

SATELLITE 6 OVERVIEW AND ROADMAP

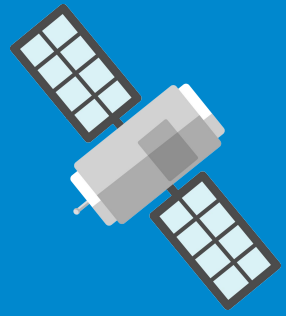
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What is Satellite ?



RED HAT® SATELLITE

LIFECYCLE MANAGEMENT

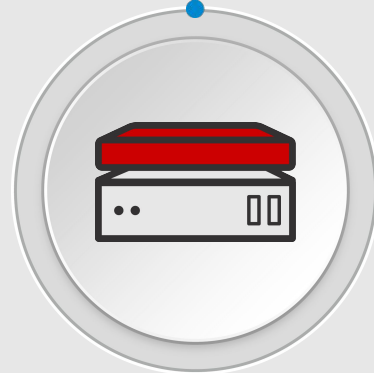
RED HAT®
ENTERPRISE
LINUX®

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ENTERPRISE
VIRTUALIZATION

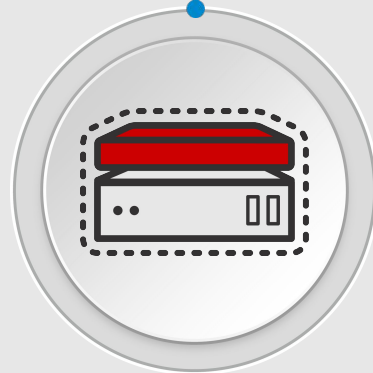
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PHYSICAL



