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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

SPACEWALK

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

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

RED HAT SATELLITE 6

Puppet | FOREMAN | pulp | KATELLO | CANDLEPIN

- 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

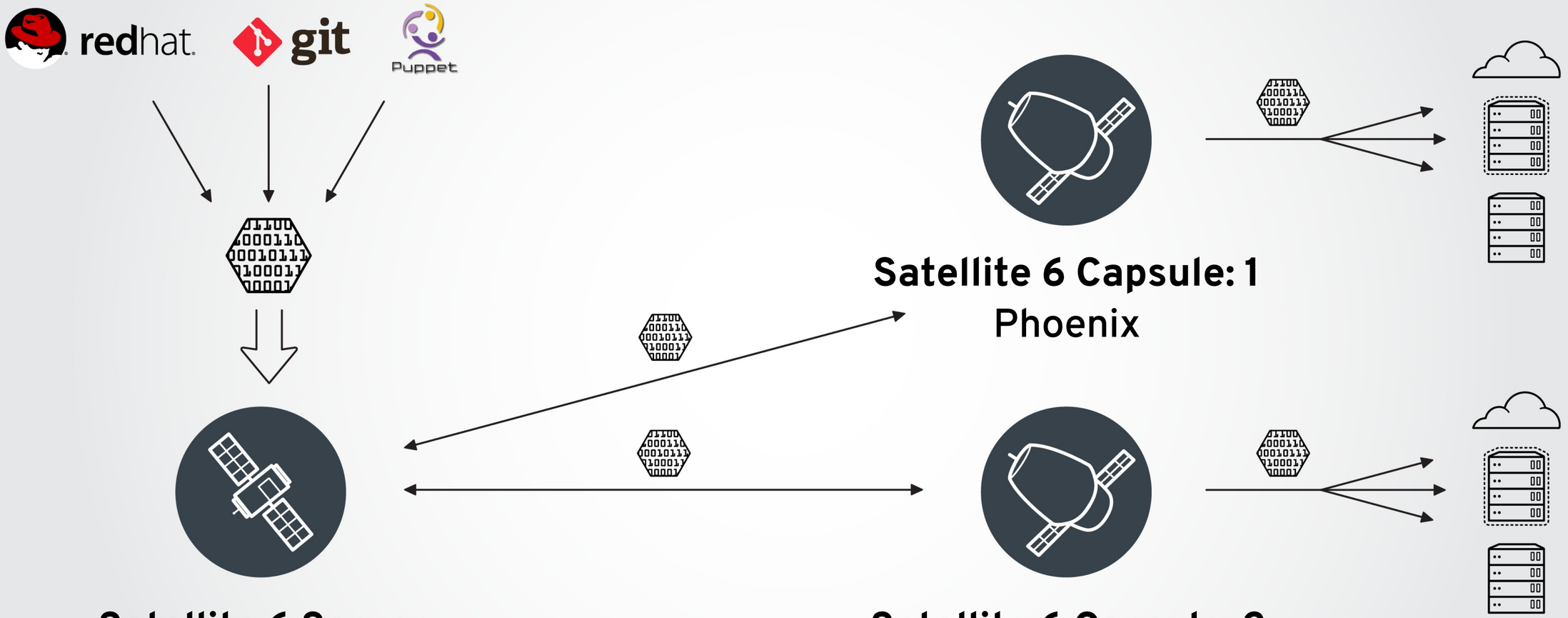
- Multi-tenant
- User and group role-based access control (RBAC) with external directories
- Powerful graphical user interface (GUI), command-line interface (CLI), and application programming interfaces (API)
- Advanced subscription management

WHAT ELSE COMES IN THE BOX?

