



RED HAT SATELLITE 6

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[1.14.15]

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) and cloud deployment



Configuration
management



Provisioning



Repository
management



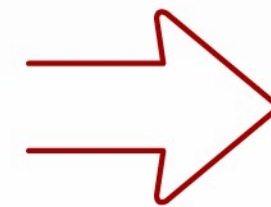
Content/life cycle
management



Subscription
management

RED HAT SATELLITE 5 & 6 CORE CAPABILITIES

RED HAT SATELLITE 5



RED HAT SATELLITE 6



- Provision systems
- Configuration management
- Automated software distribution
- Life cycle management*
- Drift reporting

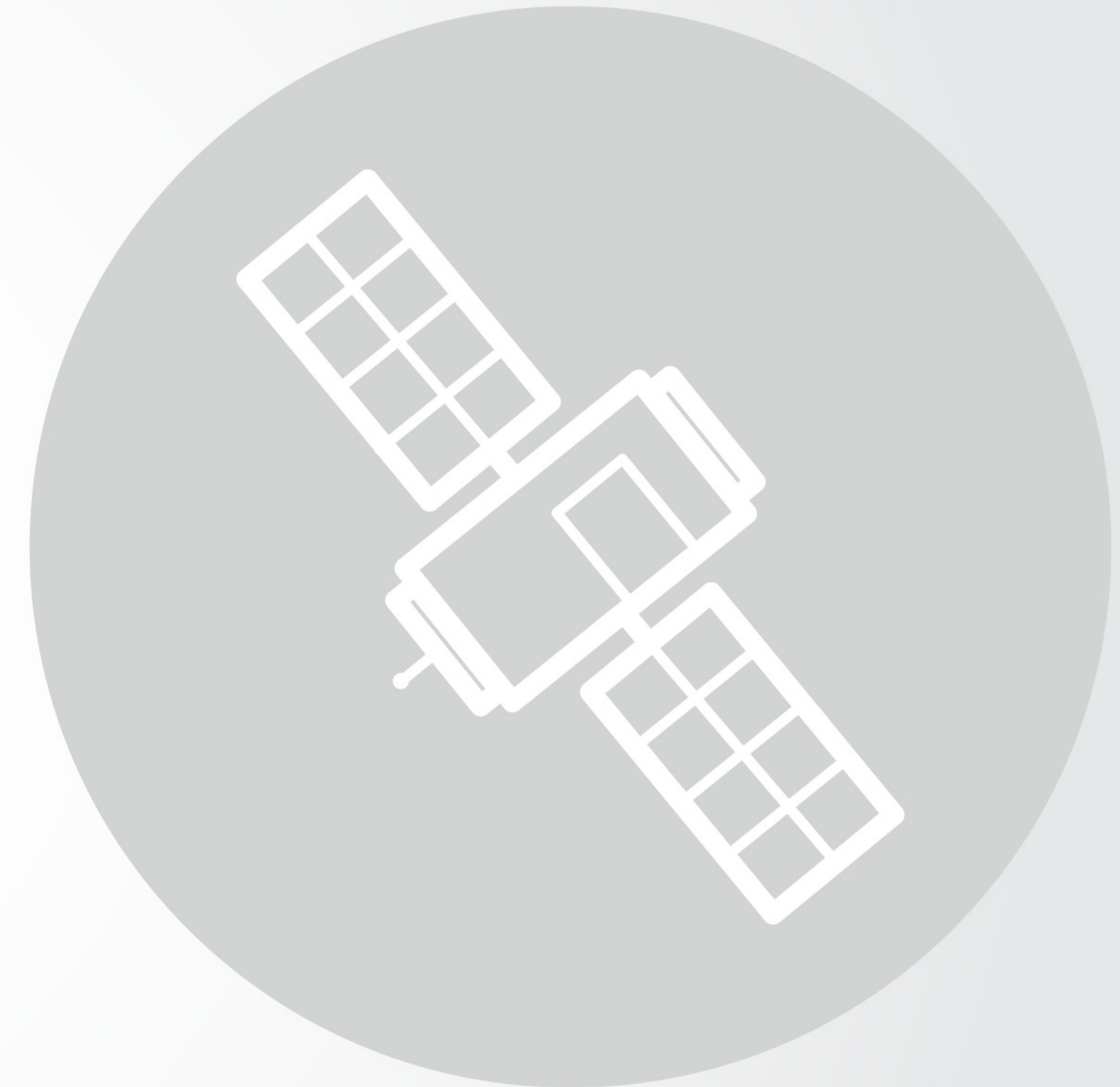
* Satellite 5 provided Life cycle Management via channel-cloning.

- 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

WHAT ELSE COMES IN THE BOX?

Red Hat Satellite 6 Server

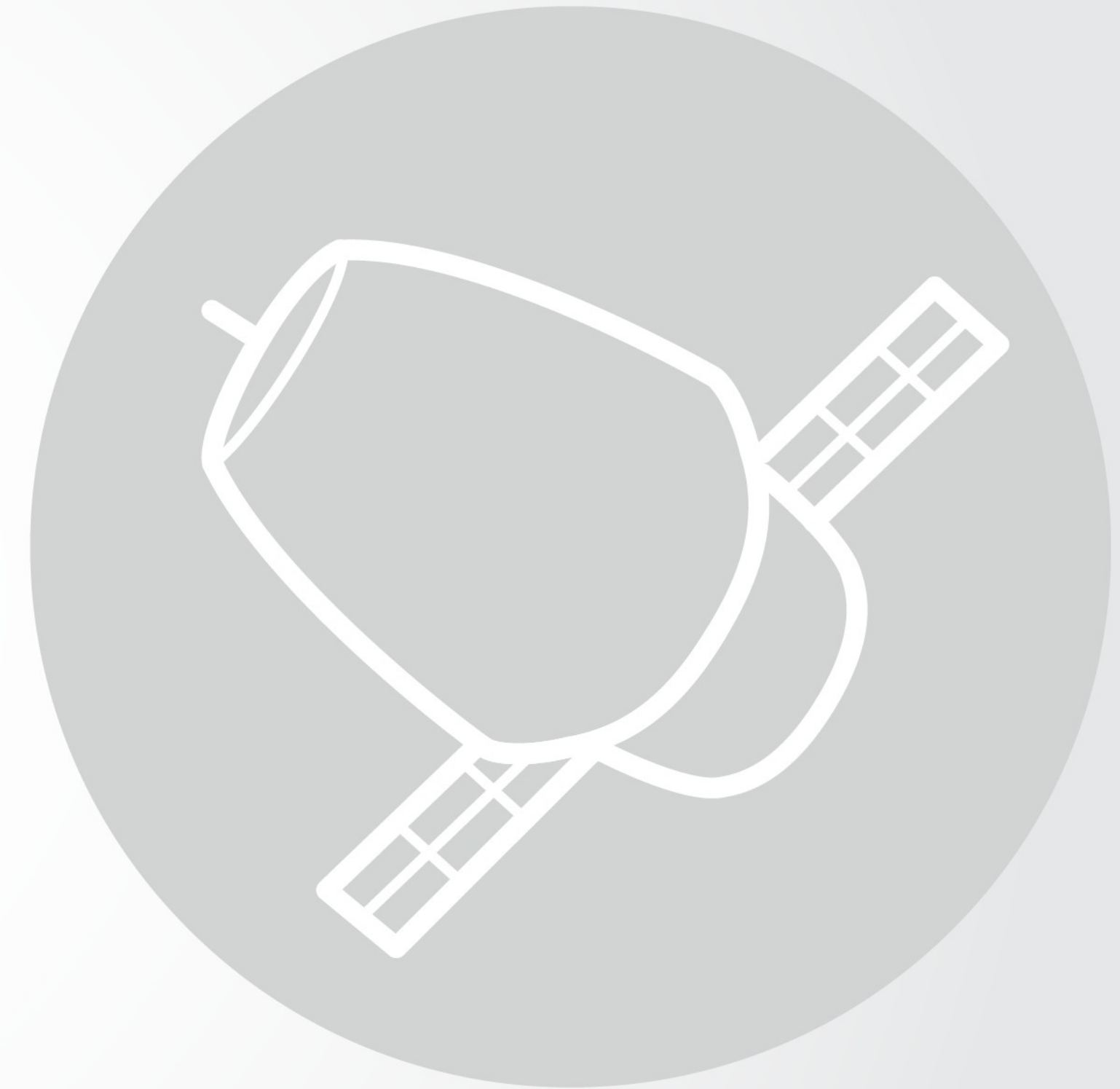
- Multi-tenant
- User and group role-based access control (RBAC) with external directories
- Powerful graphical user interface (GUI), command-line interface (CLI), and application programming interfaces (API)
- Advanced subscription management



