

AGENDA

13:30 - 14:25 Gestion des patches, du provisioning et de la configuration de RHEL avec Satellite 6.1, par Michael Lessard, Red Hat

14:25 - 14:35 Capsule : Surveiller les accès aux fichiers avec Auditd, par Philipe Leblond, Telus

14:50 - 15:40 Gestion d'identité avec IDM et intégration avec Active Directory, par Nicolas Zin, Savoir Faire Linux

15:40 - 15:50 Capsule : Démonstration de RHEL Atomic Host, par Eric Gaulin, CGI

16:00 - 17:00 Voyage au cœur de systemd, par Pierre Lemay, CSPQ

17:00 - 17:30 Cocktail et réseautage



redhat®

RED HAT SATELLITE 6.1 OVERVIEW

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 [@michaellessard](https://twitter.com/michaellessard)

June 2015

Agenda

What is Satellite ?

Satellite Overview

Satellite 6.x new features

Lifecycle Management

Content view

Host Group

Discovery

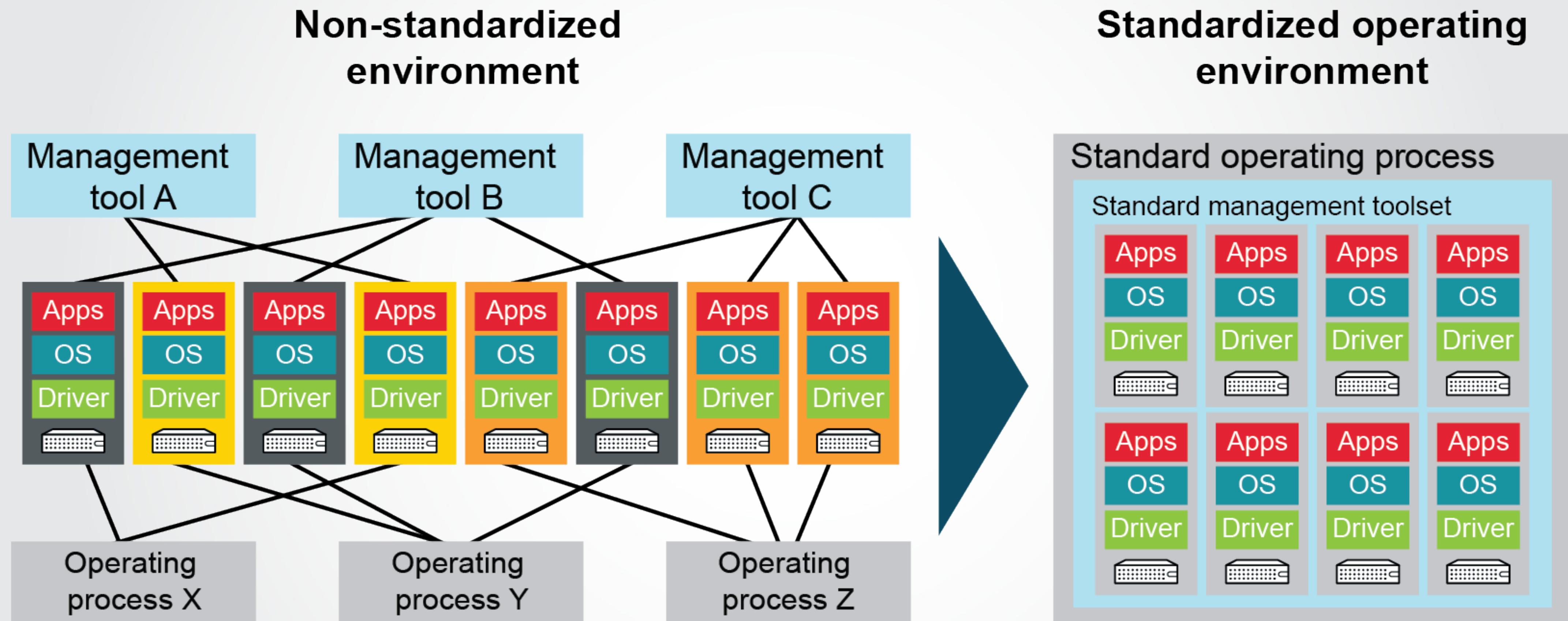
Demo

Satellite 6 transition



Standardized
operating
environments
for cost control
and efficiency

Simplified infrastructure for higher efficiency



Boost productivity and uptime

Benefits of standardized operating environments



- Simplified infrastructure
- Easier management and administration
- Less downtime
- Increased automation and efficiency
- Higher productivity

Reduce costs
Increase business agility

Standardizing on Red Hat technologies

**RED HAT®
ENTERPRISE
LINUX®**

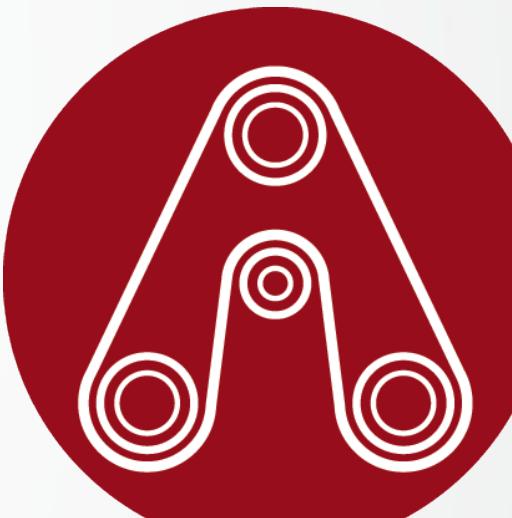
+

**RED HAT®
SATELLITE**

Lower total cost of ownership



Greater IT efficiency



Increased productivity



Red Hat Satellite

Satellite makes Red Hat Enterprise Linux...

Deployable

- Easier to define and provision new systems

Scalable

- Datacenters can add more systems without adding extra admins
- Built to handle thousands of managed systems

Manageable

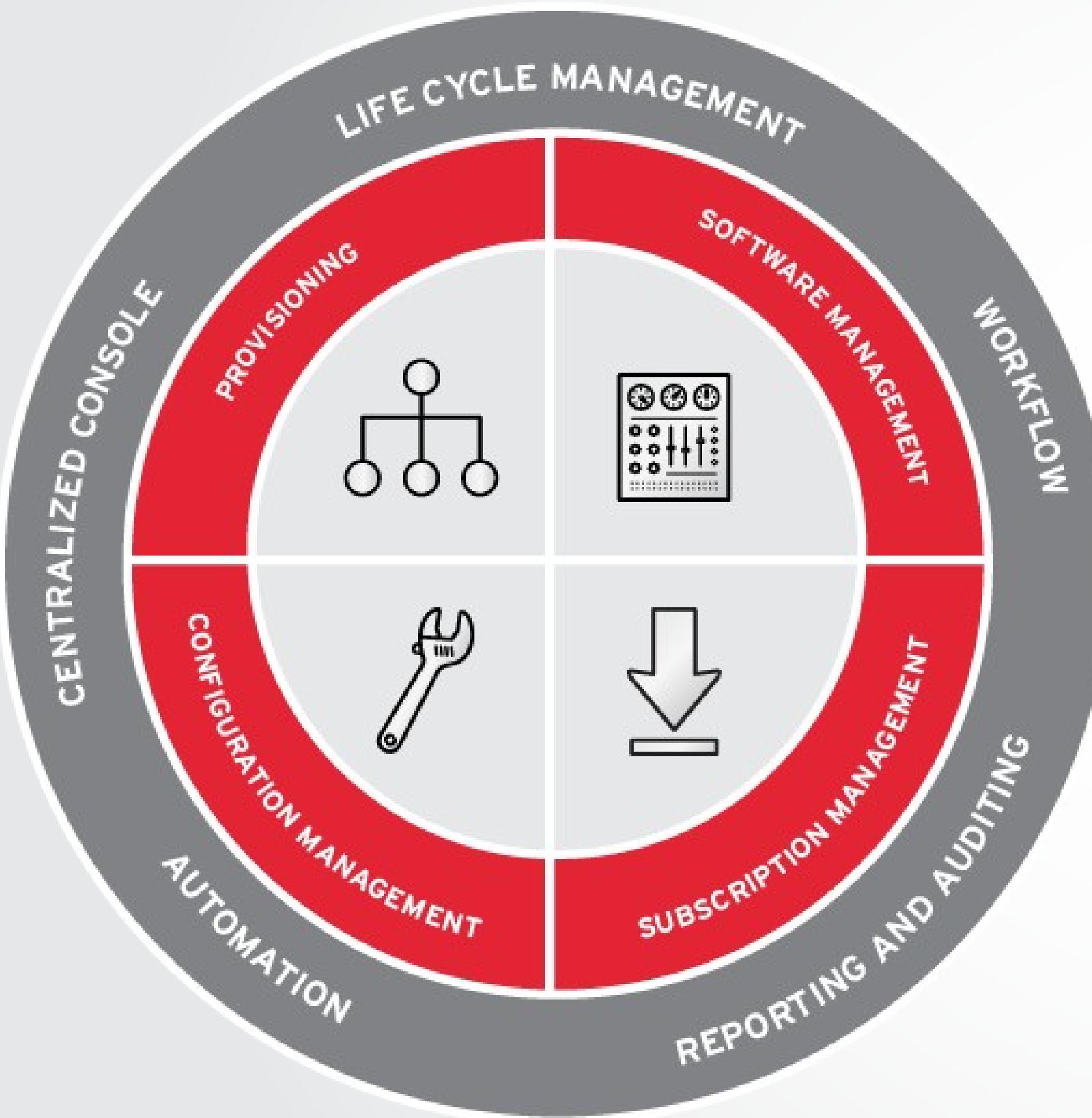
- Intuitive web-based GUI, making it easy to work with groups of systems
- Extremely rich CLI & API for integration and automation

Consistent

- Use views to maintain a master software definition for systems
- Centralized configuration management reduces errors and inconsistencies