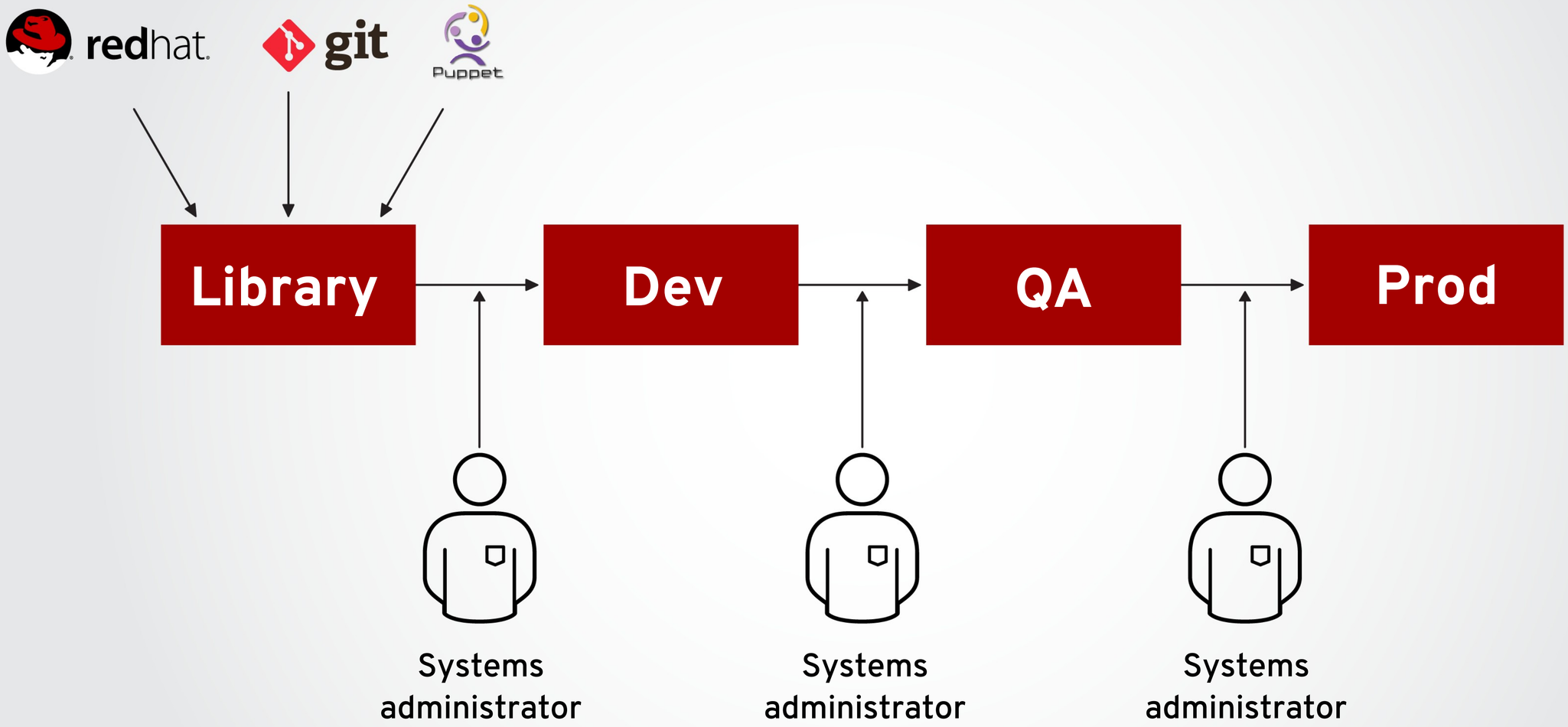
Red Hat Satellite 6 Capsule Server

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

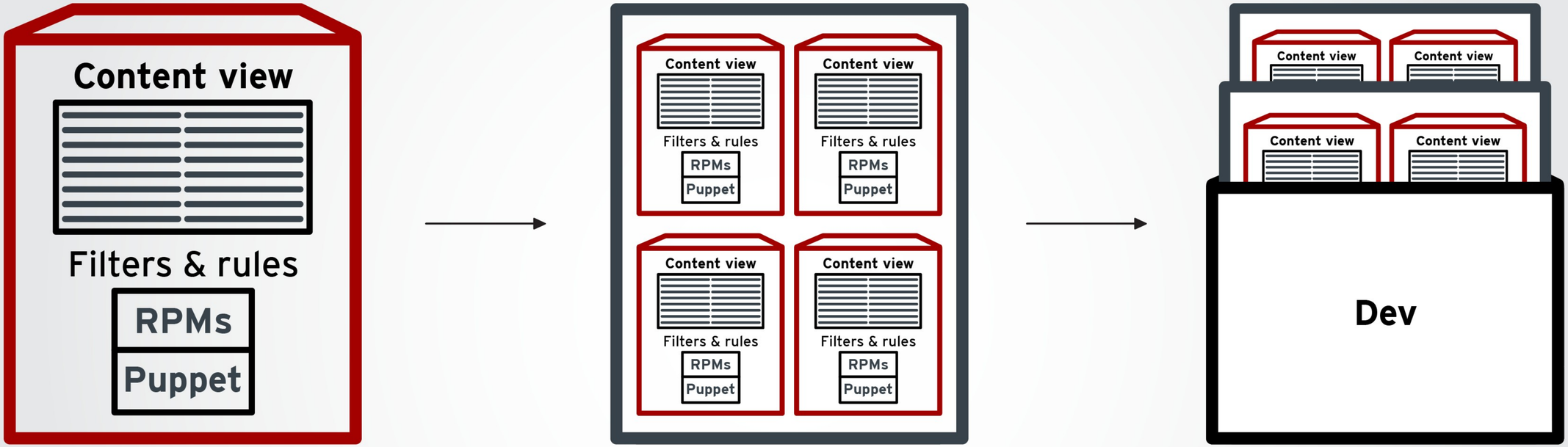
RED HAT SATELLITE 6 HIGH-LEVEL TOPOLOGY



LIFE CYCLE MANAGMENT



GRANULAR CONTENT MANAGMENT