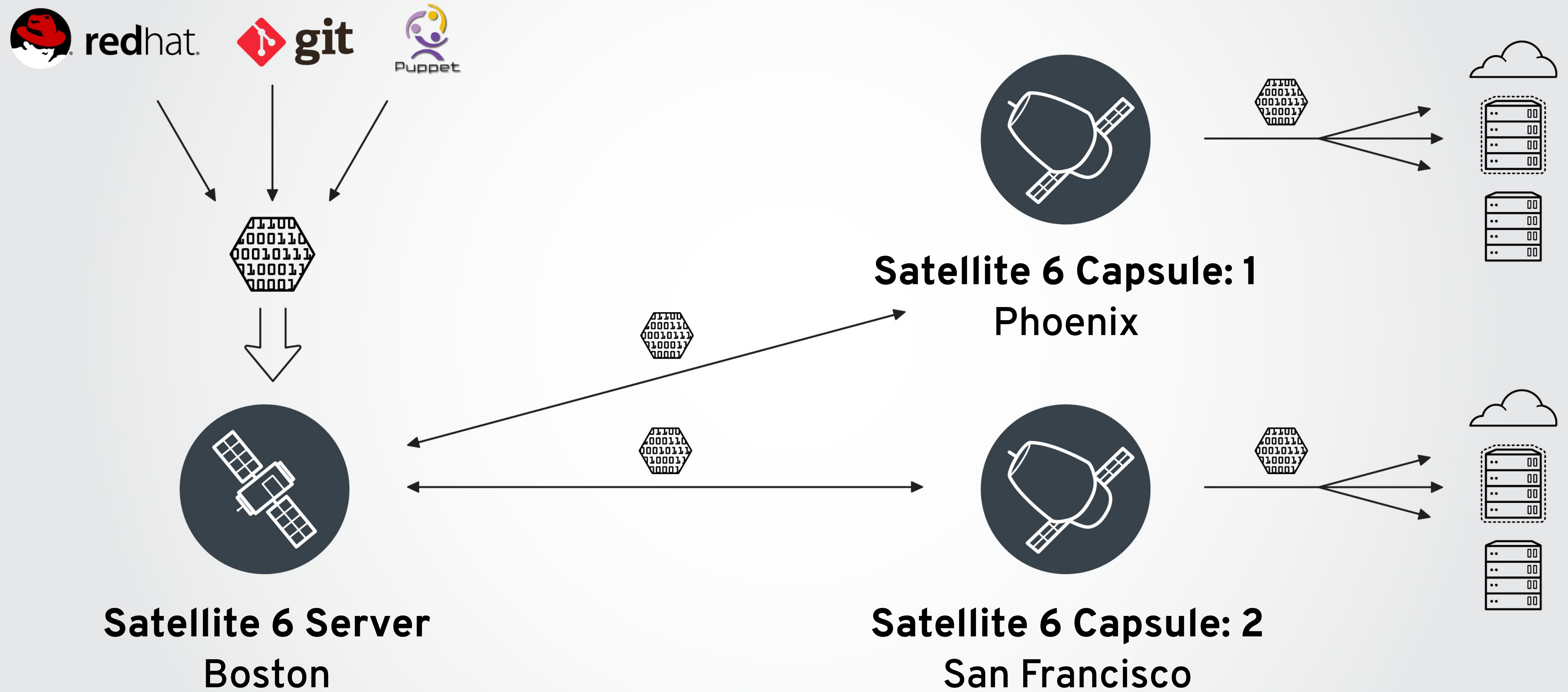
WHAT ELSE COMES IN THE BOX?

Red Hat Satellite 6 Capsule Server

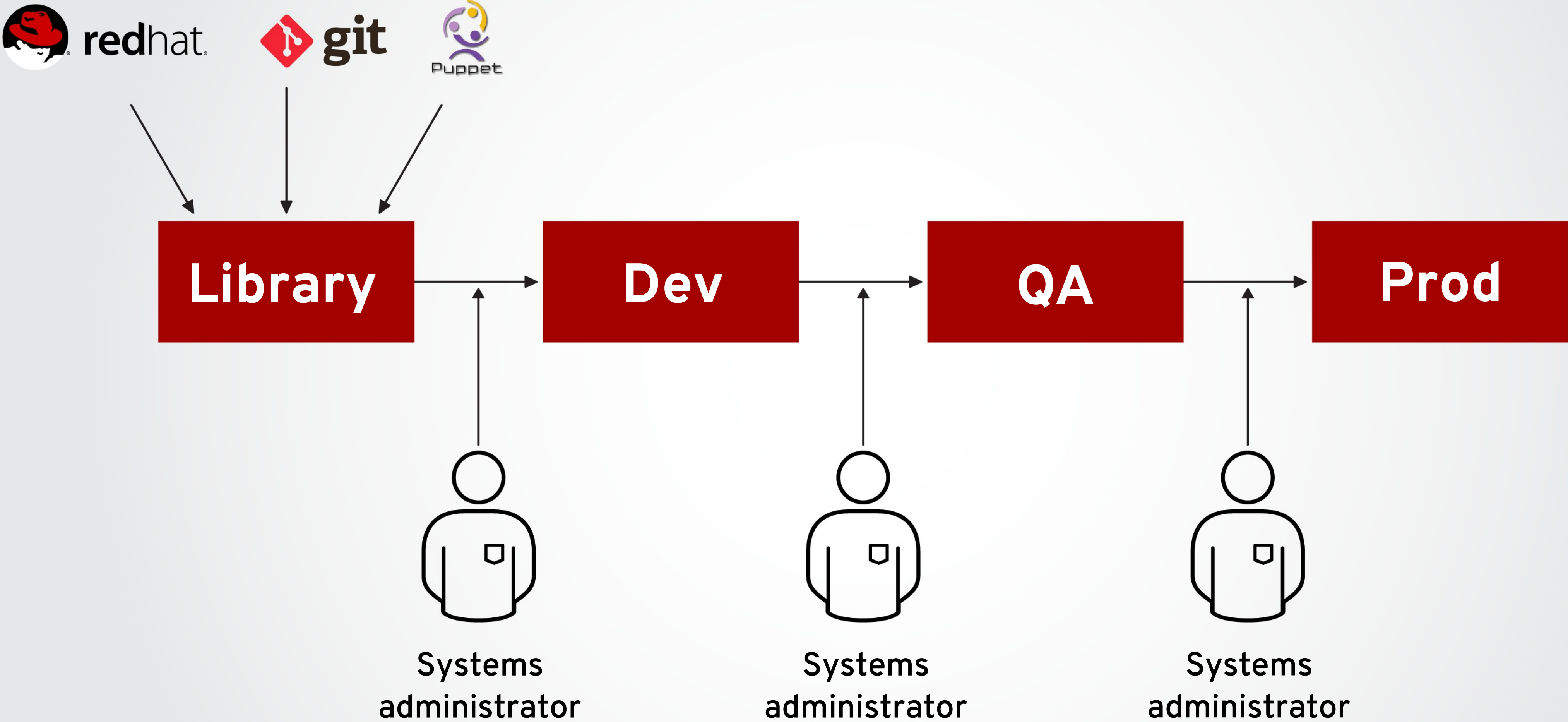
- Federated services
- Automated provisioning
- Everything but the user interface (UI)
- Evolution of Red Hat Satellite Proxy