VIRTUAL

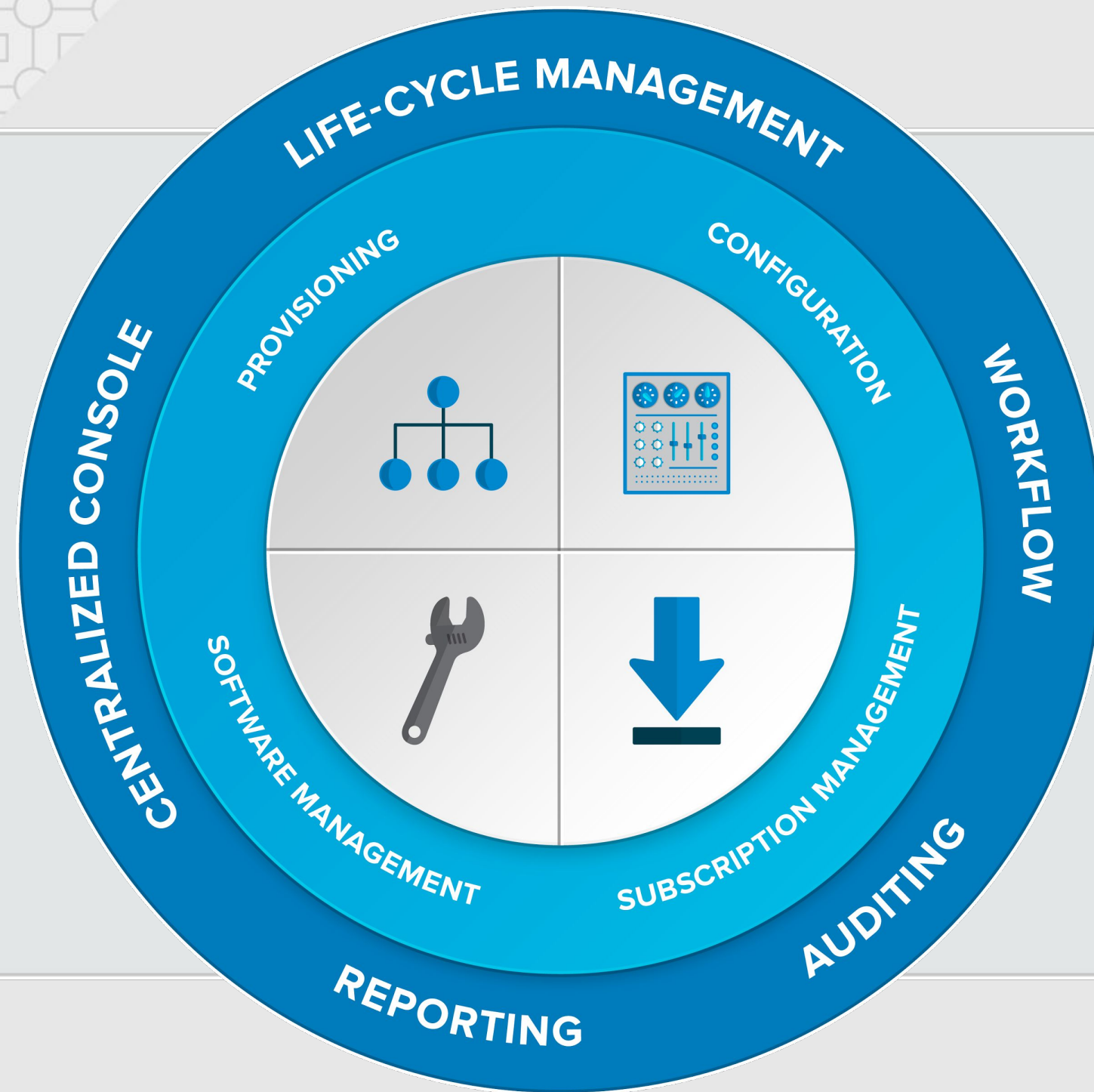


PRIVATE CLOUD



PUBLIC CLOUD

EFFICIENT SYSTEMS MANAGEMENT

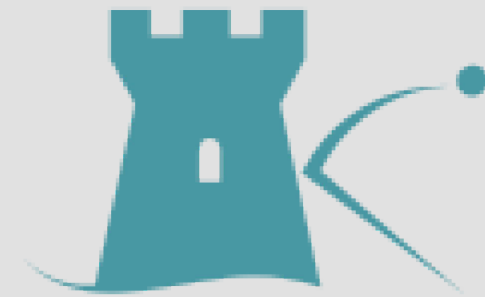


- Provides **life-cycle** management for Red Hat infrastructure
- Enables **provisioning** on bare metal, virtualized and cloud-based infrastructures
- Provides centralized **configuration** and **drift management**
- Simplifies management of **content**, including **security errata** and **containers**
- Makes it easy to manage and track **subscriptions**
- Allows large scale **remote command and control** for managed hosts