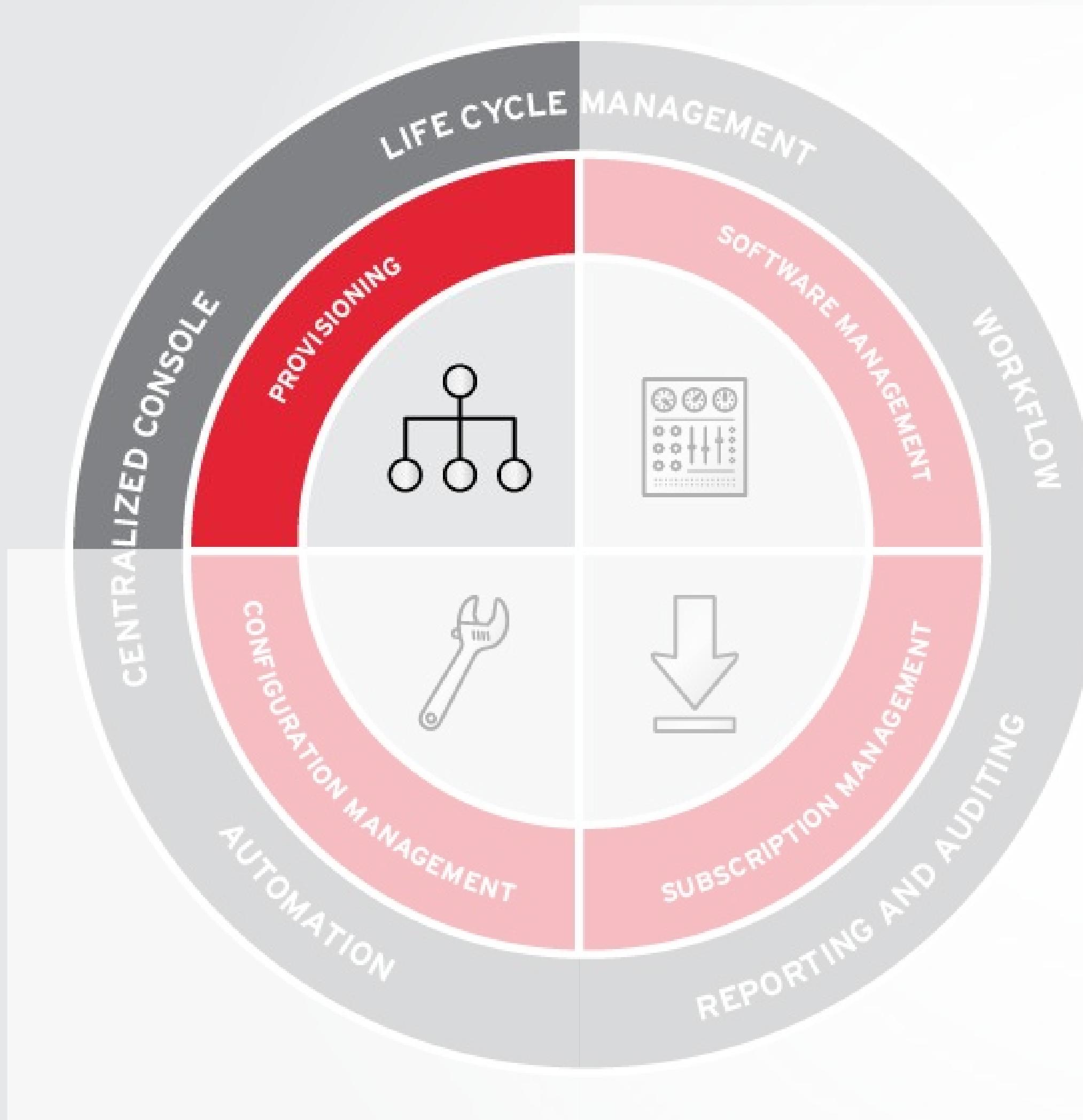


Satellite 6 Overview



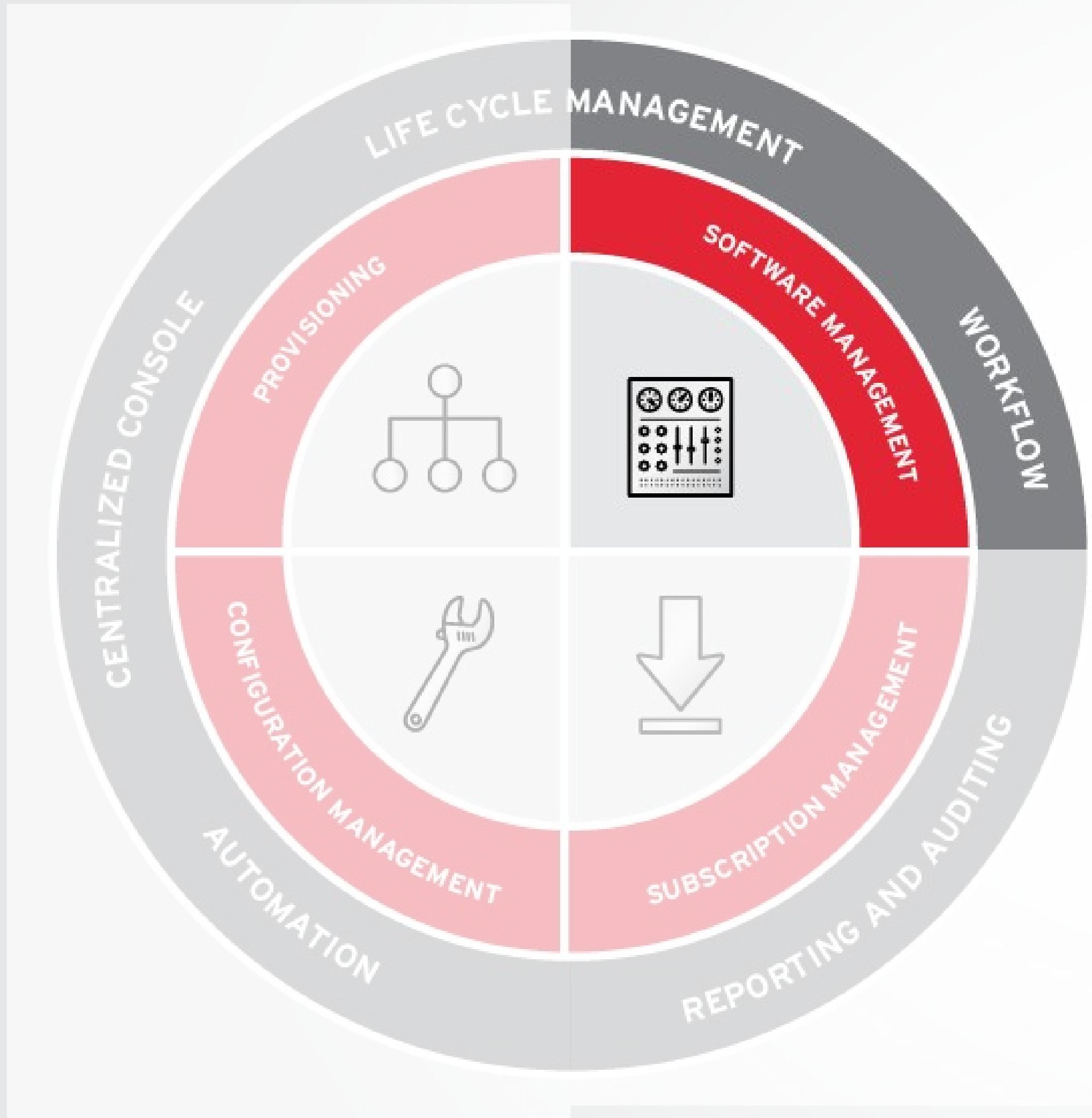
- Provision to bare metal, private, and public clouds(6)
- Declarative configuration management with Puppet (6)
- Automated software distribution
- Life cycle management
- Drift remediation (6)
- Simplified content management

Provisioning



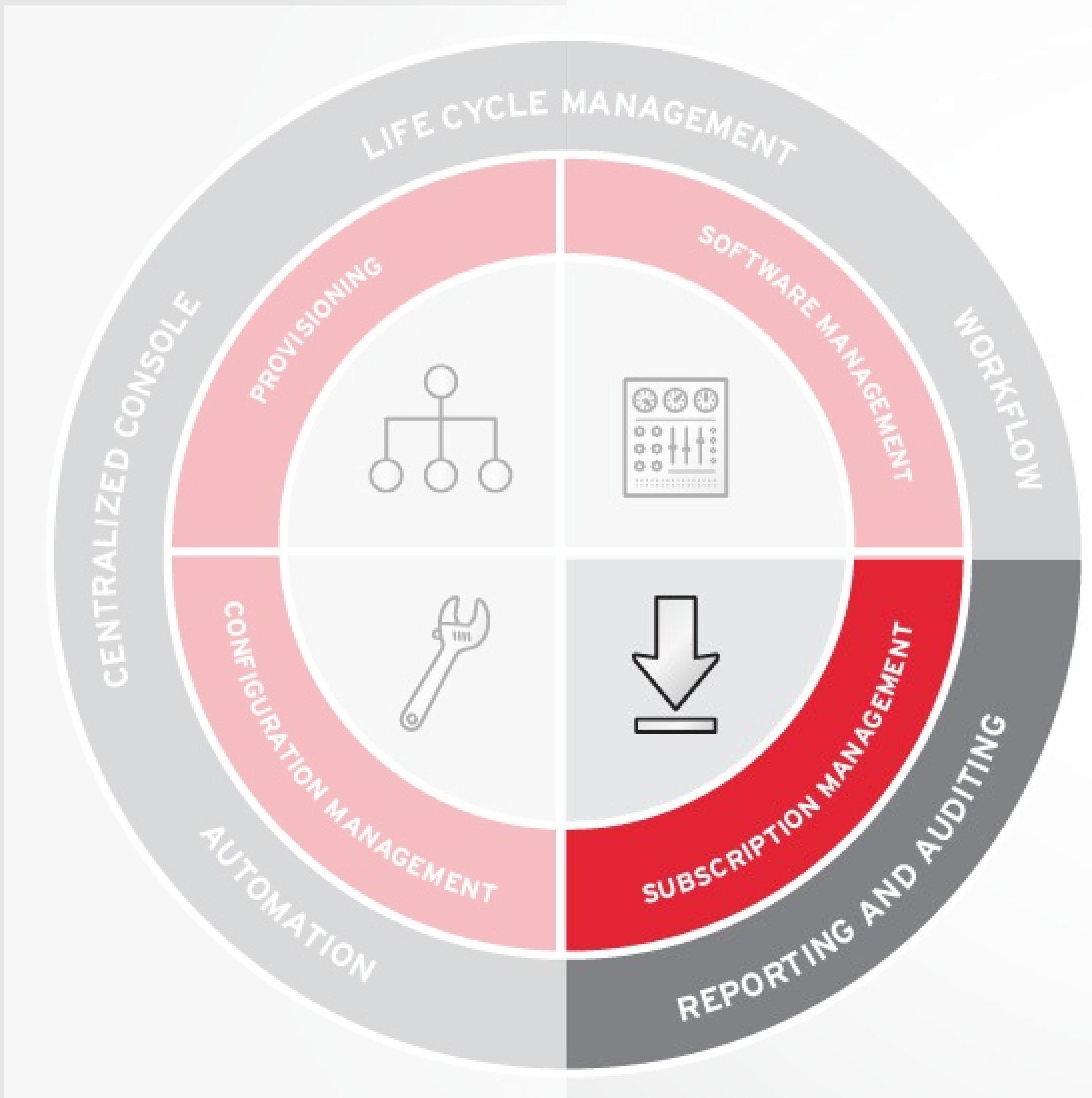
- Provision to bare metal, virtual private, and public clouds
 - Compute resources : libvirt, RHEV, EC2, Vmware, Openstack, Rackspace, Google and Docker
- Provision Docker containers (6.1)
- Federate content delivery
- Discover non-provisioned hosts (6)
- Rules engine for automatic provisioning (6.1)