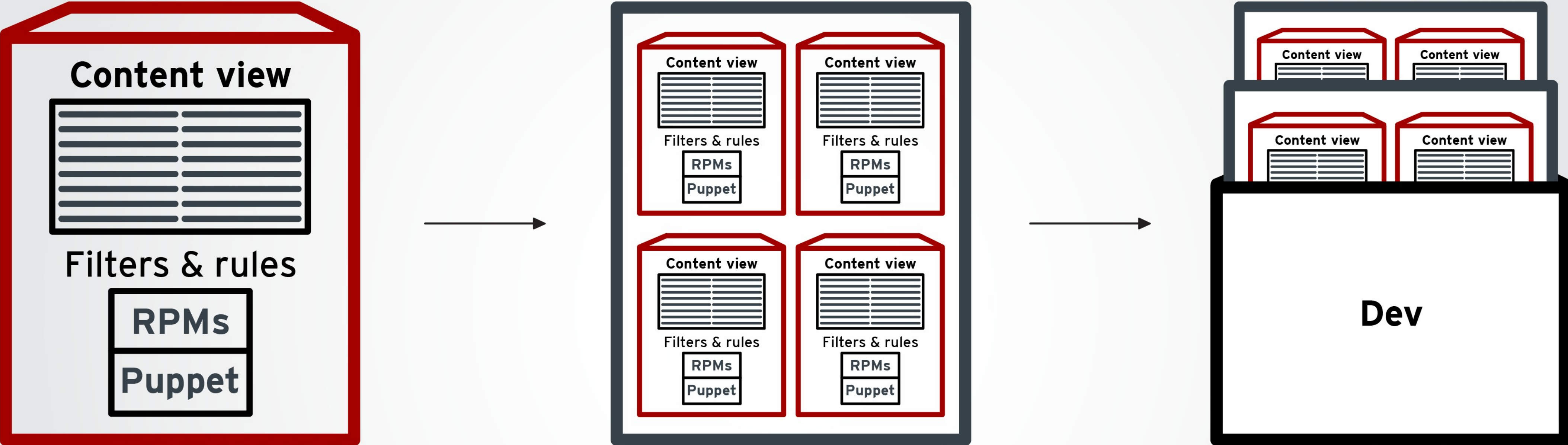
RED HAT SATELLITE 6 HIGH-LEVEL TOPOLOGY



LIFE CYCLE MANAGMENT



GRANULAR CONTENT MANAGEMENT

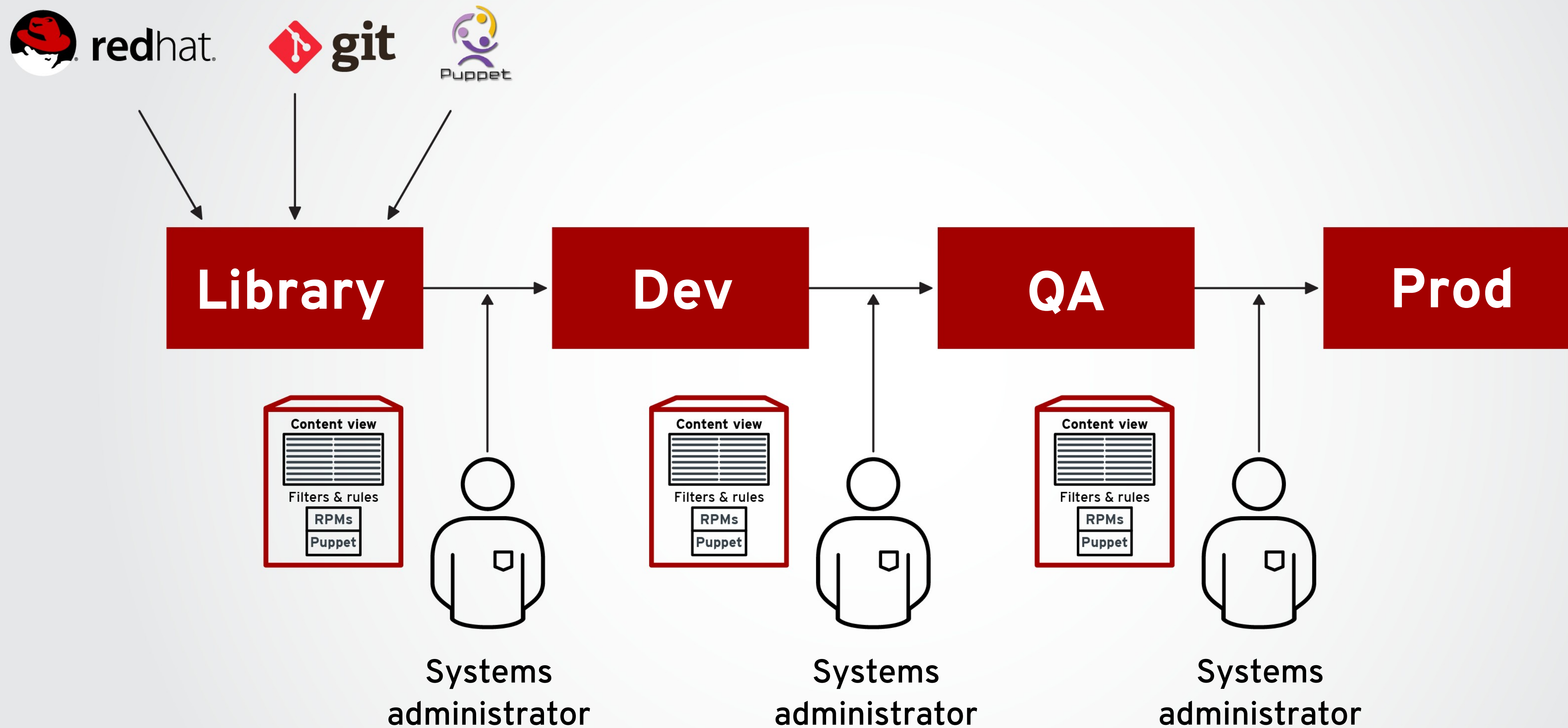


Content view
e.g. Red Hat Enterprise Linux 7
e.g. Web server
e.g. Red Hat JBoss Middleware

Composite content view
e.g. SOE for web

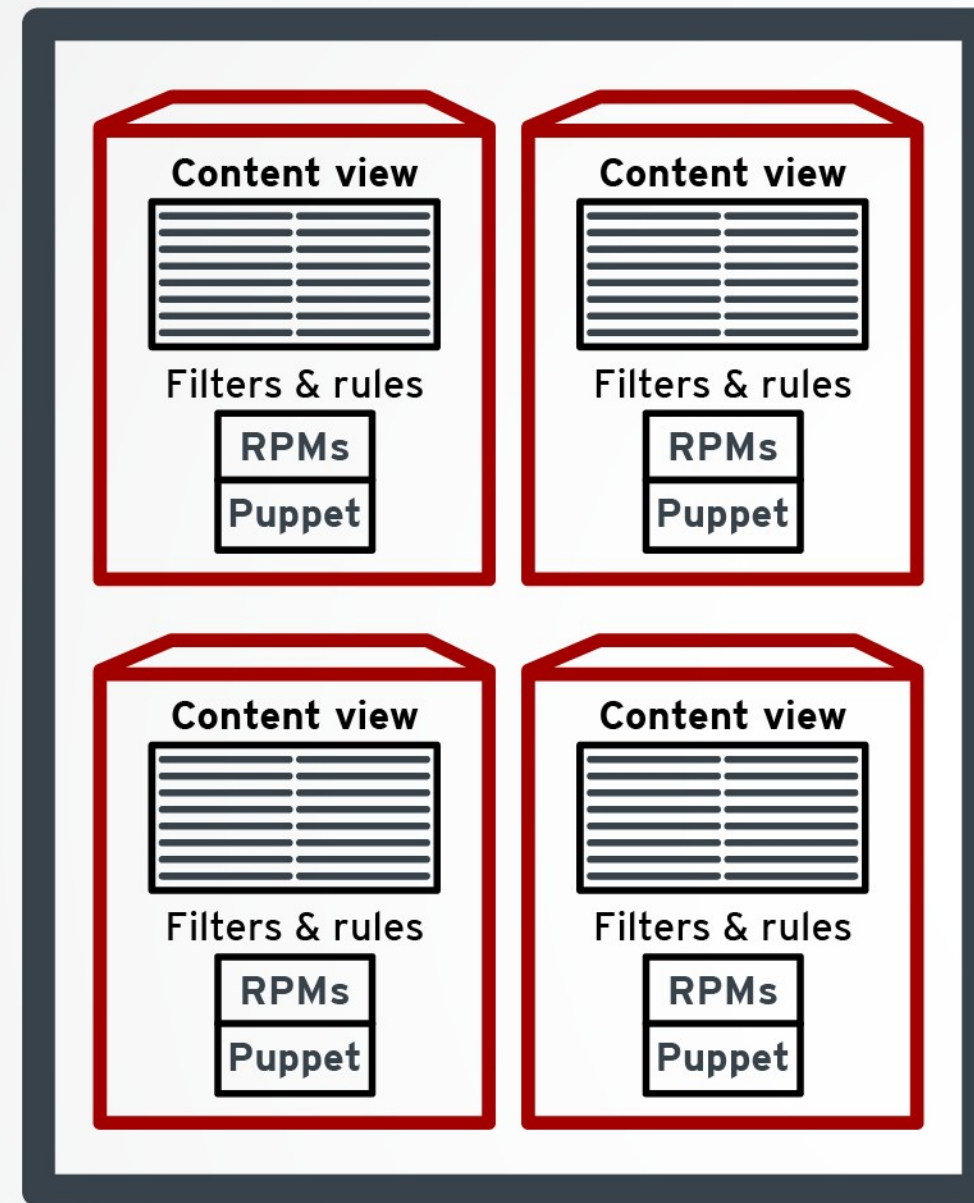
Environment
e.g. Production
e.g. Development