SATELLITE COMPONENTS



FOREMAN



KATELLO™



Puppet



ANSIBLE ^{**6.3+}



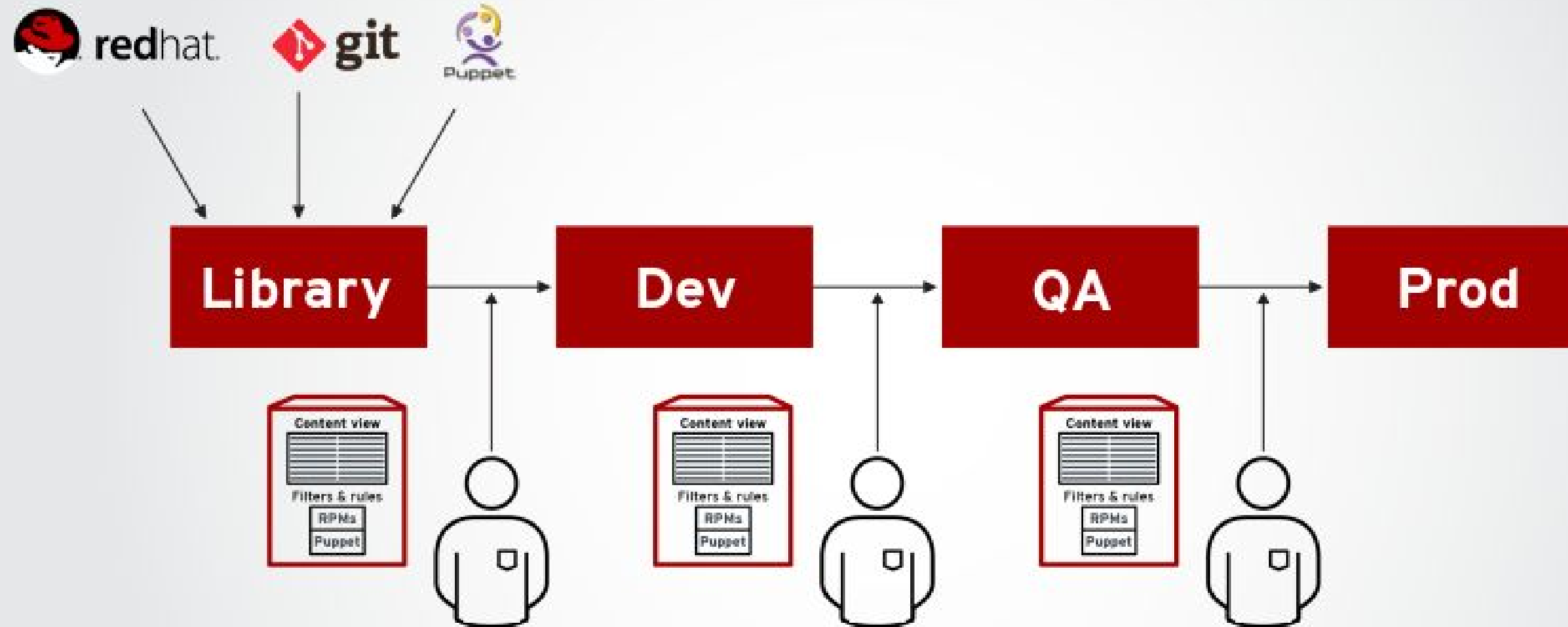
CANDLEPIN

SOFTWARE/CONTENT MANAGEMENT

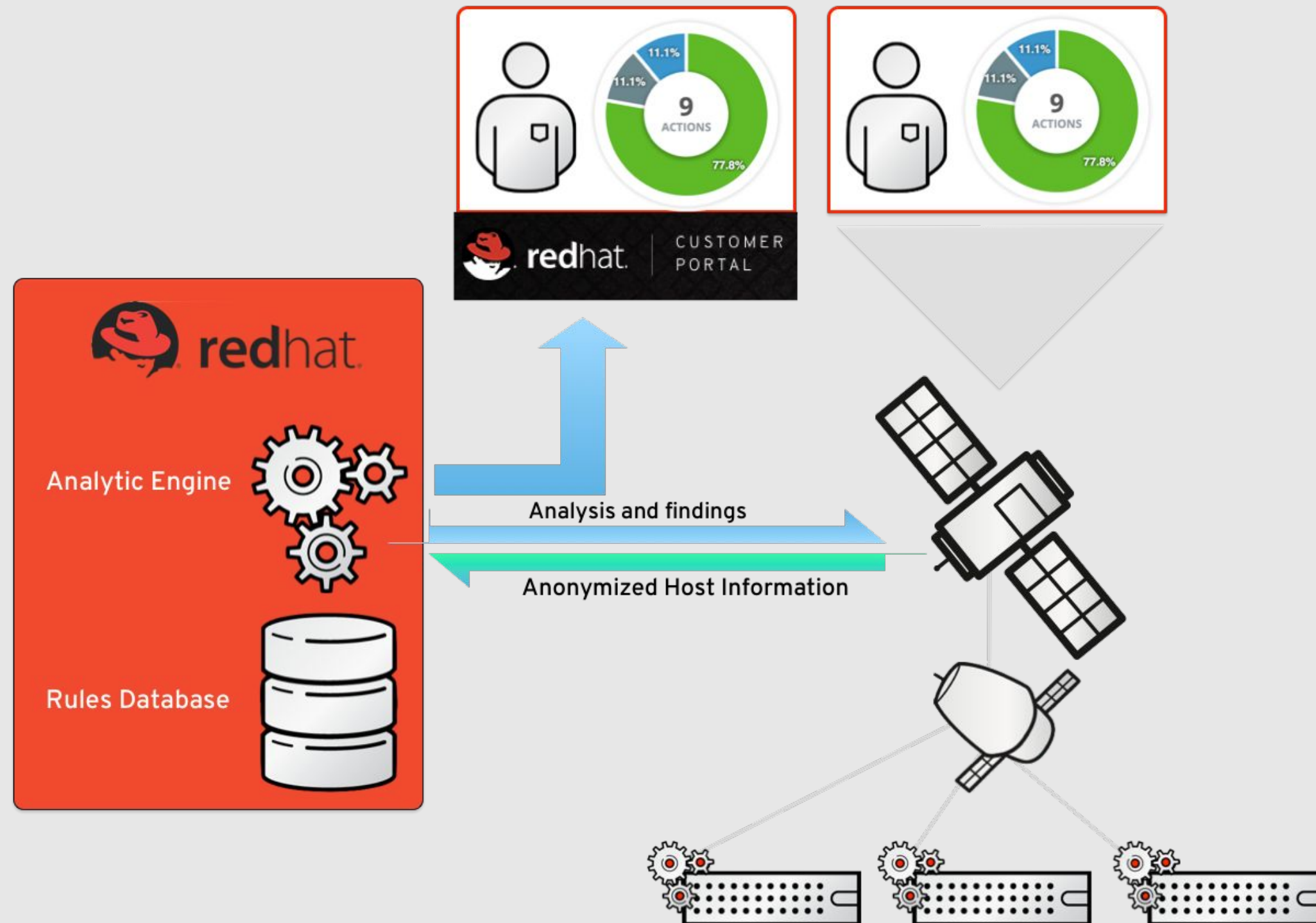


- Define & manage Standard Operating Environments
- Quickly respond to security vulnerabilities (Heartbleed/ShellShock)
- Comply with your organization's security policies (Openscap)
- Deploy all Red Hat Infrastructure as well as third-party software