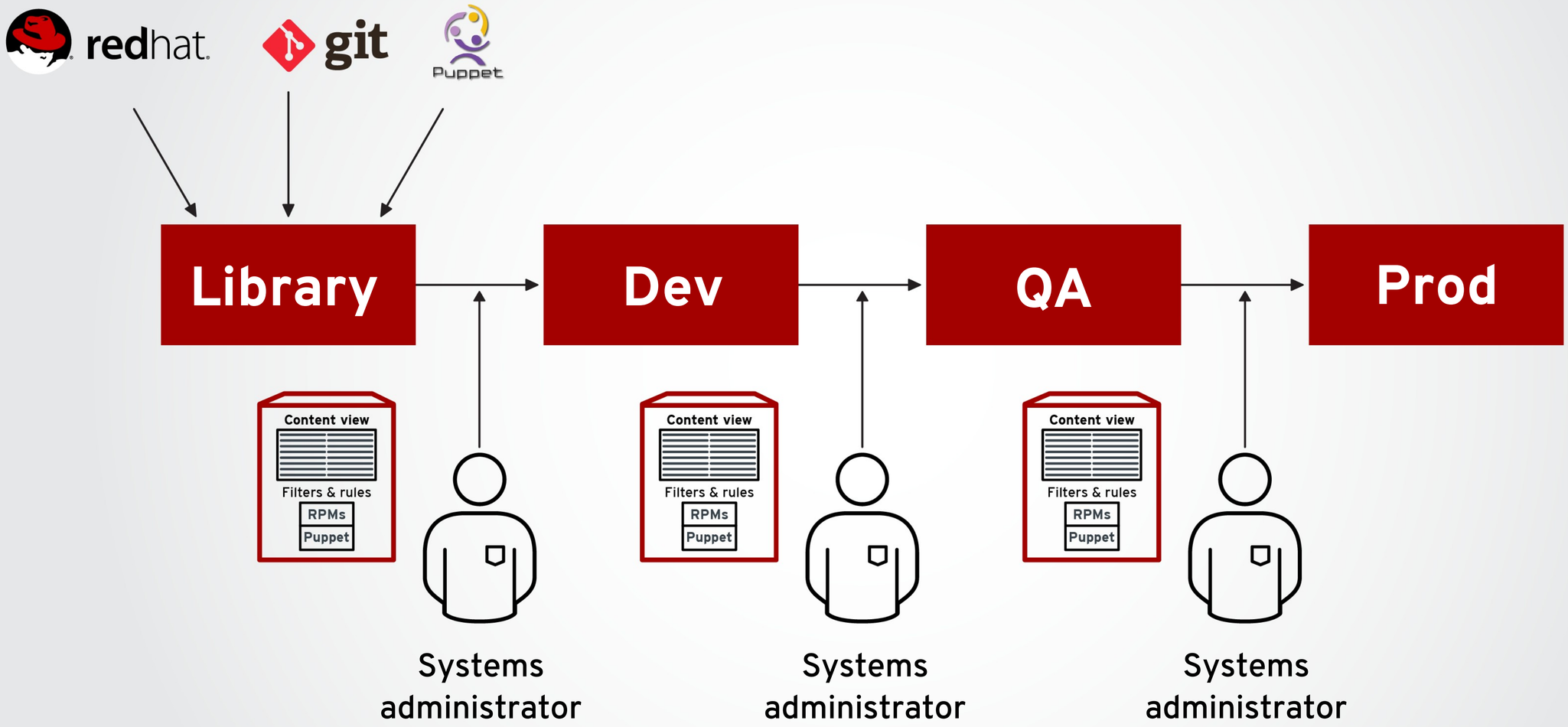


Content view
e.g. Red Hat Enterprise Linux 7
e.g. Web server
e.g. Red Hat JBoss Middleware

Composite content view
e.g. SOE for web

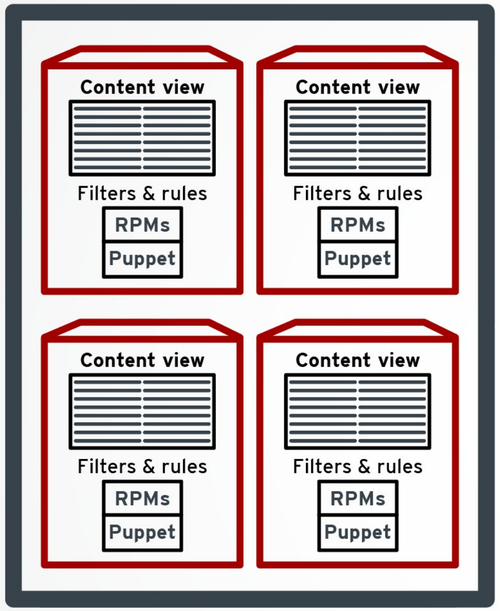
Environment
e.g. Production
e.g. Development

