



Red Hat Smart Management

What's new in Red Hat Satellite 6.7

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Sr. Solution Architect



Who Am I



- Red Hat Sr. Solution Architect for over 2 years
- Cover the Michigan market from Lansing, MI
- Co-chair the Michigan RHUG's
- Spent nearly 25 years in the IT Channel architecting and selling IT solutions throughout Michigan, Indiana, Ohio and Chicagoland
- Red Hat Certified Engineer
- Ansible Certified Specialist
- Satellite Certified Specialist

Red Hat Smart Management

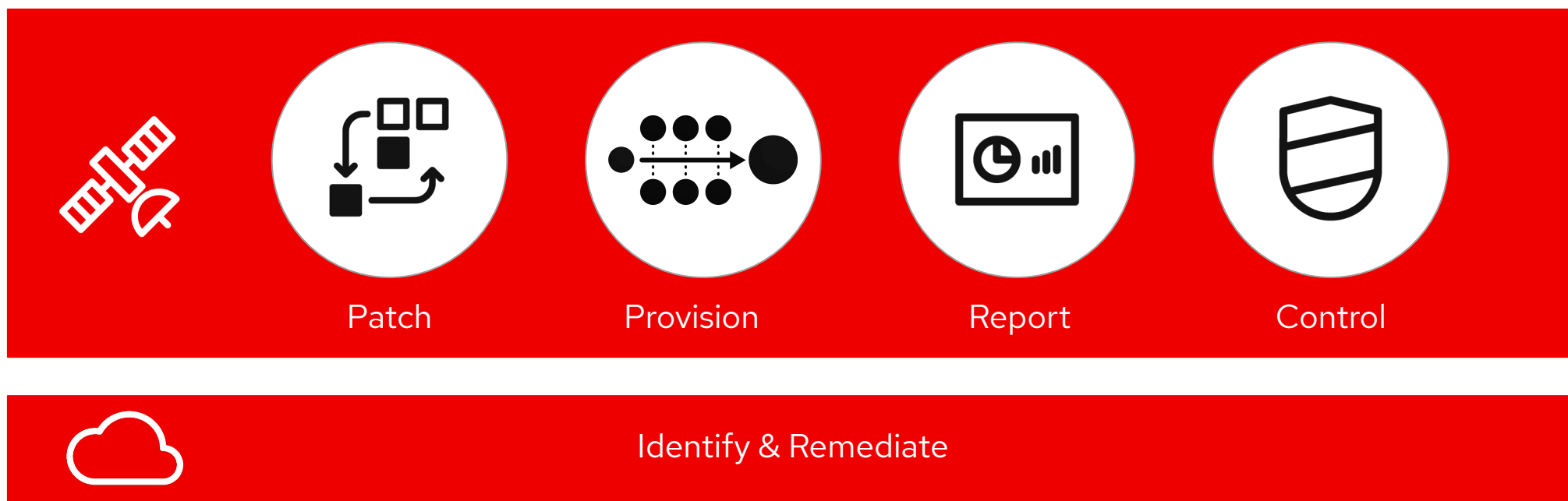
Smart Management enables you to improve the reliability, availability, security and compliance of your RHEL systems, running on any platform, while reducing TCO and repetitive tasks

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 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?

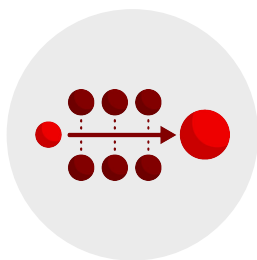
No Problem.

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.

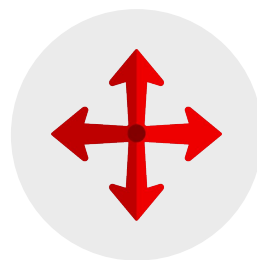
Why Red Hat Satellite?



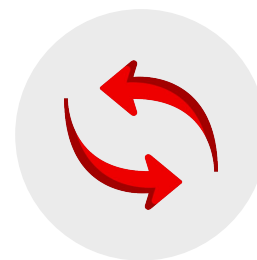
Manage Red Hat®
infrastructure



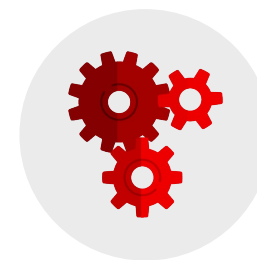
Streamlined
content management



Developed to scale



Simplified
system integration



Enhanced drift
and configuration
management

Red Hat Satellite integration with Red Hat Insights

Red Hat Insights

Now 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

New and improved Red Hat Insights

Still included with Red Hat Enterprise Linux subscription, now with more value.