CONTENT LIFE CYCLE MANAGEMENT



PROVISIONING

How to build a system from start to finish



Content
OS & packages
Puppet modules

PARTITION TABLE

KICKSTART FILE

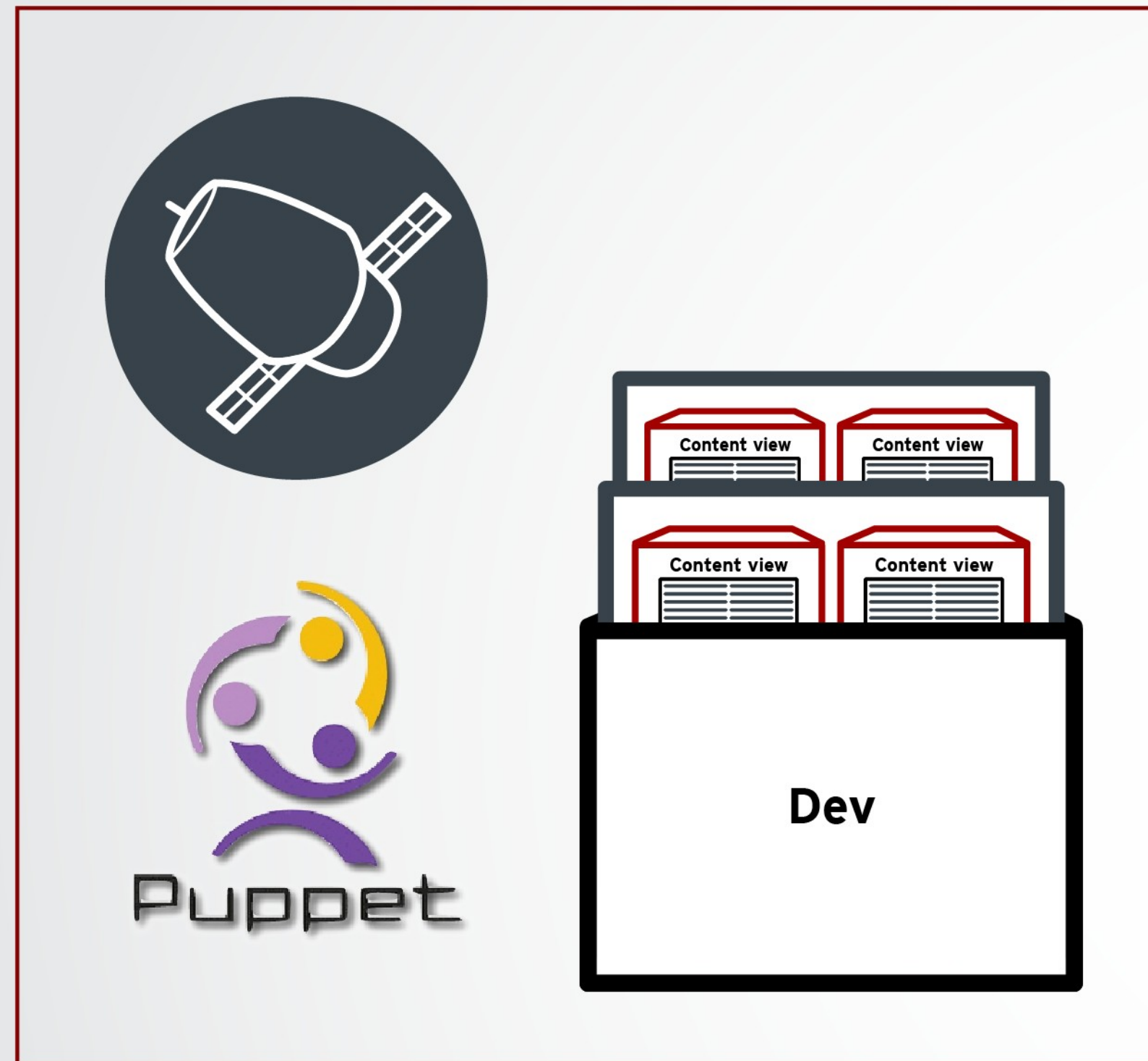
SUBNET/DOMAIN

ACTIVATION KEYS

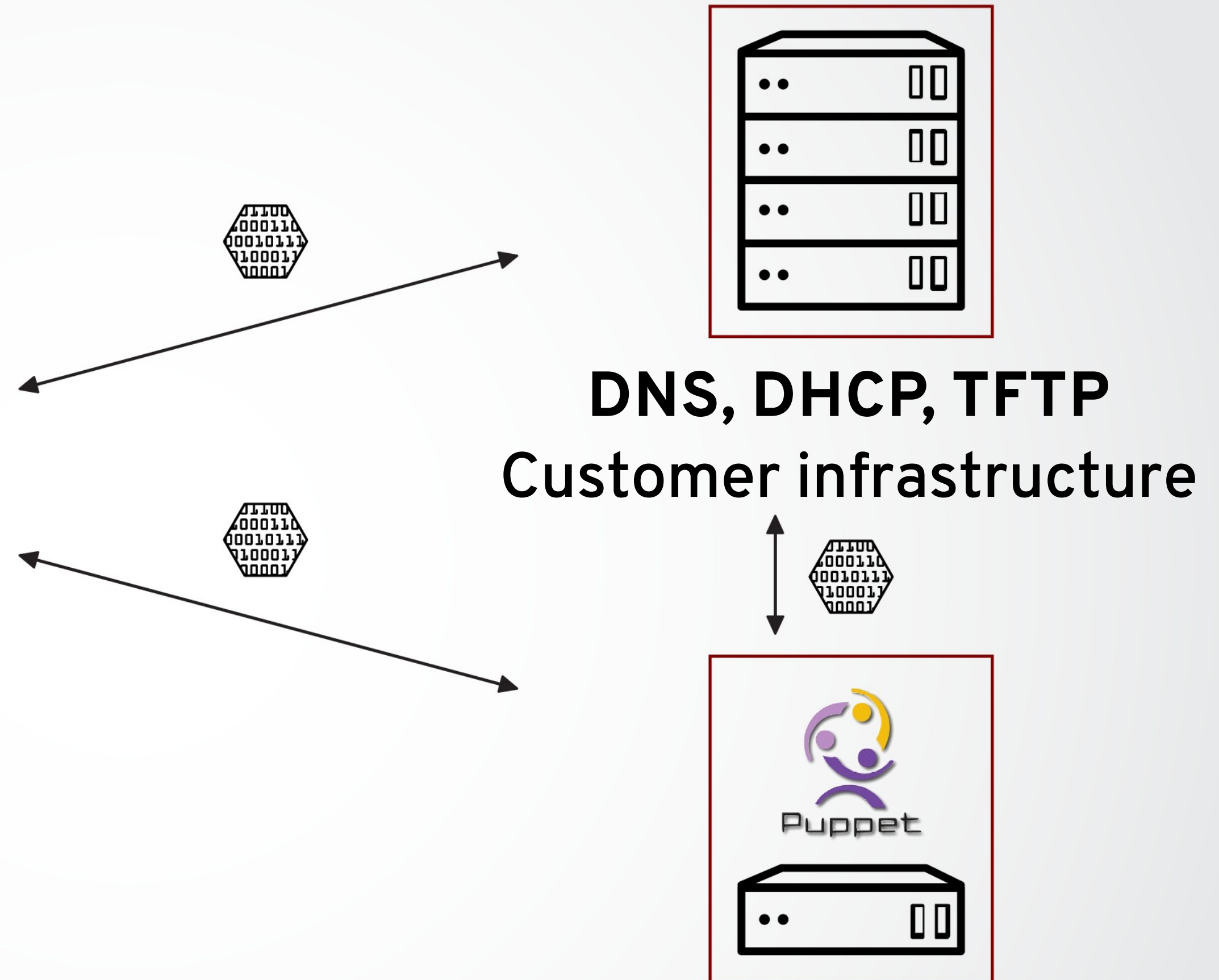
PUPPET CLASSES

Host Group

PROVISIONING AND CONFIGURATION TOPOLOGY



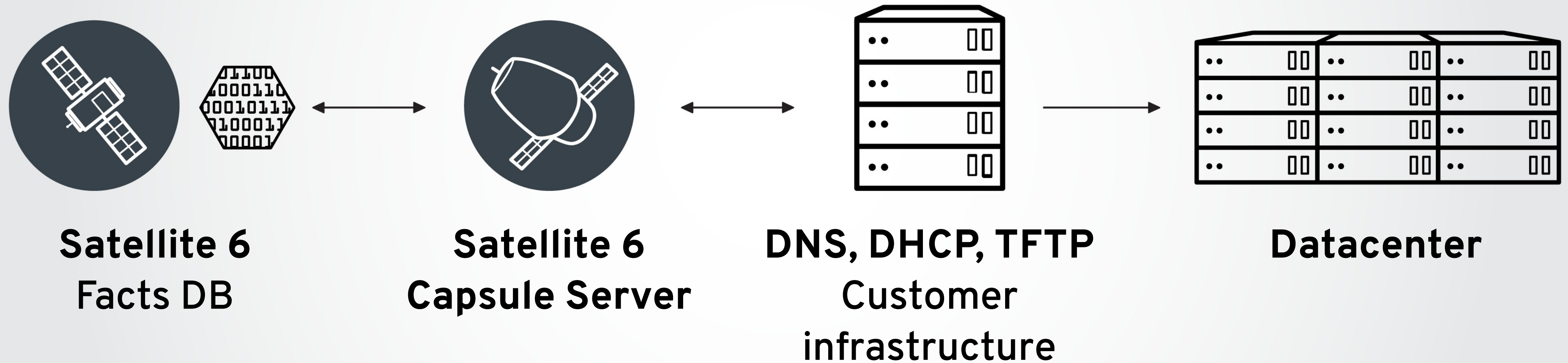
Red Hat Satellite Capsule
Mirrored content
Puppet master
Provisioning orchestration



Managed host
Puppet agent

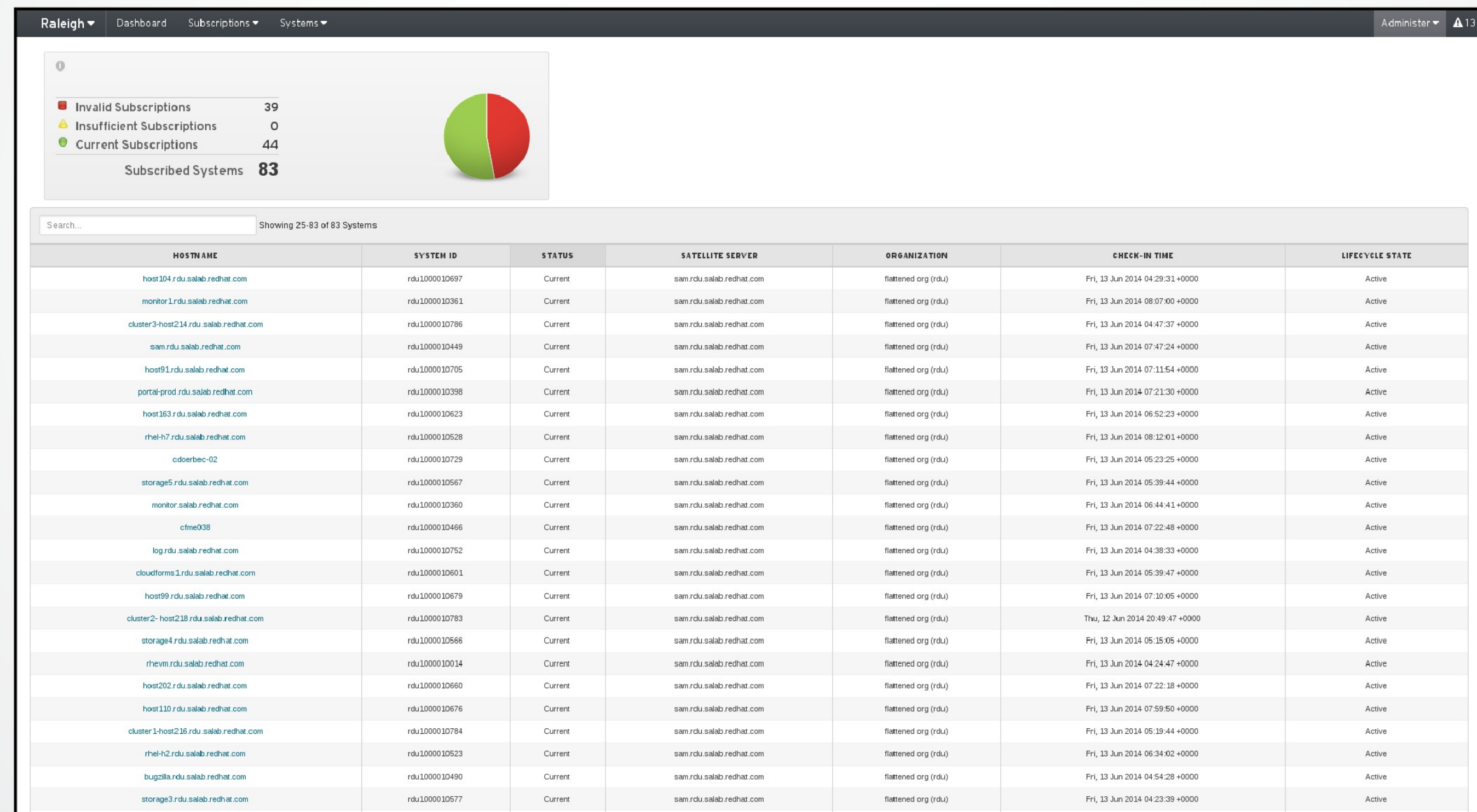
DISCOVERY

- Auto-identification of non-provisioned hosts
- “Metal-as-a-Service”



SUBSCRIPTION MANAGEMENT

- Subscription accounting (even virtualized)
- End-to-end subscription consumption visibility
- Built-in reporting engine



The screenshot displays the Red Hat Subscription Management interface. At the top, there is a navigation bar with 'Raleigh', 'Dashboard', 'Subscriptions', and 'Systems'. On the right, it shows 'Administer' and a notification icon with '13'. Below the navigation bar, there is a dashboard section with a pie chart and a table of subscription statistics:

Invalid Subscriptions	39
Insufficient Subscriptions	0
Current Subscriptions	44
Subscribed Systems	83

Below the dashboard, there is a search bar and a table of systems. The table has the following columns: HOSTNAME, SYSTEM ID, STATUS, SATELLITE SERVER, ORGANIZATION, CHECK-IN TIME, and LIFECYCLE STATE. The table shows 25 systems, all with a status of 'Current' and a lifecycle state of 'Active'.