LIFECYCLE MANAGEMENT



ACCESS INSIGHTS

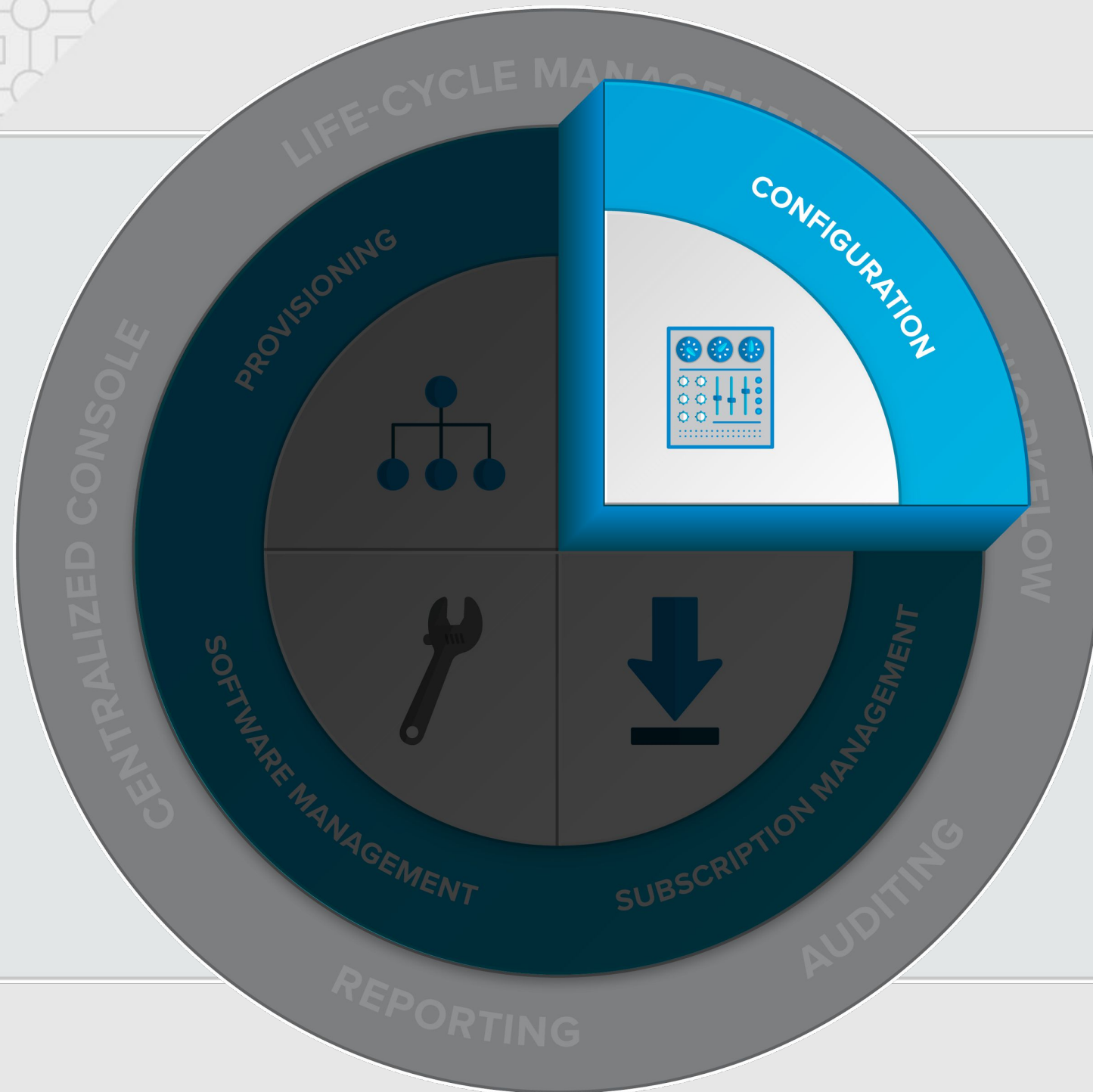


SOFTWARE/CONTENT MANAGEMENT

:: DEMONSTRATION #1

Dashboard/Red Hat Content/Errata/Insights

CONFIGURATION MANAGEMENT

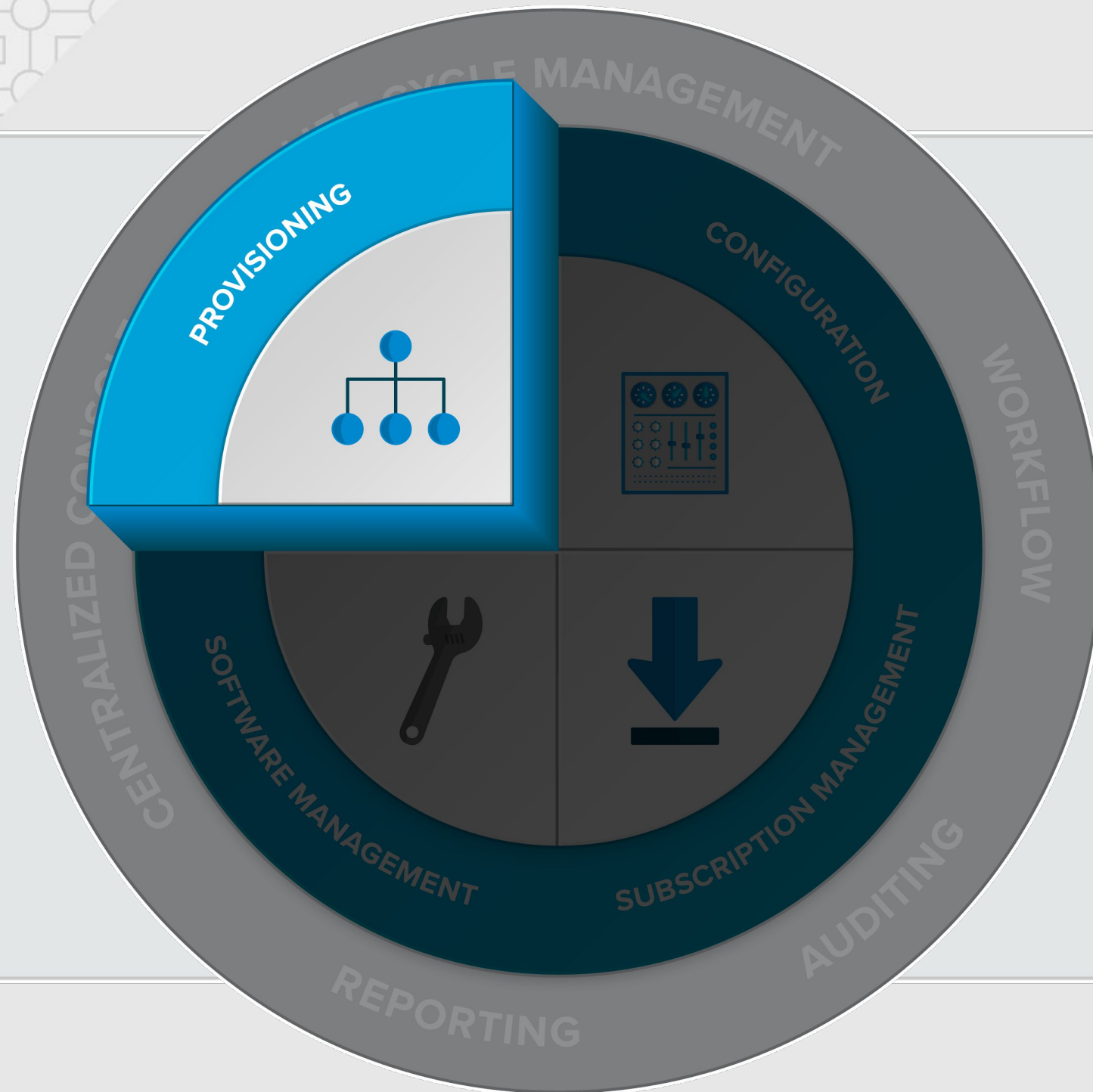


- Define desired state of systems
 - Manage and remediate drift
 - Audit & report when changes are made
 - Use remote commands on many systems (6.1.5)
- <https://access.redhat.com/blogs/1169563/posts/2482081>