New and expanded services provide additional security and operational efficiency

To better manage infrastructure sprawl, reduce risk, and support stretched IT personnel

*Active subscriptions versions 6.4 & higher



Overview of expanded Red Hat Insights services



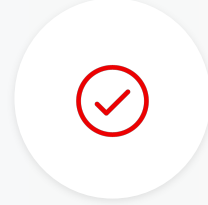
Advisor

Availability, performance, stability, and security risk analysis



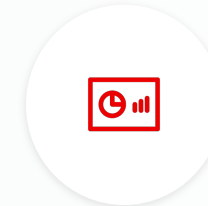
Vulnerability

Remediate 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

Insights Topic for Satellite

The screenshot shows the Red Hat Insights interface for the 'Red Hat Satellite 6' topic. The left sidebar contains navigation options: Red Hat Insights, Dashboard, Advisor (with sub-items Recommendations and 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 includes a sub-header 'Red Hat Satellite 6' and a description: 'Ensure the high availability of your Satellite 6 deployment configuration using these remediation actions.' Below this is a 'Rules' section with a search bar and a table of rules. The table has columns for Description, Added, Total risk, Systems, and Ansible. The first rule is 'Satellite client fails to connect to Satellite server when dependencies of katello-agent are installed from non-Red Hat repositories' with an 'Important' risk level and 4 systems affected. The last rule is 'Decreased performance or key services failure when Satellite 6 is running without recommended Apache service configuration' with a 'Moderate' risk level and 19 systems affected. A notification badge with the number '6' is visible in the bottom right corner of the table area.

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	✓

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

Insights is visibility into your environment

Smart Management helps you turn Insights into action.

Satellite 6.7 New Features

Satellite 6.7 theme

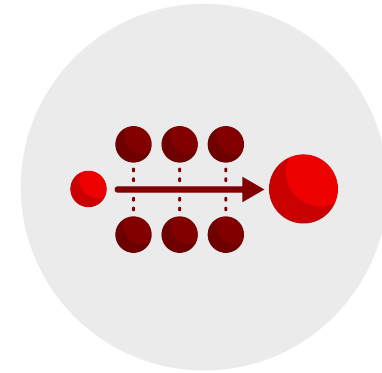
New and improved integrations as well as security and content management enhancements



Integrations



Security



Content Management

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

Integrations

Integrations with
cloud.redhat.com, RHEL,
and Ansible.