HOSTNAME	SYSTEM ID	STATUS	SATELLITE SERVER	ORGANIZATION	CHECK-IN TIME	LIFECYCLE STATE
host104.rdu.sslab.redhat.com	rdi1000010697	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 04:29:31 +0000	Active
monitor1.rdu.sslab.redhat.com	rdi1000010361	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 08:07:00 +0000	Active
cluster3-host214.rdu.sslab.redhat.com	rdi1000010786	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 04:47:37 +0000	Active
sam.rdu.sslab.redhat.com	rdi1000010449	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 07:47:24 +0000	Active
host91.rdu.sslab.redhat.com	rdi1000010705	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 07:11:54 +0000	Active
portaf-prod.rdu.sslab.redhat.com	rdi1000010398	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 07:21:30 +0000	Active
host163.rdu.sslab.redhat.com	rdi1000010623	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 06:52:23 +0000	Active
rhel-h7.rdu.sslab.redhat.com	rdi1000010528	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 08:12:01 +0000	Active
cdorbec-02	rdi1000010729	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 05:23:25 +0000	Active
storage5.rdu.sslab.redhat.com	rdi1000010567	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 05:39:44 +0000	Active
monitor.sslab.redhat.com	rdi1000010360	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 06:44:41 +0000	Active
ctme038	rdi1000010466	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 07:22:48 +0000	Active
log.rdu.sslab.redhat.com	rdi1000010752	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 04:38:33 +0000	Active
cloudforms1.rdu.sslab.redhat.com	rdi1000010601	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 05:39:47 +0000	Active
host99.rdu.sslab.redhat.com	rdi1000010679	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 07:10:05 +0000	Active
cluster2-host218.rdu.sslab.redhat.com	rdi1000010783	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Thu, 12 Jun 2014 20:49:47 +0000	Active
storage4.rdu.sslab.redhat.com	rdi1000010566	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 05:15:05 +0000	Active
rhev.rdu.sslab.redhat.com	rdi1000010014	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 04:24:47 +0000	Active
host202.rdu.sslab.redhat.com	rdi1000010660	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 07:22:18 +0000	Active
host110.rdu.sslab.redhat.com	rdi1000010676	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 07:59:50 +0000	Active
cluster1-host216.rdu.sslab.redhat.com	rdi1000010784	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 05:19:44 +0000	Active
rhel-h2.rdu.sslab.redhat.com	rdi1000010523	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 06:34:02 +0000	Active
bugzilla.rdu.sslab.redhat.com	rdi1000010490	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 04:54:28 +0000	Active
storage3.rdu.sslab.redhat.com	rdi1000010577	Current	sam.rdu.sslab.redhat.com	flattened.org (rdi)	Fri, 13 Jun 2014 04:23:39 +0000	Active

GUI, API, CLI

- Modern architecture
- API-first
- Enables advanced integration

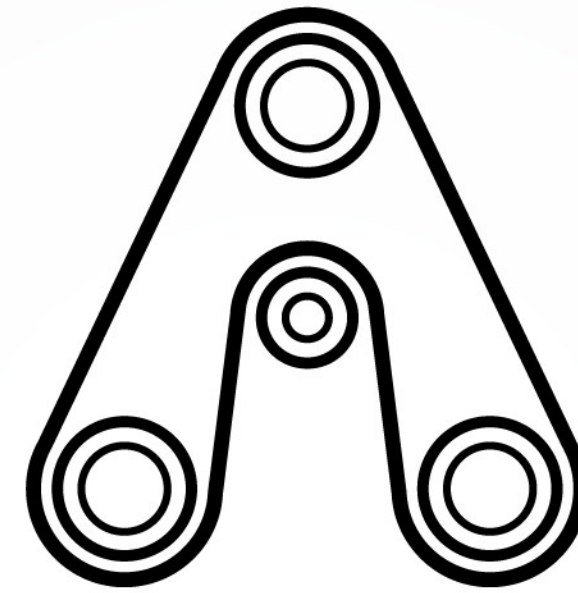
```
$hammer -u admin -p ***** product list --organization-id 'Red_Hat_SALAB' --enabled
```