Software Management



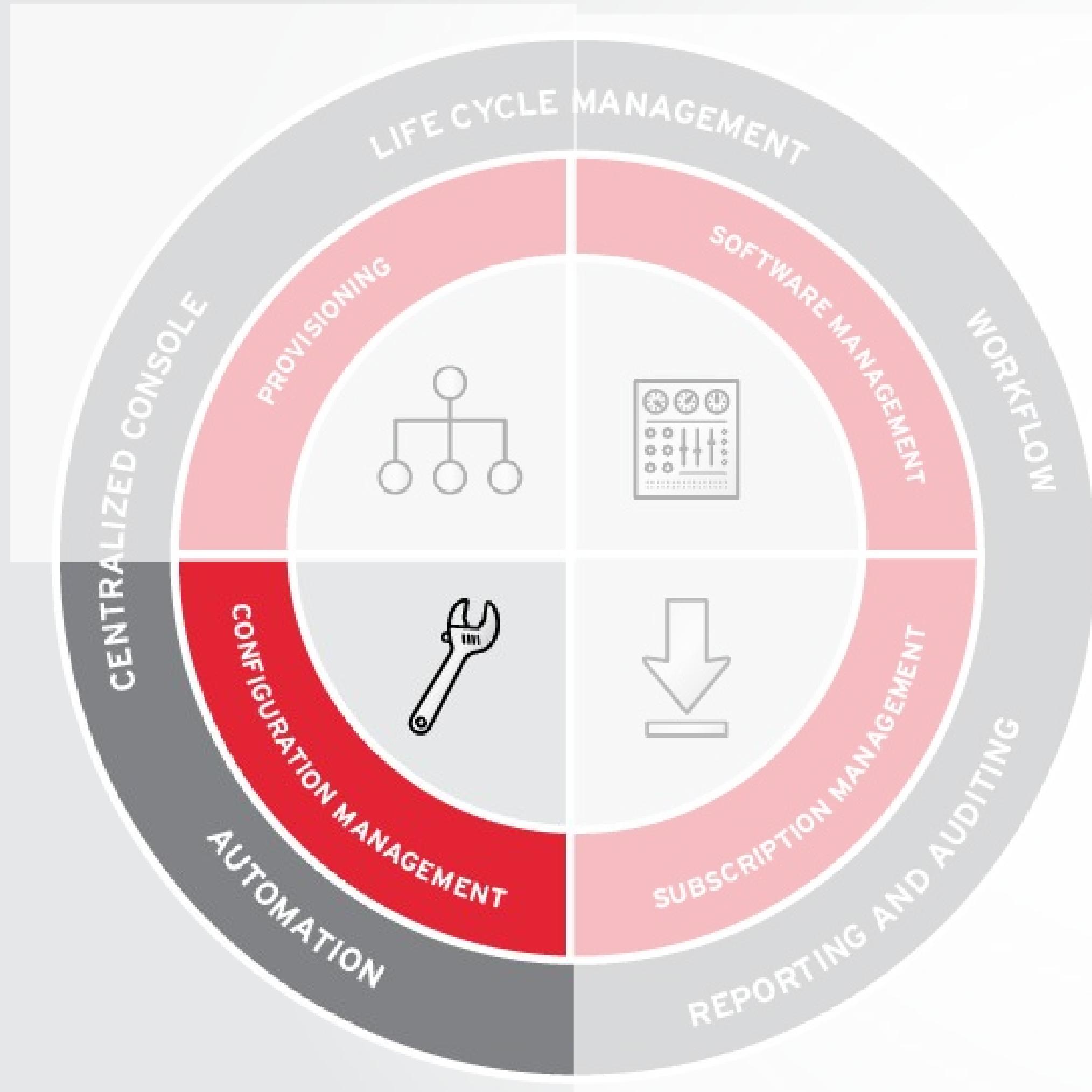
- Define & manage Standard Operating Environments
- Quickly respond to security vulnerabilities (Heartbleed/ShellShock)
- Deploy scalable and secure patching policies
- Centralized release management

Subscription Management



- Centrally govern subscription usage (6)
- Accurate inventory and utilization information
- Helps “buy-up, re-up, true-up”
- Reporting

Configuration Management



- Puppet based
- Define desired state of systems
- Enforce compliance to configuration standards
- Audit & report when changes are made

WHAT IS RED HAT SATELLITE 6?

- New modern design, cutting-edge open source software
- Designed for software life cycle (SLC) management
- Bare metal, virtual machine (VM), docker containers and cloud deployment



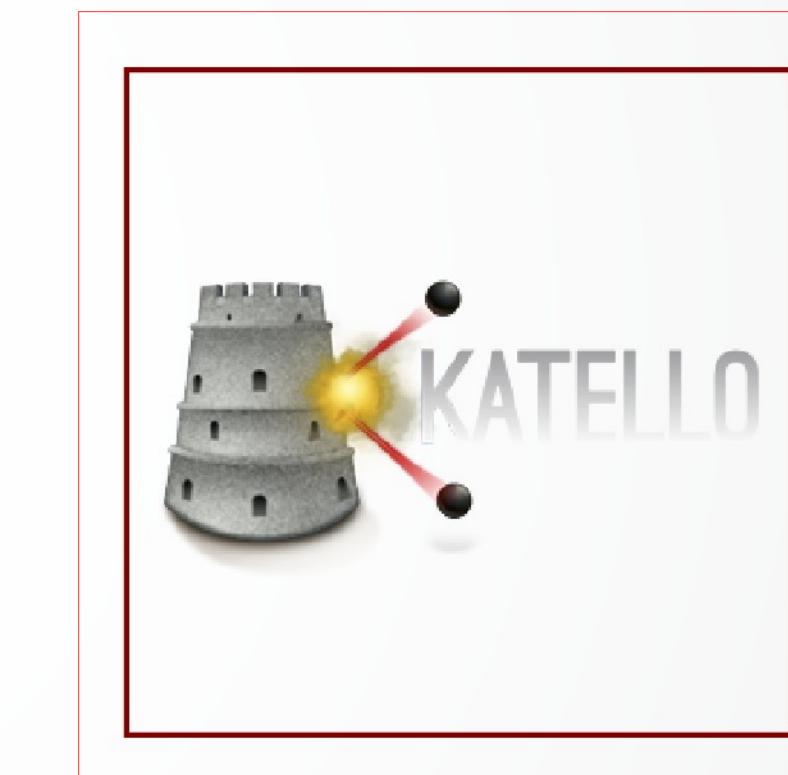
Configuration
management



Provisioning



Repository
management

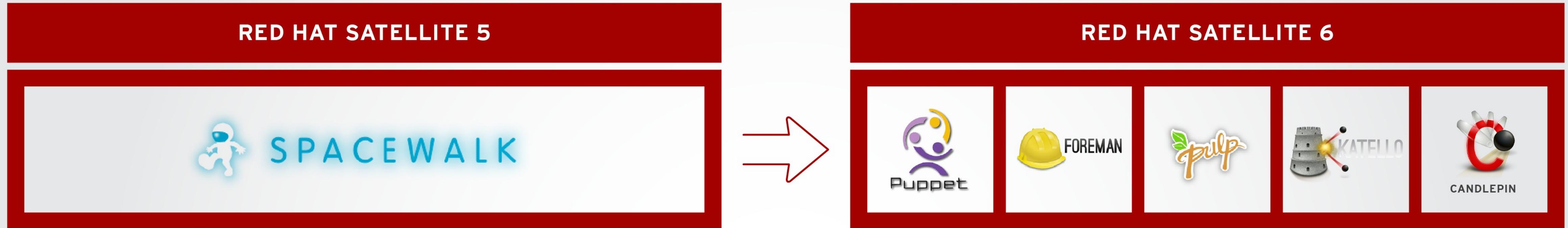


Content/life cycle
management



Subscription
management

RED HAT SATELLITE 5 & 6 CORE CAPABILITIES



- Provision systems
- Configuration management
- Automated software distribution
- Life cycle management*
- Drift reporting
- Can manage > 1000 servers

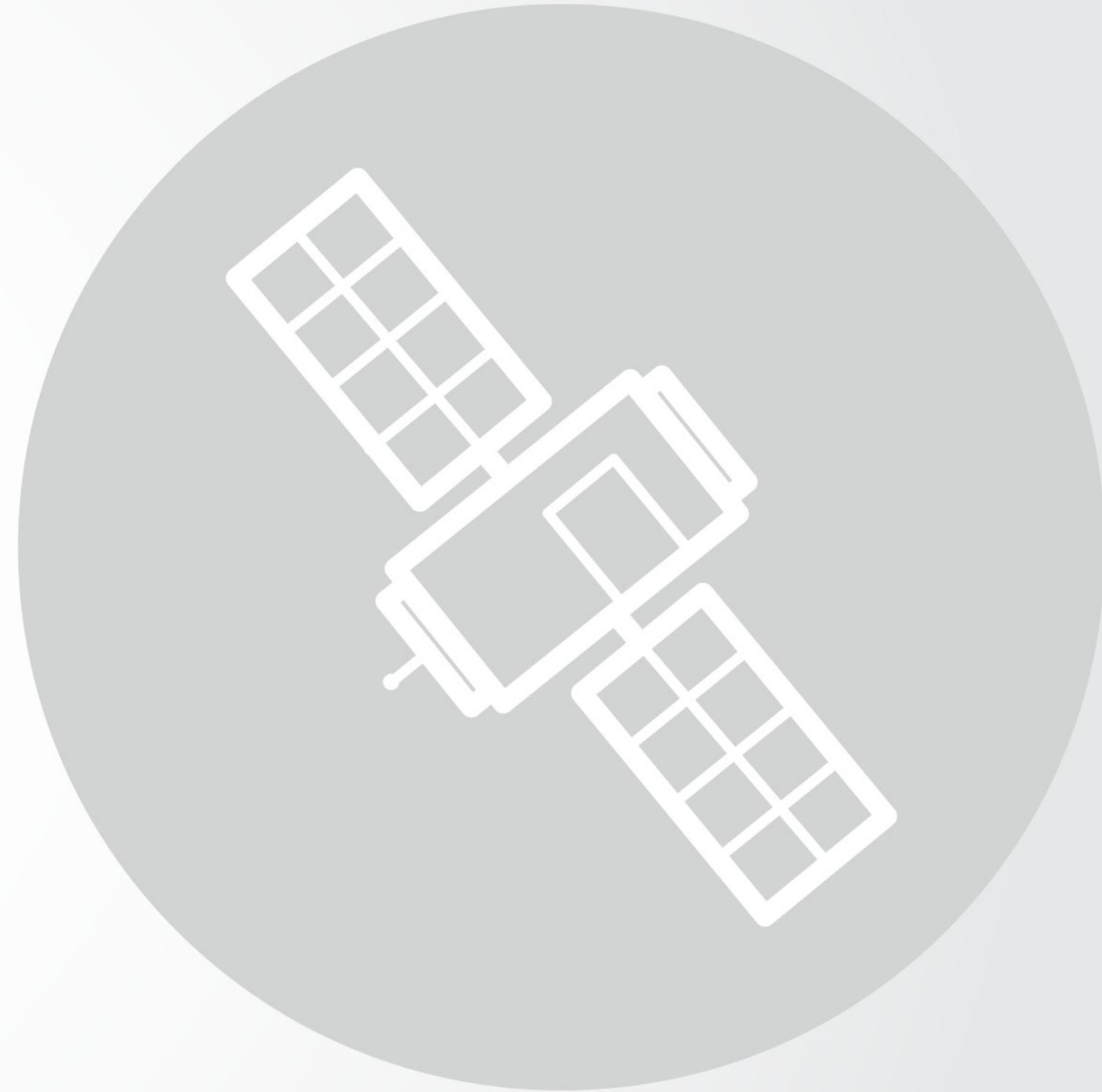
* Satellite 5 provided Life cycle Management via channel-cloning.

- Provision to bare metal, private, and public clouds
- Declarative configuration management
- Automated software distribution
- Life cycle management
- Drift remediation
- Simplified content management
- Federated services and management
- Localization
- Can manage > 10 000 servers
- Clients requirements 5.7 + 6.1+ 7.0+

WHAT ELSE COMES IN THE BOX?