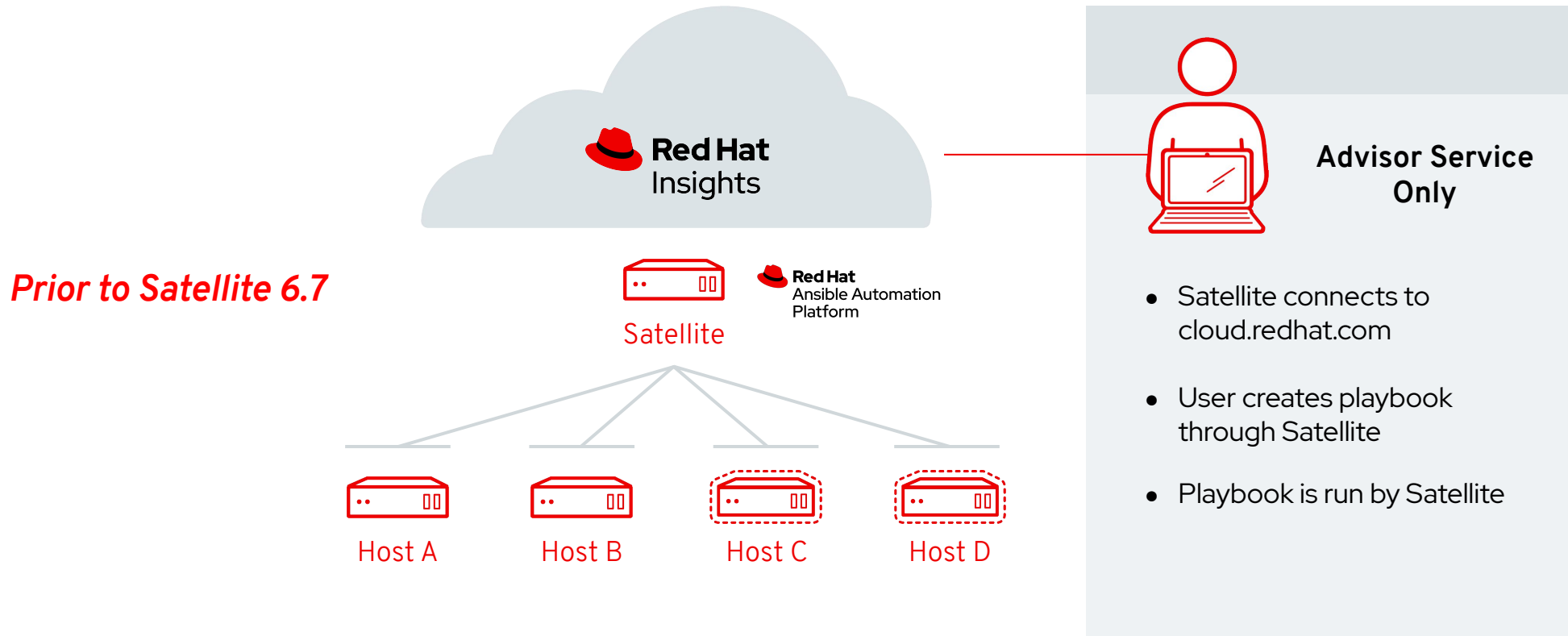
Insights Integration



Cloud Connector

Ability to create a remediation in Insights and run it using Satellite.

Build and run playbooks in Red Hat Satellite



What is Cloud Connector?

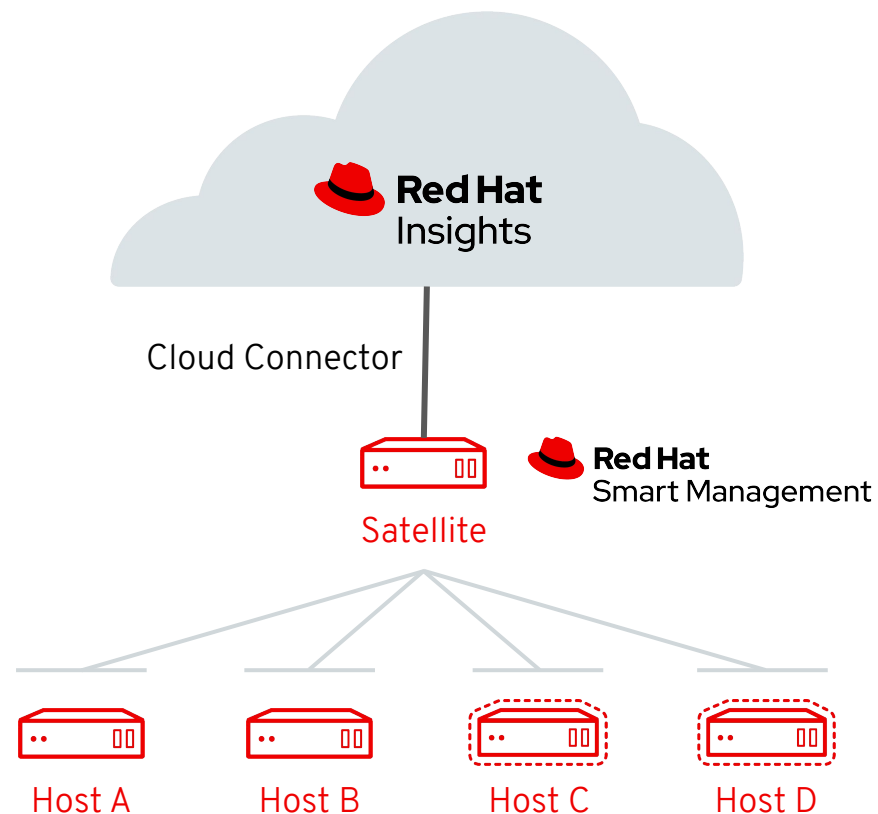
Using Red Hat Insights and Smart Management you can easily identify risks, Vulnerability, and Compliance issues in your environment and fix them via your trusted Satellite infrastructure with the click of a button.

