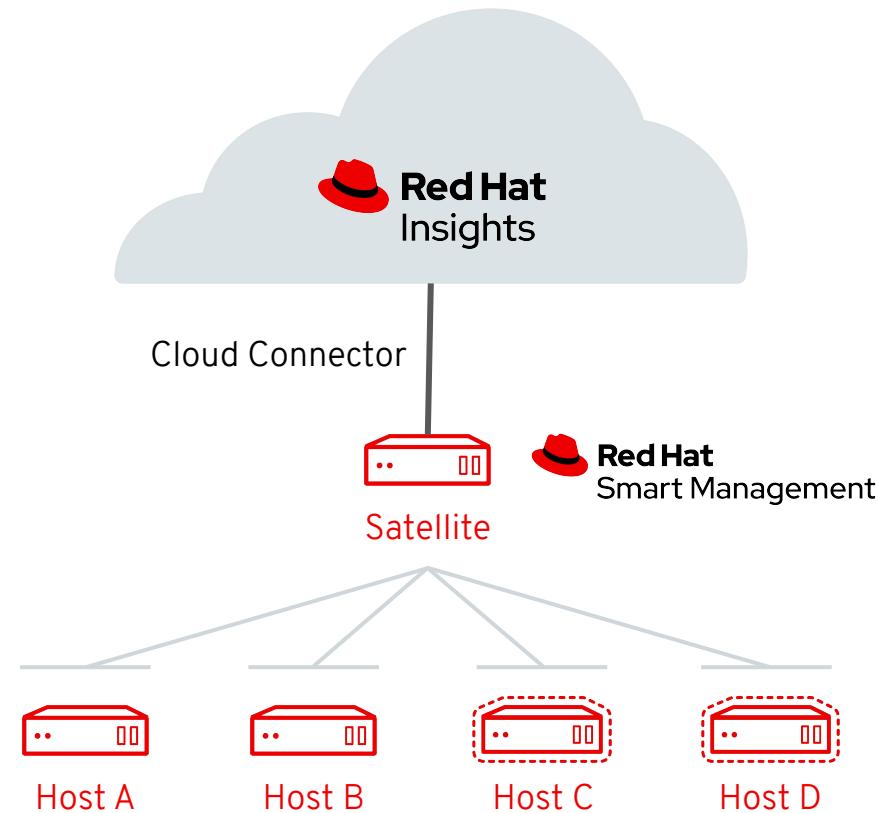
Analyze for Red Hat product advisory applicability to stay up to date

# What is Cloud Connector?

Using Red Hat Insights and Smart Management you can easily identify risks, Vulnerability, and Compliance issues in your environment and fix them via your trusted Satellite infrastructure with the click of a button.

- Connects your Satellite infrastructure to cloud.redhat.com
- Create playbooks via Insights and run them using existing Satellite and Capsules
- Included with your Smart Management subscription

For more information, refer to the intro [blog](#) or [video](#)



Red Hat Insights

Dashboard

Advisor &gt;

Vulnerability &gt;

Compliance &gt;

Patch &gt;

Drift &gt;

Policies

Inventory

Remediations

Register Systems

Subscription Watch

Documentation

Remediations &gt; CVE-2020-10713

## CVE-2020-10713

[Download playbook](#)

### Put Insights into action

Enable push-button remediation across your hybrid cloud environment with Red Hat Smart Management.

[Learn more](#)

### Playbook summary

**Total systems**

102 systems

### Playbook settings

Auto reboot: **Enabled** 2 systems require reboot[Turn off auto reboot](#)

**Without a Smart Management subscription**

You can only download the playbooks from Insights

[Actions](#)[Activity](#) Search actions[Remove action](#)

1 - 1 of 1



of 1

 [Actions ↑](#)**Resolution****Reboot requ...****Systems****Type** [CVE-2020-10713](#)

Upgrade packages affected by CVE-2020-10713



102

Vulnerability

## Red Hat Insights

## Dashboard

## Advisor

## Vulnerability

## Compliance

## Patch

## Drift

## Policies

## Inventory

## Remediations

## Register Systems

## Subscription Watch

## Documentation

Remediations &gt; CVE-2020-10713

## CVE-2020-10713

Execute playbook

Download playbook

⋮

## Do more with your Find it Fix it capabilities

Configure your systems with Cloud Connector to fix systems across all your Satellite instances.

[Learn how to configure](#)

## Playbook summary

Total systems

102 systems

## Playbook settings

Auto reboot: **Enabled** 6 systems require reboot[Turn off auto reboot](#)**With a Smart Management subscription,  
but Cloud Connector is not configured**Execute playbook button is shown, but not available since  
Cloud Connector isn't set up

Actions Activity

Search actions



Remove action

1 - 1 of 1

&lt;&lt; &lt; &gt; &gt;&gt;

1

of 1

 Actions ↑

Resolution

Reboot requ...

Systems ↑

Type ↑

 CVE-2020-10713

Upgrade packages affected by CVE-2020-10713



102

Vulnerability

## Red Hat Insights

Dashboard

Advisor &gt;

Vulnerability &gt;

Compliance &gt;

Patch &gt;

Drift &gt;

Policies

Inventory

Remediations

Register Systems

Subscription Watch

Documentation

Remediations &gt; CVE-2020-10713

## CVE-2020-10713

Execute playbook

Download playbook

⋮

## Playbook summary

Total systems

102 systems

Playbook settings

Auto reboot: **Enabled** 102 systems require reboot[Turn off auto reboot](#)**With Cloud Connector configured**

Execute playbook button is available and issues can be fixed through Satellite.

Actions Activity

Search actions



Remove action

1 - 1 of 1 ▾



1

of 1



Actions ↑

Resolution

Reboot requ...

Systems

Type



CVE-2020-10713

Upgrade packages affected by CVE-2020-10713



102

Vulnerability

1 - 1 of 1 ▾



1

of 1



## Execute playbook

### Execute → Pre-flight check → Remediation

Clicking the execute playbook button performs a pre-flight check to validate that all hosts selected are connected via a Satellite.

If a host isn't connected, or if the connection is not working, manually remediation will need to be performed.

## Execute playbook



Playbook contains 1 action affecting 101 systems.

Systems connected to a Satellite instance and configured with Receptor can be automatically remediated. To remediate other systems, download the Ansible Playbook.

### Connection status of systems

Connection type	Syste...	Connection status
ip-172-31-38-54.us-eas...	7	Ready
wallsat67.usersys.redh...	1	Ready
Satellite 5a6f8d67-cc3...	4	Cannot remediate - Satellite not configured Satellite not registered for Playbook execution
dell-per320-3.gsslabs.p...	2	Connection issue Receptor not responding
dhcp145-118.rdu.redhat...	1	Connection issue Receptor not responding
Direct connection	80	Cannot remediate - Direct connection. Connect your systems to Satellite to automatically remediate. <a href="#">Learn how to connect</a>

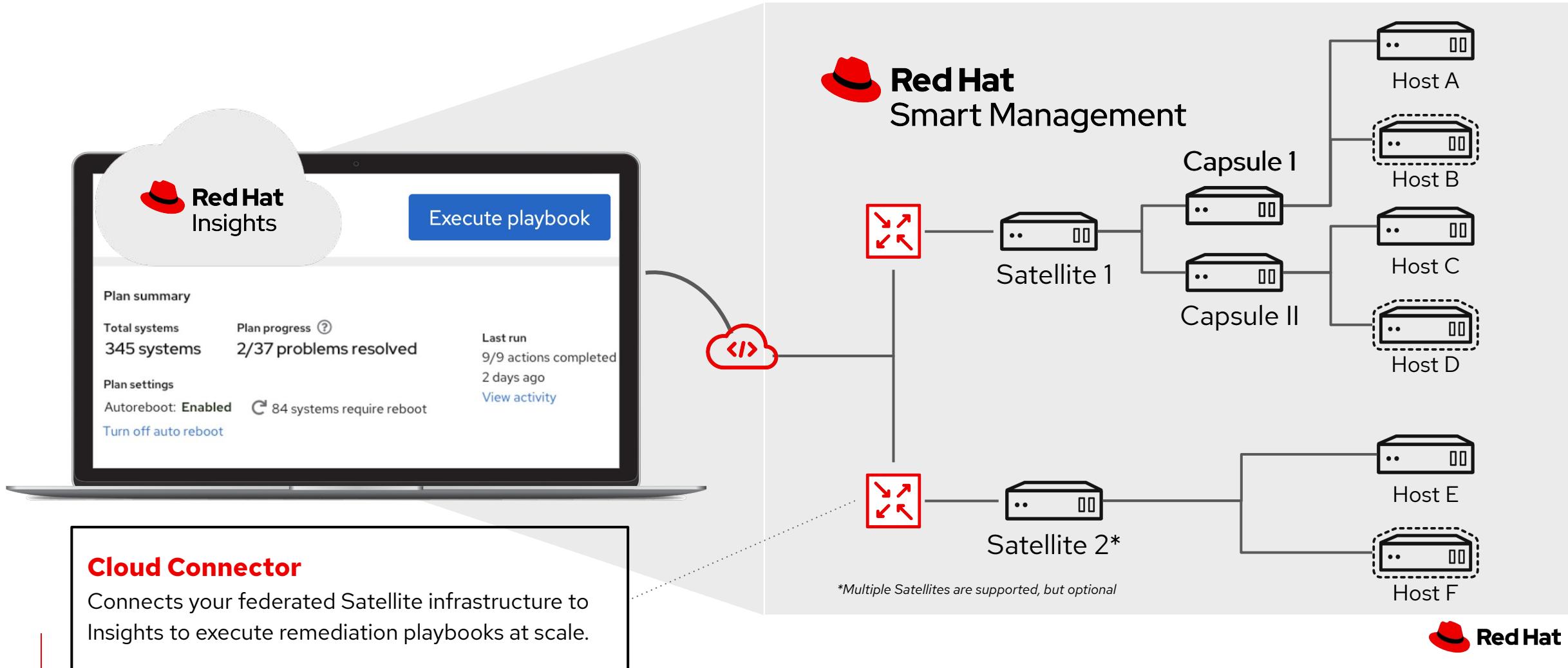
Execute playbook on 8 systems

Download playbook



# Red Hat Smart Management Cloud Connector

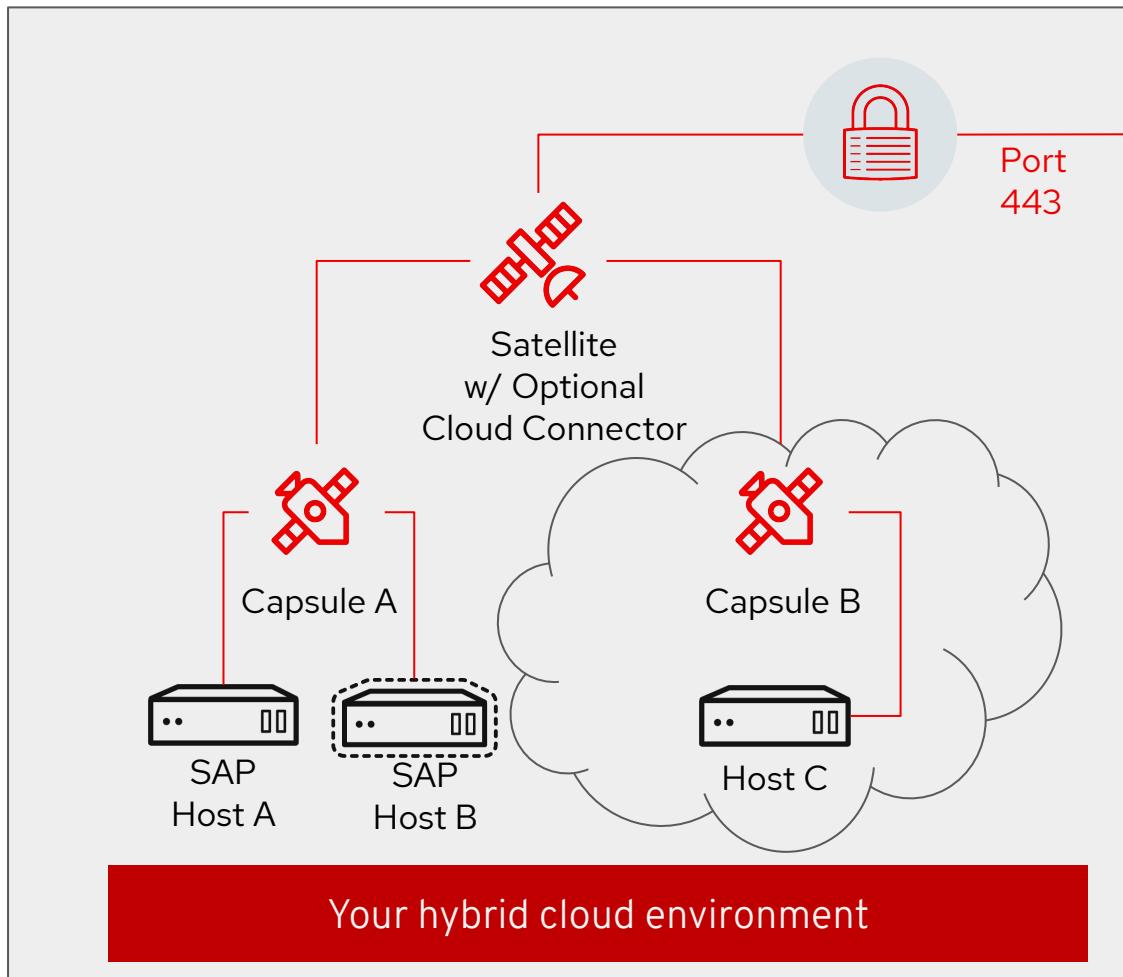
Smart Management subscription enables push-button remediation of issues identified by Insights



# Insights and Smart Management

Smart Management subscription enables push-button remediation of issues identified by Insights.

## Smart Management



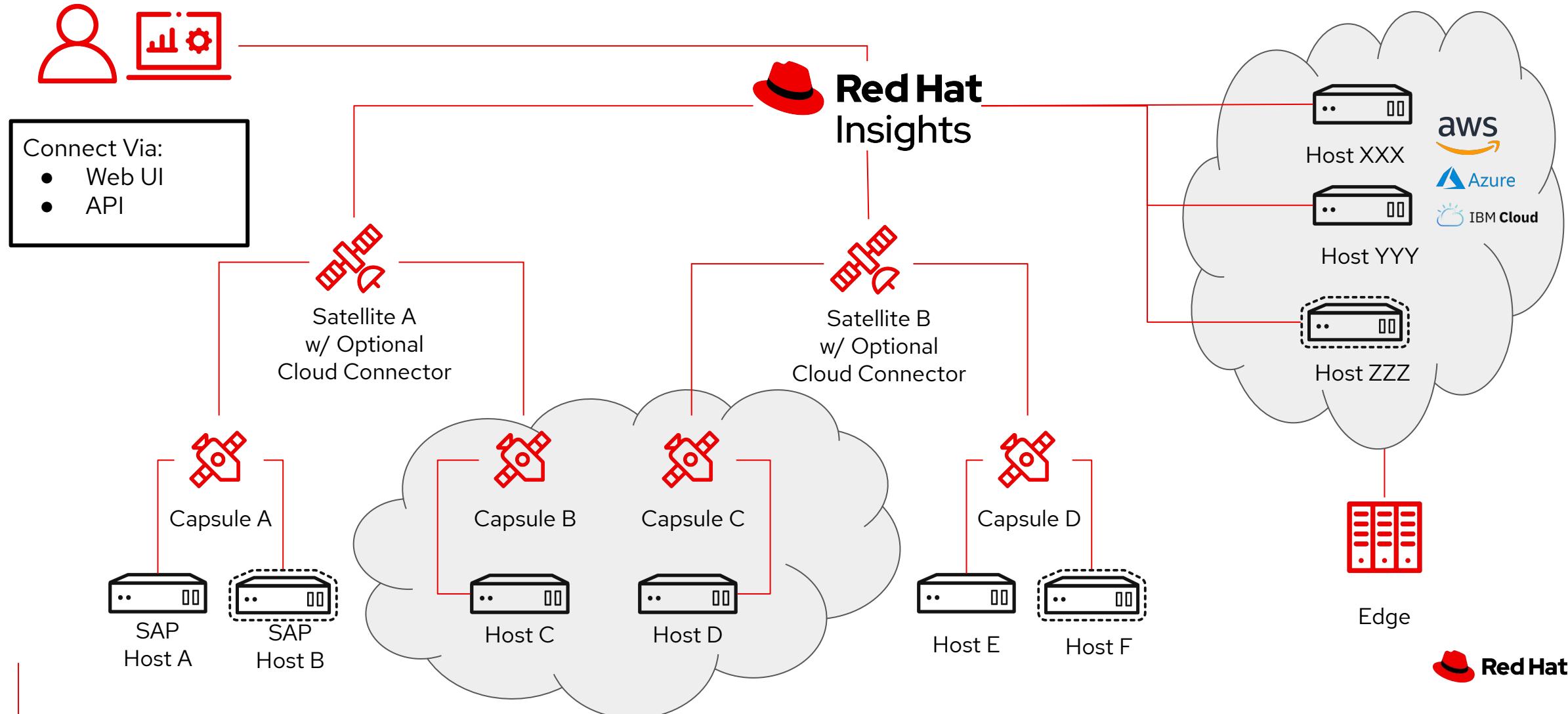
cloud.redhat.com

**Red Hat Insights**

**Subscription Watch**

# Insights and Smart Management

Use Insights to get a centralized view of all hosts in your environment, even across multiple Satellites

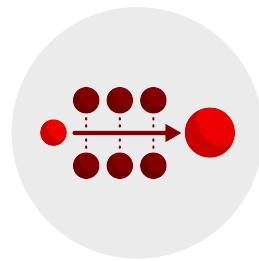


# Introduction to Satellite

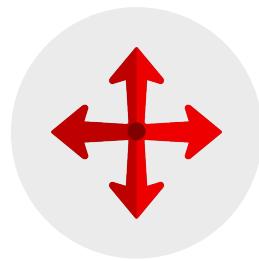
# Why Red Hat Satellite?