CONFIGURATION MANAGEMENT

:: DEMONSTRATION #2
Puppet/Remote execution

PROVISIONING



- Provision to bare metal, virtual (VMware, libvirt, RHEV), private (Openstack, Docker), and public clouds (Openstack, Amazon, Rackspace and Google)
- Support build-based and image-based deployments
- Discover non-provisioned hosts

PROVISIONNING

:: DEMONSTRATION #3

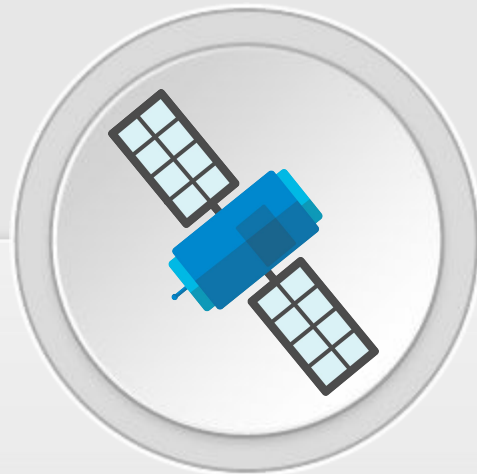
Provisioning/Compute Resources/Discovered hosts

SUBSCRIPTION MANAGEMENT



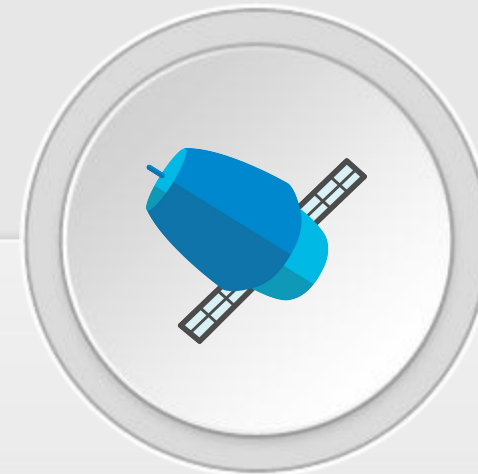
- Centrally manage subscription usage
- Maintain accurate inventory and utilization information
- Report on subscription consumption on a group-by-group basis
- 6.2.2: Improved bulk management of subscriptions (<https://access.redhat.com/blogs/1169563/posts/2632781>)

SATELLITE 6 PRODUCTS



SATELLITE SERVER

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



SATELLITE CAPSULE SERVER (evolution of Satellite Proxy)

Federated services
Automated provisioning
Discovery of new physical & virtual machines

SATELLITE 6.2

RELEASE THEMES

6.0 THEMES - *“a more modern Satellite 5”*

- New content workflow – Products/Repositories, Content Views
- New Life Cycle workflow – Environments and life cycle paths
- Recipe-based configuration management (Puppet)
- Smartly build “Classes” of systems with a new pluggable framework (The Foreman)
- REST-based APIs

6.1 THEMES - *“satellite 5 gap closure / scaling and polish / MaaS”*

- UI cleanup and unified content (e.g. RPMs and Config managed together)
- Disconnected Satellite Support
- Improved federation and scale
- OpenSCAP integration (policy and compliance)
- Network configuration
- Discovery and Deployment – Metal-as-a-Service
- Red Hat Insights integration

SATELLITE 6.2 AT A GLANCE



AUTOMATED WORKFLOWS

Remote execution
Scheduling
Expanded bootstrap
and provisioning
options



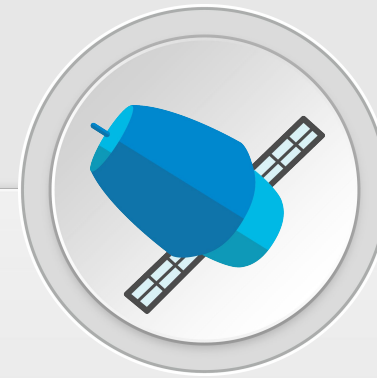
AIR-GAPPED SECURITY & FEDERATION

Inter-Satellite
Sync for fully
connected and
disconnected
Satellites



SOFTWARE MANAGEMENT IMPROVEMENTS

Streamlined content
synchronization*
Simplified Puppet
smart variable
management
Arbitrary File based
repositories