- 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

New Feature in Satellite 6.7

Includes the ability to run playbooks created by:

- Advisor
- Vulnerability
- Compliance
- Patch

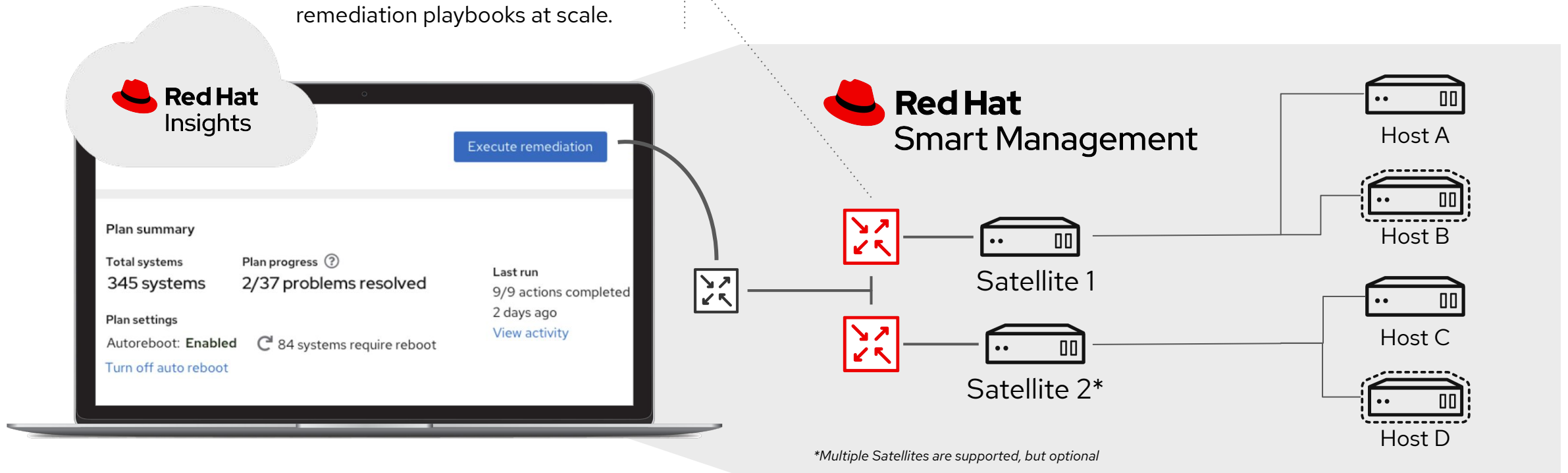


Introducing Cloud Connector

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

Cloud Connector

Connects your federated Satellite infrastructure to Insights to execute remediation playbooks at scale.



Cloud Connector Configuration

Prepare cloud.redhat.com

- You must have permissions to create and execute playbooks from the Red Hat Insights Remediations service.
 - a. Create a Group in cloud.redhat.com for users authorized to execute remediations
 - b. Give that Group the "Remediation Administrator" Role
 - c. Add Users to that group

The screenshot shows the Red Hat cloud.redhat.com interface. The left sidebar contains navigation options: Settings, User access (expanded), Groups, Roles, Users, Sources, and Applications. The main content area shows the configuration for the 'Remediation Admins Group'. The group name is 'Remediation Admins Group' and its description is 'Able to execute remediations'. Below this, there are tabs for 'Roles' and 'Members'. The 'Roles' tab is active, showing a table with columns for 'Name' and 'Description'. The table contains one role: 'Remediations administrator' with the description 'Perform any available operation against any Remediations resource'. A red arrow points to the group name, and another red arrow points to the role name.

Name	Description
Remediations administrator	Perform any available operation against any Remediations resource

Prepare Hosts and Satellite

Standard Steps for Insights

- Only hosts in organizations with a valid Red Hat certificate can be connected to cloud.redhat.com
- Register your hosts to Satellite using an activation key to attach Red Hat subscriptions
- **Enable remote execution on your hosts so that Satellite can run remediation playbooks on them**
- Install and Register your hosts with Insights
 - yum install insights-client (RHEL 7 and below)
 - insights-client --register

New steps for connecting to cloud.redhat.com

- Satellite must be version 6.7 or later.
- Upload the Inventory using the Inventory Plugin

```
# satellite-installer \  
--enable-foreman-plugin-inventory-upload \  
--foreman-proxy-plugin-remote-execution-ssh-install-key true
```

Red Hat Satellite dumont-lab home-lab

Red Hat Inventory Uploads

dumont-lab Generating Uploading

Generating Uploading

Exit Code: pid 8762 exit 0 Restart Full Screen

```
I, [2020-05-18T09:02:20.238713 #8765] INFO -- : tar: ./  
./metadata.json  
./dc3a955d-97b9-42f7-8e41-ec940901e5d4.json  
I, [2020-05-18T09:02:20.236811 #8765] INFO -- : Report archived successfully  
Successfully generated /var/lib/foreman/red_hat_inventory/generated_reports/report_for_1.tar.gz for organization id 1
```

Next run: in 11 hours.