Red Hat Satellite 6 Server

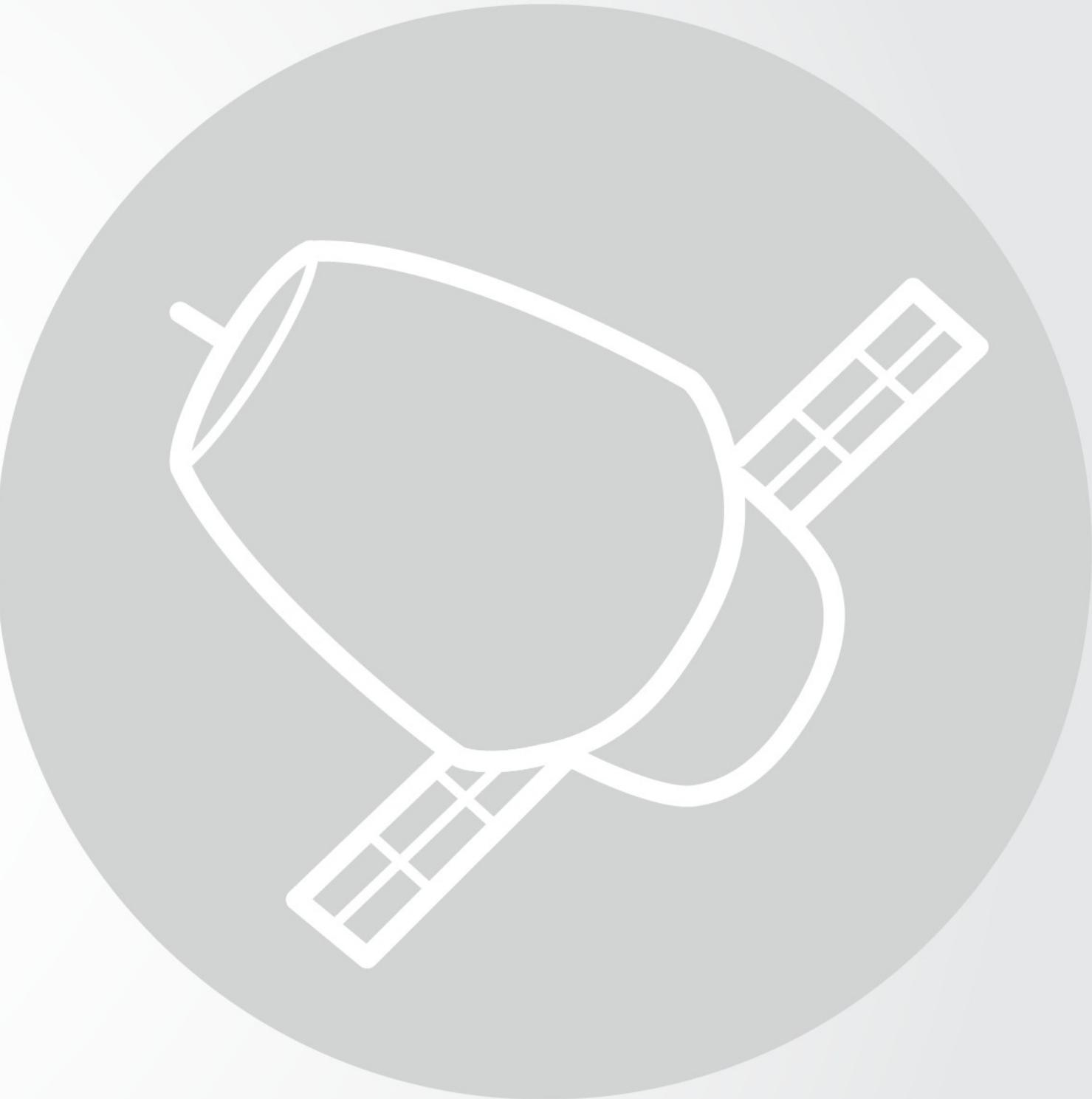
- Multi-tenant
- User and group role-based access control (RBAC) with external directories.
- Integration with IDM
- R/O user
- Powerful graphical user interface (GUI), command-line interface (CLI), and application programming interfaces (API)
- DHCP / DNS
- iPXE
- Single click to refresh the manifest (certificate)
- Customer portal integration



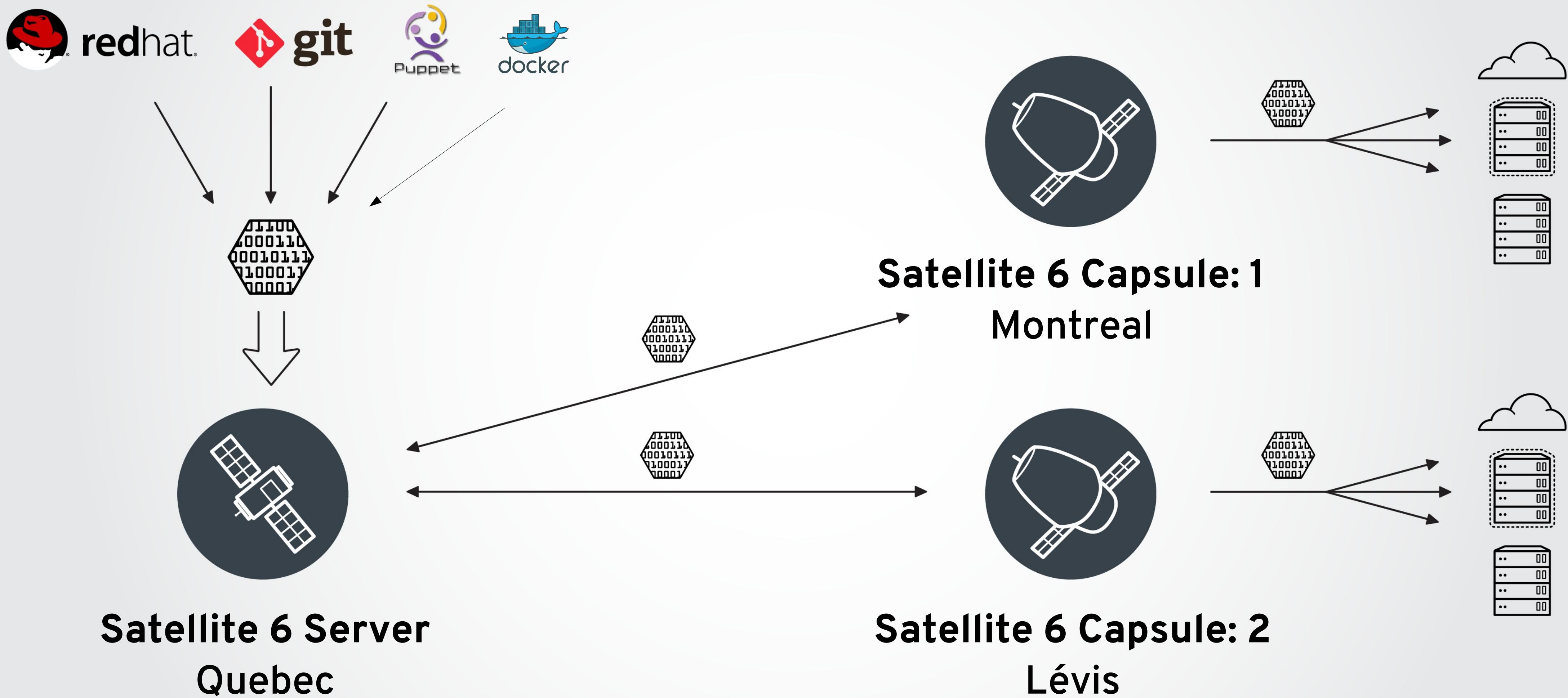
WHAT ELSE COMES IN THE BOX?

Red Hat Satellite 6 Capsule Server

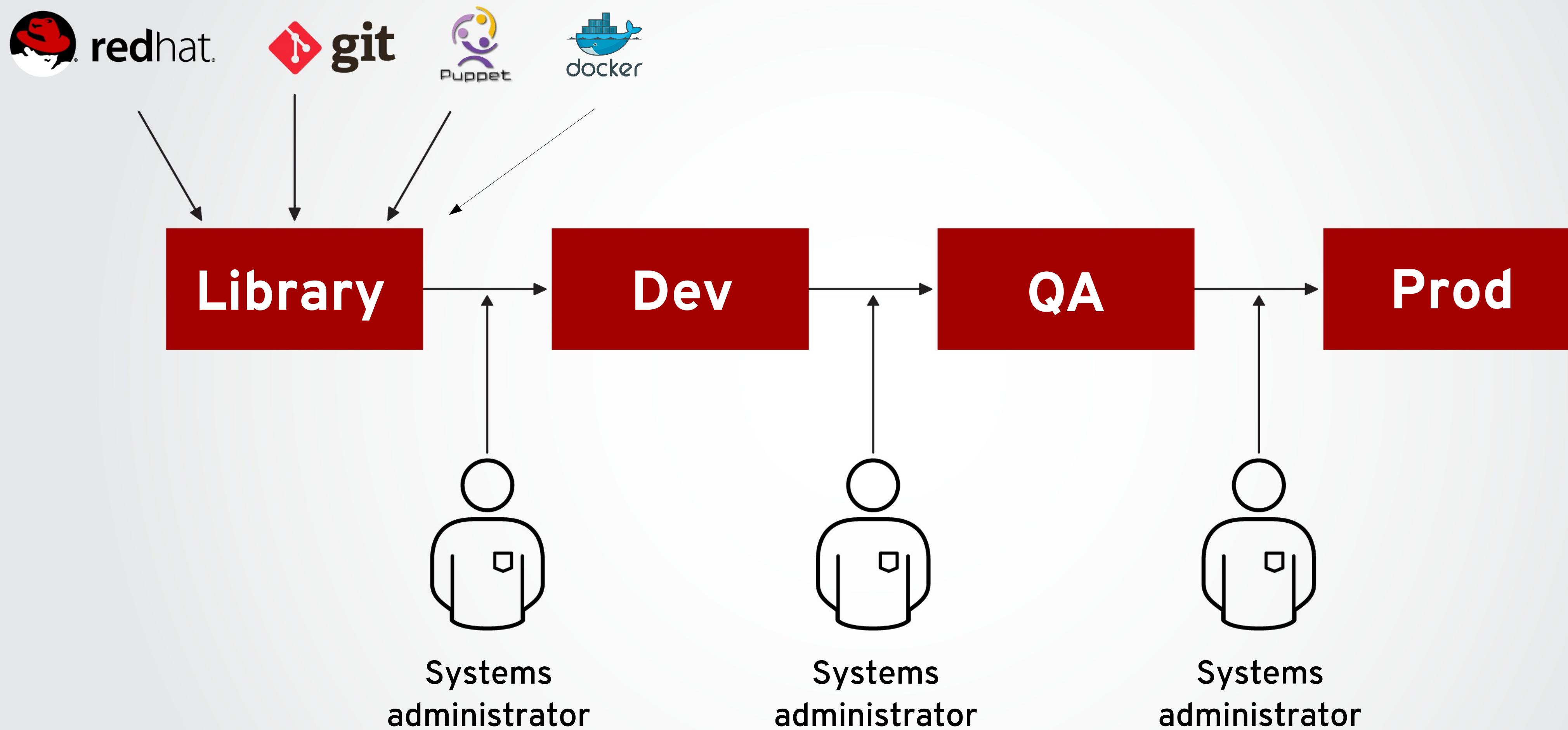
- Federated services
- Automated provisioning
- Everything but the user interface (UI)
- Evolution of Red Hat Satellite Proxy