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

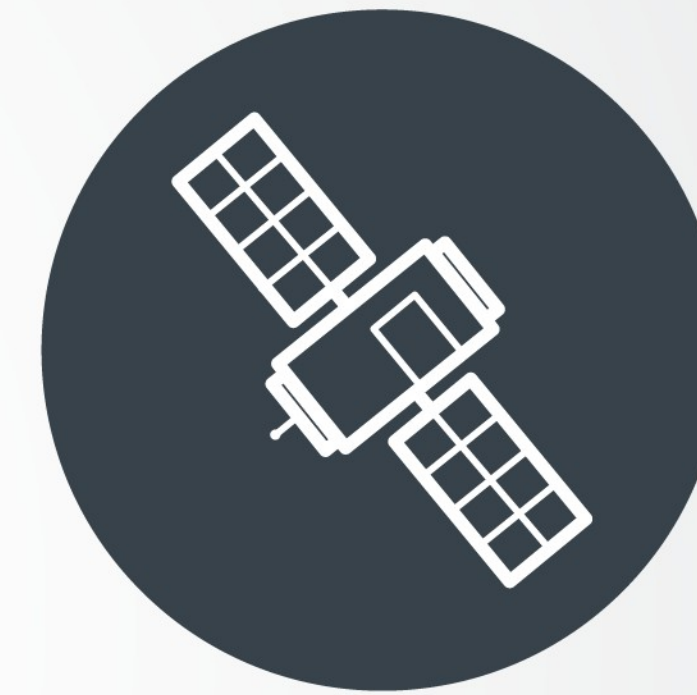
TRANSITION



**Red Hat
Satellite 5 Server**

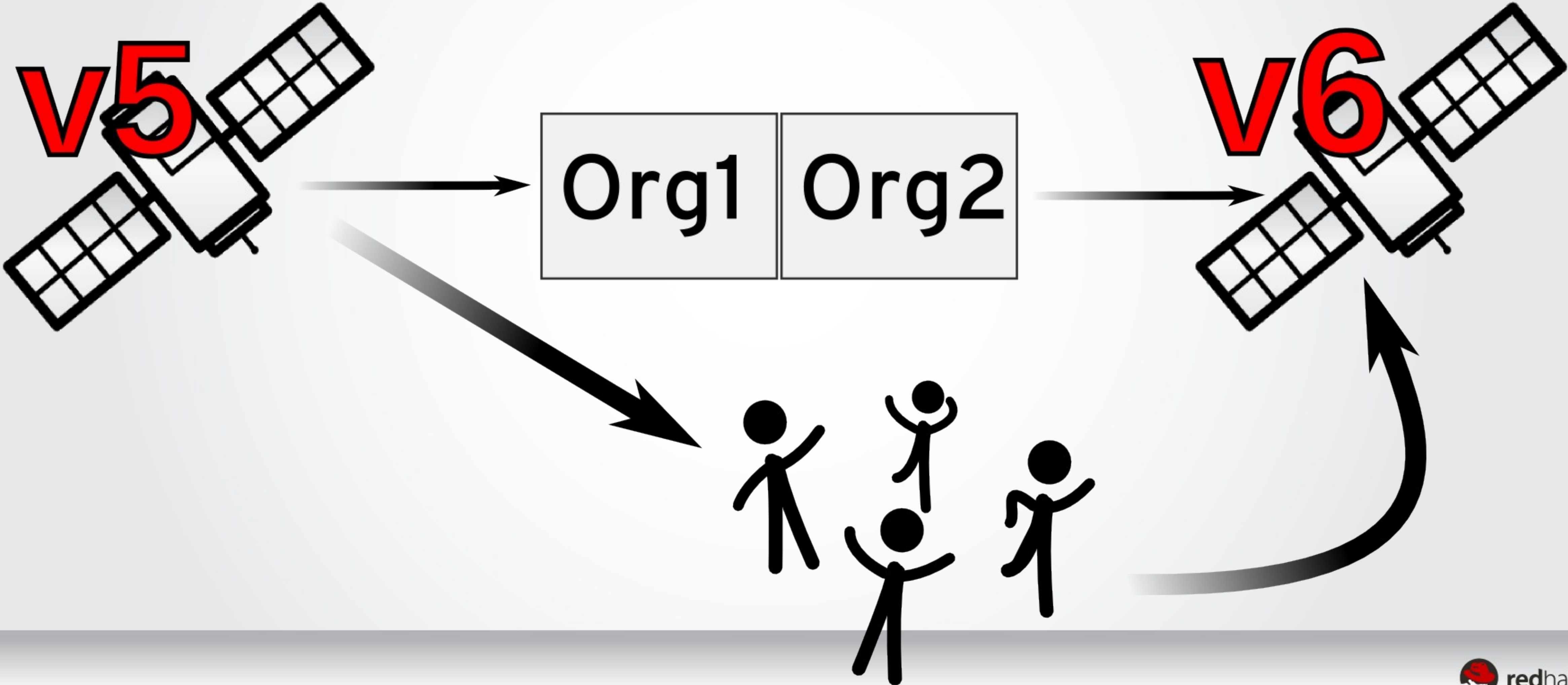


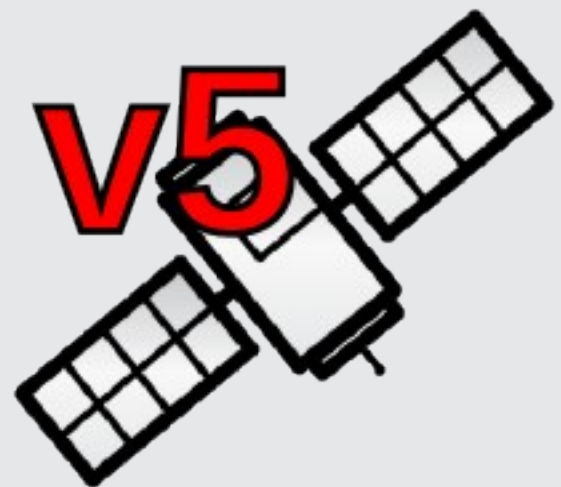
**Transition
application**



**Red Hat
Satellite 6 Server**

Process, via tooling: organizations and users





Configuration file conversion

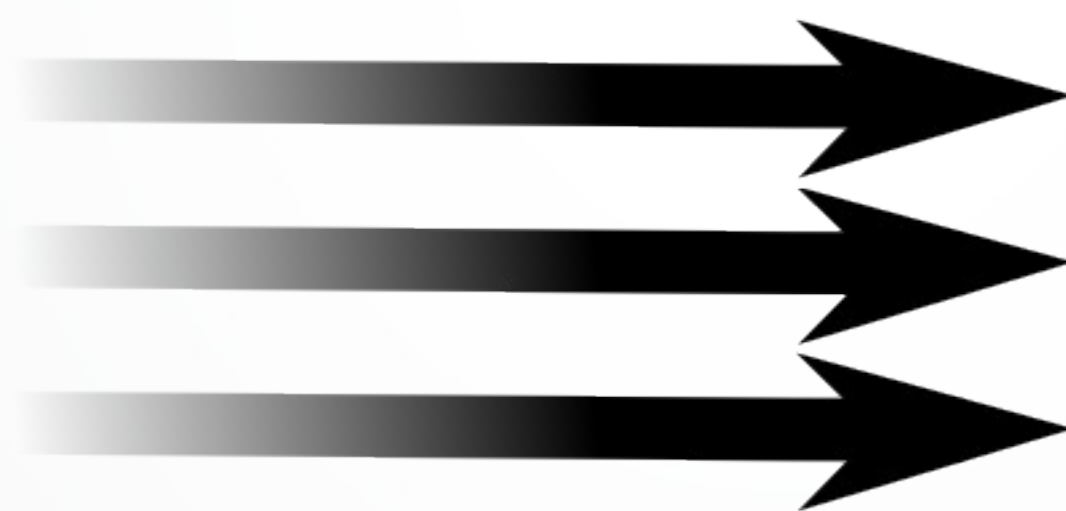


Key1 : Value1

Key2 : Value2

Key3 : Value3

Key3 : Value3



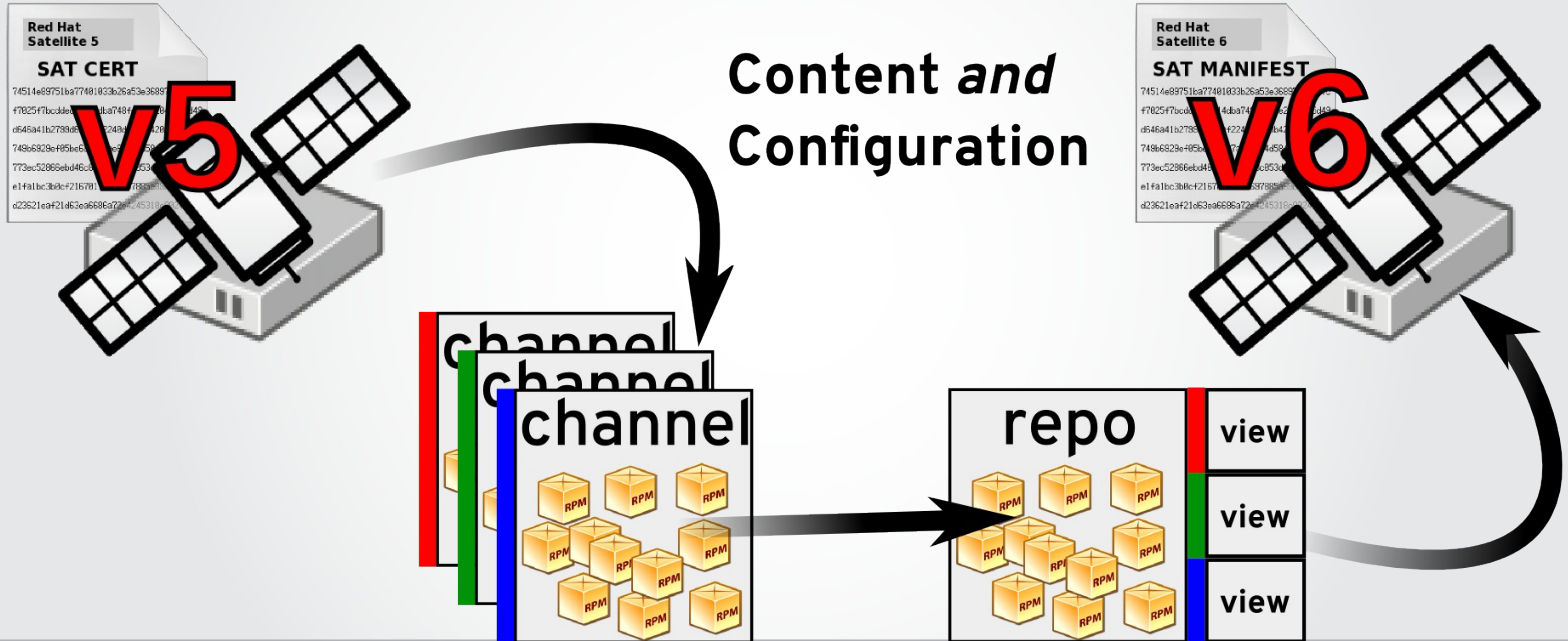
If this,
Then that,
Dependent on <X>



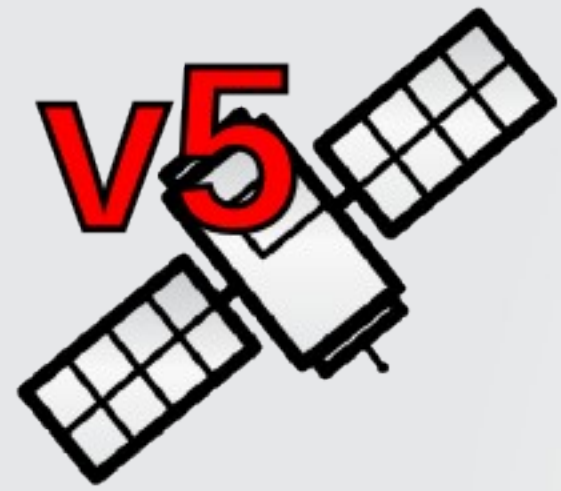
Puppet

Preheat oven at 350°F for 20 minutes

Process, via tooling: channels to views



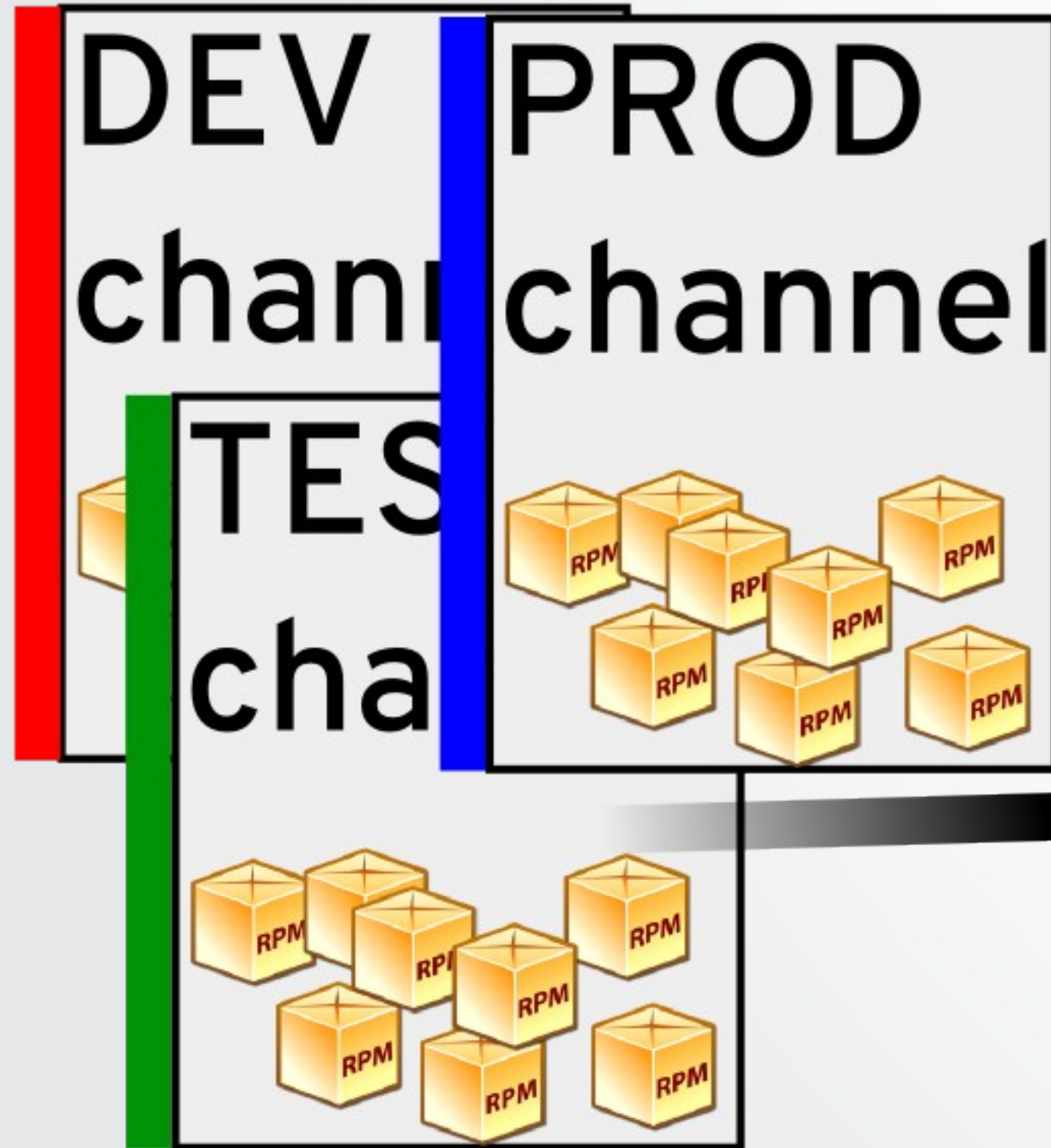
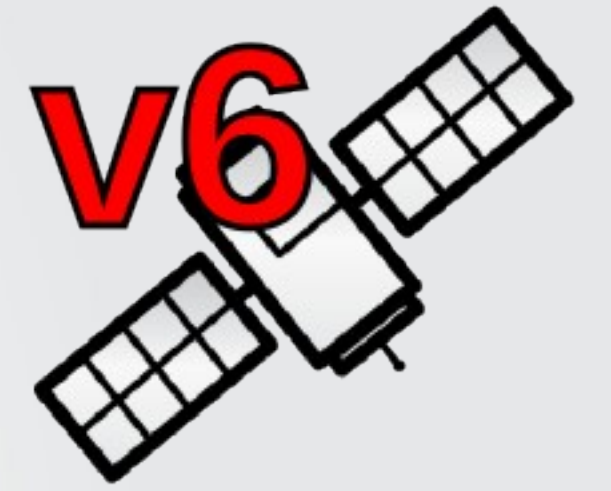
Manual Process: life cycle remodeled, leveraging environments