CONTENT LIFE CYCLE MANAGMENT



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

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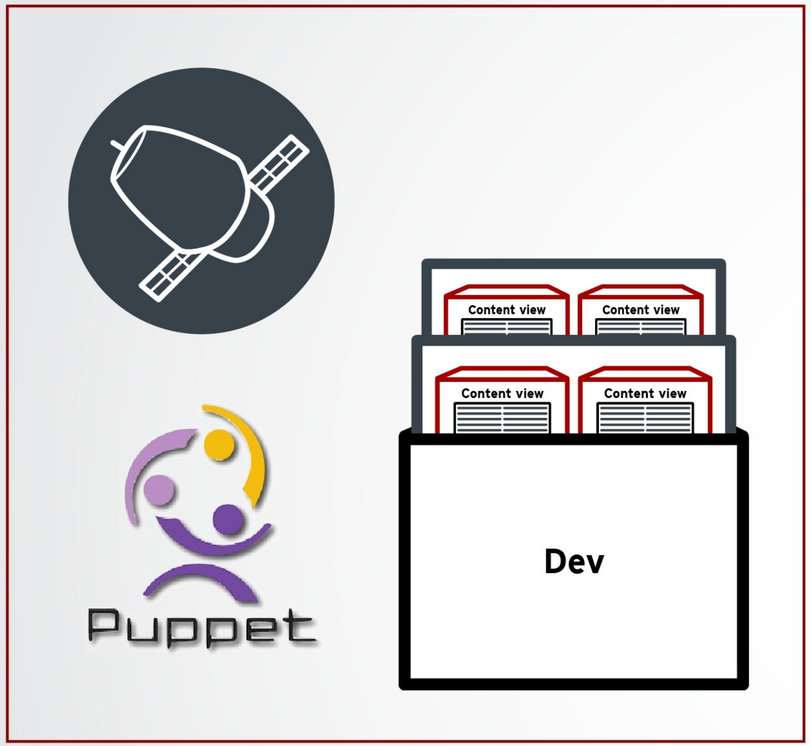
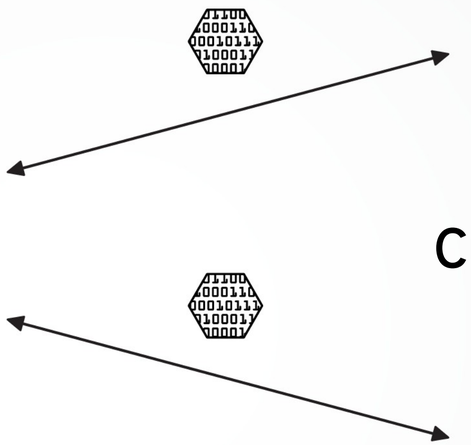
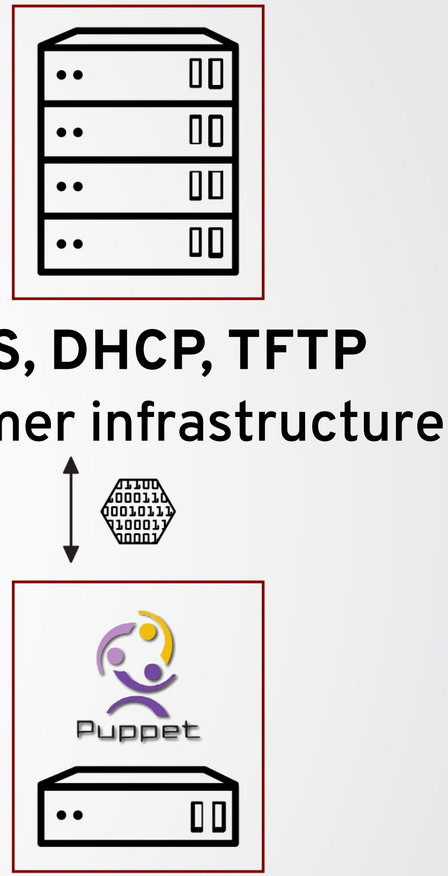
PROVISIONING AND CONFIGURATION TOPOLOGY



Red Hat Satellite Capsule
Mirrored content
Puppet master
Provisioning orchestration



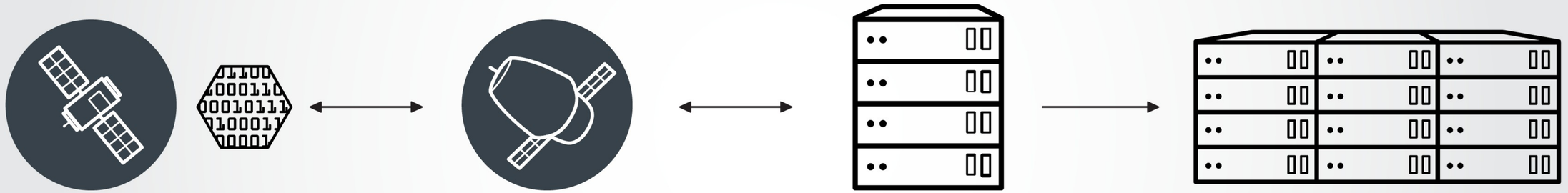


DNS, DHCP, TFTP
Customer infrastructure

Managed host
Puppet agent

DISCOVERY

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



Satellite 6
Facts DB

Satellite 6
Capsule Server

DNS, DHCP, TFTP
Customer
infrastructure

Datacenter

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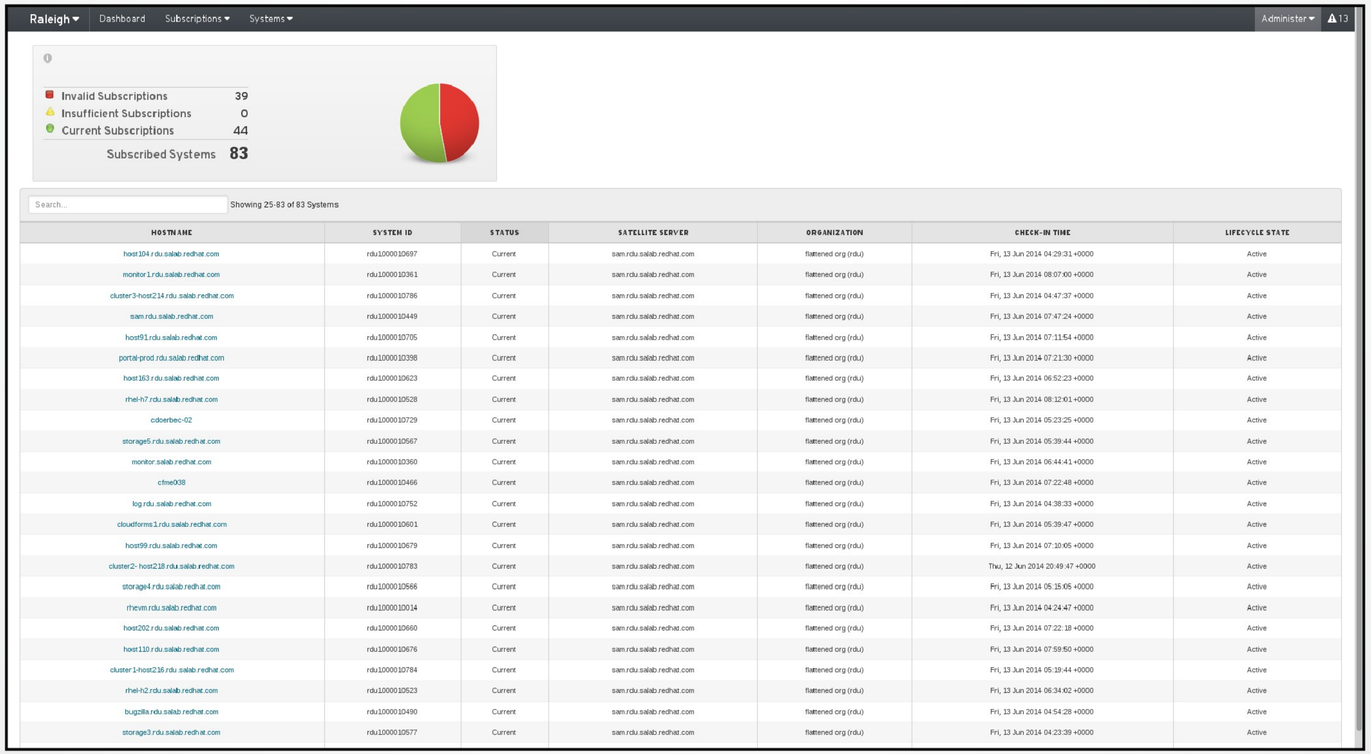
SUBSCRIPTION MANAGEMENT