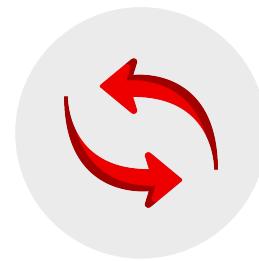
Manage Red Hat®  
infrastructure



Streamlined  
content management



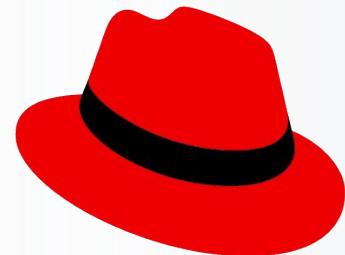
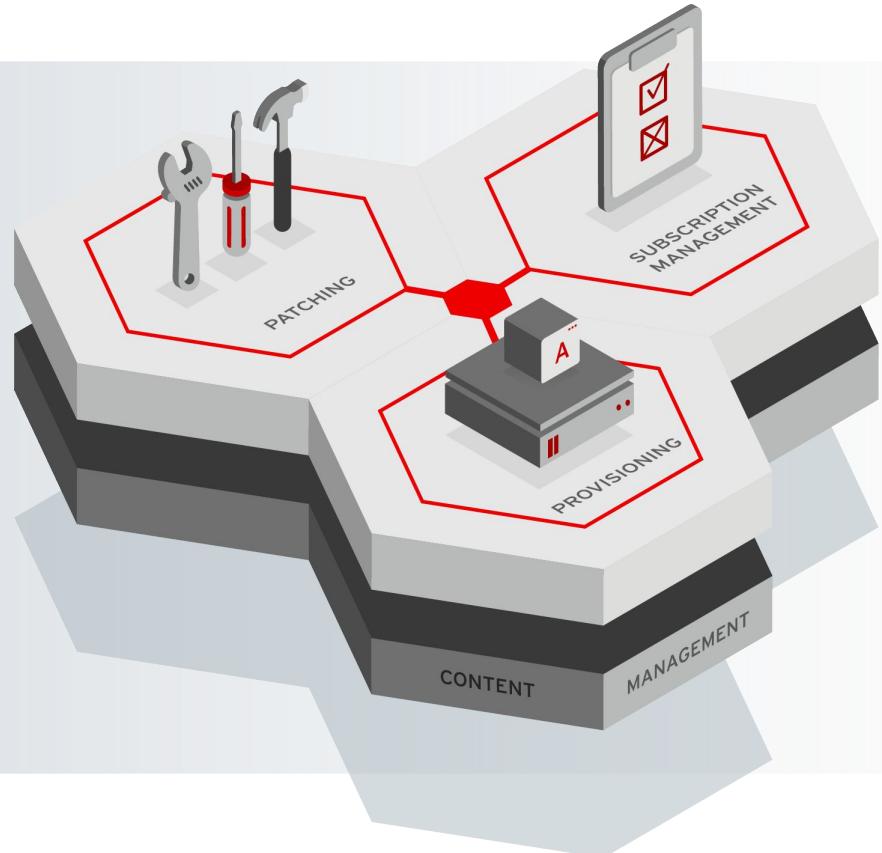
Developed to scale



Simplified  
system integration

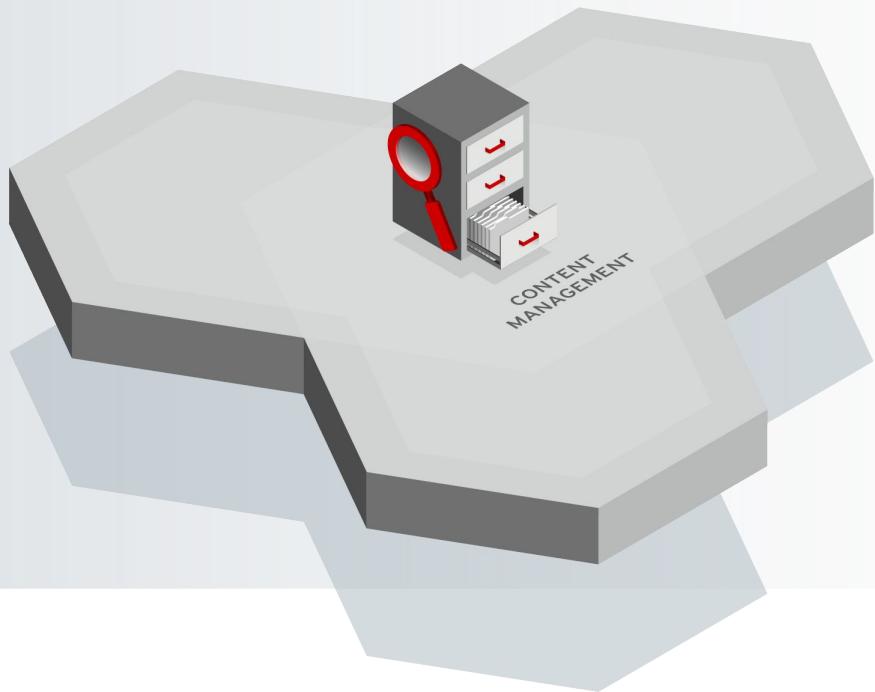


Enhanced drift  
and configuration  
management



# Red Hat Satellite

# Content Management



**Content Repository** any type of content made available to any host

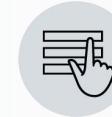
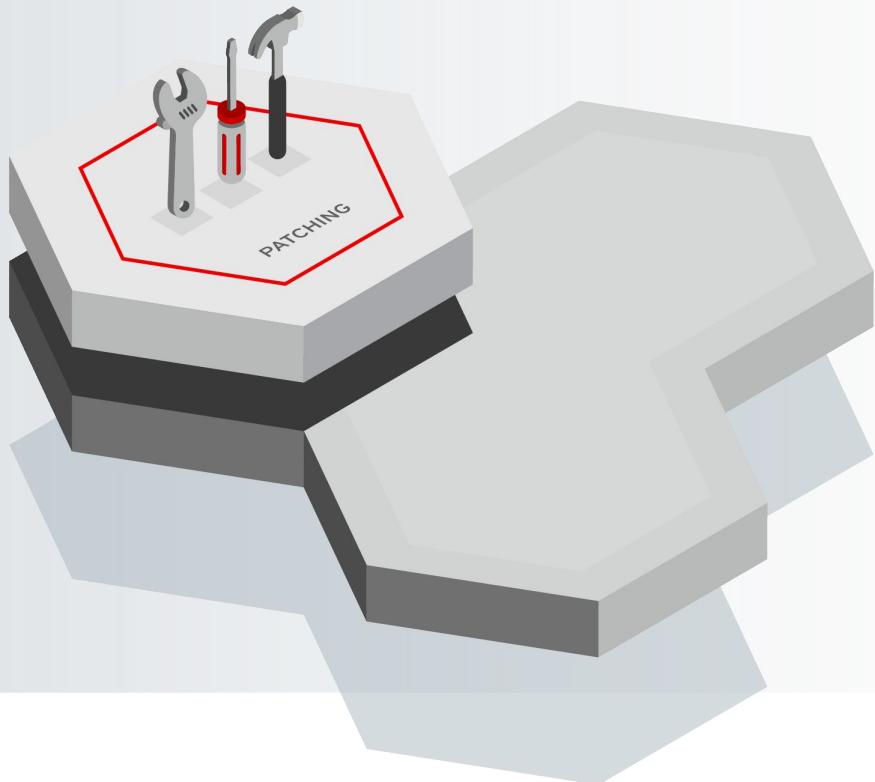


**Curation** of content prior to distribution



**Distribution** of content as close as possible to the end point.

# Patch Management



**Report** on hosts that need updates, fixes, or enhancements

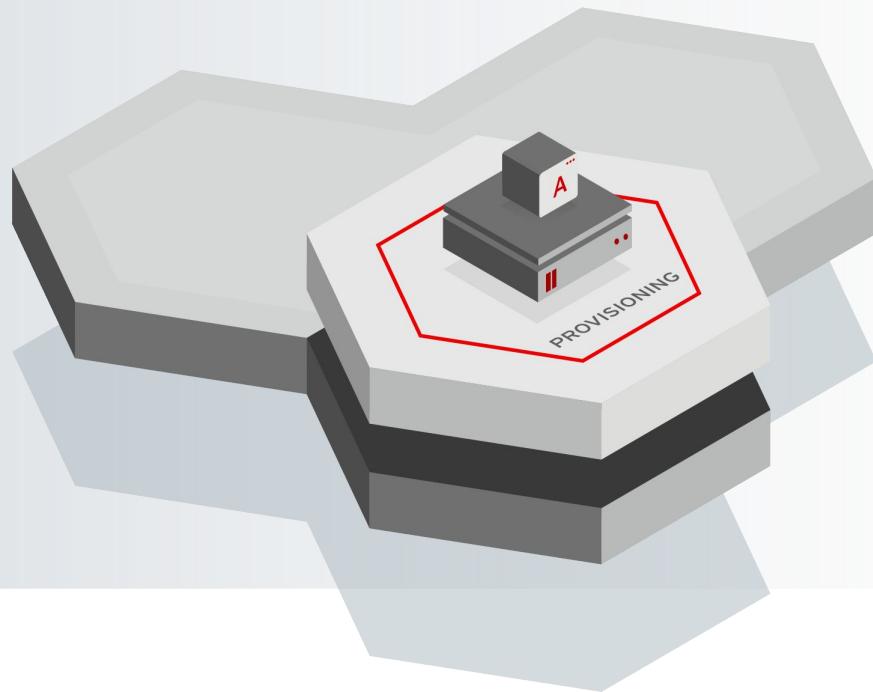


**Group** homogeneous systems so that you can easily work with them



**Respond** quickly to patching requirements using scalable automation

# Provisioning Management



**Provision** to bare metal, virtual, private, and public clouds

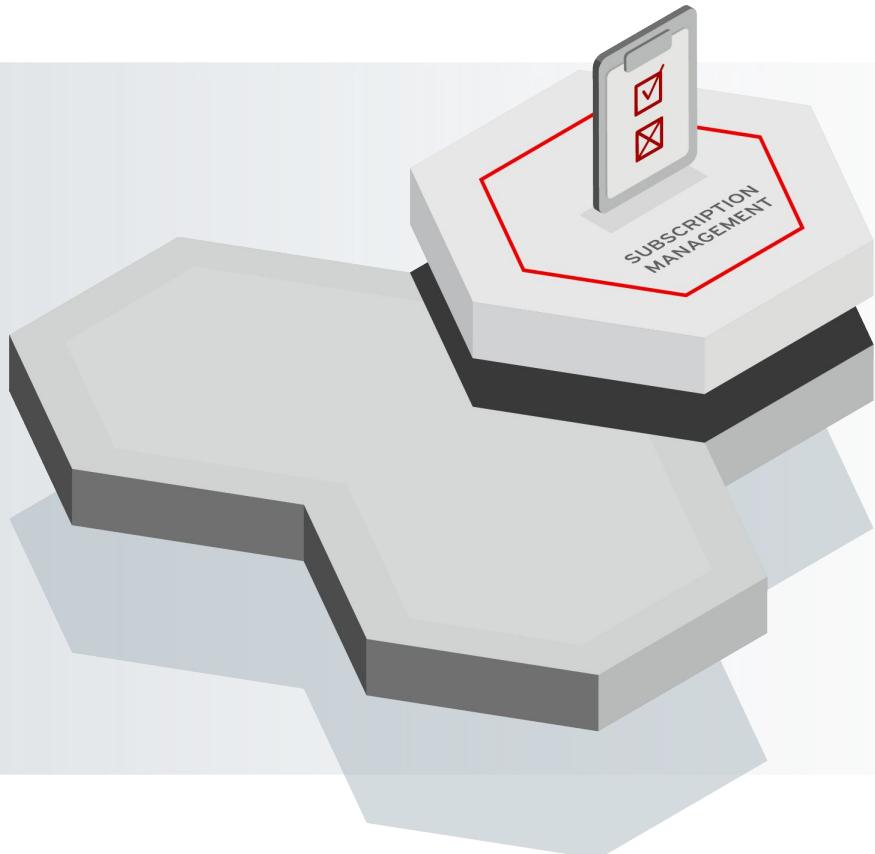


**Import** non-provisioned hosts



**Automate** using Ansible roles to perform post-provisioning steps

# Subscription Management



**Centrally manage** subscription usage

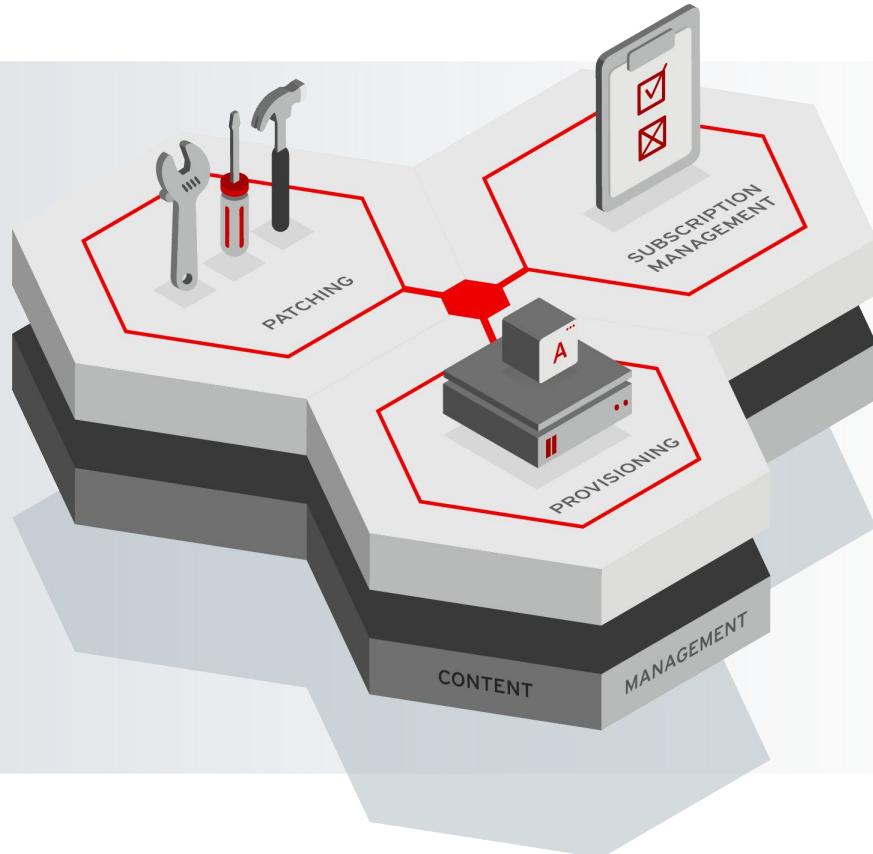


**Maintain** accurate inventory and utilization information



**Report** on subscription consumption

# Additional Satellite Capabilities



**Configuration Management** using Ansible



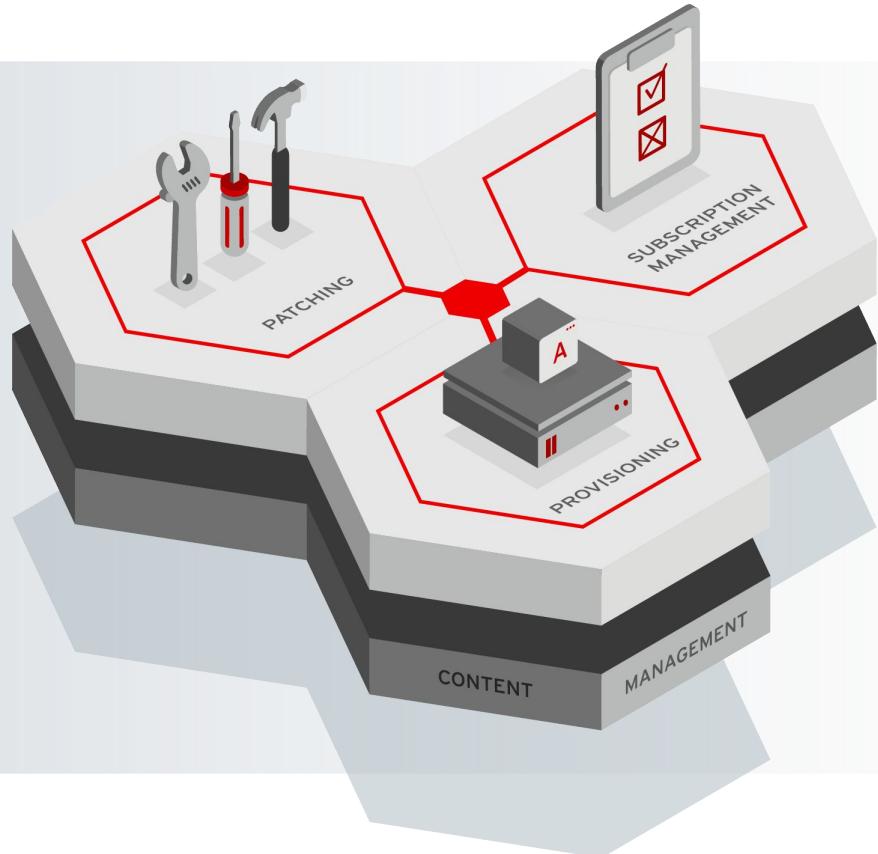
**Automation** through integration with Ansible Tower



**Compliance** using OpenSCAP policies



## Red Hat Satellite



**Standard Operating Environment** hosts are the same across your environment



**Reliable and Resilient** Using Red Hat Insights



**Secure** your systems are patched, up to date, and compliant with security policies



**Confidence** in your subscription utilization

# IDC ROI Study of Red Hat Satellite

A single system administrator using Red Hat Satellite can manage more Red Hat Enterprise Linux servers and cut administration costs.