Monitor >

Content >

Hosts >

Configure >

Infrastructure >

RH Inventory >

Insights >

Administer >

Job Templates

Name	Snippet	Locked	Actions
Ansible Roles - Ansible Default			Run ▾
Ansible Roles - Install from Galaxy			Run ▾
Ansible Roles - Install from git			Run ▾
Ansible - Run insights maintenance plan			Run ▾
Ansible - Run playbook			Run ▾
Check Update - SSH Default			Run ▾
Install Errata - Katello Ansible Default			Run ▾
Install Errata - Katello SSH Default			Run ▾
Install Group - Katello Ansible Default			Run ▾
Install Group - Katello SSH Default			Run ▾
Install Package - Katello Ansible Default			Run ▾
Install Package - Katello SSH Default			Run ▾
Module Action - Ansible Default			Run ▾
Module Action - SSH Default			Run ▾
Package Action - Ansible Default			Run ▾
Package Action - SSH Default			Run ▾

Configure Cloud Connector

Configure via a Satellite Job Template

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

Template Inputs Job Type History Locations Organizations Help

Name *

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

Sources

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

1-1 of 1

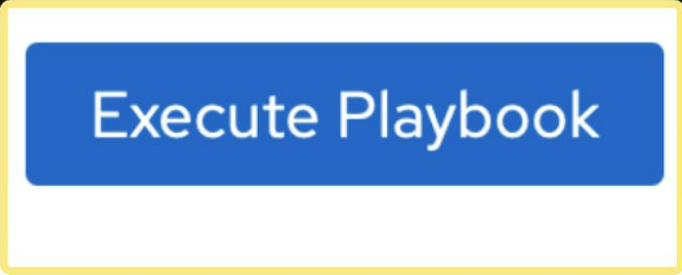
Status

Ready

1 of 1

Job template creates an Insights Source entry

testplaybook



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 > »

<input type="checkbox"/> Actions ↑	Resolution	Reboot required ↑	Systems ↑	Type ↑
<input type="checkbox"/> 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

- Dashboard
- Advisor >
- Vulnerability
- Compliance >
- Policies
- Drift Analysis >
- Subscription Watch >
- Patch
- Inventory
- Remediations**
- Documentation

Cloud Connector enables Execute Playbook button

Execute Playbook ×

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



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 Troubleshoot

Execute Playbook on 0 system

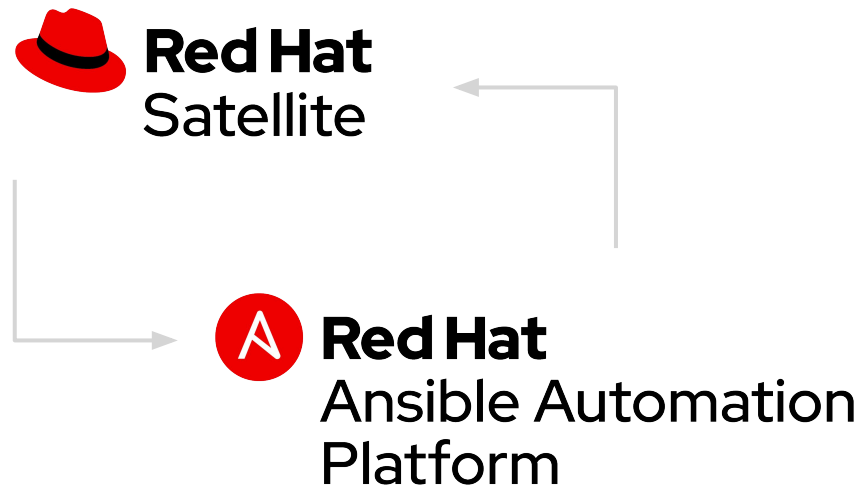
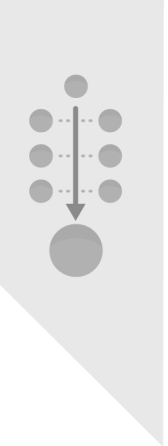
[Download Playbook](#)