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



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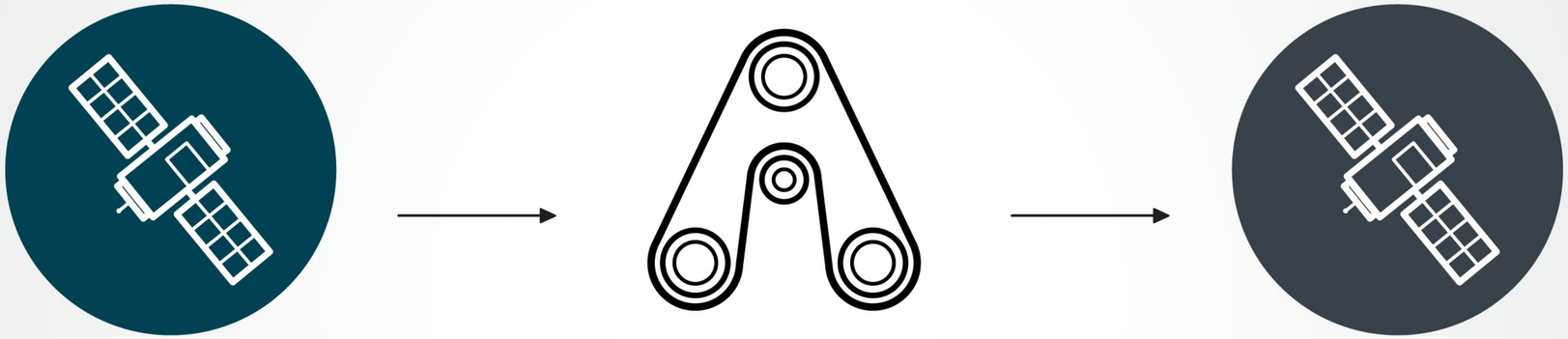
GUI, API, CLI