## KEY RESULTS:

**416%**

5 year ROI

**28%**

Reduction in  
total cost of operations

**6 MONTH**

Payback period

**56%**

More efficient patching

**78%**

Faster deployment of new VMs

**56%**

More efficient IT  
infrastructure management

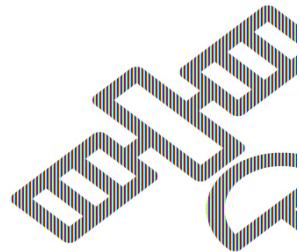
\*Source: [Satellite IDC Business Value Whitepaper](#)



# How Satellite Works

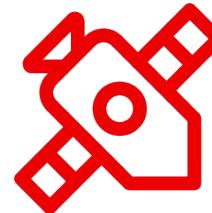
Deployment Models

# Red Hat Satellite components



## Red Hat Satellite Server

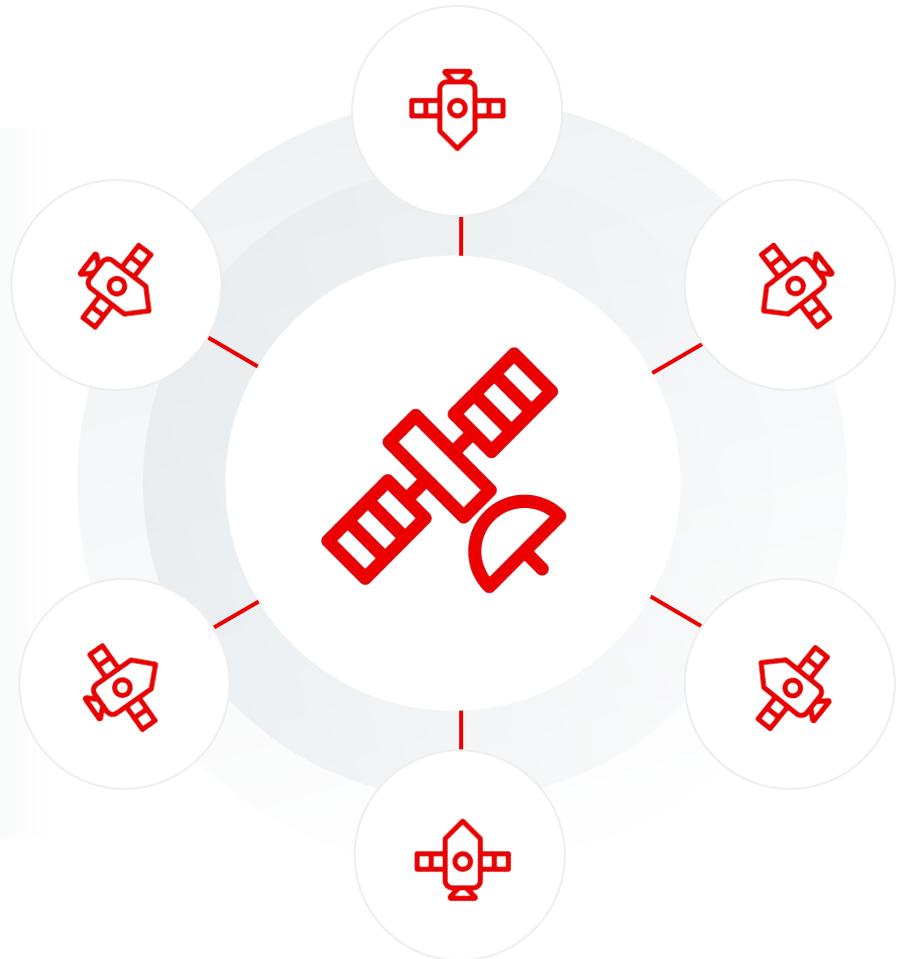
- Facilitates multi tenant services
- Offers on-premise repository management
- Gives user and group role-based access control (RBAC)
- Delivers powerful user interfaces (GUI, API, and CLI)\*
- Exports content to other Satellite servers



## Red Hat Capsule Server

- Allows scaling of your Satellite environment
- Provides local content, provisioning, and integration services
- Discovers new physical and virtual machines

\*Graphical user interface (GUI), application program interface (API), and command line interface (CLI)

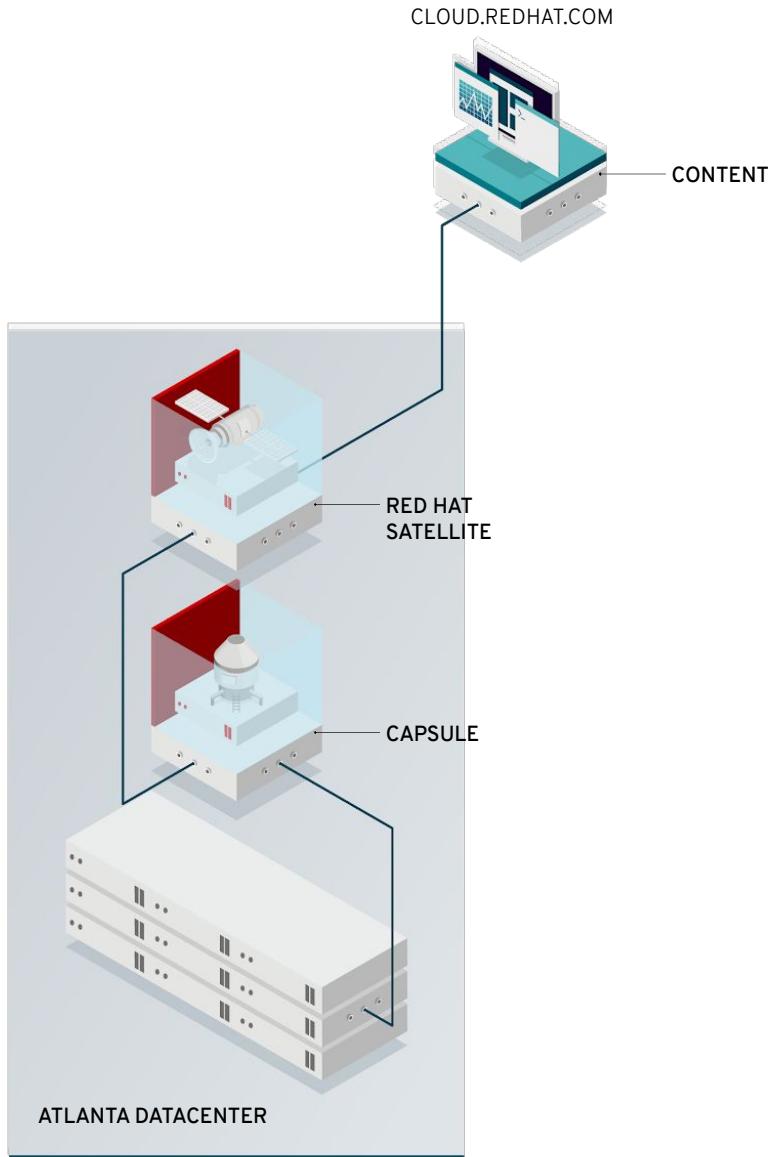


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Improve scalability  
and automation with  
capsule servers.

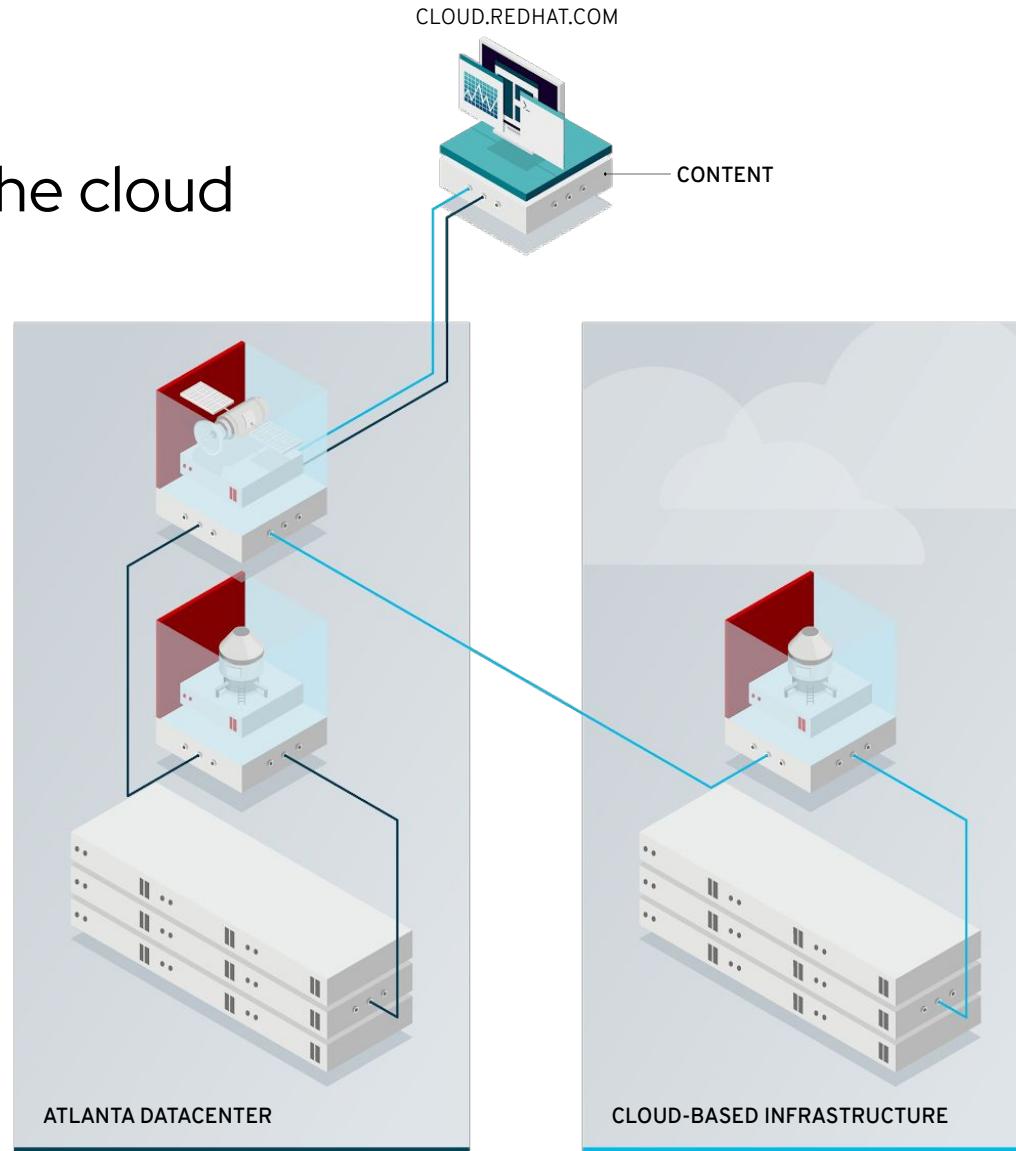
# Red Hat® Satellite

## Simple Scenario



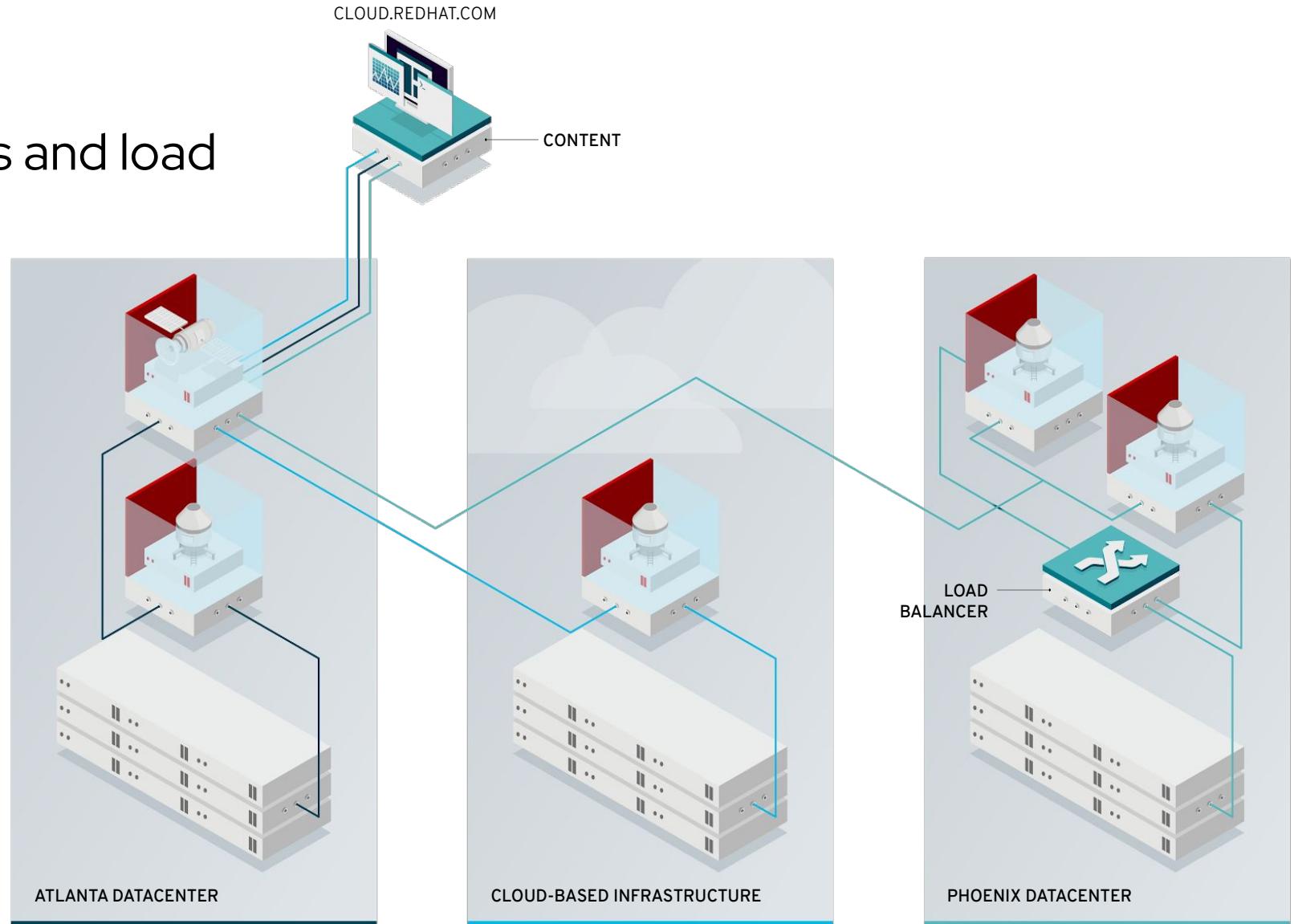
## Red Hat Satellite

On-premise and in the cloud

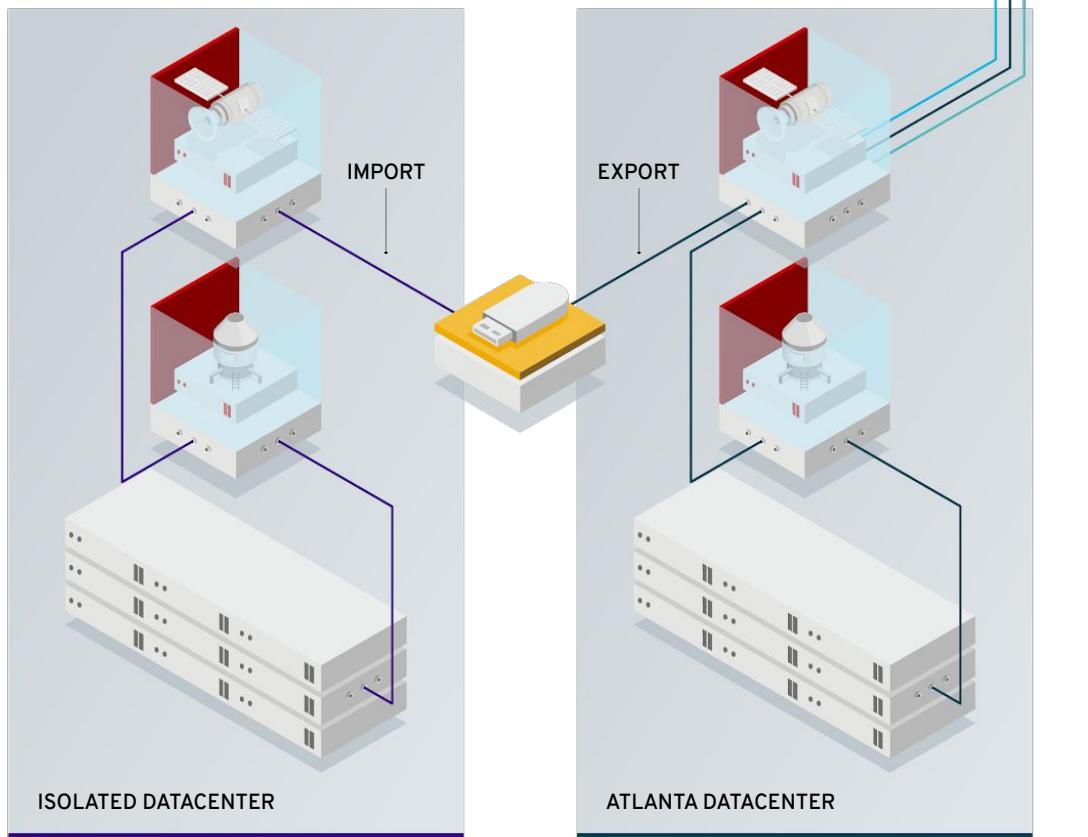


## Red Hat Satellite

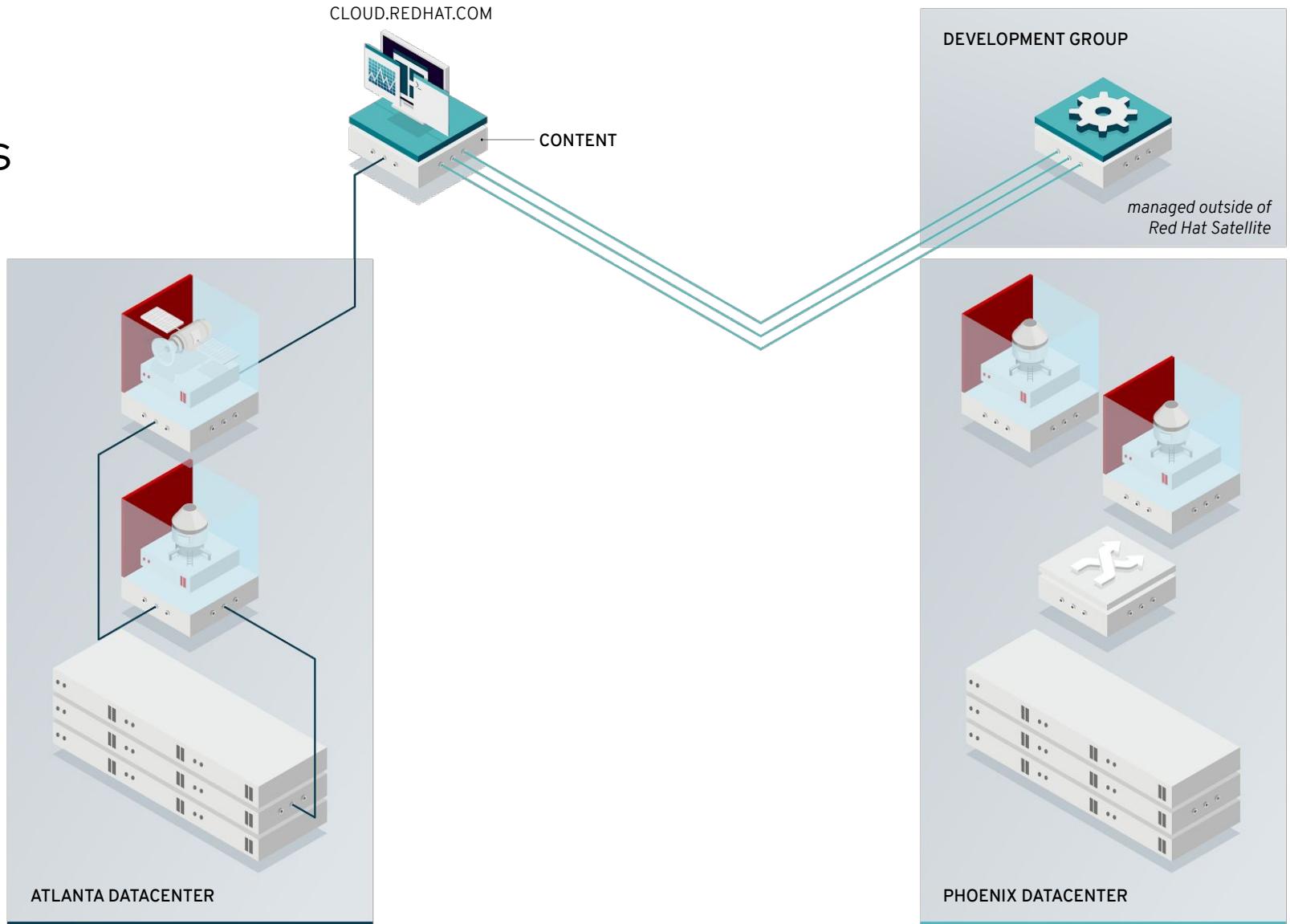
Multiple Datacenters and load balanced capsules