If there are issues, a message will be displayed

Other Integration Enhancements

Satellite /Ansible Integration

Basic Ansible capabilities are now part of Satellite



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

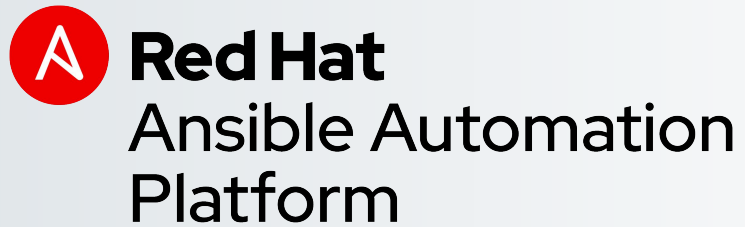
Install Insights on all your hosts

RHEL System Roles

Deploy RHEL System Roles to hosts managed by Satellite

Automation enhancements

Continuing improvements with Red Hat Ansible® Automation Platform



Improved Performance for Dynamic Inventory

Better performance of inventory update in Ansible Tower

Ansible Enhancements

Under the covers enhancements for better Ansible integration

Security

Enhancements to
security

Security enhancements



User impersonation

See what another users sees

HTTP proxy update

Simplified HTTP Proxy

Ability to enable the proxy on a per repo basis

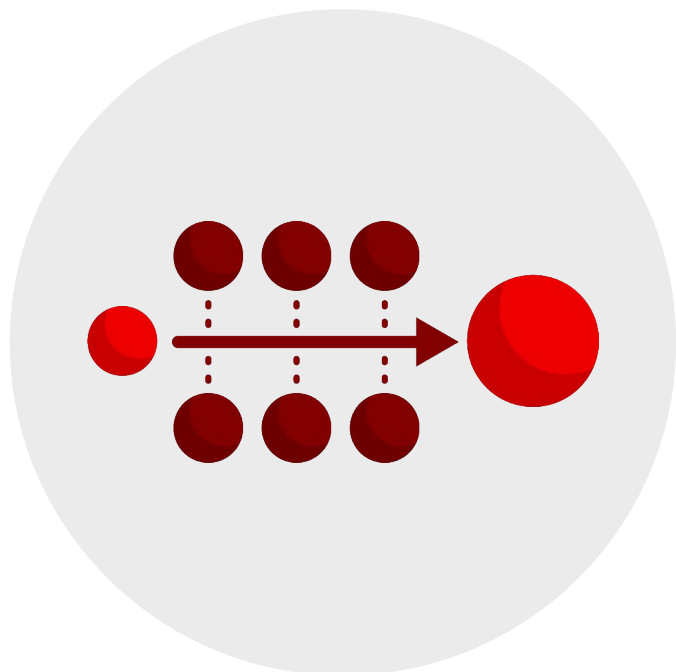
Common Access Card support via Red Hat Single Sign On **TECH PREVIEW**

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

Content Management

Enhancements to
content management

Content Management enhancements



Entitlement Reporting

New report template for entitlement reporting

Ability to import and export templates

New UI to initiate import or export of templates from git or local disk.

Support for uploading source RPMs

Adding support for source RPMs via API and CLI

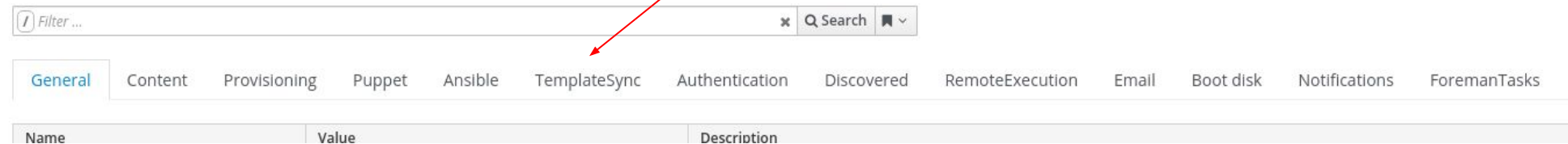
Configuring Template Sync

Enable Template Sync

```
# satellite-installer --enable-foreman-plugin-templates
```

Administer → Settings

Settings



The screenshot shows the Satellite Settings interface. At the top, there is a search bar with a filter icon and a search icon. Below the search bar, there are several tabs: General, Content, Provisioning, Puppet, Ansible, TemplateSync, Authentication, Discovered, RemoteExecution, Email, Boot disk, Notifications, and ForemanTasks. The TemplateSync tab is currently selected and highlighted. Below the tabs, there is a table with columns for Name, Value, and Description.