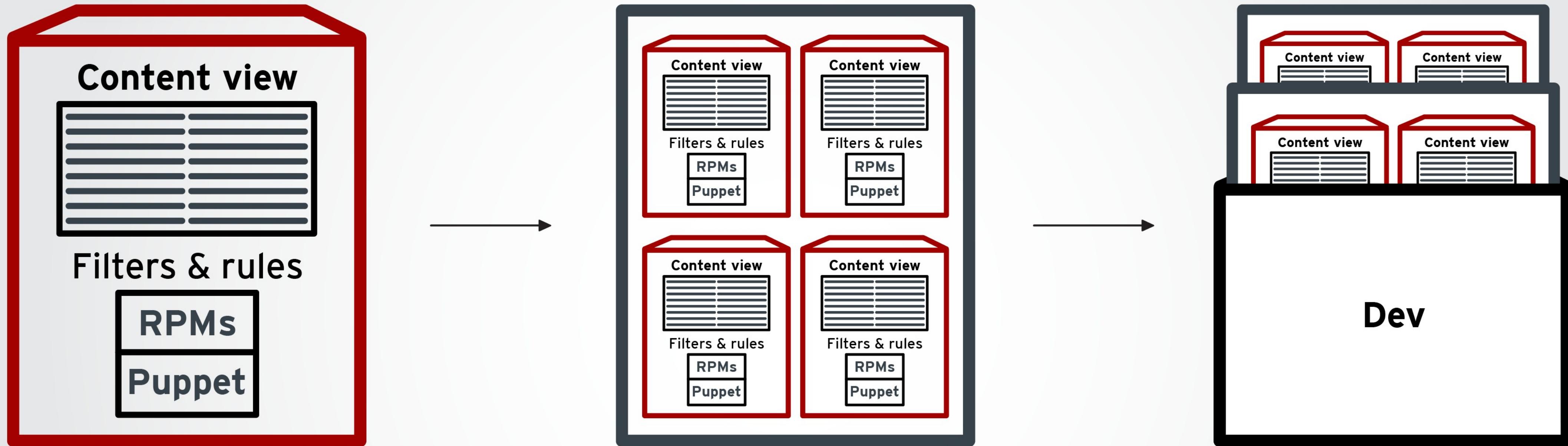
RED HAT SATELLITE 6 HIGH-LEVEL TOPOLOGY



LIFE CYCLE MANAGEMENT



GRANULAR CONTENT MANAGEMENT



Content view

- e.g. Red Hat Enterprise Linux 7
- e.g. Web server
- e.g. Red Hat JBoss Middleware
- e.g. RHEL 7 container

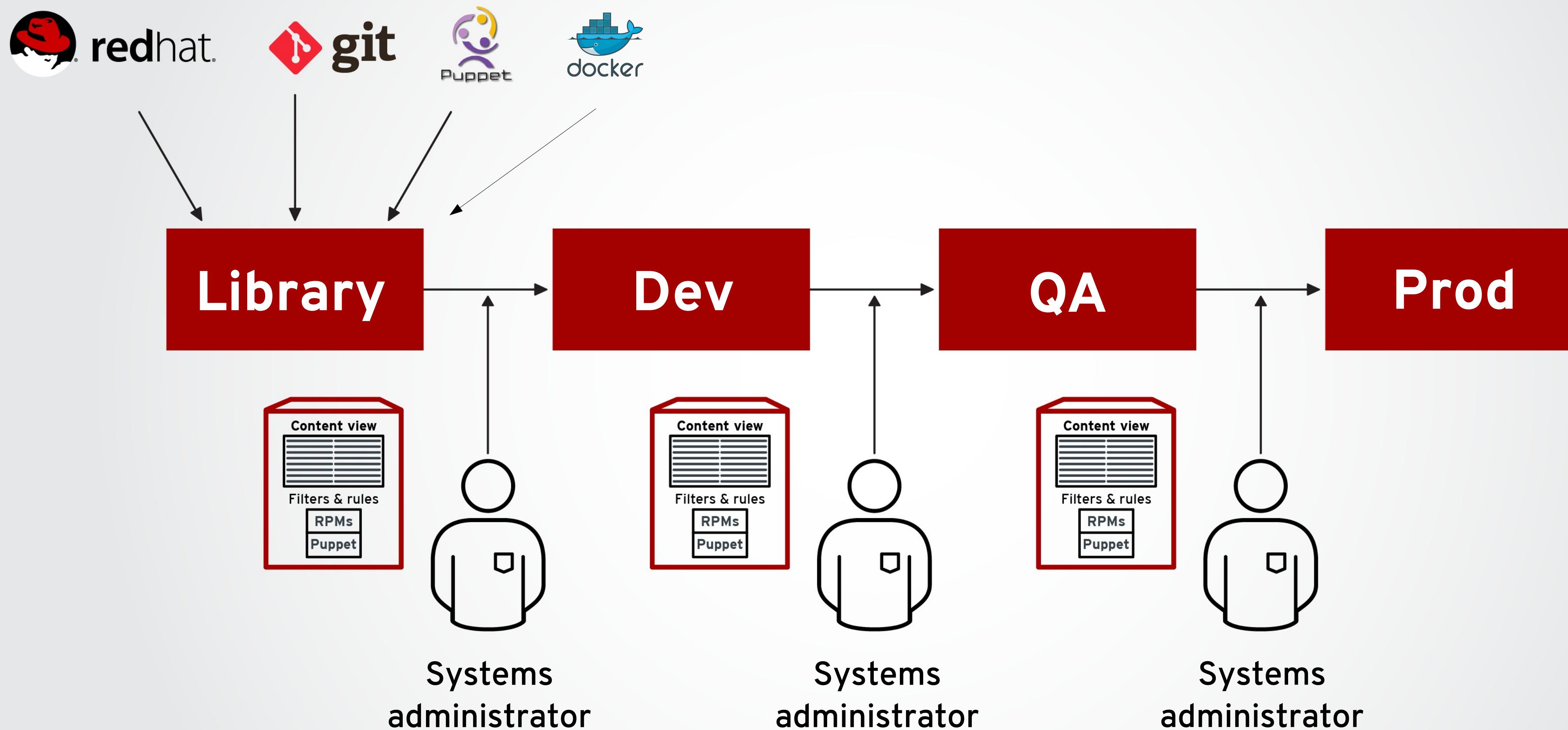
Composite content view

- e.g. SOE for web

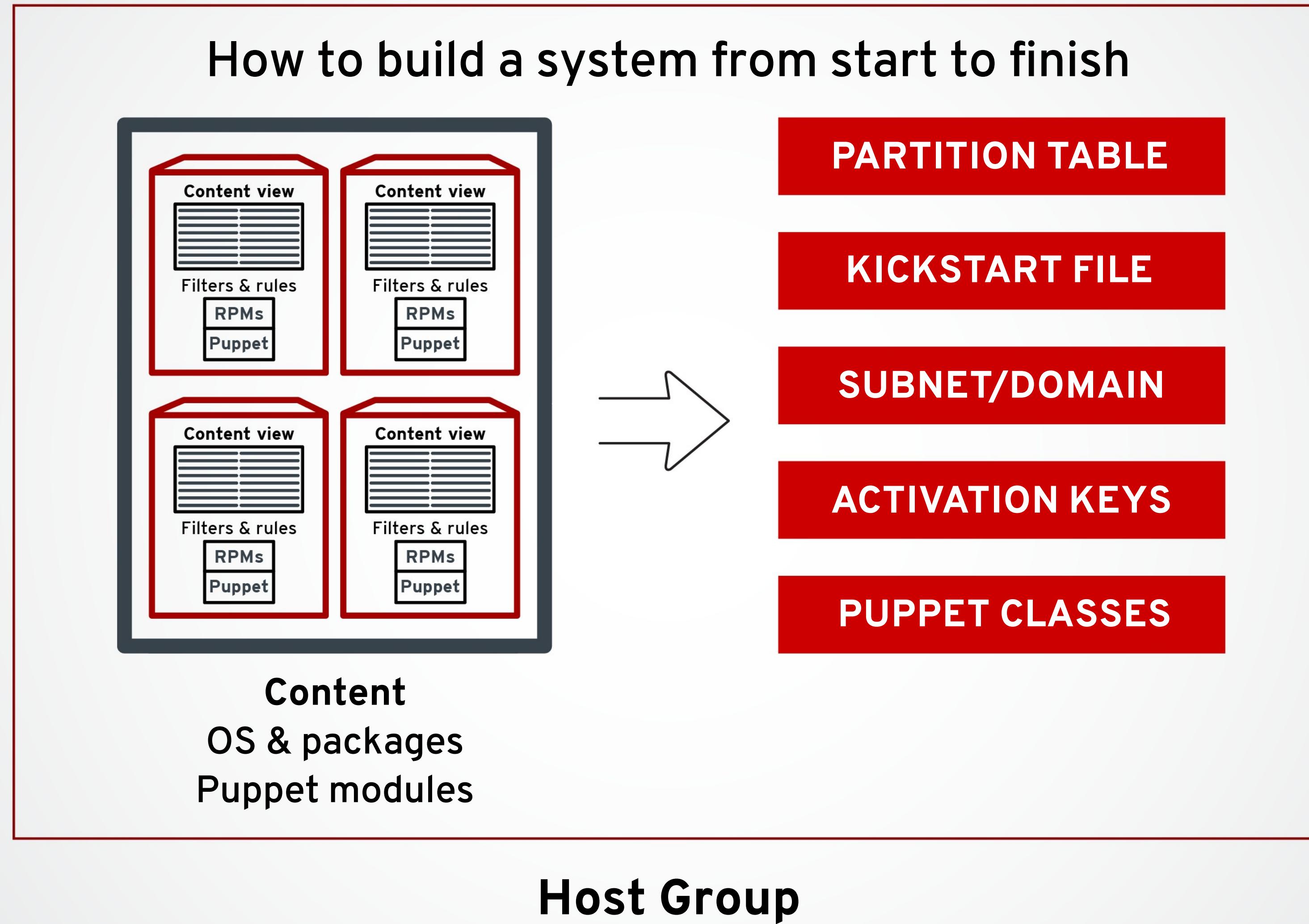
Environment

- e.g. Production
- e.g. Development

CONTENT LIFE CYCLE MANAGEMENT

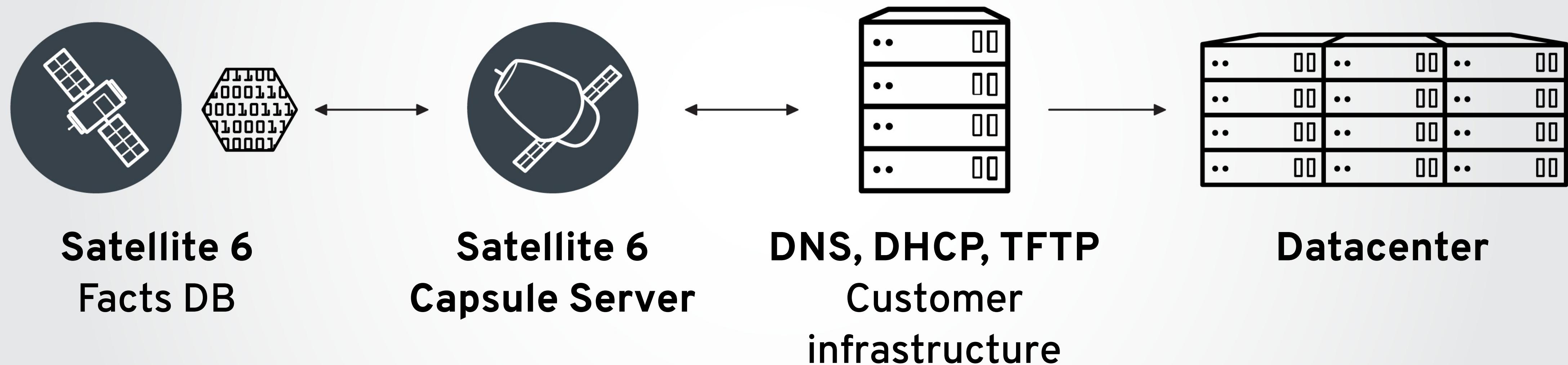


PROVISIONING



DISCOVERY

- Auto-identification of non-provisioned hosts
- Foreman discovery plugin
- “Metal-as-a-Service”
- Automatic provisioning based on rules (6.1)