# Red Hat Satellite in an air-gapped environment

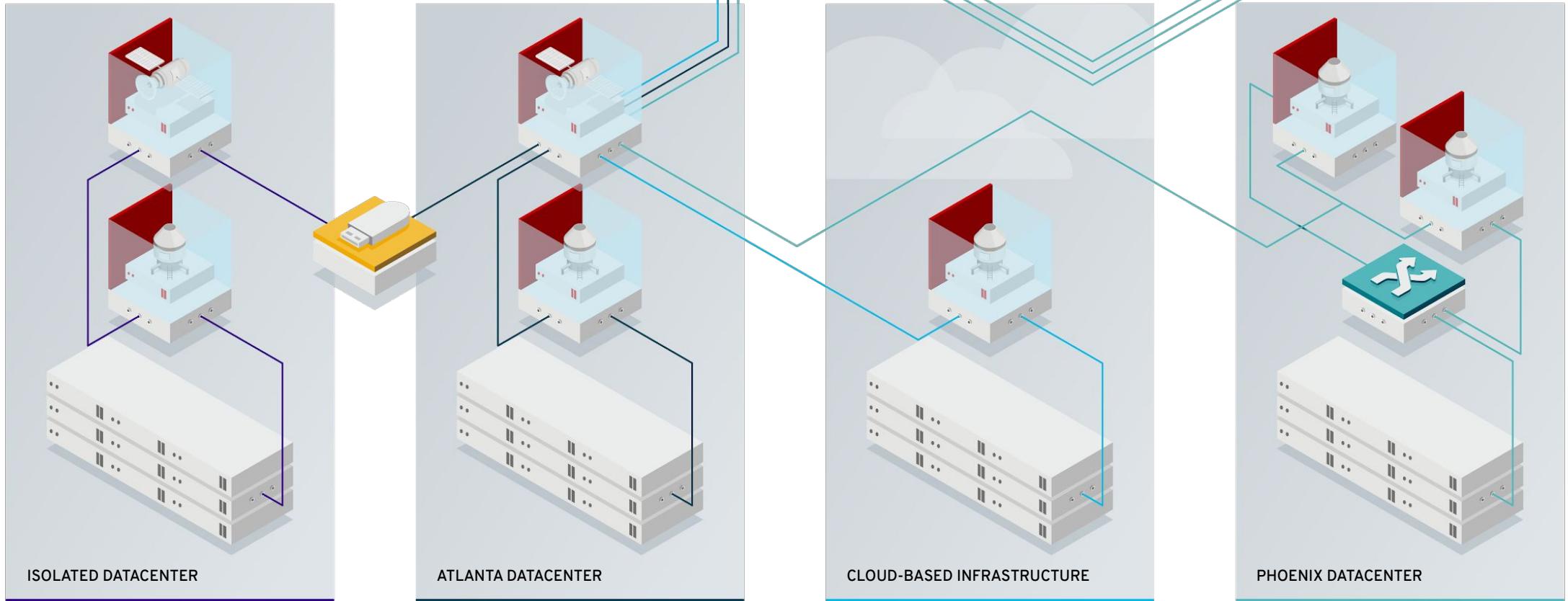


# Red Hat Satellite with Red Hat Insights



## Red Hat Satellite

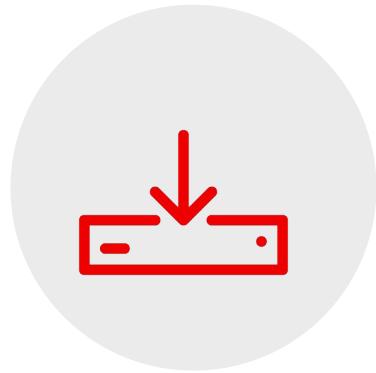
Support for your  
complex environments



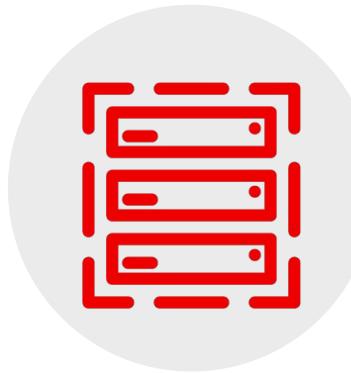
# Satellite 6.8 New Features

## Satellite 6.8 theme

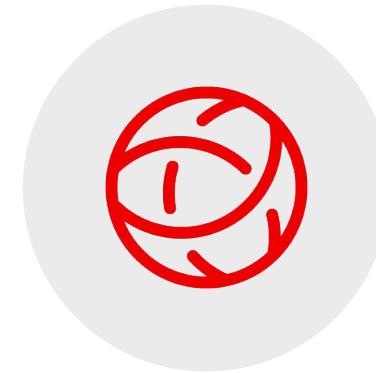
Focus on Satellite and Capsule upgrade improvements, expanded provisioning options, and IPv6 support



Upgrade  
Improvements



Provisioning



IPv6 Support

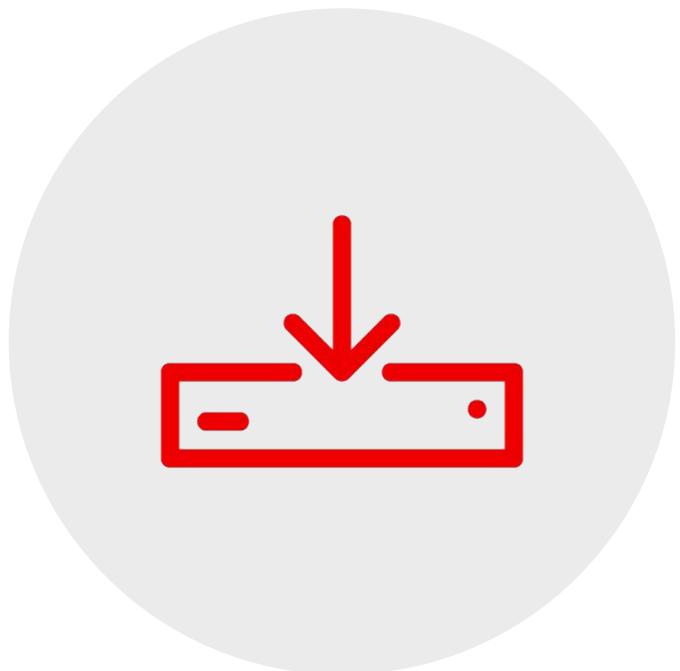
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Red Hat Satellite and Satellite Capsule Servers must be installed on a Red Hat Enterprise Linux® 7 Host

# Upgrade Improvements

Making Satellite upgrades  
easier than ever.

# Upgrade Improvements



## **Independently upgrade Satellite and Capsules**

Upgrade the Satellite during one maintenance window and the Capsule(s) during a later maintenance window.

## **Capsule Upgrade Automation**

Introduces a remote execution job that will automate the upgrade of the capsule infrastructure.

## **Satellite-maintain on Capsules**

Capsule servers use the same Satellite-maintain processes that the Satellite server uses.

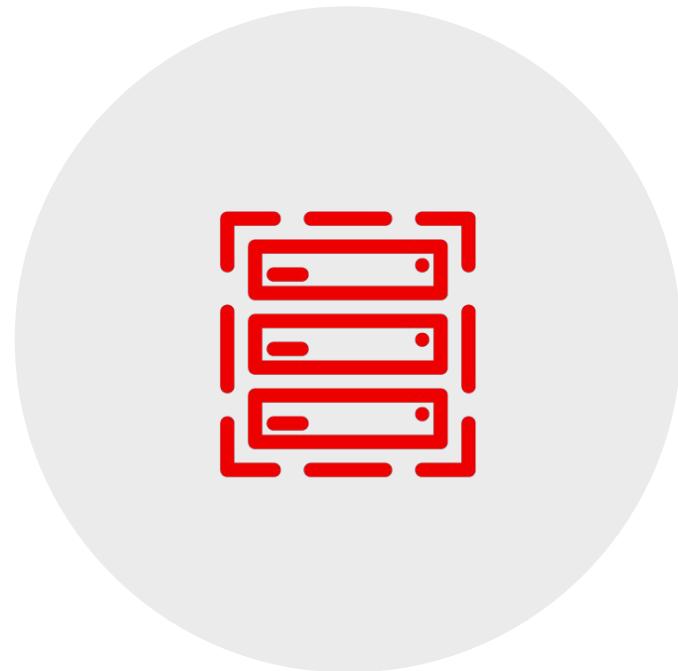
## **Self-updating Foreman-maintain**

The foreman-maintain package updates itself when you run the Satellite upgrade or upgrade-check commands.

# Provisioning

Enhancements to  
provisioning

# Provisioning enhancements



## **HTTP UEFI Support**

Support for UEFI HTTP Provisioning

## **Azure Compute Resources improvements**

Adds ability to attach additional volumes in the VM and support for multiple network interfaces. Includes support for RHEL bring your own subscription (BYOS) Gold Images

## **Azure Support for custom images**

Support for shared custom images

# IPv6 Support

Full support for IPv6

# IPv6 Support



## IPv6 support

Support for IPv6 for Satellite and Capsules

# Automation Enhancements

Additional Automation  
support

# Automation enhancements

Continuing improvements with Red Hat Ansible® Automation Platform



**Red Hat**  
Ansible Automation  
Platform

## Red Hat Satellite Ansible Collection

Satellite Collection in Ansible Automation Hub or via RPM which include Ansible modules for interacting with the Satellite API.

# RHEL Management Enhancements

Additional RHEL support

# RHEL Management enhancements



**Red Hat  
Enterprise  
Linux**

## **Upgrades with LEAPP**

Satellite can use Remote Execution to start the LEAPP process to upgrade a host to RHEL 8.

## **Awareness of if a reboot is needed using Traces**

Traces will let you know if a system needs to be rebooted after an update, as well as details on which processes require the reboot.

With 6.8 Traces is moving out of Tech Preview into fully supported status.

# Security

Enhancements to security

## Security enhancements



### **Common Access Card support via Red Hat Single Sign On**

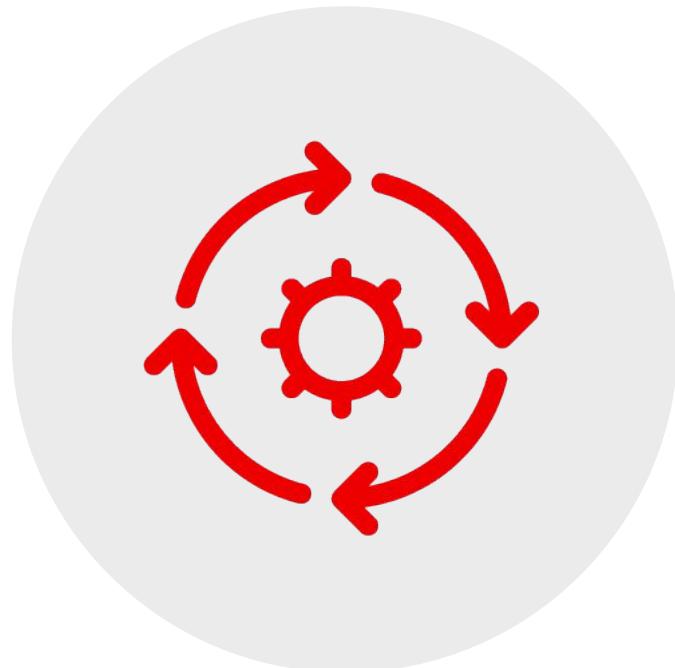
Support for Common Access Card (CAC) with Red Hat Single Sign On

Introduced in 6.7 as Tech Preview, this feature is fully supported in Satellite 6.8.

# Technology Updates

Updates to components  
that are under the covers

# Technology Updates



## **Ansible Update**

Upgrade underlying Ansible to 2.9

## **Puppet Update**

Update underlying Puppet to Puppet 6

## **PostgreSQL Update**

Upgrade underlying PostgreSQL to version 12

# Little Bites

Small things that make a  
big difference.

# Little Bites

---



## Performance and Scale Improvements

Always working to improve performance and scalability

## Usability improvements

Opt-in email notification of subscription expiration

Tasks cleanup button

Insights plugin improvements

Cloud Connector Improvements

# Red Hat Satellite Upgrade

# Continuous Upgrade Improvements

- Standardized on Satellite-maintain for upgrade
- Includes pre and post upgrade checks
- Implemented version locking to avoid unexpected package updates
- Lots of focus over the last several releases on upgrade performance
- Satellite team has invested in automated QE testing of upgrades

If concerned about upgrades, open a [proactive support ticket](#) prior to your upgrade

More details are on the [Satellite blog](#).

# Red Hat Satellite Upgrade Information

## Satellite 6.x to 6.7

- ▶ Follow the Upgrading and Updating Red Hat Satellite Guide

Product docs page: [https://access.redhat.com/documentation/en-us/red\\_hat\\_satellite/](https://access.redhat.com/documentation/en-us/red_hat_satellite/)

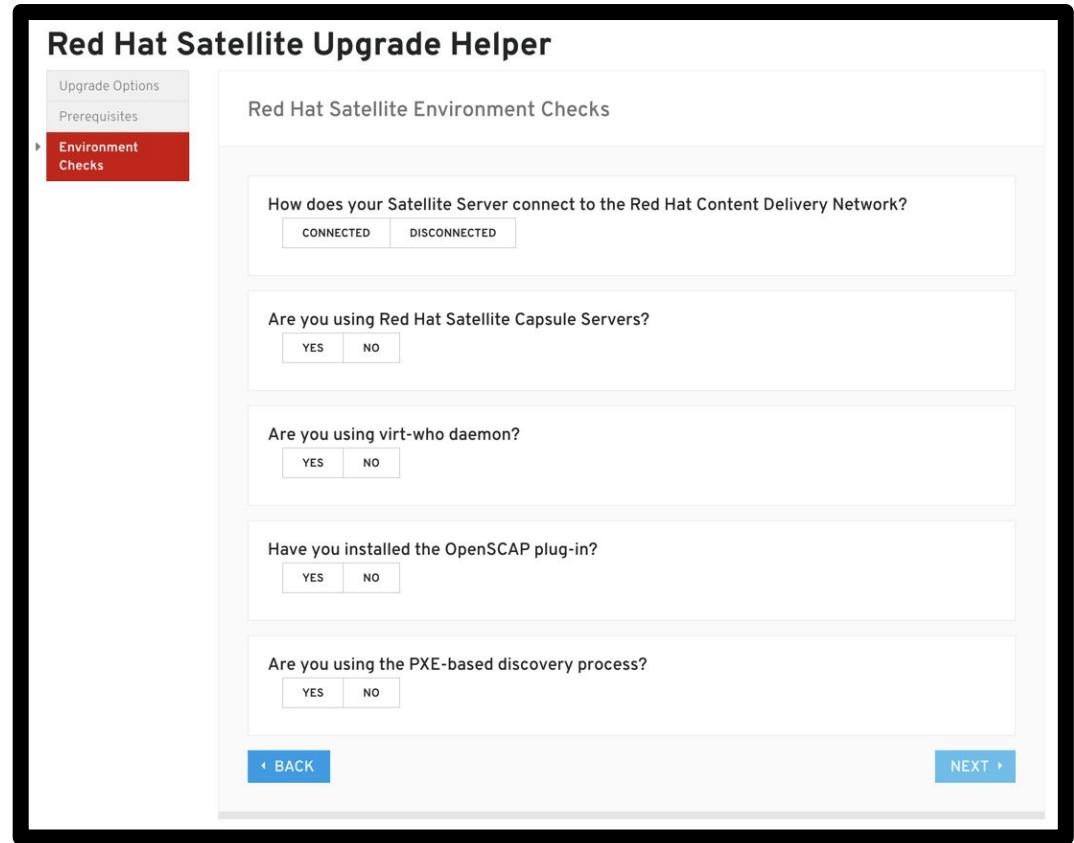
# Red Hat Satellite Upgrade Helper

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

Tool designed to help you upgrade from:

- ▶ 6.4 to 6.5
- ▶ 6.5 to 6.6
- ▶ 6.6 to 6.7
- ▶ 6.7 to 6.8

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

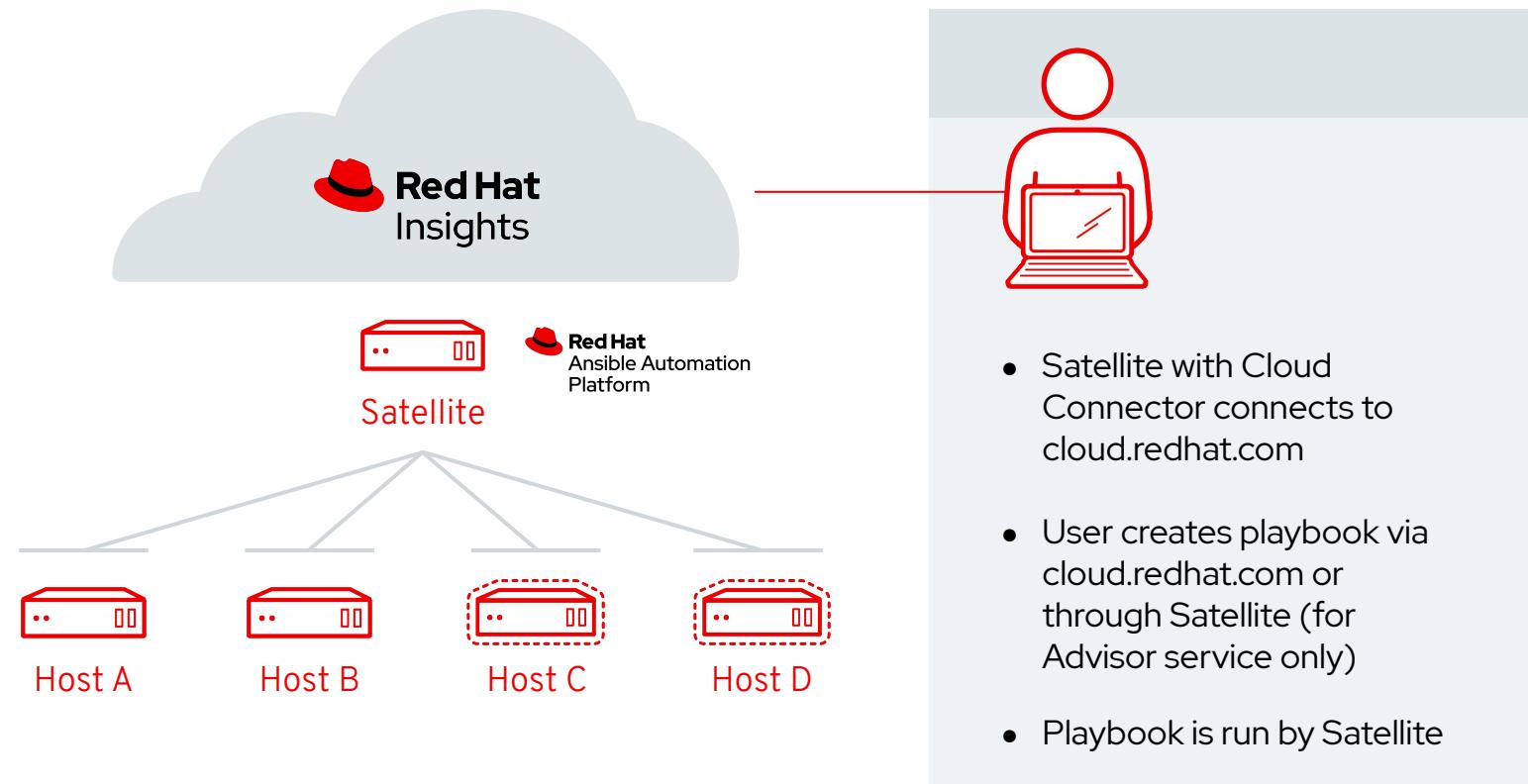


# Red Hat Satellite integration with Red Hat Insights

# Why use Satellite and Insights together?

- Insights uses Satellite as a proxy automatically
- Satellite has Advisor service integrated in the Satellite UI
- Insights has rules specific to Satellite to keep Satellite running its best
- When used with Cloud Connector, you can fix Insights issues from [cloud.redhat.com](http://cloud.redhat.com)

# Build and run playbooks in Red Hat Satellite



# Insights Topic for Satellite

The screenshot shows the Red Hat Insights web interface. The left sidebar has a dark theme with the Red Hat logo and navigation links: Home, Red Hat Insights, Dashboard, Advisor (selected), Recommendations, Topics, Vulnerability, Compliance, Custom Policies, Drift Analysis, Subscription Watch, System Patch Manager, Inventory, Remediations, and Documentation. The main content area is titled "Red Hat Satellite 6" and displays the message: "Ensure the high availability of your Satellite 6 deployment configuration using these remediation actions." Below this is a section titled "Rules". The "Rules" table has columns: Description, Added (sorted by date), Total risk, Systems, and Ansible. There are 14 rules listed:

Description	Added	Total risk	Systems	Ansible
Satellite client fails to connect to Satellite server when dependencies of katello-agent are installed from non-Red Hat repositories	6 months ago	Important	4	✓
Decreased stability and/or performance due to filesystem over 95% capacity	7 months ago	Moderate	1	No
Decreased performance or key services failure occurs when Satellite 6 runs without recommended PassengerMinInstances setting for apache service	7 months ago	Moderate	11	✓
Decreased performance or key services failure occurs when Satellite 6 is running without recommended PostgreSQL configuration	7 months ago	Moderate	12	✓
Decreased performance or key services failure when Satellite 6 is running without recommended Apache service configuration	7 months ago	Moderate	19	✓
(new rule)	(new)	(new)	6	💡



## Red Hat Satellite 6

Ensure the high availability of your Satellite 6 deployment configuration using these remediation actions.

### Rules

Description ▾ Filter by description 🔎 ⚙️

1 - 10 of 14

&lt;&lt; &lt; &gt; &gt;&gt;

1

of 2

Rule status Enabled ✘

Clear filters

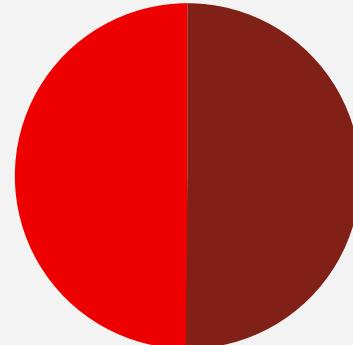
Description	Added	Total risk	Systems	An Ansible	⋮
Satellite client fails to connect to Satellite server when dependencies of katello-agent are installed from non-Red Hat repositories	6 months ago	Important	4	✓	⋮
Decreased stability and/or performance due to filesystem over 95% capacity	7 months ago	Moderate	1	No	⋮
Decreased performance or key services failure occurs when Satellite 6 runs without recommended PassengerMinInstances setting for apache service	7 months ago	Moderate	11	✓	⋮
Decreased performance or key services failure occurs when Satellite 6 is running without recommended PostgreSQL configuration	7 months ago	Moderate	12	✓	⋮
Decreased performance or key services failure when Satellite 6 is running without recommended Apache service configuration	7 months ago	Moderate	19	✓	6



# Satellite, Subscription Watch & Simple Content Access

## **Subscription Watch**

## **Simple Content Access**



*Like chocolate and peanut butter:  
good separately, but better together.*

*Subscription Watch brings new transparency in reporting for  
customers using Simple Content Access*

*Customers can use either, neither, or (ideally) BOTH!*

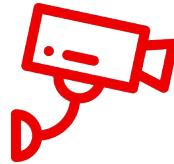
# Simple Content Access:

Current enforced subscription model

Overview of simple content access

How to enable and provide governance

# Current Enforced Subscription Model



## Mediocre Enforcement

Enforcement fails to block or over-blocks content for a number of complex reasons.

Ineffective enforcement leads to insecurity and frustration.



## Operationally Inflexible

Defined entitlement pools limit operational agility.

These pools complicate common, simple tasks like hardware migrations.

A ***little more*** or a ***little less*** can be a ***big deal***.



## Contractually Complex

Purchasing more subscriptions or different subscriptions creates new entitlement pools, making the complex tooling even more complex.

Co-termining fragmentation can and may exist for the procurement/accounting persona.

## OVERVIEW

# Simple Content Access

Simple content access is simply a technical facility to make it easier to use the items which customers have paid to use.

As an attribute set on a Red Hat Satellite manifest, this changes how Satellite behaves with regards to entitlements.

When enabled, simple content access:

- ❑ Eliminates the requirement of entitlements being attached to systems registered to a Satellite infrastructure.
  - ❑ Those systems have access to whatever content is in their repositories (or Content View)
  - ❑ At least one corresponding subscription must exist within a the relative Satellite organization.
- ❑ Moves enforcement and governance from Red Hat Subscription Management tooling to activation keys and content views.
- ❑ Is a feature of Red Hat Satellite 6 (and in the future, Red Hat Subscription Management), and can be enabled on a per-manifest basis by an Organization Administrator.
- ❑ Does not affect your Red Hat contracts.

**Note:** At this time, customers in APAC must submit a request through their Sales team in order to enable SCA.

## OVERVIEW

# Simple Content Access



### Simple Content Access IS

A tool to easily use Red Hat products that have already been purchased

Available for customers using Red Hat Satellite 6.5+

Has governance via the use of activation keys and content views



### Simple Content Access IS NOT

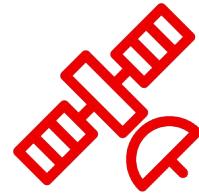
Contract Impacting

An 'all-you-can-eat' contract

Able to provide access to products not yet purchased

**Note:** At this time, customers in APAC must submit a request through their Sales team in order to enable SCA.

## How to enable and provide governance

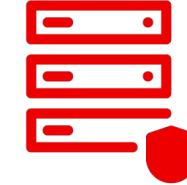


### Satellite Connected/Disconnected

Globally enable Simple Content Access in Red Hat Subscription Manager

Locally enable one or more Satellite manifest to use Simple Content Access

Refresh manifest in Red Hat Satellite



### Red Hat Subscription Management

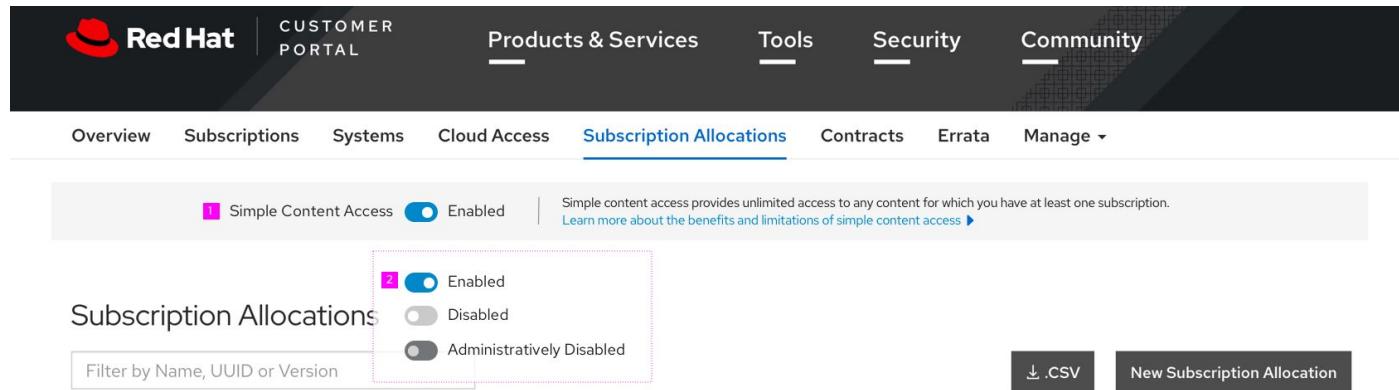
\*\* Not yet available \*\*

**Note:** At this time, customers in APAC must submit a request through their Sales team in order to enable SCA.

# Enabling Simple Content Access

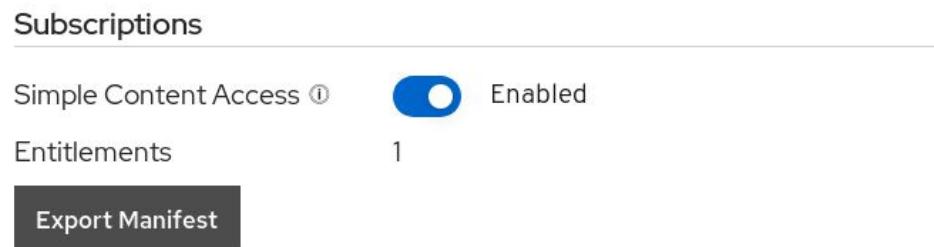
**1) Enable Globally:** Before Simple Content Access can be made available on specific Subscription Allocations it must be enabled at the global / account level.

- [https://access.redhat.com/management/subscription\\_allocations](https://access.redhat.com/management/subscription_allocations)



The screenshot shows the Red Hat Customer Portal interface. At the top, there's a navigation bar with links for Products & Services, Tools, Security, and Community. Below the navigation bar, a sub-menu bar includes Overview, Subscriptions, Systems, Cloud Access, Subscription Allocations (which is underlined to indicate it's the active page), Contracts, Errata, and Manage. The main content area is titled 'Subscription Allocations'. On the left, there's a sidebar with a 'Filter by Name, UUID or Version' input field. In the center, there's a table header row with columns for 'Allocation ID', 'Subscription ID', 'Subscription Name', 'Content Type', 'Status', and 'Actions'. A callout box highlights the 'Simple Content Access' toggle switch, which is set to 'Enabled'. Below the toggle, there are three options: 'Enabled' (selected), 'Disabled', and 'Administratively Disabled'. At the bottom right of the page are '.CSV' and 'New Subscription Allocation' buttons.

**2) Enable Locally:** Choose an allocation from the list above and enable on each desired manifest.



The screenshot shows the 'Subscriptions' page. At the top, there's a title 'Subscriptions'. Below the title, there's a section for 'Simple Content Access' with a toggle switch set to 'Enabled'. Below this, there's a section for 'Entitlements' showing the number '1'. At the bottom, there's a large 'Export Manifest' button.

**3) Refresh Manifest on Satellite:** As with any manifest update, in order for it to take effect on the Satellite, each updated manifest requires a refresh.

# How to enable and provide governance

Activation Keys > RHEL8

**Activation Key reference: [Satellite Content Management Guide](#)**

This activation key may be used during system registration. For example:  
subscription-manager register --org="Operations" --activationkey="RHEL8"

Basic Information

Name:	RHEL8
Description:	
Host Limit:	100

System Purpose

Service Level:	
Usage Type:	
Role:	Red Hat Enterprise Linux Server
Add ons:	

Activation Key Content

Release Version: 8  
Environment:

Content View: RHEL8

**Note:** At this time, customers in APAC must submit a request through their Sales team in order to enable SCA.

Indicates SCA is enabled

**Controls how many hosts can use the activation key**

**Control which repositories are made available to registered systems**

# Subscription Watch:

Overview of subscription watch

Requirements

Data Collection

## OVERVIEW

# Subscription Watch

Subscription watch is a SaaS tool that provides unified reporting of subscription utilization across a hybrid infrastructure, including physical, virtual, on-premise, and cloud.

Subscription watch provides:

- A single pane view of historic, account-wide, subscription utilization
- An at-a-glance impression of both an account's remaining subscription capacity measured against the total paid subscription threshold
- Available as a part of the [cloud.redhat.com](http://cloud.redhat.com) SaaS tool suite