- 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

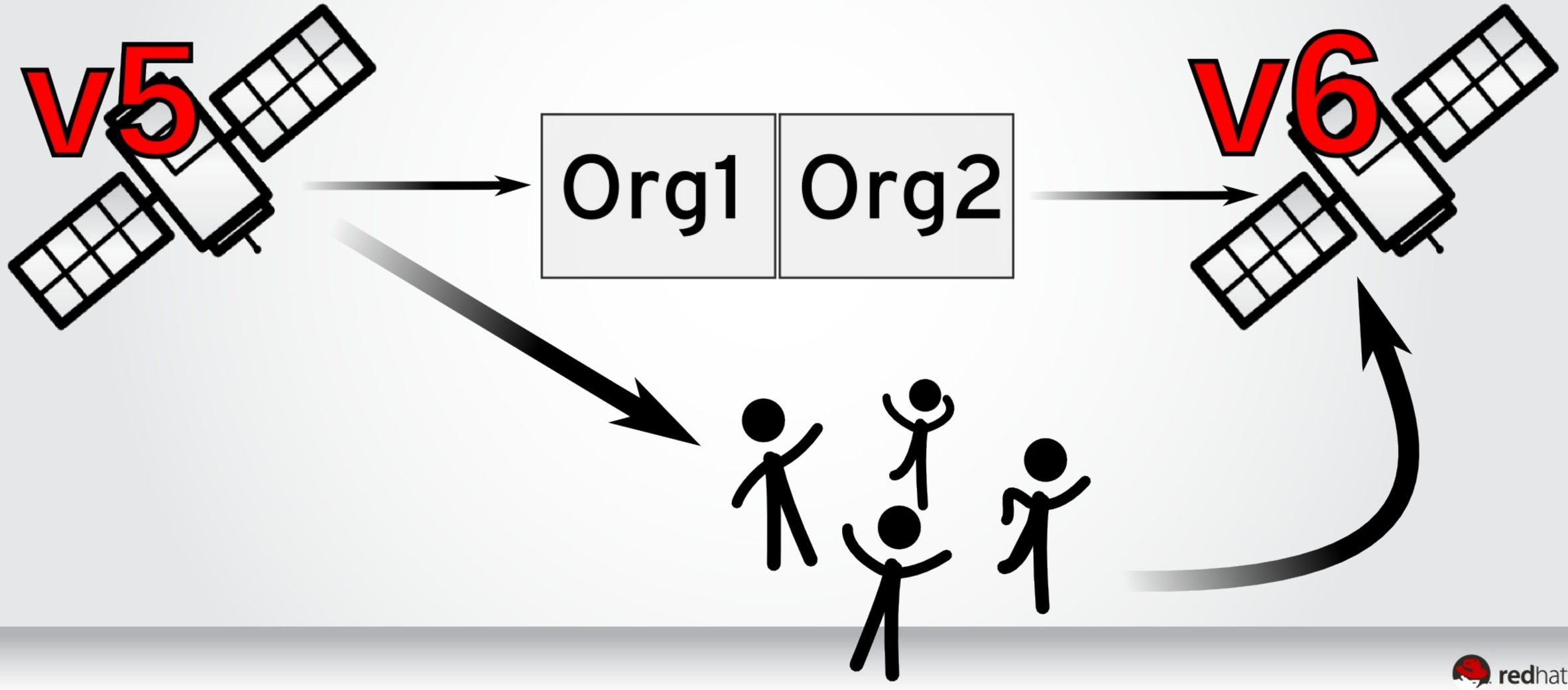


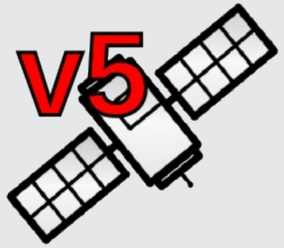
Red Hat Satellite 5 Server

Transition application

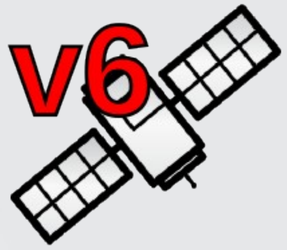
Red Hat Satellite 6 Server

Process, via tooling: organizations and users





Configuration file conversion