<https://access.redhat.com/blogs/1169563/posts/1420443>

GUI, API, CLI

- Modern architecture
 - API-first
 - Enables advanced integration
 - hammer

\$hammer -u admin -p ***** product list --organization-id 'Red_Hat_SALAB' --enabled				
PRODUCT ID	NAME	PROVIDER	ORGANIZATION	REPOSITORIES
2	Red Hat Enterprise Linux Server	Red Hat	Red_Hat_SALAB	0
12	Red Hat Enterprise Linux Scalable File System for RHEL Server - Extended Upda...	Red Hat	Red_Hat_SALAB	0
15	Red Hat Software Collections Beta for RHEL Server	Red Hat	Red_Hat_SALAB	0
18	Red Hat Satellite 6 MDP	Red Hat	Red_Hat_SALAB	0
6	Red Hat Software Collections for RHEL Server	Red Hat	Red_Hat_SALAB	0
9	Red Hat Beta	Red Hat	Red_Hat_SALAB	0
10	Red Hat Enterprise Linux Server - Extended Update Support	Red Hat	Red_Hat_SALAB	0
1	Red Hat Satellite Tools 6 MDP	Red Hat	Red_Hat_SALAB	0
4	Red Hat Enterprise Linux 7 Public Beta	Red Hat	Red_Hat_SALAB	0

DEMO

Configure a client

```
# rpm -ivh http://satellite61beta.mlc.dom/pub/katello-ca-consumer-latest.noarch.rpm  
# subscription-manager register --org=mlc --environment=Library  
# service rhsmcertd restart  
# subscription-manager list --available  
# subscription-manager attach --pool 40288af84958977d01495ce88b130369  
# subscription-manager refresh  
# subscription-manager repos  
# subscription-manager repos --enable rhel-7-server-rh-common-rpms  
# yum clean all  
# yum install katello-agent  
# katello-package-upload  
# yum list-sec (list all errata)
```

Setup Puppet client

```
# rpm -ivh http://satellite61beta.mlc.dom/pub/katello-ca-consumer-latest.noarch.rpm UX  
# yum install puppet  
# echo "server=satellite6.mlc.dom" >> /etc/puppet/puppet.conf  
# puppet agent --test --onetime  
on the server, sign the certificate (Infrastructure - Capsules - Certificates (button))  
# puppet agent --test --noop --onetime
```

PERSISTANT

```
# systemctl start puppet  
# systemctl enable puppet
```

Errata Dashboard

RED HAT SATELLITE

mlc ▾ Monitor ▾ Content ▾ Containers ▾ Hosts ▾ Configure ▾ Infrastructure ▾ Red Hat Access ▾ Admin User ▾ Administer ▾

Content Hosts

<input type="checkbox"/>	Name	Subscription Status	Installable Errata	OS	Environment	Content View	Registered By	Registered	Last Checkin
<input type="checkbox"/>	rhel71vm1.mlc.dom	●	5 ⚡ 1 ⚠ 4 +	Red Hat Enterprise Linux Server 7.1	Library	Default Organization View	Admin User	4/28/15 10:21 AM	5/5/15 7:22 AM

RED HAT SATELLITE

mlc ▾ Monitor ▾ Content ▾ Containers ▾ Hosts ▾ Configure ▾ Infrastructure ▾ Red Hat Access ▾ Admin User ▾ Administer ▾

Content Hosts

<input type="checkbox"/>	Name
<input checked="" type="checkbox"/>	rhel71vm1.mlc.dom ▶

Content Host rhel71vm1.mlc.dom

Unregister Content Host × Close

Details Provisioning Details Subscriptions ▾ Host Collections Tasks Packages Errata Product Content

Installable Errata

Show from: Current Environment (Library/Default ▾)

<input type="checkbox"/>	Type	Id	Title	Issued
<input type="checkbox"/>	Product Enhancement Advisory	RHEA-2015:0855	tzdata enhancement update	4/16/15
<input type="checkbox"/>	Security Advisory - Moderate	RHSA-2015:0749	Moderate: libxml2 security update	3/29/15
<input type="checkbox"/>	Product Enhancement Advisory	RHEA-2015:0731	dracut enhancement update	3/25/15
<input type="checkbox"/>	Bug Fix Advisory	RHBA-2015:0741	binutils bug fix update	3/25/15
<input type="checkbox"/>	Product Enhancement Advisory	RHEA-2015:0732	dnsmasq enhancement update	3/25/15
<input type="checkbox"/>	Security Advisory - Important	RHSA-2015:0726	Important: kernel security and bug fix update	3/25/15
<input type="checkbox"/>	Security Advisory - Moderate	RHSA-2015:0716	Moderate: openssl security and bug fix	3/22/15

Email notification

SATELLITE HOST ADVISORY

Hosts with Installable Errata

8 SECURITY	8 BUGFIX	9 ENHANCEMENT
---------------	-------------	------------------

Default Organization

The following hosts have errata that apply to them:

Host	Security	Bugfix	Enhancement
devnode-0001.example.com	0 (3)	0 (4)	1 (1)
devnode-0002.example.com	0 (3)	0 (4)	0 (1)
devnode-0004.example.com	5 (0)	2 (0)	5 (0)
devnode-0003.example.com	5 (0)	2 (0)	5 (0)
prodnode-0001.example.com	5 (0)	2 (0)	5 (0)
prodnode-0002.example.com	5 (0)	2 (0)	5 (0)
prodnode-0003.example.com	5 (0)	2 (0)	5 (0)
prodnode-0004.example.com	5 (0)	2 (0)	5 (0)
prodnode-0005.example.com	5 (0)	2 (0)	5 (0)
devnode-0008.example.com	5 (0)	2 (0)	5 (0)

Note: The number in parentheses reflects all applicable errata from the Library environment that are unavailable to the host. You will need to promote this content to the relevant content view in order to make it available.

SATELLITE SYNC SUMMARY

The synchronization of "Red Hat Enterprise Linux 6 Server RPMs x86_64 6Server" has completed. Below is a summary of new errata.

New Errata

0 SECURITY	3 BUGFIX	0 ENHANCEMENT
---------------	-------------	------------------

Bugfix Errata

Errata ID	RHBA-2015:0927	Severity	-
Title	libsoup bug fix update		
Summary	Updated libsoup packages that fix one bug are now available for Red Hat Enterprise Linux 6.		

Errata ID	RHBA-2015:0950	Severity	-
Title	lvm2 bug fix update		
Summary	Updated lvm2 packages that fix one bug are now available for Red Hat Enterprise Linux 6.		

Errata ID	RHBA-2015:0948	Severity	-
Title	ca-certificates bug fix and enhancement update		
Summary	An updated ca-certificates package that fixes several bugs and adds various enhancements is now available for Red Hat Enterprise Linux 6.		

Sync Status

RED HAT SATELLITE

Red Hat Access Admin User

My Organization Monitor Content Hosts Configure Infrastructure Administer

Sync Status

Collapse All Expand All Select None Select All Only show syncing.

PRODUCT	START TIME	DURATION	DETAILS	RESULT
▼ Red Hat Enterprise Linux Server (Orphaned) ▼ 6Server ▼ x86_64 <input type="checkbox"/> Red Hat Enterprise Linux 6 Server - RH Common RPMs x86_64 6Server <input type="checkbox"/> Red Hat Enterprise Linux 6 Server Kickstart x86_64 6Server <input type="checkbox"/> Red Hat Enterprise Linux 6 Server RPMs x86_64 6Server	about 14 hours ago about 14 hours ago about 14 hours ago	less than a minute 27 minutes about 2 hours	New packages: 45 (5.51 MB). New packages: 3690 (3.27 GB). New packages: 12687 (20.6 GB).	Syncing Complete. Syncing Complete. Syncing Complete.
▼ Red Hat Software Collections for RHEL Server (Orphaned) ▼ 6Server ▼ x86_64 <input type="checkbox"/> Red Hat Software Collections RPMs for Red Hat Enterprise Linux 6 Server x86_64 6Server	about 14 hours ago	5 minutes	New packages: 835 (375 MB).	Syncing Complete.

Synchronize Now

Repo sync and Statistics collected

RED HAT® SATELLITE

My Organization@My Location Monitor Content Hosts Configure Infrastructure Administer

Red Hat Access Admin User

Expand each Red Hat Product below to examine the different repository sets available. When enabling a repository set, the different repositories within are discovered and may be enabled individually.

Enable Red Hat Repositories

RPMs Source RPMs Debug RPMs Beta ISOs Other

PRODUCT

► Oracle Java for RHEL Server

▼ Red Hat Enterprise Linux Server

REPOSITORY SET

► RHN Tools for Red Hat Enterprise Linux 5 Server (RPMs)

► RHN Tools for Red Hat Enterprise Linux 6 Server (RPMs)

► RHN Tools for Red Hat Enterprise Linux 7 Server (RPMs)

► Red Hat CloudForms Tools for RHEL 5 (RPMs)

► Red Hat CloudForms Tools for RHEL 6 (RPMs)

► Red Hat Enterprise Linux 4 AS (RPMs)

► Red Hat Enterprise Linux 4 ES (RPMs)

► Red Hat Enterprise Linux 5 Server (Kickstart)

► Red Hat Enterprise Linux 5 Server (RPMs)

► Red Hat Enterprise Linux 5 Server - Fastrack (RPMs)

► Red Hat Enterprise Linux 5 Server - Optional Productivity Applications (RPMs)

► Red Hat Enterprise Linux 5 Server - RH Common (RPMs)

► Red Hat Enterprise Linux 5 Server - Supplementary (RPMs)