**Note:** Currently available for Red Hat Enterprise Linux and Red Hat OpenShift Container Platform

## OVERVIEW Subscription Watch



### Subscription Watch IS

A tool that allows you to see utilization on premise and in the cloud

SaaS-based

Focused on data analytics

Minimal in setup time

Included at no additional cost

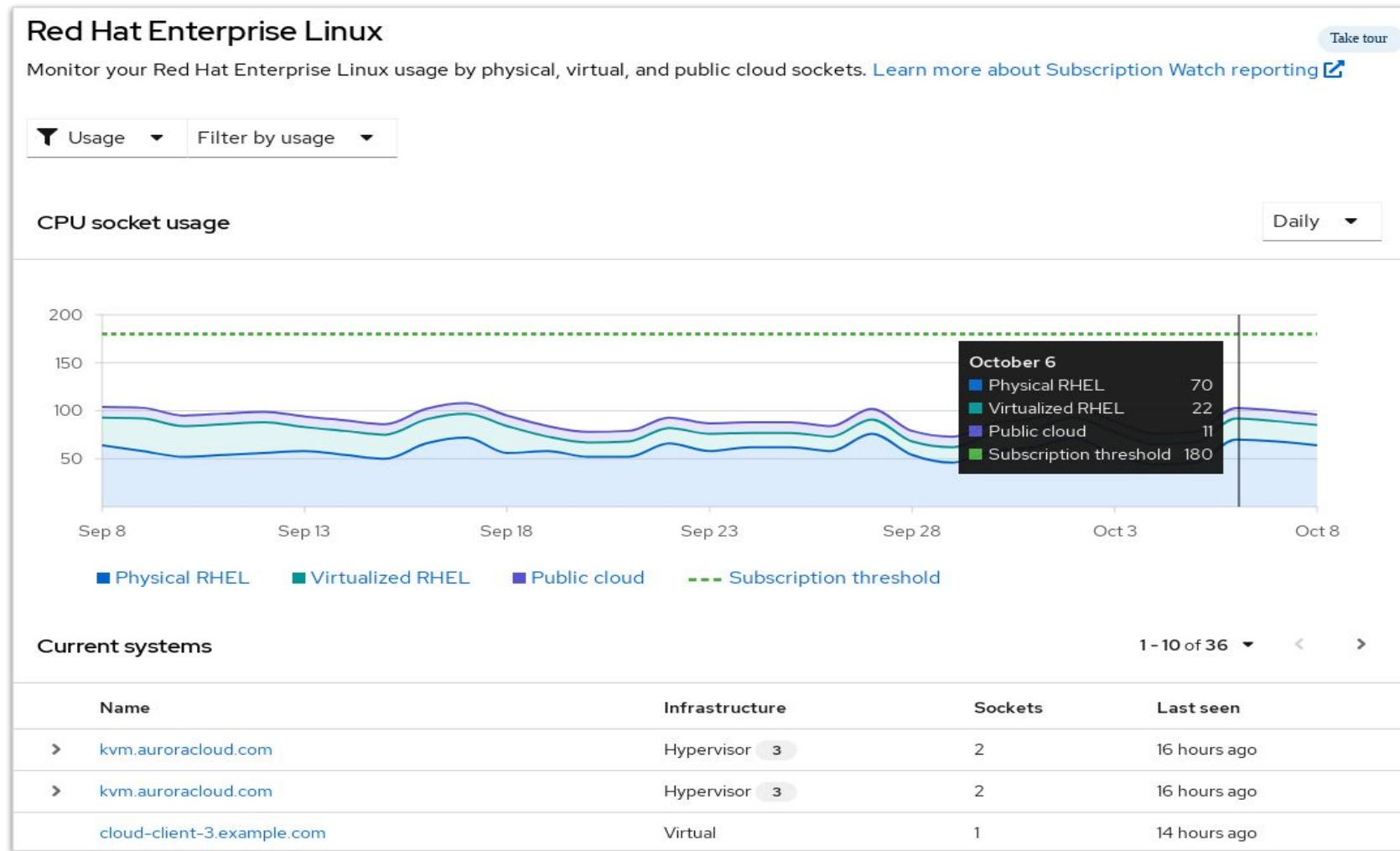


### Subscription Watch IS NOT

A billing dashboard

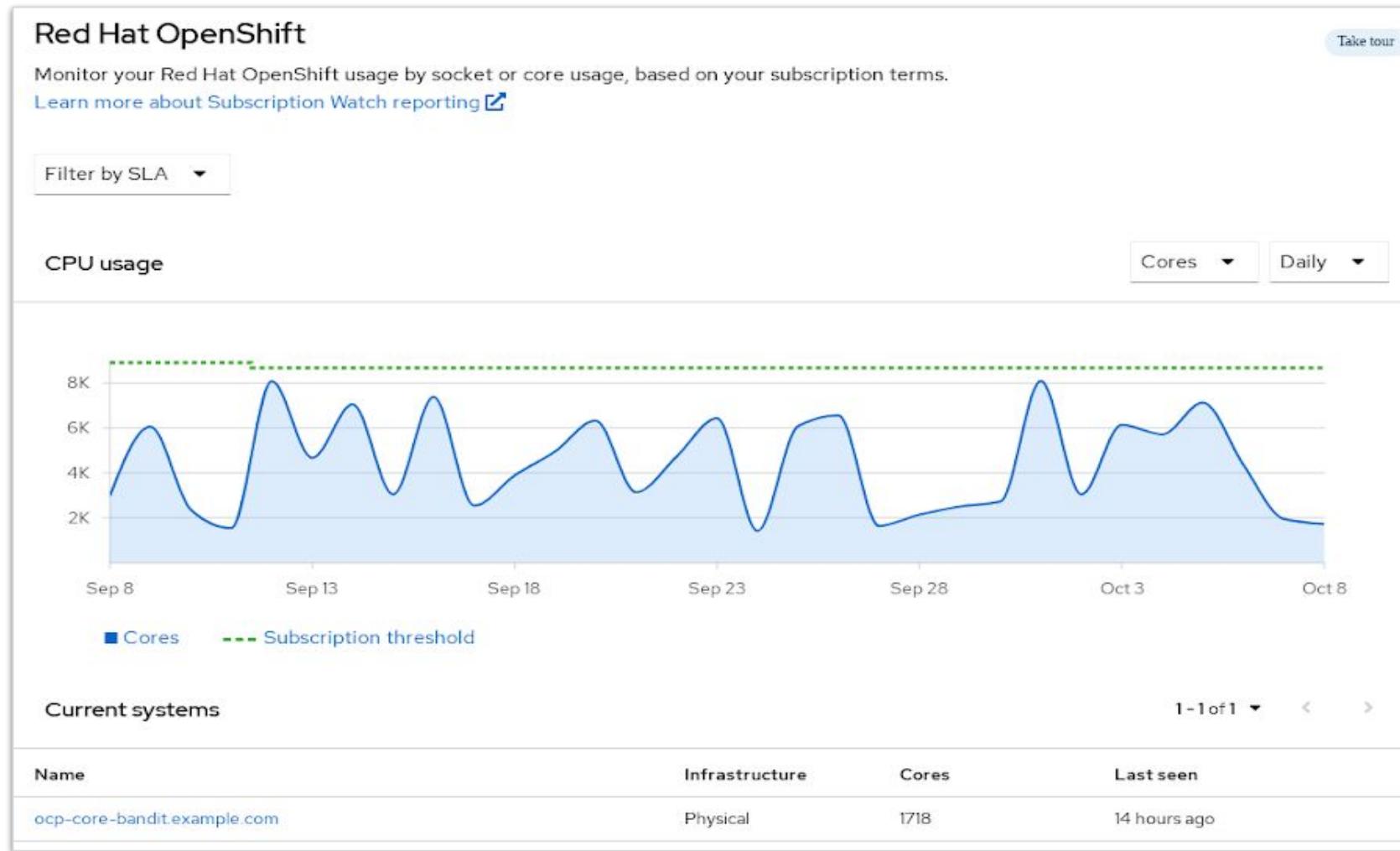
An on-demand purchasing program

## Product Breakdown: Subscription Watch



<https://cloud.redhat.com/subscriptions/rhel-sw>

## Product Breakdown: Subscription Watch



<https://cloud.redhat.com/subscriptions/openshift-sw>

# Subscription Watch Requirements



## Red Hat Enterprise Linux

One or more of the following are required for reporting data to subscription watch:

- ❑ Red Hat Satellite version(s) 6.5+
  - ❑ **Satellite Inventory Plugin** must be installed, for most instances, to provide accurate routing, logging, and deduplication of results. The inventory plug-in supports both **connected** and **disconnected** customers
- ❑ Red Hat Insights
- ❑ Red Hat Subscription Management



## Red Hat OpenShift Container Platform

- ❑ Red Hat OpenShift Container Platform version(s) 4.1+ managed with the monitoring stack tools and Red Hat OpenShift Cluster Manager.
- ❑ Red Hat OpenShift Container Platform version 3.11 with RHEL nodes managed by Insights, Satellite, or Red Hat Subscription Management.

# Subscription Watch Data Collection Policies



## Extremely Minimal Dataset

We collect a small subset of the Insights payload.

Attributes related to:

- How to ID a system
- Installed product
- System size



## All Information is Encrypted

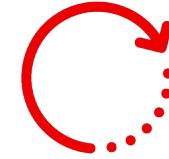
From the time collected on the client server to transmission to the cloud.redhat.com platform



## Responsible Data Governance

Well-defined access policies to the data you submit.

## Data Gathered and Used By Subscription Watch



## Data Remains for a Short Period of Time

We've implemented inventory age-out policies. Old systems are deleted after 30 days

# How to Buy Smart Management

# How do I get a Smart Management subscription?

## **Are you new to RHEL or renewing subscriptions?**

- Buy RHEL + Smart Management SKUs

## **Are you adding Smart Management to existing RHEL subscriptions?**

- Buy Smart Management SKU

## **Are you a SAP on RHEL user?**

- RHEL for SAP SKU includes Smart Management already

Talk to your Red Hat sales representative about the correct SKU to buy



# What do I get for Satellite with Smart Management?

SKU MCT3718 - Satellite Infrastructure Subscription

Includes 50 of any combination of Satellite or Capsule Servers.

This enables you to scale out your Satellite deployment to best suit your needs.

- Need a Satellite for Test/Dev?
- Need a Capsule in the cloud?
- Need load-balanced Capsules?
- Need an air-gapped synchronization host?

No Problem.

Note: You must purchase one Smart Management subscription for every system managed with Satellite\*  
Have 1,000 systems 2-socket systems? Purchase 1,000 Smart Management subscriptions.

\*Smart Management subscriptions are based on 2-socket systems, same as RHEL. A 4 socket system would require 2 Smart Management subscriptions. Talk to your sales rep for full details.





# IT Development Manager...

Needs

Has

Buys

Needs:

- Production Satellite
- Production Capsule

10, two-socket RHEL systems

Ten Smart Management Subscriptions which gives:

- Any combination of 50 Satellite or Capsule Servers
- Cloud Connector

Needs:

- Production Satellite
- Capsule in the cloud
- Load Balanced capsules in each datacenter

1K, two-socket RHEL systems

1K Smart Management Subscriptions which gives:

- Any combination of 50 Satellite or Capsule Servers
- Cloud Connector

\*Smart Management subscriptions are based on 2-socket systems, same as RHEL. A 4 socket system would require 2 Smart Management subscriptions. Talk to your sales rep for full details.

RHEL Subscription for the Satellite and Capsule hosts are included with Smart Management.



# Next Steps & Resources

Where to go to learn more

# Enable Insights!

Included with your Red Hat Enterprise Linux subscriptions

## GET STARTED WITH RED HAT INSIGHTS



### Register

Register your systems with the Red Hat Insights client



### Review

Identify the connected RHEL hosts you are interested in analyzing.



### Remediate

View your results at [cloud.redhat.com](http://cloud.redhat.com) or via Satellite integration.

## Next steps

### Using Satellite 6.5 or earlier?



Satellite 6.5 and older versions are EOL.



**Move to the latest version of Satellite 6.**

**Use the Upgrade Helper to plan your upgrade:**

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

# Red Hat Smart Management:

Additional resources and next steps

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Learn more about Red Hat Smart Management

Visit the Smart Management product page

<https://red.ht/2EBAC26>

---

Visit the FAQ

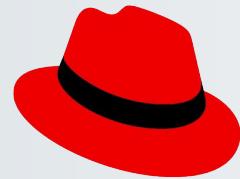
<https://www.redhat.com/en/resources/smart-management-faq>



▶ Watch the **intro video**.



▶ Read the **Smart Management blog**.



# Red Hat Satellite

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## Satellite resources

- [Red Hat Satellite blog](#)
  - [Red Hat Satellite product page](#)
  - [Red Hat Satellite customer portal](#)
  - [Red Hat Satellite documentation](#)
  - [Red Hat Consulting offering: Transition to Red Hat Satellite 6](#)
- 

## Satellite training and videos

### NEW COURSE

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

# Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

 [linkedin.com/company/red-hat](https://www.linkedin.com/company/red-hat)

 [youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)

 [facebook.com/redhatinc](https://www.facebook.com/redhatinc)

 [twitter.com/RedHat](https://twitter.com/RedHat)



# Alternate Slides

# Cloud Connector Configuration - Step-by-step

-  Monitor >
-  Content >
-  Hosts >
-  Configure >
-  Infrastructure >
-  RH Inventory >
-  Insights >
-  Administer >

## Job Templates

 Filter ...

Search



v

[Documentation](#)[Import](#)[New Job Template](#)

Name	Snippet	Locked	Actions
Ansible Roles - Ansible Default			<a href="#">Run</a> ▾
Ansible Roles - Install from Galaxy			<a href="#">Run</a> ▾
Ansible Roles - Install from git			<a href="#">Run</a> ▾
Ansible - Run insights maintenance plan			<a href="#">Run</a> ▾
Ansible - Run playbook			<a href="#">Run</a> ▾
Check Update - SSH Default			<a href="#">Run</a> ▾
Install Errata - Katello Ansible Default			<a href="#">Run</a> ▾
Install Errata - Katello SSH Default			<a href="#">Run</a> ▾
Install Group - Katello Ansible Default			<a href="#">Run</a> ▾
Install Group - Katello SSH Default			<a href="#">Run</a> ▾
Install Package - Katello Ansible Default			<a href="#">Run</a> ▾
Install Package - Katello SSH Default			<a href="#">Run</a> ▾
Module Action - Ansible Default			<a href="#">Run</a> ▾
Module Action - SSH Default			<a href="#">Run</a> ▾
Package Action - Ansible Default			<a href="#">Run</a> ▾
Package Action - SSH Default			<a href="#">Run</a> ▾

## Configure Cloud Connector

[Install Errata - Katello Ansible Default](#)[Install Errata - Katello SSH Default](#)[Install Group - Katello Ansible Default](#)[Install Group - Katello SSH Default](#)[Install Package - Katello Ansible Default](#)[Install Package - Katello SSH Default](#)[Module Action - Ansible Default](#)[Module Action - SSH Default](#)[Package Action - Ansible Default](#)[Package Action - SSH Default](#)

# Configure via a Satellite Job Template

25 per page

125 of 130

&gt;&gt;

 Monitor > Content > Hosts > Configure > Infrastructure > RH Inventory > Insights > Administer >Job Templates » Edit Configure Cloud Connector 

Template

Inputs

Job

Type

History

Locations

Organizations

Help

Name \*

Configure Cloud Connector

Default  

Editor

Changes

Preview



```
1 ---  
2 - hosts: all  
3 - vars:  
4   satellite_url: "<%= foreman_server_url %>"  
5 - roles:  
6   - project-receptor.satellite_receptor_installer
```

Provide a Satellite user and password  
for the remote execution jobs

Audit Comment

The Audit Comment field is saved with the template auditing to document the template changes.



Settings

## Sources

General

Hoo

Sou

User

App

Name	Type	Application	Status
fifi-satqa1.usersys.redhat.com	Red Hat Satellite	Remediations	Ready

Job template creates an Insights Source entry



Red Hat Insights

Dashboard

Advisor

Vulnerability

Compliance

Policies

Drift Analysis

Subscription Watch

Patch

Inventory

**Remediations**

Documentation

Remediations &gt; testplaybook

## testplaybook

**Execute Playbook**

### Playbook Summary

**Total systems****1 system**

### Playbook settings

Autoreboot: **Not required**

0 systems require reboot

Search actions



Remove action

1-1 of 1



1



of 1

 Actions

Resolution

Reboot required

Systems

Type

 Decreased security: OpenSSH Ciphers and MACs settings

Update openssh-server package, replace Ciphers and MACs line in /etc/ssh/sshd\_config and restart sshd service

No

1

Insights

# Cloud Connector enables Execute Playbook button

## Execute Playbook

x

Playbook contains **1 issue** affecting **1 system**.

Systems connected to a Satellite instance and configured with Receptor can be automatically remediated. To remediate other systems, download the Ansible Playbook.

### Connection status of systems

Connection type	Systems	Connection status
fifi-satqa1.usersys.redhat.com	1	 Ready

[Execute Playbook on 1 system](#)

[Download Playbook](#)

Prior to executing the playbook a check will be performed to make sure the connection is ready

## Execute Playbook

X

Playbook contains **1 issue** affecting **1 system**.

Systems connected to a Satellite instance and configured with Receptor can be automatically remediated. To remediate other systems, download the Ansible Playbook.

### Connection status of systems

Connection type	Systems	Connection status
fifi-satqa1.usersys.redhat.com	1	Connection issue Receptor not responding <a href="#">Troubleshoot</a>

Execute Playbook on 0 system

[Download Playbook](#)

If there are issues, a message will be displayed

# Smart Management buying transition

# Satellite and Smart Management buying transition

Before <b>March 1, 2018</b>	Starting <b>March 1, 2018</b>	Starting <b>May 1, 2019</b>	Starting <b>May 1, 2020</b>
<p><b>Red Hat Satellite</b></p> <p>Purchase one or more of the following:</p> <ul style="list-style-type: none"><li>• Red Hat Satellite Server</li><li>• Red Hat Satellite Capsule Server</li><li>• Smart Management add-on</li></ul> <p><b>Red Hat Insights:</b></p> <p>Purchase the Insights add-on separately</p>	<p><b>Red Hat Smart Management:</b> <b>Red Hat Satellite + Red Hat Insights</b></p> <p>Buy or renew a single Smart Management SKU and get a single Insights and the Satellite Infrastructure SKU (MCT3718) which grants 50 of any combination of Satellites and Satellite Capsule Servers.</p>	<p><b>Red Hat Smart Management = Red Hat Satellite + cloud management services for Red Hat Enterprise Linux</b></p> <p>Insights included in all supported Red Hat Enterprise Linux subscriptions.</p> <p>Smart Management continues to provide Satellite infrastructure and now includes Software-as-a-service (SaaS)-based cloud management services for Red Hat Enterprise Linux.</p>	<p><b>Red Hat Smart Management includes Red Hat Satellite and cloud connector</b></p> <p>Access to Satellite infrastructure and enhanced abilities to run actions from <a href="http://cloud.redhat.com">cloud.redhat.com</a></p> <p><b>Red Hat Insights:</b></p> <p>Included with your RHEL subscription and includes additional cloud services</p>

# Support for Cloud providers in Satellite

As of Red Hat Satellite 6.7:

**Running Satellite in the cloud typically means one of these three things:**

Cloud provider	Can I run Satellite in this cloud provider?*	Can I manage hosts in this cloud provider?	Can I provision hosts in this cloud provider?
			
			
 Compute Engine			
			
 IBM Cloud			

AWS includes AWS Cloud for Government  
Azure includes Microsoft Azure for Government

\*Cloud providers not listed require a support exception  
Where Satellite is mentioned, Capsules are also supported.

# Lifecycle Environments

# Life-cycle environments

In this sample environment, we have 2 promotion paths:  
1 for SAP systems, and 1 for the rest.