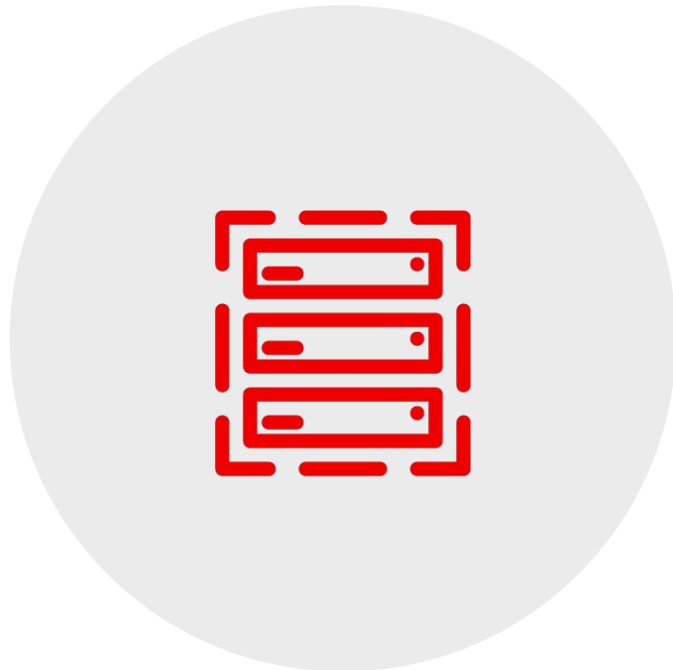
Other Steps - Follow the steps in Synchronizing Templates Using the Satellite API - Specifically:

- The template sync api call uses the foreman user ssh key in `/usr/share/foreman/.ssh/`
 - Ensure you Configure your SCM with the ssh key from `/usr/share/foreman/.ssh/`
 - I used the "Deploy Keys" feature in Github
- Accept the host key from your SCM as the foreman user before running any imports or exports

Provisioning

Enhancements to
provisioning

Provisioning enhancements



Azure Support

Support for provisioning hosts in Microsoft Azure

Google Compute Engine enhancements

Added CLI and API endpoints for Google Compute Engine

Performance and Scale

Enhancements to
performance and scale

Performance and Scale enhancements



Improved tuning assistant

Making it easier to tune Satellite to meet your needs.

Task performance improvements

Continuing performance improvements, with a focus on tasks in Satellite.

Little Bites

Small things that make
a big difference.

Additional Red Hat Enterprise Linux Integrations



Web Console Integration

Ability to open the Web Console for a specific host inside Satellite

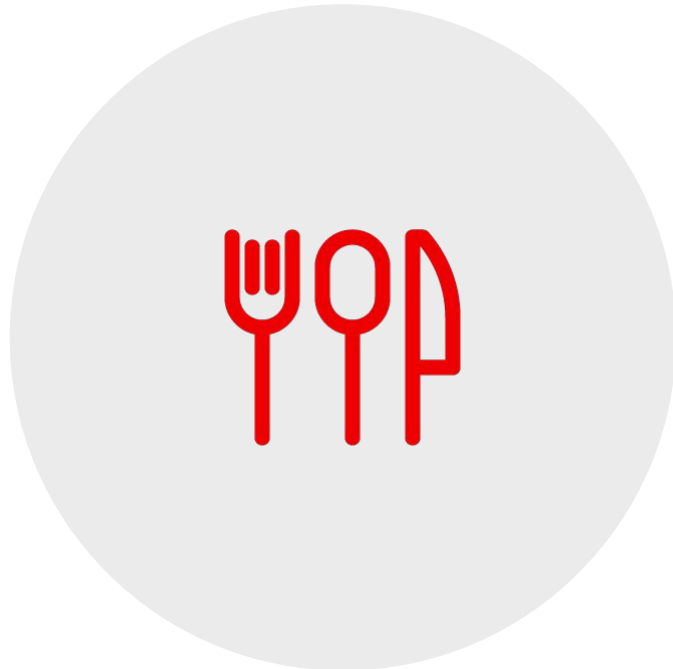
System Purpose Enhancements

Ability to use Activation Keys with system purpose

Module Stream Enhancements

Ability to filter on modules in Content Views
Ability to incrementally update a Content View

Little Bites



Run Remote Execution jobs in a randomized order

Option to run remote execution jobs in a randomized order to help better spread the load when running multiple jobs against a large number of hosts