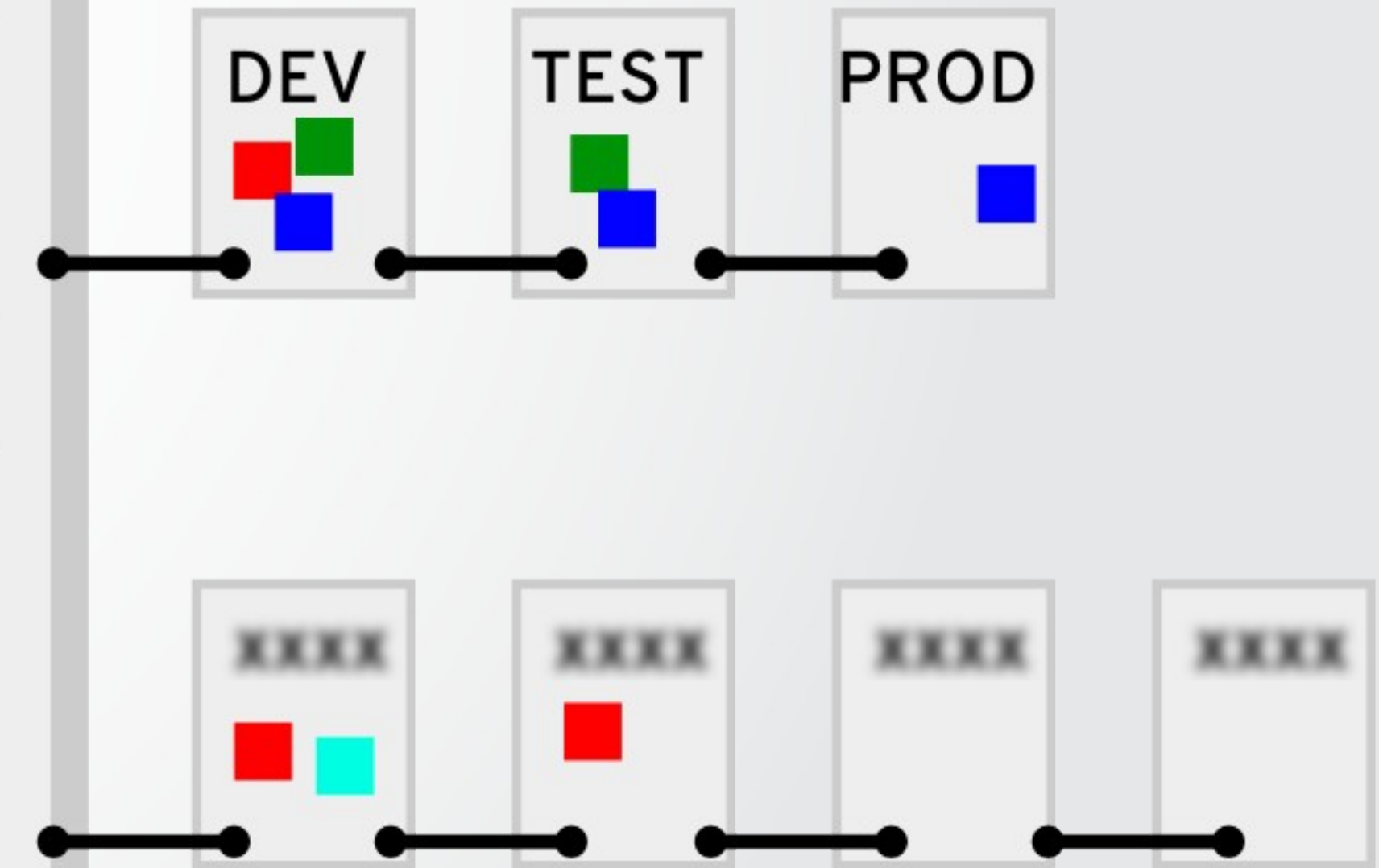
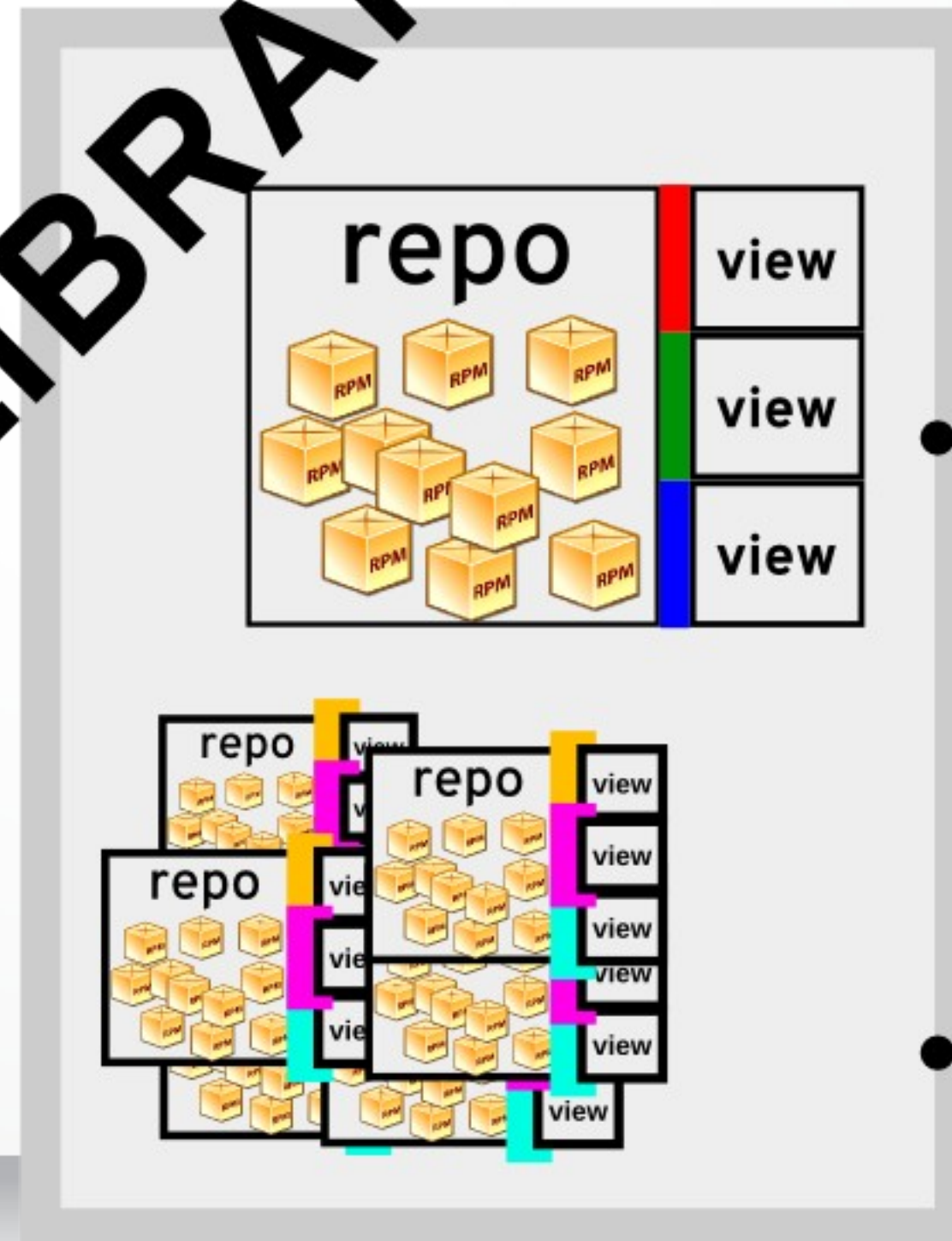
Labeling
(a bit tedious)

Life cycle

Environments
(life cycle built in)

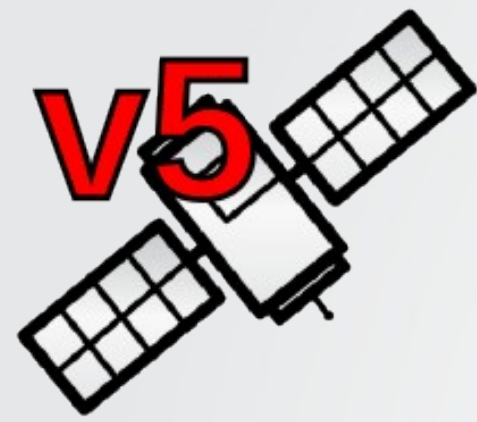


LIBRARY



Process:

provisioning: System Definition applied to systems more modularized.