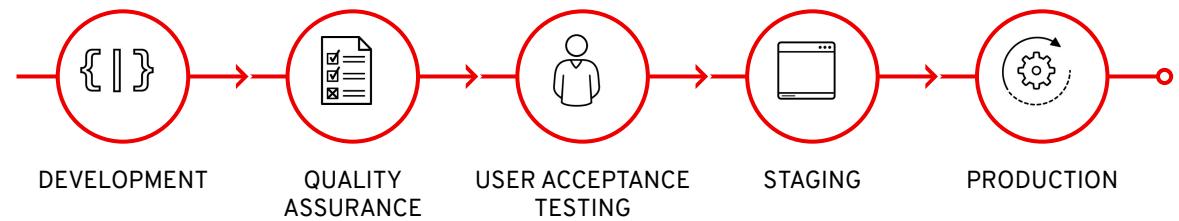
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Most servers:

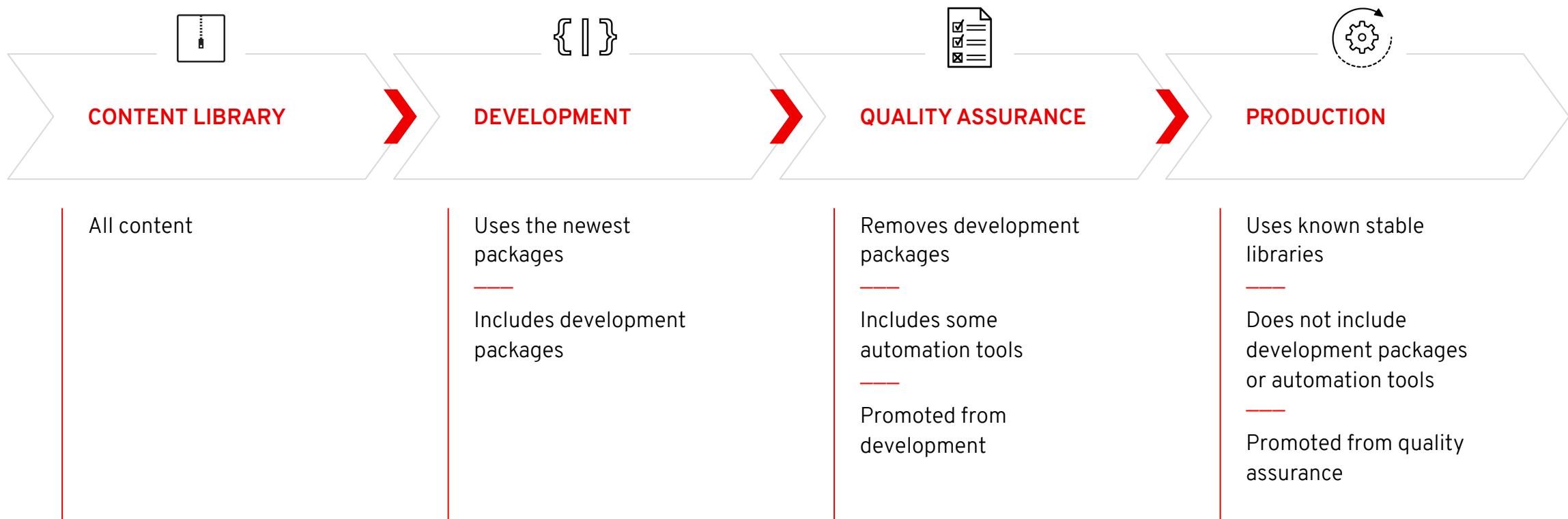


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SAP environments:



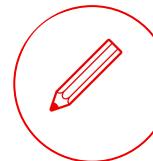
# Life-cycle environments



# Content Views

# Content views

A content view (CV) is a managed selection of content that contains 1 or more repositories with optional filtering.



## Custom subset

Define specific versions of software



## Activation keys

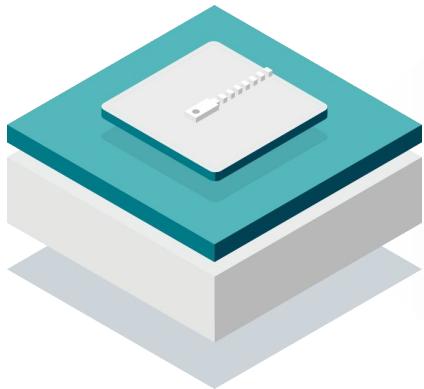
Enable and disable content views as needed



## Composite content views

Made up of multiple content views

# Content views



Content library

## Web app CV 1.0

3 repositories  
900 packages

Python 3.5  
Java 1.7  
Web.apk 2.1

## Web app CV 2.0

3 repositories  
980 packages

Python 3.6  
Java 1.8  
Web.apk 2.2

## Base OS CV 1.0

4 repositories  
24,000 packages

Kernel 3.10.0-862.2.3.el7  
Red Hat Enterprise Linux 7.5  
Extra Packages for Enterprise Linux (EPEL) 7

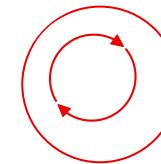
## Base OS CV 2.0

4 repositories  
25,000 packages

Kernel 3.10.0-862.11.6.el17  
Red Hat Enterprise Linux 7.5  
Extra Packages for Enterprise Linux (EPEL) 7

## Composite content view

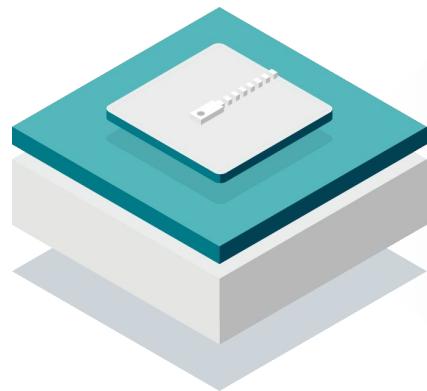
Composite content views (CCV) are made up of multiple content views, rather than individual repositories.



### Auto-publish

These can be auto-published when any component content view is published

# Composite content views



Content library



# Software Deployment

Using content views,  
composite content views,  
and life-cycle  
environments

# Software deployment



# Supply Chain Security

It all starts with the code -  
how do you make sure it  
hasn't been tampered with?

# Supply chain security

Out of millions of projects, Red Hat identifies those that are critical for modern enterprises.

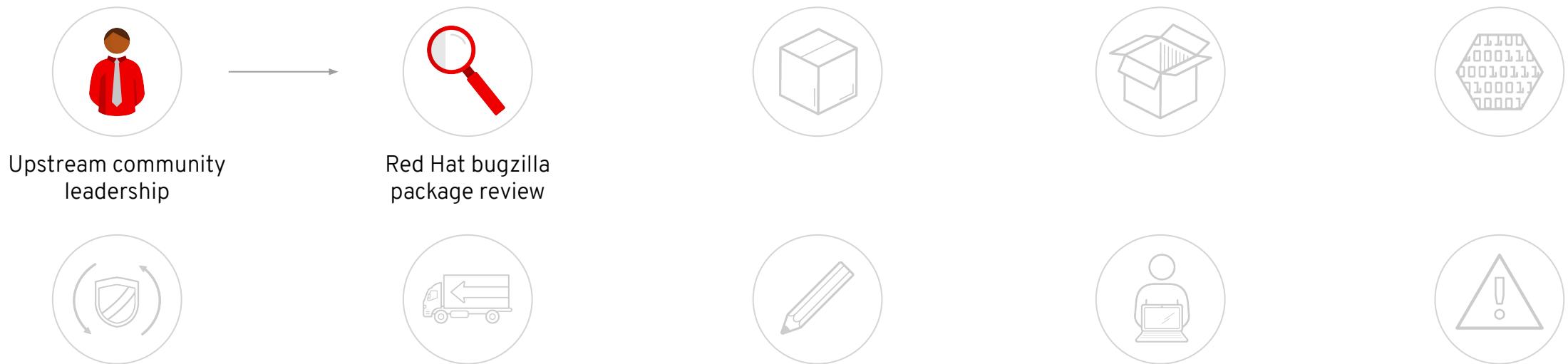


Upstream community  
leadership



# Supply chain security

A subset of projects is selected for the community distribution called Fedora.



# Supply chain security

Fedora creates an environment where projects can be integrated and stabilized.



# Supply chain security

The package is thoroughly analyzed and the used crypto libraries are critically reviewed.



# Supply chain security

Code is scanned and issues are identified and addressed to prevent security flaws. Issues are reported and addressed via upstream open source projects.



# Supply chain security

ASLR, PIE, and RELRO flags set for stack protection.\*



\*Address Space Layout Randomization (ASLR), Position-Independent Execution (PIE), and RELOCATION Read-Only (RELRO) flags

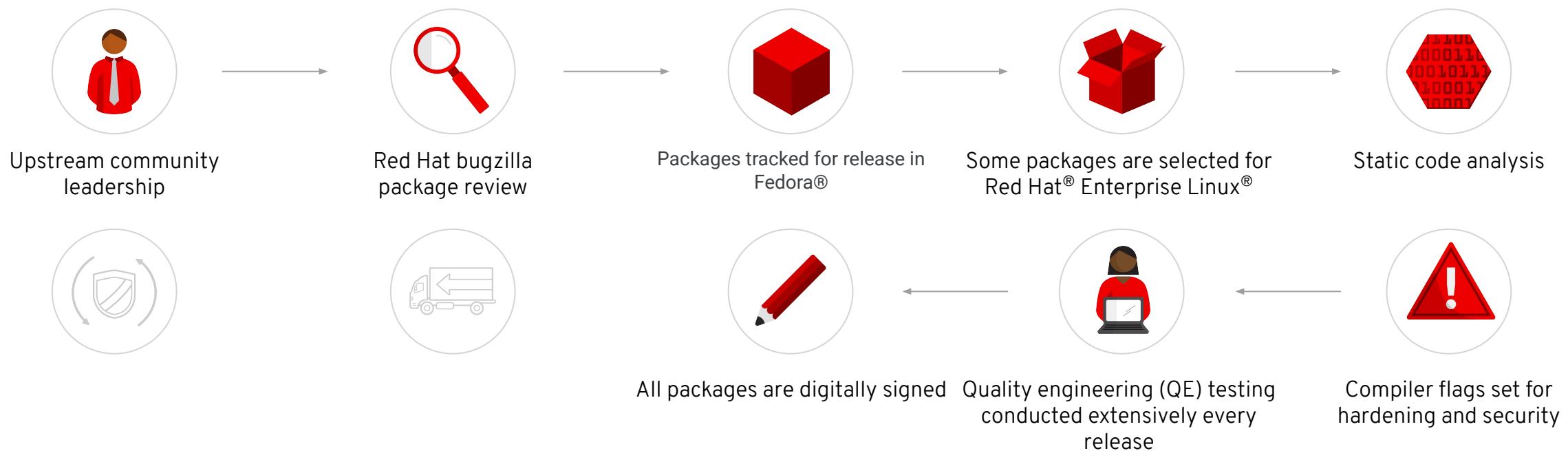
# Supply chain security

Multiple tiers of testing are conducted, including low-level functional, system-level, and cross-product testing



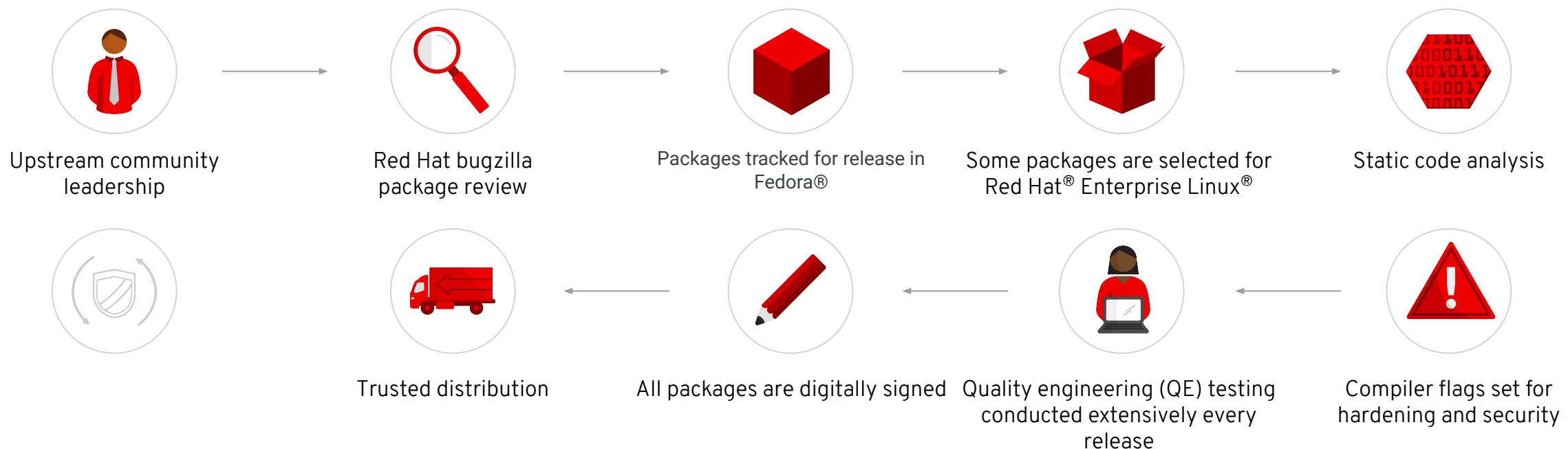
# Supply chain security

Repeatable build pipeline with digitally signed output provides the origin and consistency of packages

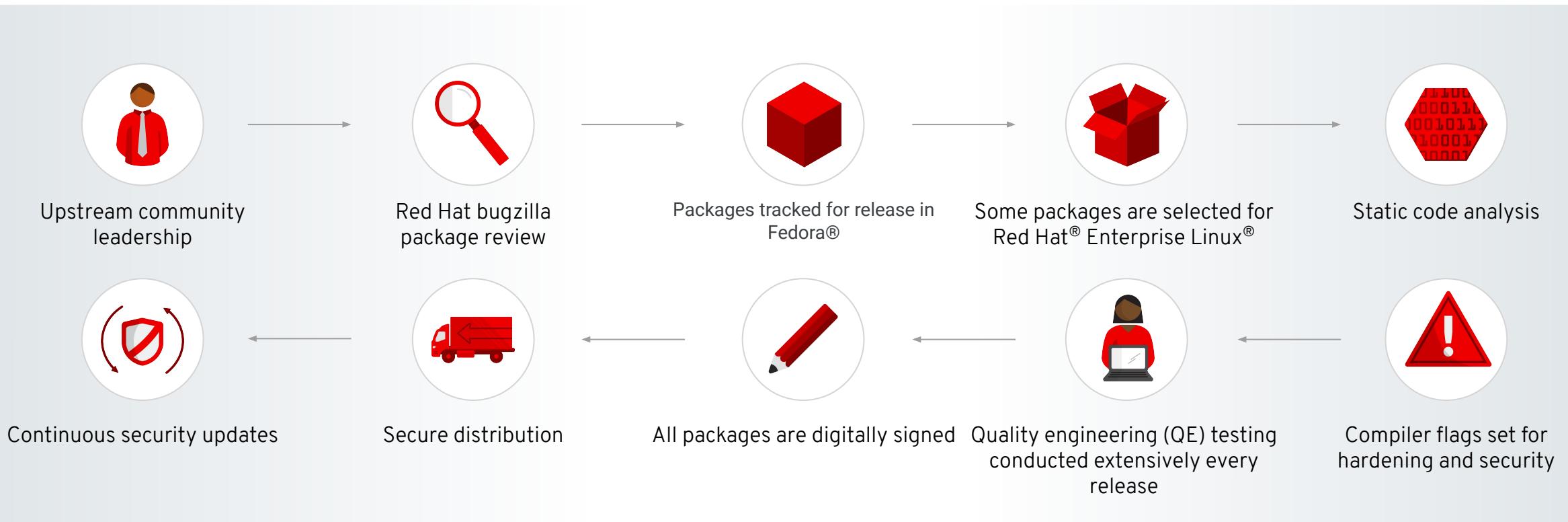


# Supply chain security

**Delivery via pipelines that provide guarantees of the consistency and source of the content**



# Supply chain security



# Red Hat Satellite - Trusted Supply Chain

Ensuring that content  
makes it from Red Hat to  
your systems without  
being tampered with.

# Trusted software supply chain



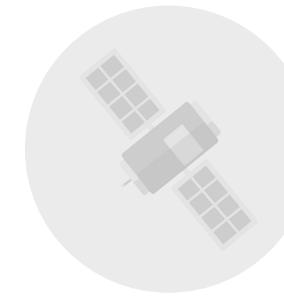
RPM package



Red Hat CDN



Entitlement certificate



Satellite server

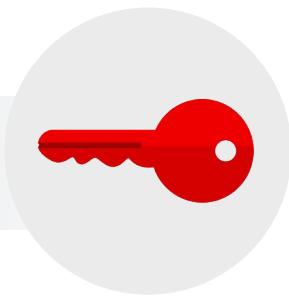


Hosts

---

Every RPM package is signed with a gnu privacy guard (GPG)key.

## Trusted software supply chain



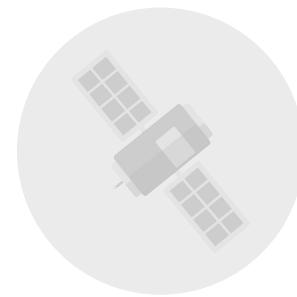
RPM package



Red Hat CDN



Entitlement certificate



Satellite server



Hosts

---

Every RPM package is signed with a GPG key.

Each package or content type is pushed to the Red Hat content delivery network (CDN).

## Trusted software supply chain



RPM package

Red Hat CDN

Entitlement certificate

Satellite server

Hosts

---

Every RPM package is signed with a GPG key.

Each package or content type is pushed to the Red Hat CDN.

Access to the package requires a Red Hat-issued entitlement certificate.

## Trusted software supply chain



- 
- Every RPM package is signed with a GPG key.
  - Each package or content type is pushed to the Red Hat CDN.
  - Access to the package requires a Red Hat-issued entitlement certificate.
  - Satellite verifies the packages have not been modified by comparing the checksums.

## Trusted software supply chain



- 
- Every RPM package is signed with a GPG key.
  - Each package or content type is pushed to the Red Hat CDN.
  - Access to the package requires a Red Hat-issued entitlement certificate.
  - Satellite verifies the packages have not been modified by comparing the checksums.
  - Client tools also verify checksums and verify GPG signature matches.

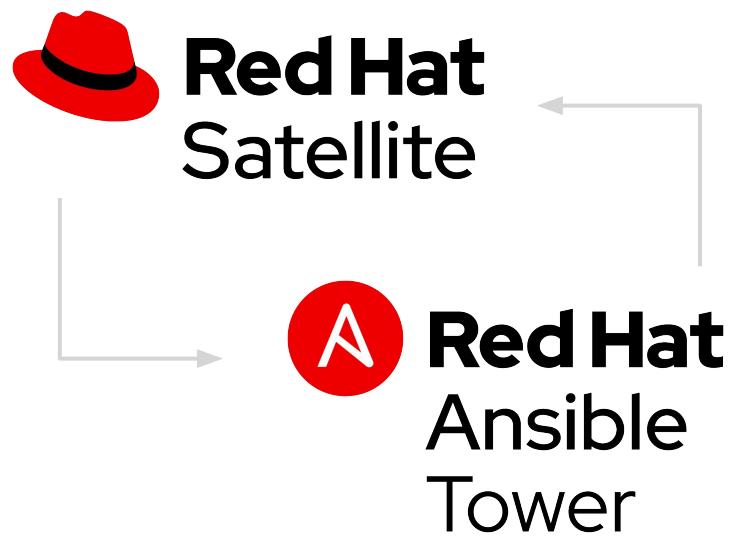
# Satellite & Ansible

## More info

How Satellite and Ansible  
work together

# Satellite and Ansible Tower integration

Documented best practices to help optimize 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

A TOWER PROJECTS INVENTORIES TEMPLATES JOBS

admin

SETTINGS / CREDENTIALS / EDIT CREDENTIAL

Example.com Satellite credentials

DETAILS PERMISSIONS

\* NAME ? Example.com Satellite credentials

DESCRIPTION ? Example.com Satellite credentials

ORGANIZATION Red Hat's Management BU Example.com

\* CREDENTIAL TYPE ? Red Hat Satellite 6

TYPE DETAILS

\* SATELLITE 6 URL ? https://sat.example.com

\* USERNAME admin

\* PASSWORD REPLACE ENCRYPTED

CANCEL SAVE

CREDENTIALS 9

SEARCH KEY + ADD

NAME	KIND	OWNERS	ACTIONS
Machine	Machine	admin, Red Hat's Management BU	

Dynamic inventory

# PROVISIONING CALLBACKS

A definition straight from the Tower documentation

Provisioning callbacks are a feature of Tower that allow a host to initiate a playbook run against itself, rather than waiting for a user to launch a job to manage the host from the tower console.