Usability improvements

Updated login page
Better alignment with Patternfly

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

Satellite 5.x to 6.7

- 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

Note: Satellite 5.8 will be end of life as of May 31, 2020

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

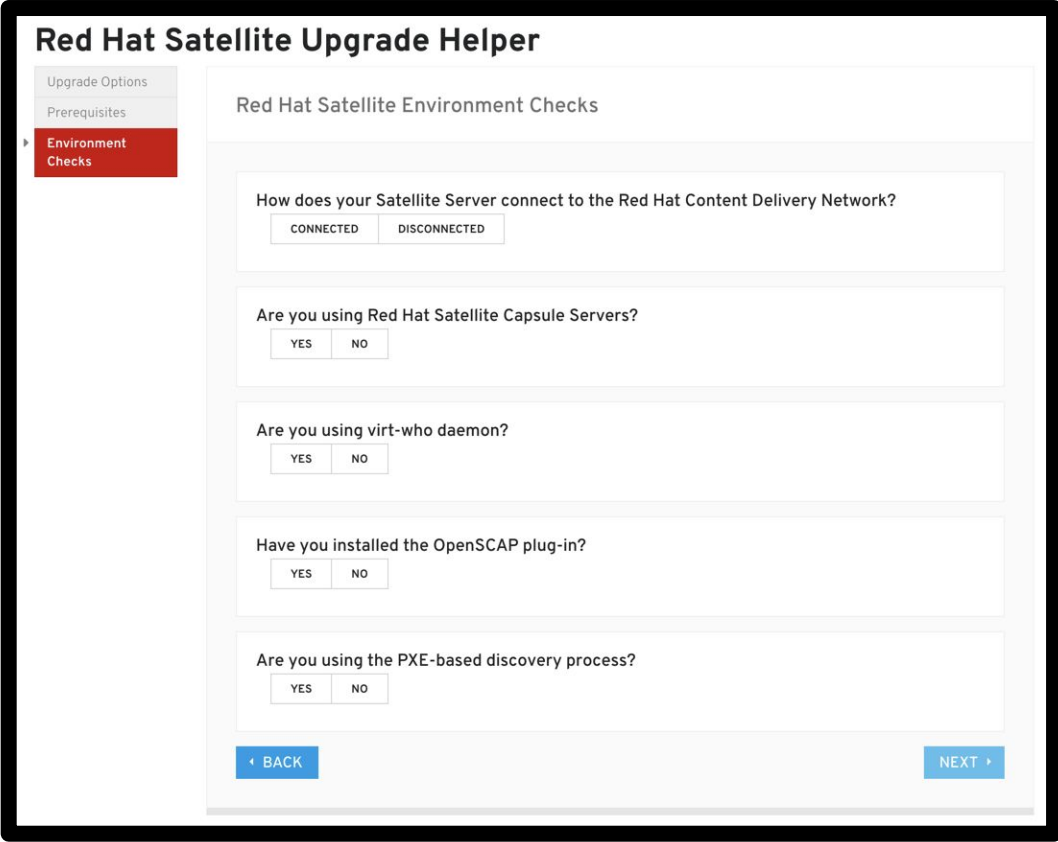
Red Hat Satellite Upgrade Helper

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

Tool designed to help you upgrade from:

- 6.3 to 6.4
- 6.4 to 6.5
- 6.5 to 6.6
- 6.6 to 6.7

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



The screenshot displays the 'Red Hat Satellite Upgrade Helper' web application. On the left, a navigation menu includes 'Upgrade Options', 'Prerequisites', and 'Environment Checks', with 'Environment Checks' selected. The main content area is titled 'Red Hat Satellite Environment Checks' and contains five questions with radio button options:

- How does your Satellite Server connect to the Red Hat Content Delivery Network? (CONNECTED, DISCONNECTED)
- Are you using Red Hat Satellite Capsule Servers? (YES, NO)
- Are you using virt-who daemon? (YES, NO)
- Have you installed the OpenSCAP plug-in? (YES, NO)
- Are you using the PXE-based discovery process? (YES, NO)

At the bottom of the form, there are 'BACK' and 'NEXT' navigation buttons.

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 or via Satellite integration.

Next steps

Using Satellite 5.8 or earlier?



Satellite 5.8 goes end-of-life (EOL) May 31, 2020. Older versions are already EOL.



Move to the latest version of Satellite 6.

Using Satellite 6.4 or earlier?



Satellite 6.4 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 Satellite

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](#)
- › [Satellite 6.5 Reporting Engine Video](#)

Thank you

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