Key1 : Value1

Key2 : Value2

Key3 : Value3

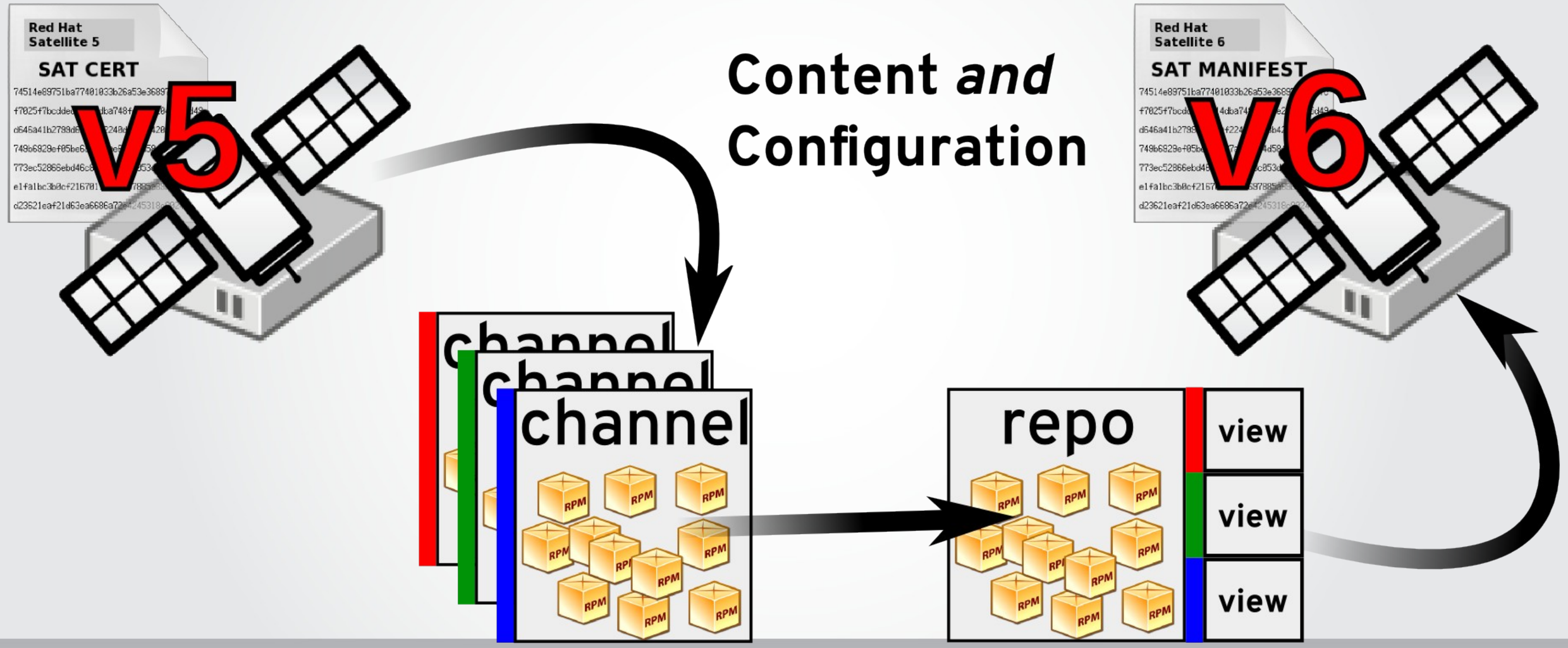
Key3 : Value3

If this,
Then that,
Dependent on <X>

Puppet

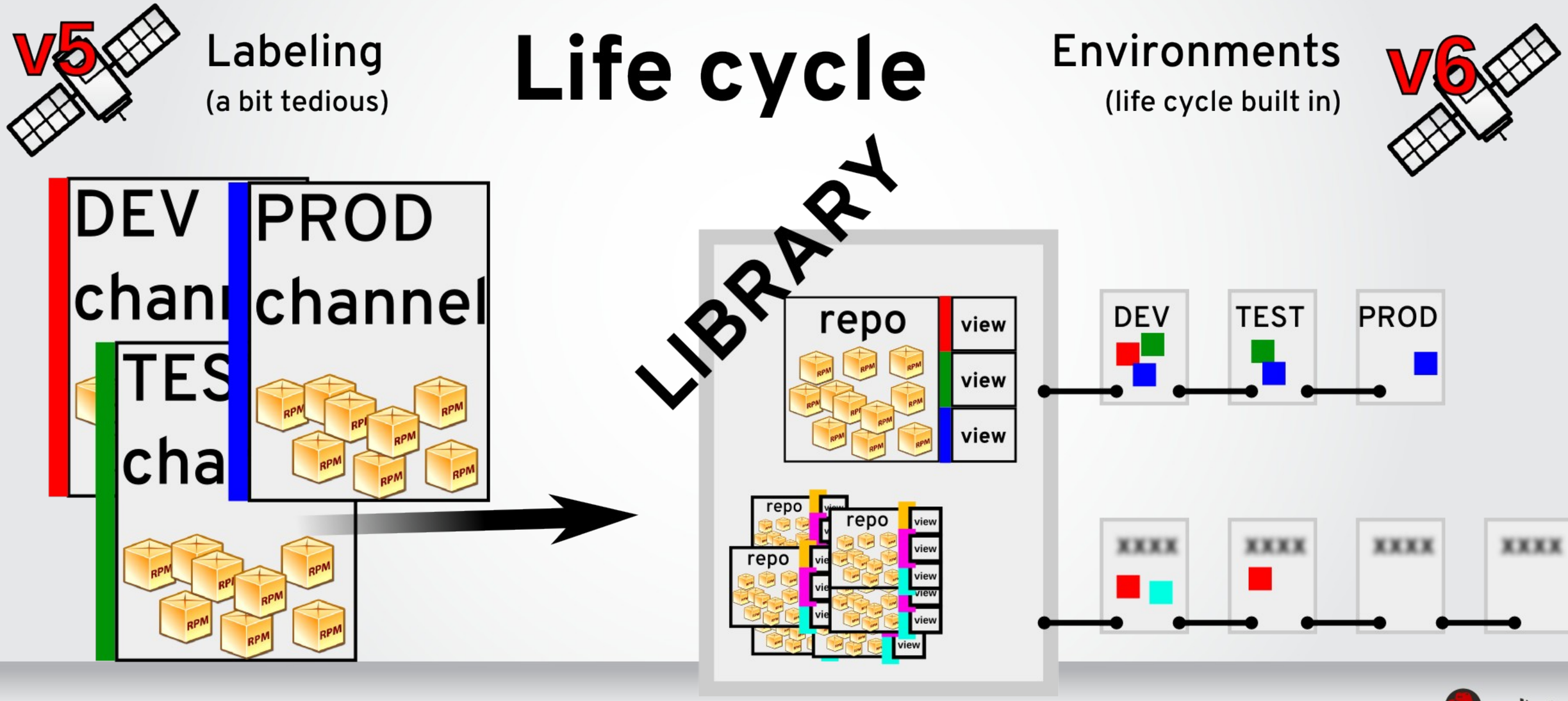
Preheat oven at 350°F for 20 minutes

Process, via tooling: channels to views



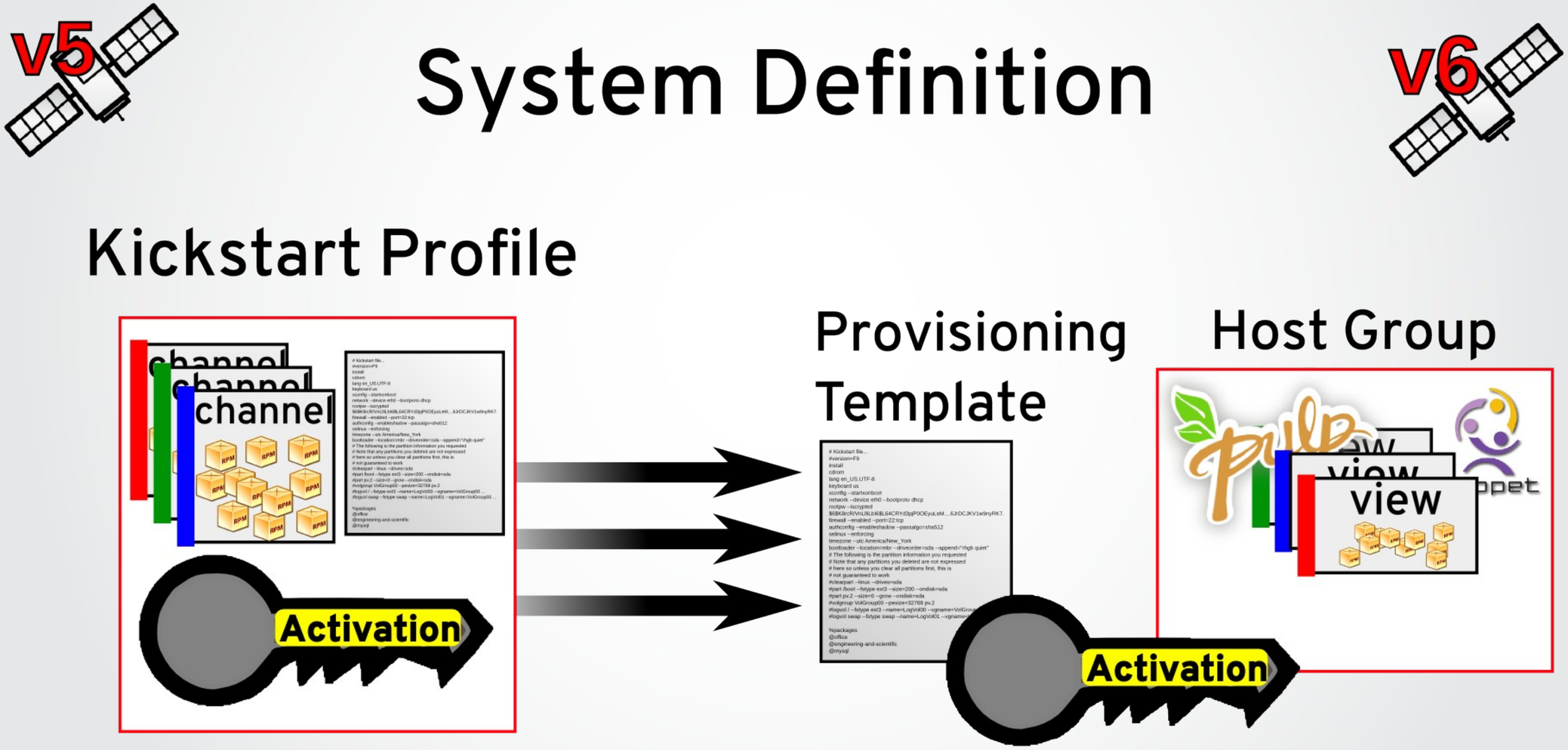
Manual Process:

life cycle remodeled, leveraging environments



Process:

provisioning: System Definition applied to systems more modularized.



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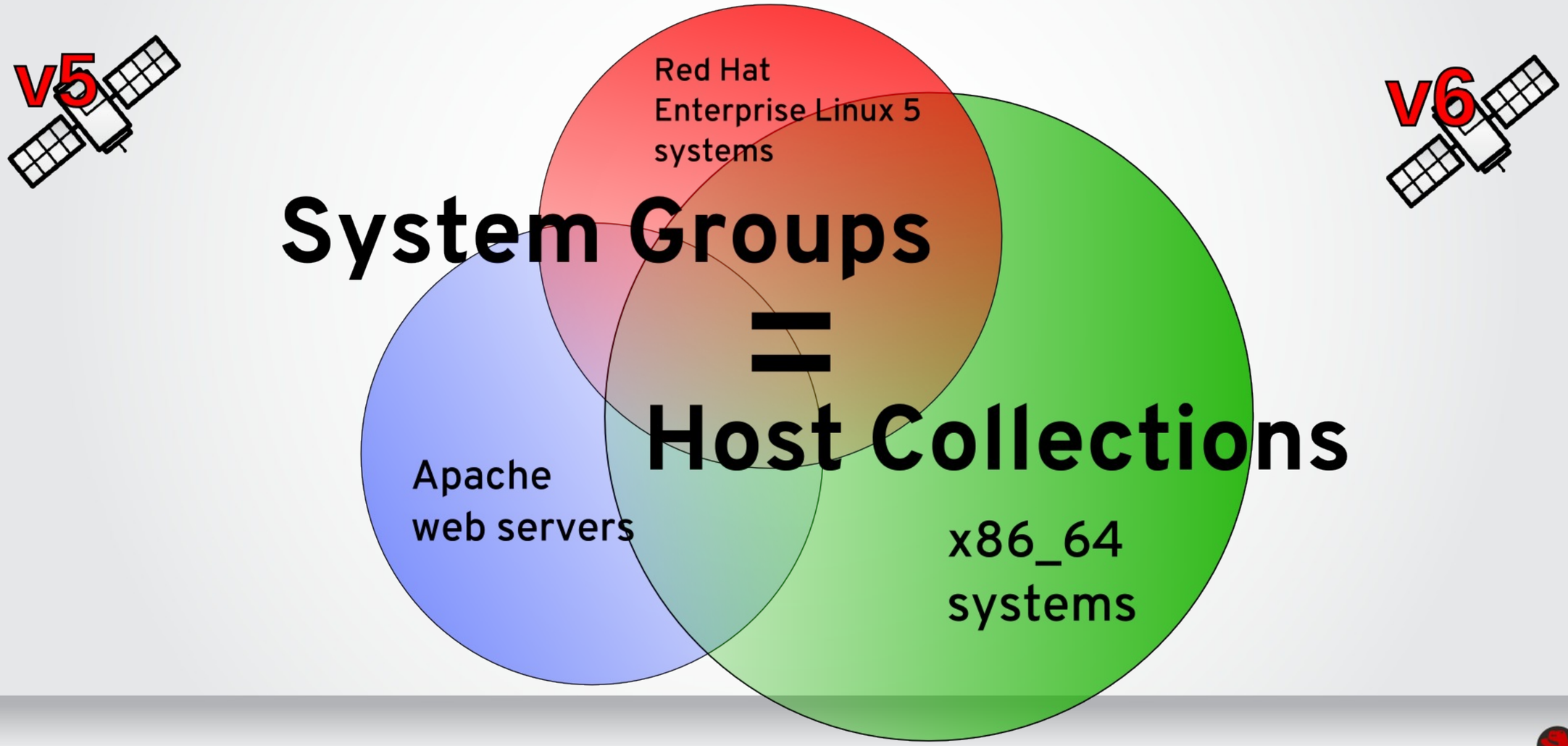
Process, via tooling:

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

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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

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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

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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

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QUESTIONS?