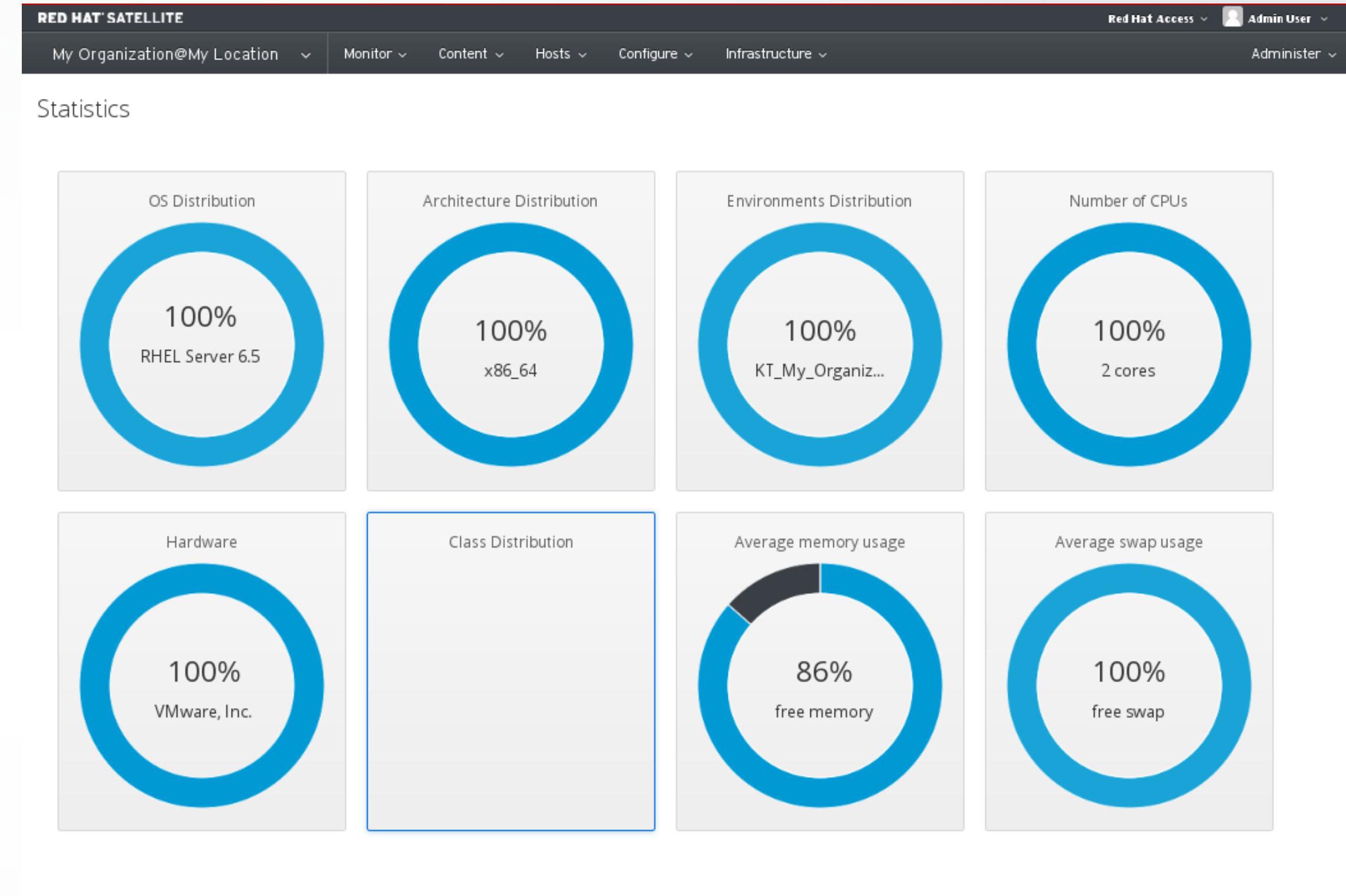
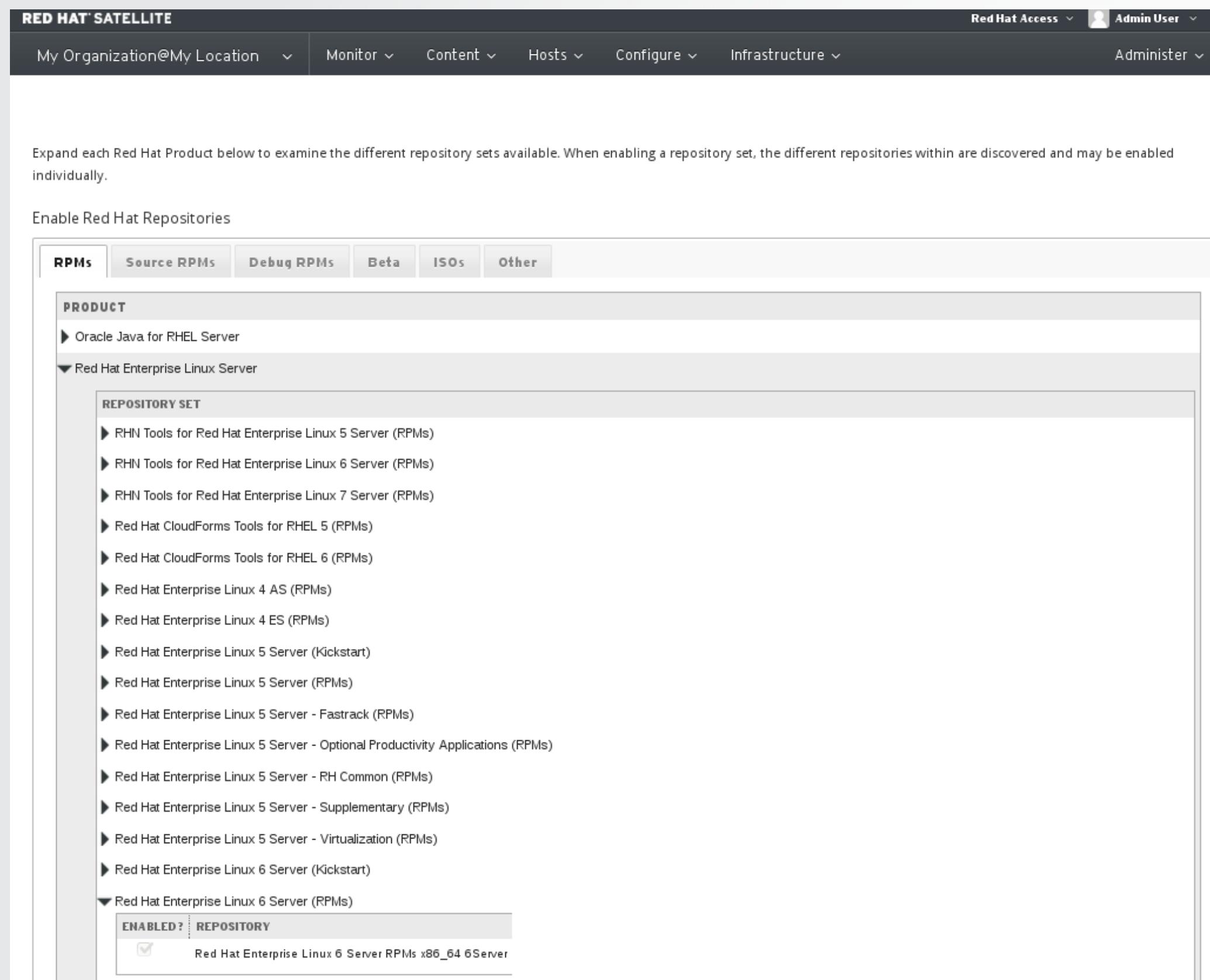
► Red Hat Enterprise Linux 5 Server - Virtualization (RPMs)

► Red Hat Enterprise Linux 6 Server (Kickstart)

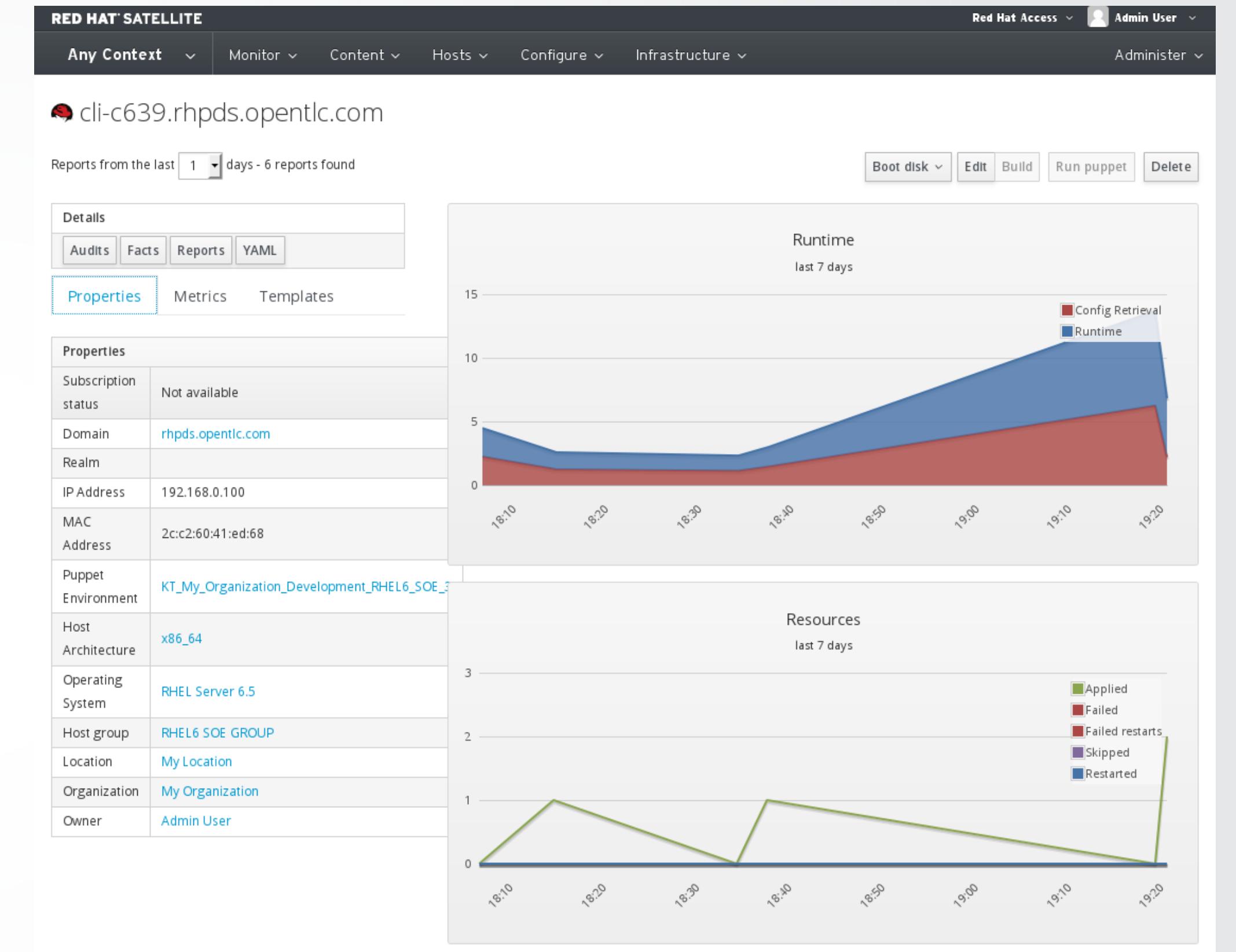
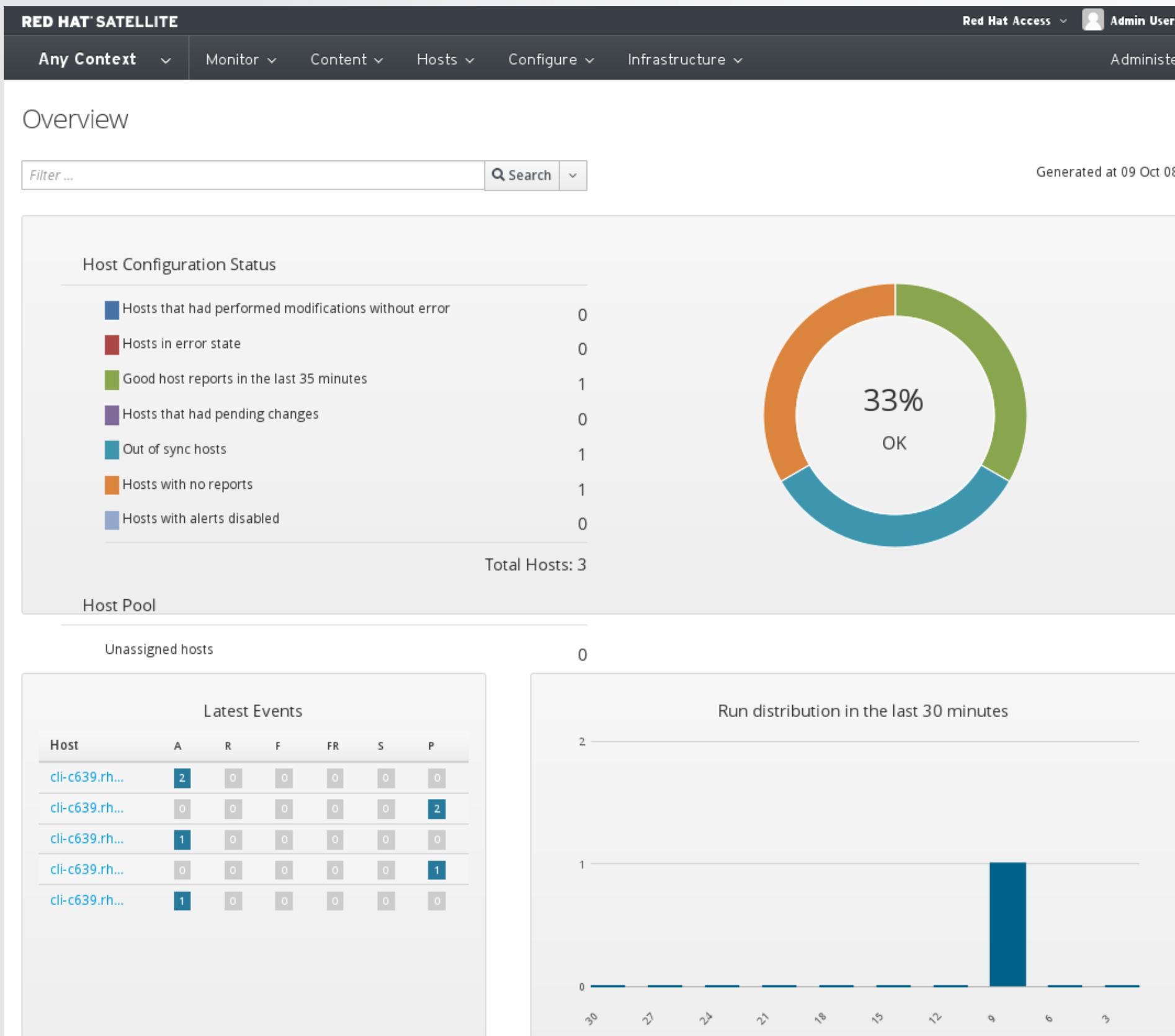
▼ Red Hat Enterprise Linux 6 Server (RPMs)