CAPSULE IMPROVEMENTS

Deeper insights into
Capsule health and
overall performance
Lighter-weight
Capsules
Highly available
Capsule



ATOMIC OSTREE AND CONTAINERS

Complete
management of RHEL
Atomic hosts
Mirror container
repositories



ENHANCED DOCUMENTATION

New Documentation
Guides Available
More user-friendly
documentation

AUTOMATED WORKFLOWS



AUTOMATED WORKFLOWS

Remote execution
Scheduling
Expanded bootstrap &
provisioning options

Remote Execution

- Automate workflows and enable users to take multiple actions against groups of systems
- Create a library of job templates, allowing easy & secure reuse of common commands

Scheduling

- Remote Execution jobs such as patch installation, remote commands or puppet runs can be scheduled to run immediately, at some future time, or on a recurring basis

<http://red.ht/2jxNjf2>

Expanded Bootstrap & Provisioning Options

- Simplify the process of migrating and registering systems to Satellite via an automated script
- Allow end users to more efficiently provision systems in secured environments where DHCP and PXE may not be available

AIR-GAPPED SECURITY & FEDERATION



AIR-GAPPED SECURITY & FEDERATION

Inter-Satellite Sync

Inter-Satellite Sync

- Synchronize and export content from one Satellite to another, especially useful for Satellites running in air-gapped environments
- Allows export (full or incremental) of a repository, content view or a repository within a content view
- Exported content can be used by another Satellite as their upstream source of content (CDN)

SOFTWARE MANAGEMENT IMPROVEMENTS



SOFTWARE MANAGEMENT IMPROVEMENTS

Streamlined content synchronization*
Simplified Puppet smart variable management

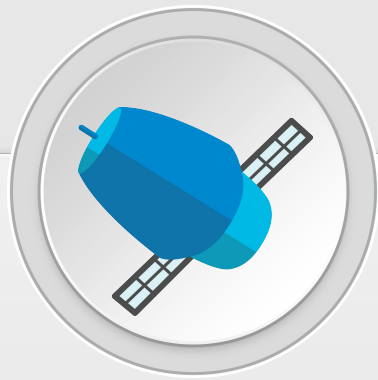
Streamlined content synchronization (Lazy sync 6.2.3)

- Build systems almost immediately after install
- Speeds backup and restore process because software packages are no longer required to be backed up
- Drastically reduces the amount of time a Satellite needs to be offline for backup
- <https://access.redhat.com/articles/2695861>

Simplified Puppet Smart Variable Management

Improved UI/UX for Smart Variable Management making configuration management simpler and less error prone

CAPSULE IMPROVEMENTS



CAPSULE IMPROVEMENTS

Deeper insights into Capsule health and overall performance
Lighter-weight Capsules
Highly available Capsule

Deeper insights into Capsule health and overall performance

- Improved Capsule visibility, such as what services are running and their status, from the centralized Satellite console

Lighter-weight Capsules

- Red Hat Satellite Capsule Server can be configured to store only the content that has been requested by its clients, reducing the storage needed by the Satellite Capsule Server

Highly available Capsule

- New Reference Architecture including deploying a Highly Available Satellite Capsule

ATOMIC HOSTS AND CONTAINERS



ATOMIC HOSTS AND CONTAINERS

Complete management
of RHEL Atomic hosts
Mirror container
repositories

Complete management of RHEL Atomic hosts

- Mirror, provision and manage RHEL Atomic hosts and content
- Satellite treats RHEL Atomic as a compute resource
- Satellite can be configured to deploy containers on a RHEL Atomic host

Mirror container repositories

- Satellite supports mirroring container repositories such as the Red Hat Registry, DockerHub™ and other 3rd-party sources
- Provides a secure & curated point of entry for container content

ENHANCED DOCUMENTATION



ENHANCED DOCUMENTATION

New Documentation
Guides Available
More User-Friendly
documentation

New Documentation Guides Available

- Architecture Guide. (How to plan your Satellite 6 deployment)
- Virtual Instance Guide (How to configure virt-who)
- Hammer CLI Guide (How to use Satellite's CLI)
- Content Management Guide (How to easily manage Satellite's content)
- Quickstart Guide (How to get up and running quickly)

More User-Friendly documentation

- User Guide split to make more topical and easier to follow:
 - Server Administration Guide
 - Host Configuration Guide
- “Cheat Sheets” available for specific topics (Hammer)
<https://access.redhat.com/articles/2258471>
- Updated Feature Overviews