System Definition



Kickstart Profile

channel
channel
channel

RPM RPM RPM
RPM RPM RPM
RPM RPM RPM

```
# Kickstart file...  
#version=F9  
install  
cdrom  
lang en_US.UTF-8  
keyboard us  
rootpw --iscrypted  
$6$KcRvNlLlB8L64CRyD3pPOEyuLm...6XDCRv1e9yRK7  
firewall --enabled --port=22:tcp  
authconfig --enableshadow --passalgo=sha512  
selinux --enforcing  
timezone --utc America/New_York  
bootloader --location=mbr --driveorder=ada --append="hgh quiet"  
# The following is the partition information you requested  
# Note that any partitions you deleted are not expressed  
# here so unless you clear all partitions first, this is  
# not guaranteed to work  
clearpart --drives=ada  
part boot --fstype ext3 --size=200 --ondisk=ada  
part pv.2 --size=0 --grow --ondisk=ada  
partgroup VolGroup00 --pesize=32768 pv.2  
part pv.1 --fstype ext3 --name=LogVol00 --vgname=VolGroup00  
part swap --fstype swap --name=LogVol01 --vgname=VolGroup00  
  
%packages  
@office  
@engineering-and-scientific  
@mysql
```

Activation

Provisioning Template

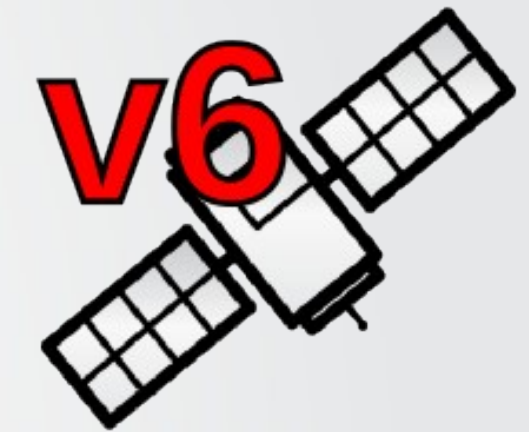
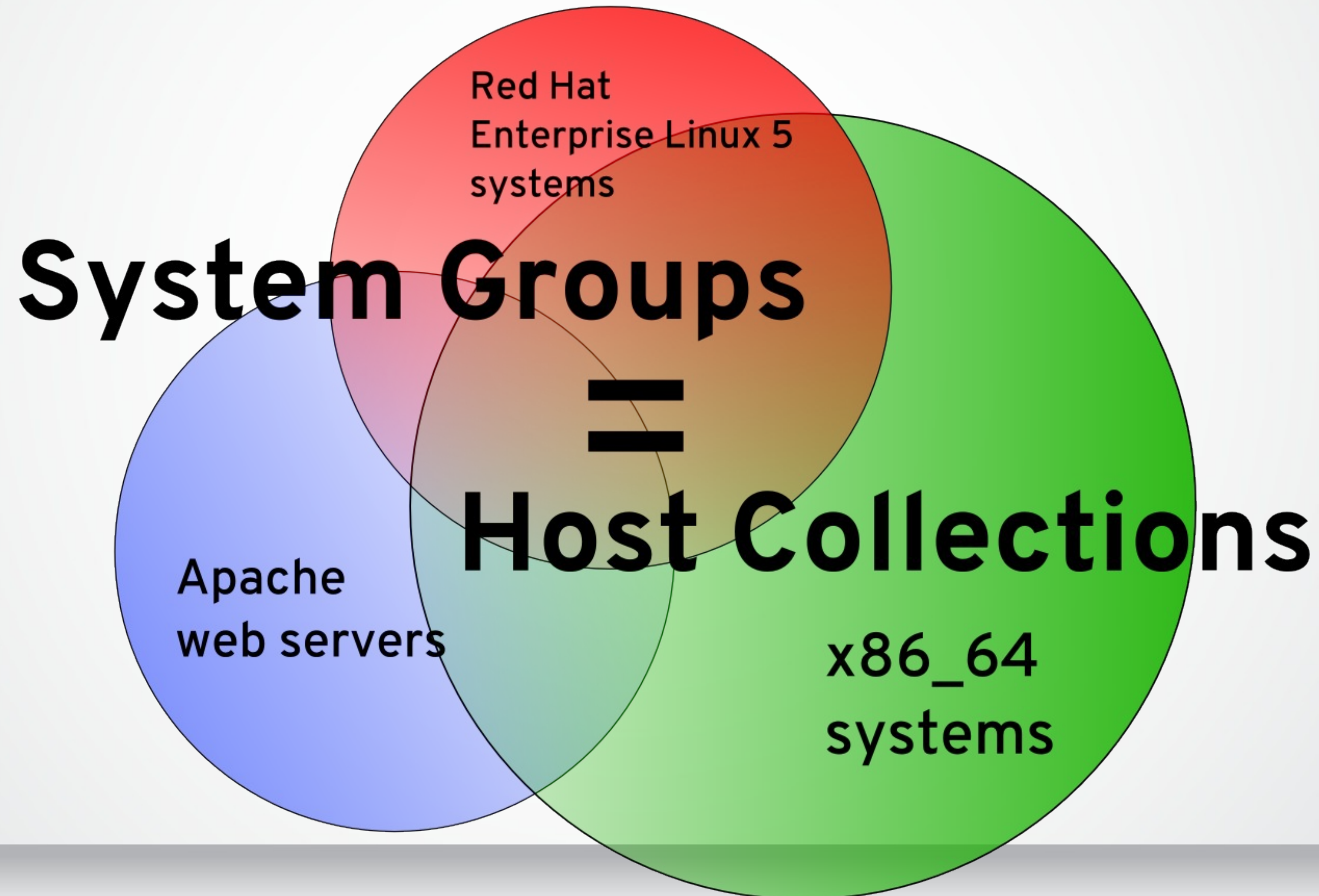
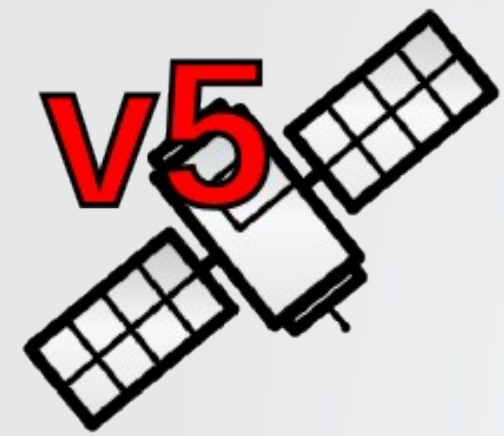
```
# Kickstart file...  
#version=F9  
install  
cdrom  
lang en_US.UTF-8  
keyboard us  
rootpw --iscrypted  
$6$KcRvNlLlB8L64CRyD3pPOEyuLm...6XDCRv1e9yRK7  
firewall --enabled --port=22:tcp  
authconfig --enableshadow --passalgo=sha512  
selinux --enforcing  
timezone --utc America/New_York  
bootloader --location=mbr --driveorder=ada --append="hgh quiet"  
# The following is the partition information you requested  
# Note that any partitions you deleted are not expressed  
# here so unless you clear all partitions first, this is  
# not guaranteed to work  
clearpart --drives=ada  
part boot --fstype ext3 --size=200 --ondisk=ada  
part pv.2 --size=0 --grow --ondisk=ada  
partgroup VolGroup00 --pesize=32768 pv.2  
part pv.1 --fstype ext3 --name=LogVol00 --vgname=VolGroup00  
part swap --fstype swap --name=LogVol01 --vgname=VolGroup00  
  
%packages  
@office  
@engineering-and-scientific  
@mysql
```

Host Group

profile
view
view

Activation

Process, via tooling:
system groups become host collections



How to register to Satellite 6

- `rpm -ivh http://sat6a.i.skinnerlabs.com/pub/katello-ca-consumer-latest.noarch.rpm`
- `subscription-manager register --org="SkinnerLabs" --activationkey="RHLAB-RHEL6"`
- `yum install katello-agent`
- `chkconfig goferd on`

Subscription Manager - commands

- Register and attach automatically to a subscription
subscription-manager register --auto-attach
- Display Products
subscription-manager list
- Display subscribed repos
subscription-manager repos --list

Subscription Manager – commands continued

- Enable a repo

```
subscription-manager repos --enable=rhel-6-server-rpms
```

- What am I? What lifecycle? What ORG?

```
subscription-manager identity
```

```
subscription-manager list --consumed
```

```
subscription-manager list --available --all
```


NEW FEATURES & WHAT'S PLANNED FOR 6.1

- **Red Hat Satellite 6, September 2014**
 - Content sync from GIT repos
 - Host group deployable on:
 - Bare metal, Red Hat Enterprise Virtualization, VMware, KVM, Amazon EC2, & OpenStack
 - Nested locations
 - Northeast/Datacenter2/Pod2/Rack3
 - Centralized capsule management
 - IDM & Active Directory integration
 - Plug-in architecture enables on-site modular customization

- **Red Hat Satellite 6.1, late Q1, 2015**
 - Splice graphical reporting
 - Consumption reporting
 - Unified dashboards
 - Registration and config state
 - MCollective for remote execution
 - Host group deployable on:
 - Google Compute Engine, Rackspace
 - CloudForms integration
 - Bare-metal use cases



QUESTIONS?