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Kickstart default

Configure &gt;

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## Provisioning Templates

kickstart



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Create Template

Build PXE Default

Documentation

Name	Host Group / Environment	Kind	Snippet	Locked	Actions
Kickstart default		Provisioning template			
Kickstart default iPXE		Provisioning template			
Kickstart default PXEGrub		Finish template			
Kickstart default PXEGrub2		iPXE template			
Kickstart default PXELinux		PXEGrub template			
Kickstart default PXELinux		PXEGrub2 template			
Kickstart default user data		PXELinux template			
kickstart_ifcfg_bonded_interface		User data template			
kickstart_ifcfg_bond_interface				✓	
kickstart_ifcfg_generic_interface				✓	
kickstart_ifcfg_get_identifier_names				✓	
kickstart_networking_setup				✓	

## POST-PROVISIONING CALLBACK

PXELinux global default

PXELinux template

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## Provisioning Templates &gt; Edit Kickstart default

Template

Inputs

Type

Association

History

Locations

Organizations

Help

Warning! This template is locked. You may only change the associations. Please [clone](#) it to customize.

x

Name \*

Kickstart default

Default 

Editor

Changes

Preview



```
261 <% if salt_enabled %>
262 <%= snippet 'saltstack_setup' %>
263 <% end -%>
264
265 <% if @host.operatingsystem.name == 'OracleLinux' && host_param_true?('disable-uek') -%>
266 # Uninstall the Oracle Unbreakable Kernel packages
267 yum -t -y remove kernel-uek*
268 sed -e 's/DEFAULTKERNEL=kernel-uek/DEFAULTKERNEL=kernel/a' -i /etc/svcsconfia/kernel
```

snippet('ansible\_provisioning\_callback') %>

```
274 touch /tmp/foreman_built
275 <%= section_end -%>
276
277 <%#
278 The last post section halts Anaconda to prevent endless loop
279 %>
280 <% if (is_fedora && os_major < 20) || (rhel_compatible && os_major < 7) -%>
281 %post
```

Description

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## Provisioning Templates

Filter ...

x Q Search

Create Template

Build PXE Default

Documentation

Name	Host Group / Environment	Kind	Snippet	Locked	Actions
Alterator default		Provisioning template		🔒	Clone ▾
Alterator default finish		Finish template		🔒	Clone ▾
Alterator default PXELinux		PXELinux template		🔒	Clone ▾
alterator_pklist			✓	🔒	Clone ▾
ansible_provisioning_callback			✓	🔒	Clone ▾
ansible_tower_callback_script			✓	🔒	Clone ▾
ansible_tower_callback_service			✓	🔒	Clone ▾
Atomic Kickstart default		Provisioning template		🔒	Clone ▾
AutoYaST default		Provisioning template		🔒	Clone ▾
AutoYaST default iPXE		iPXE template		🔒	Clone ▾
AutoYaST default PXELinux		PXELinux template		🔒	Clone ▾
AutoYaST default user data		User data template		🔒	Clone ▾
AutoYaST SLES default		Provisioning template		🔒	Clone ▾

## POST-PROVISIONING CALLBACK

Boot disk iPXE - host		Boot disk embedded template		🔒	Clone ▾
built			✓	🔒	Clone ▾
chef_client			✓	🔒	Clone ▾

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Infrastructure &gt;

Insights &gt;

Administer &gt;

Provisioning Templates » Edit ansible\_provisioning\_callback 

Template

Inputs

Type

Association

History

Locations

Organizations

Help

Warning! This template is locked. You may only change the associations. Please [clone](#) it to customize.

x

Name \*

ansible\_provisioning\_callback

Default  

Editor

Changes

Preview



```
1 <%#
2 kind: snippet
3 name: ansible_provisioning_callback
4 model: ProvisioningTemplate
5 snippet: true
6 -%>
7 <% if host_param_true?('ansible_tower_provisioning') -%>
8 <%
9   rhel_compatible = @host.operatingsystem.family == 'Redhat' && @host.operatingsystem.name != 'Fedora'
10  os_major = @host.operatingsystem.major.to_i
11  has_systemd = (@host.operatingsystem.name == 'Fedora' && os_major >= 20) || (rhel_compatible && os_major >= 7)
12 -%>
13 <% if has_systemd -%>
14 <=% save_to_file('/etc/systemd/system/ansible-callback.service',
15 | | | | snippet('ansible_tower_callback_service')) %>
16 # Runs during first boot, removes itself
17 systemctl enable ansible-callback
18 <% else -%>
19 # Assume systemd is not available
20 <=% save_to_file('/root/ansible_provisioning_call.sh', snippet('ansible_tower_callback_script')) %>
21 (chmod +x /root/ansible_provisioning_call.sh; crontab -u root -l 2>/dev/null; echo "@reboot /root/ansible_provisioning_call.sh" ) | crontab -u ro
22 <% end -%>
```

Description

```
1 <%#
2 kind: snippet
3 name: ansible_provisioning_callback
4 model: ProvisioningTemplate
5 snippet: true
6 -%>
7 <% if host_param_true?('ansible_tower_provisioning') -%>
8 <%
9   rhel_compatible = @host.operatingsystem.family == 'Redhat' && @host.operatingsystem.name != 'Fedora'
10  os_major = @host.operatingsystem.major.to_i
11  has_systemd = (@host.operatingsystem.name == 'Fedora' && os_major >= 20) || (rhel_compatible && os_major >= 7)
12 -%>
13 <% if has_systemd -%>
14 <%= save_to_file('/etc/systemd/system/ansible-callback.service',
15 | | | snippet('ansible_tower_callback_service')) %>
16 # Runs during first boot, removes itself
17 systemctl enable ansible-callback
18 <% else -%>
19 # Assume systemd is not available
20 <%= save_to_file('/root/ansible_provisioning_call.sh', snippet('ansible_tower_callback_script')) %>
21 (chmod +x /root/ansible_provisioning_call.sh; crontab -u root -l 2>/dev/null; echo "@reboot /root/ansible_provisioning_call.sh" ) | crontab -u ro
22 <% end -%>
```

## POST-PROVISIONING CALLBACK

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## Provisioning Templates

Filter ...

Search

Create Template

Build PXE Default

Documentation

Name	Host Group / Environment	Kind	Snippet	Locked	Actions
Alterator default		Provisioning template			<span>Clone</span> ▾
Alterator default finish		Finish template			<span>Clone</span> ▾
Alterator default PXELinux		PXELinux template			<span>Clone</span> ▾
alterator_pklist			✓		<span>Clone</span> ▾
ansible_provisioning_callback			✓		<span>Clone</span> ▾
ansible_tower_callback_script			✓		<span>Clone</span> ▾
<b>ansible_tower_callback_service</b>					
Atomic Kickstart default		Provisioning template			<span>Clone</span> ▾
AutoYaST default		Provisioning template			<span>Clone</span> ▾
AutoYaST default iPXE		iPXE template			<span>Clone</span> ▾
AutoYaST default PXELinux		PXELinux template			<span>Clone</span> ▾
AutoYaST default user data		User data template			<span>Clone</span> ▾
AutoYaST SLES default		Provisioning template			<span>Clone</span> ▾
blacklist_kernel_modules			✓		<span>Clone</span> ▾
bmc_nic_setup			✓		<span>Clone</span> ▾
Boot disk iPXE - generic host		Boot disk embedded template			<span>Clone</span> ▾
Boot disk iPXE - generic static host		Boot disk embedded template			<span>Clone</span> ▾
Boot disk iPXE - host		Boot disk embedded template			<span>Clone</span> ▾
built			✓		<span>Clone</span> ▾
chef_client			✓		<span>Clone</span> ▾

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Provisioning Templates » Edit ansible\_tower\_callback\_service 

Template

Inputs

Type

Association

History

Locations

Organizations

Help

Warning! This template is locked. You may only change the associations. Please [clone](#) it to customize.

x

Name \*

ansible\_tower\_callback\_service

Default  

Editor

Changes

Preview



```
1 <%#
2 kind: snippet
3 name: ansible_tower_callback_service
4 model: ProvisioningTemplate
5 snippet: true
6 -%>
7 [Unit]
8 Description=Provisioning callback to Ansible Tower
9 Wants=network-online.target
10 After=network-online.target
11
12 [Service]
13 Type=oneshot
14 ExecStart=/usr/bin/curl -k -s --data "host_config_key=<%= host_param('ansible_host_config_key') -%>" https://<%= host_param('ansible_tower_fqdn') %>
15 ExecStartPost=/usr/bin/systemctl disable ansible-callback
16
17 [Install]
18 WantedBy=multi-user.target
19 |
```

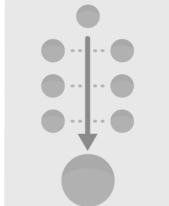
Description

```
1 <%#  
2 kind: snippet  
3 name: ansible_tower_callback_service  
4 model: ProvisioningTemplate  
5 snippet: true  
6 %>  
7 [Unit]  
8 Description=Provisioning callback to Ansible Tower  
9 Wants=network-online.target  
10 After=network-online.target  
11  
12 [Service]  
13 Type=oneshot  
14 ExecStart=/usr/bin/curl -k -s --data "host_config_key=<%= host_param('ansible_host_config_key') -%>" https://<%= host_param('ansible_tower_fqdn') %>  
15 ExecStartPost=/usr/bin/systemctl disable ansible-callback  
16  
17 [Install]  
18 WantedBy=multi-user.target
```

## POST-PROVISIONING CALLBACK

```
1 <%#  
2 kind: snippet  
3 name: ansible_tower_callback_service  
4 model: ProvisioningTemplate  
5 snippet: true  
-%>  
6 [Unit]  
7 Description=Provisioning callback to Ansible Tower  
8 Wants=AnsibleTower.service  
9 After=AnsibleTower.service  
10 ExecStart=/usr/bin/curl -k -s --data "host_config_key=<%=  
11 host_param('ansible_host_config_key') -%>" https://<%=  
12 host_param('ansible_tower_fqdn') -%>/api/v2/job_templates/<%=  
13 host_param('ansible_job_template_id') -%>/callback/  
14 ExecStop=/usr/bin/curl -k -s --data "host_config_key=<%=  
15 host_param('ansible_host_config_key') -%>" https://<%=  
16 host_param('ansible_tower_fqdn') -%>/api/v2/job_templates/<%=  
17 host_param('ansible_job_template_id') -%>/cancel/  
18 [Install]  
Wants=AnsibleTower.service
```

## POST-PROVISIONING CALLBACK



# Satellite / Ansible Integration

Basic Ansible capabilities are now part of Satellite



**Red Hat  
Satellite**



**Red Hat  
Ansible Automation  
Platform**

Satellite has integration with Ansible for the purposes of remote execution and desired state management

## Remote Execution

Run Ansible Playbooks inside of Satellite

## Deploy Insights using Ansible

Install Insights on all your hosts

## RHEL System Roles

Deploy RHEL System Roles to hosts managed by Satellite

# Ansible & Satellite

While Satellite has Ansible capabilities built in, Ansible Tower is still critical for enterprise 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

## 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

# Red Hat Satellite Deployment Considerations

## Use your Smart Management subscription to its fullest

Every Smart Management subscription includes MCT3718 which gives quantity 50 of any combination of Satellite and Capsules.

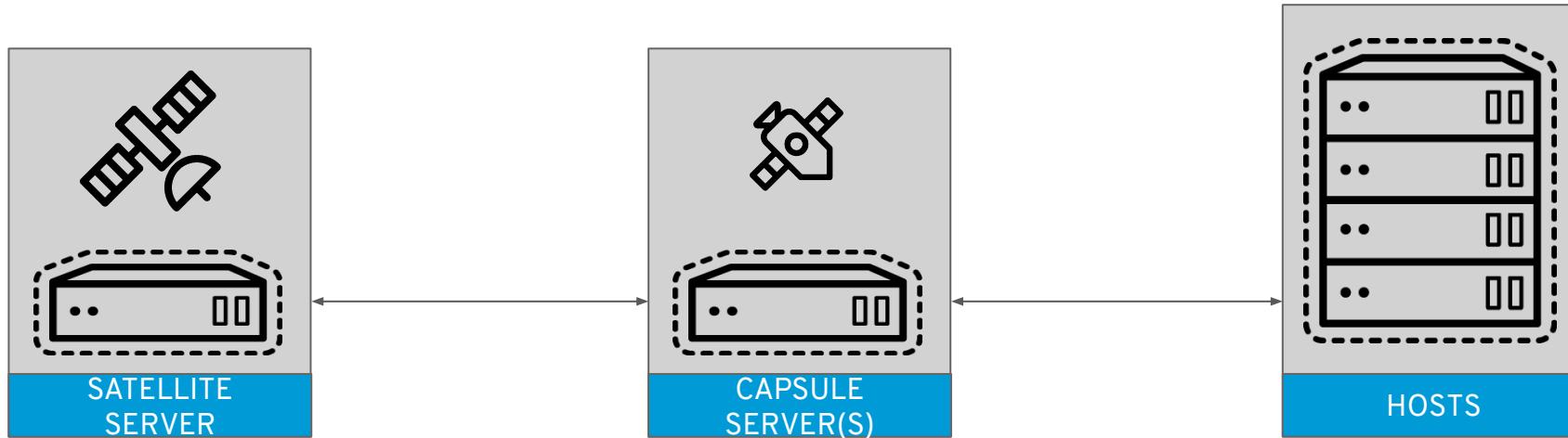
This enables you to increase the scale of your Satellite environment and to setup Test, Development, and similar Satellite environments.

Production is not and should never be your development or test environment - your use subscription to its fullest and deploy the architecture that you need.

Exception: 50 is enough for 97%+ of Satellite customers.

If you need more than 50, just contact your account representative.

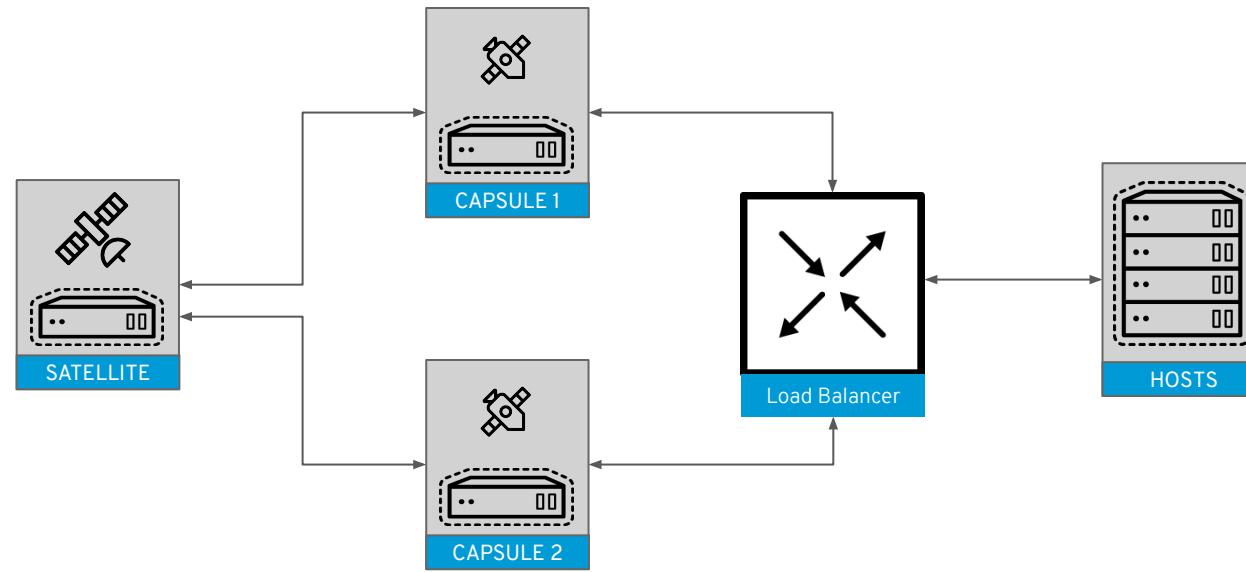
## Connect Hosts to Capsules; Connect Capsules to Satellite



Why does this matter? This deployment model allows for scalability and with load balanced capsules a level of redundancy.

Exception: Very small environments (50 or less systems) may only want to use a single Satellite

# Use Load Balanced Capsules



Why does this matter? Increases resilience of the Satellite infrastructure. With load balanced capsules all functions will work if a single capsule becomes unavailable.

If the Satellite becomes unavailable all features except registration is available from the capsules

Exception: Small environments that want to minimize infrastructure.

Note: Using custom certs in this configuration is supported but can be tricky.

# Red Hat Satellite - Upstream Projects

# Red Hat Satellite - Upstream Projects

 <b>FOREMAN</b>	<a href="https://theforeman.org/">https://theforeman.org/</a>	Provides lifecycle management
 <b>pulp</b>	<a href="https://pulpproject.org/">https://pulpproject.org/</a>	Provides content management
 <b>KATELLO</b>	<a href="https://theforeman.org/plugins/katello/">https://theforeman.org/plugins/katello/</a>	Provides provisioning management
 <b>CANDLEPIN</b>	<a href="https://www.candlepinproject.org/">https://www.candlepinproject.org/</a>	Provides subscription management
 <b>A</b>	<a href="https://www.ansible.com/">https://www.ansible.com/</a>	Provides Automation for single host operations
 <b>puppet</b>	<a href="https://puppet.com/">https://puppet.com/</a>	Provides Automation for single host operations

# Red Hat Satellite - Upstream Evolution