ENABLED? REPOSITORY

Red Hat Enterprise Linux 6 Server RPMs x86_64 6Server



Dashboards



Audits



1 day ago

API Admin (192.168.0.254) updated Host: [myclient.rhpds.opentlc.com](#)



1 day ago

API Admin (192.168.100.101) updated Host: [myclient.rhpds.opentlc.com](#)



1 day ago

Admin (66.187.233.203) updated Hostgroup: RHEL6 SOE GROUP



1 day ago

Admin (66.187.233.203) updated Hostgroup: RHEL6 SOE GROUP



1 day ago

Admin (66.187.233.203) created Host: [myclient.rhpds.opentlc.com](#)



1 day ago

Admin (66.187.233.203) destroyed Host: [pxeclient.rhpds.opentlc.com](#)



1 day ago

API Admin (192.168.100.100) updated Host: [pxeclient.rhpds.opentlc.com](#)



1 day ago

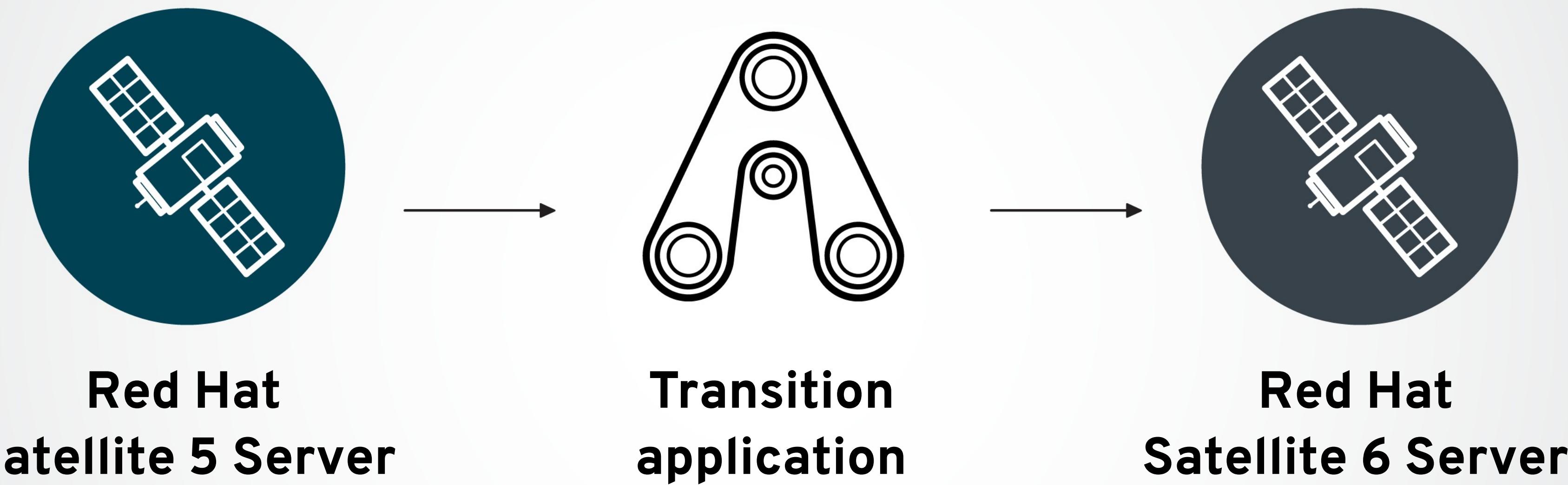
Admin (66.187.233.203) updated Host: [pxeclient.rhpds.opentlc.com](#)



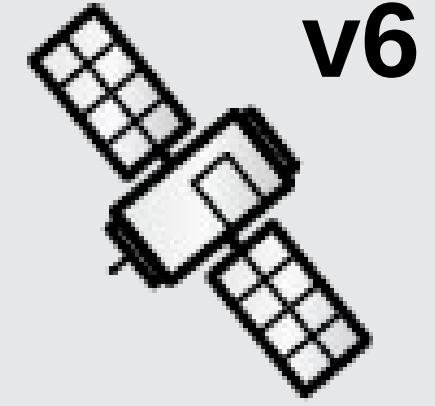
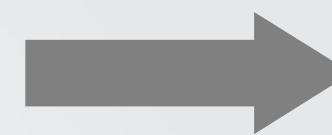
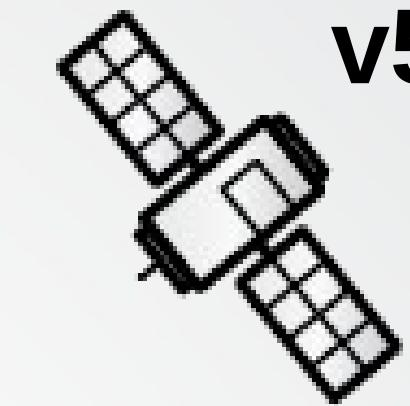
1 day ago

Admin (66.187.233.203) updated Host: [pxeclient.rhpds.opentlc.com](#)

TRANSITION



Start with Sat 5



What can we export?

- ```
spacewalk-export --list-entities
```

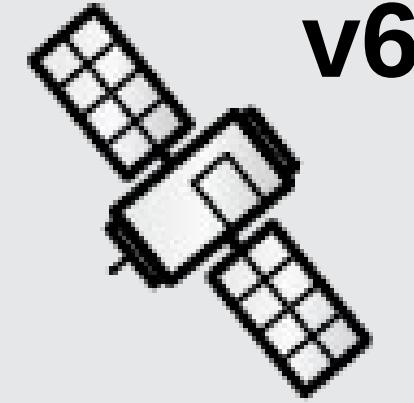
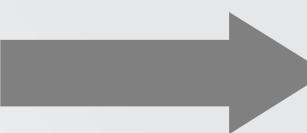
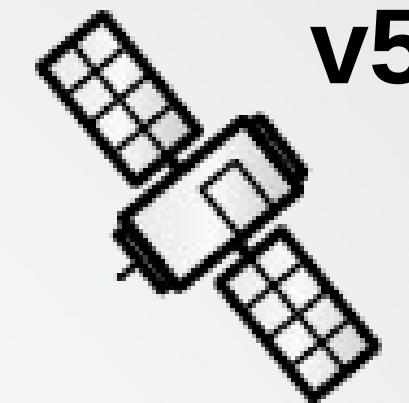
INFO: Currently-supported entities include:

```
INFO: channels : Custom/cloned channels and repositories for all organizations
INFO: activation-keys : Activation keys
INFO: kickstart-scripts : Kickstart scripts for all organizations [CAVEATS]
INFO: users : Users and Organizations
INFO: system-groups : System-groups for all organizations
INFO: config-files-latest : Latest revision of all configuration files
INFO: repositories : Defined repositories
INFO: system-profiles : System profiles for all organizations
```
- The Satellite transition tools do not migrate entire kickstart profiles. Due to significant differences between the Satellite 5 and Satellite 6 infrastructures, there is no suitable migration path between the two versions.
- The transition tools can migrate kickstart scripts, and these can be used in Satellite 6 Provisioning Templates, which are an approximation of kickstart profiles.

# Start with Sat 5

## What can't we export

- Activation-keys that use "Red Hat default"
- Anything history- or audit-related (events, oscap runs, and so on)
- Anything monitoring-related
- Configuration-channel ordering
- Distribution-channel mapping
- Kickstart data (other than snippets)
- Organization entitlement-distribution (users need to create their own manifests)
- Organization-trusts settings
- Snapshots
- Stored package-profiles
- Custom system information, such as key/value pairs, system notes, and system properties in general. The latter is completed when a system registers to Satellite 6 and connects to the created profile.
- User preferences



# ROADMAP

**Remote execution**

**Schedule a rpm update at a specific time. (Possible today to do it through a puppet module)**

**Inter Satellite sync**

**Currency reports**

**External database support (included Oracle)**

**Snapshot and rollback (RFE)**

**Menu on pxe (RFE)**



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# QUESTIONS?