NEW TOOL - Satellite-Clone

February 3rd 2017

How to clone your Satellite 6

Satellite-clone contains simple Ansible playbooks that can be used to perform any of the following tasks:

- Setup Satellite 6.1 or 6.2 install with the Satellite backup data
- Change the hostname on an existing Satellite install
- Perform a minor upgrade of an existing Satellite
- <https://access.redhat.com/solutions/2755881>
- <https://github.com/RedHatSatellite/satellite-clone>

This tool is not supported for production environments and is intended to be used for development/testing purposes

Red Hat Satellite blog

<https://access.redhat.com/blogs/1169563>

SUBSCRIPTIONS DOWNLOADS SUPPORT CASES

Michael Lessard

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Red Hat Satellite Blog

Community > Blogs > Red Hat Satellite Blog

The Satellite Blog is a place for the Engineering team to publish tips and tricks about how to use our products, videos which showcase new features, and to point users at new content on the Customer Portal.

LATEST POSTS

Questions and Answers from the January 2017 Satellite Ask-Me-Anything session

Authored by: [Rich Jerrido](#)

Satellite 6 Ask Me Anything FAQ

As promised, listed below are the responses to the questions we received in our Jan 2017 Satellite Ask Me Anything session. We are running another Ask Me Anything on [14 Feb](#), so feel free to join us again.

SUBSCRIPTIONS

Question: On the subscription comments... you have to give it a subscription id with hammer. I have a bunch of VMs that came in with the wrong license that should be under the datacenter model. The only way I've found to fix this through the UI remove the subscription and then run auto attach. Shouldn't auto attach fix this on it's own? Or virt who fix it? Is there a way for me to do this in bulk?

Answer: Generally speaking, once a system has a valid subscription, the tools do not modify it. You can solve this in one of two manners:

Remove the subscription from the guest and do nothing. Within the rhsmcertd checkin interval, the guest will consume it's hypervisors subscription. (Assuming it has been reported via virt-who)

Remove the subscription from the guest, and run auto-attach. With Satellite 6.2.2 and newer, you can do this 'en masse' for large numbers of hosts if needed.

Question: How have subscriptions been remedied in 6.2? I'm currently looking into the upgrade as I have clients losing repo subscriptions.

Answer: With Satellite 6.2.2 and newer, a number of tools were added to improve the subscription experience:

- New CLI tooling to attach subscriptions to hosts (via hammer host)

- New GUI tooling to perform subscription actions (run auto-attach, attach a specific subscription) on large numbers of hosts

Blog

[Red Hat Satellite Blog](#)

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Most Recent Posts

[Questions and Answers from the January 2017 Satellite Ask-Me-Anything session](#)
Thursday at 5:49 PM

[Satellite 6.2.7 is released](#)
January 26 2017 at 8:40 AM

[Subscription-manager for the former Red Hat Network User: Part 11 - Identity Certificates](#)
January 20 2017 at 8:24 AM

[Subscription-manager for the former Red Hat Network User: Part 10 - Instance Based](#)

LOOKING TOWARDS THE FUTURE

***** Subject to change !!! *****

SATELLITE RELEASE TIMING

Regular cadence for “z-stream” releases to improve predictability

- Asynchronous releases (6.2.z) every ~30 days
 - High-impact security fixes
 - High-impact bug fixes

More frequent major releases to improve predictability

- Goal is 6-month cadence
- Releases will be smaller, but more predictable
- More alignment to upstream releases in order to reduce inconsistencies

6.3 THEMES - “polish, updated tooling, easier to support, integrations”

| | |
|------------------------------------|--|
| Updated Tooling | <ul style="list-style-type: none">● Puppet 4 and Puppet 3.8 – You choose● Hammer CLI and API Call: Listing & Download of Content from Content View● Hammer CLI and API Call: List all hosts for errata |
| Organizational Management | <ul style="list-style-type: none">● Org-Admin role formalized |
| Troubleshooting and Supportability | <ul style="list-style-type: none">● Logging improvements● Hot Backups |
| Polish and rounding-out features | <ul style="list-style-type: none">● Container content-flow cleanup● UEFI support● Infoblox support |
| Management Integrations | <ul style="list-style-type: none">● Ansible and Ansible Tower – Automation and configuration● Openshift – Prod-Ops/Dev-Ops (Satellite / Openshift) improved coordination |
| Client platform support expansion | <ul style="list-style-type: none">● Azure Cloud Clients |



THANK YOU



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