



Introduction To Foreman A Life-cycle Management Application

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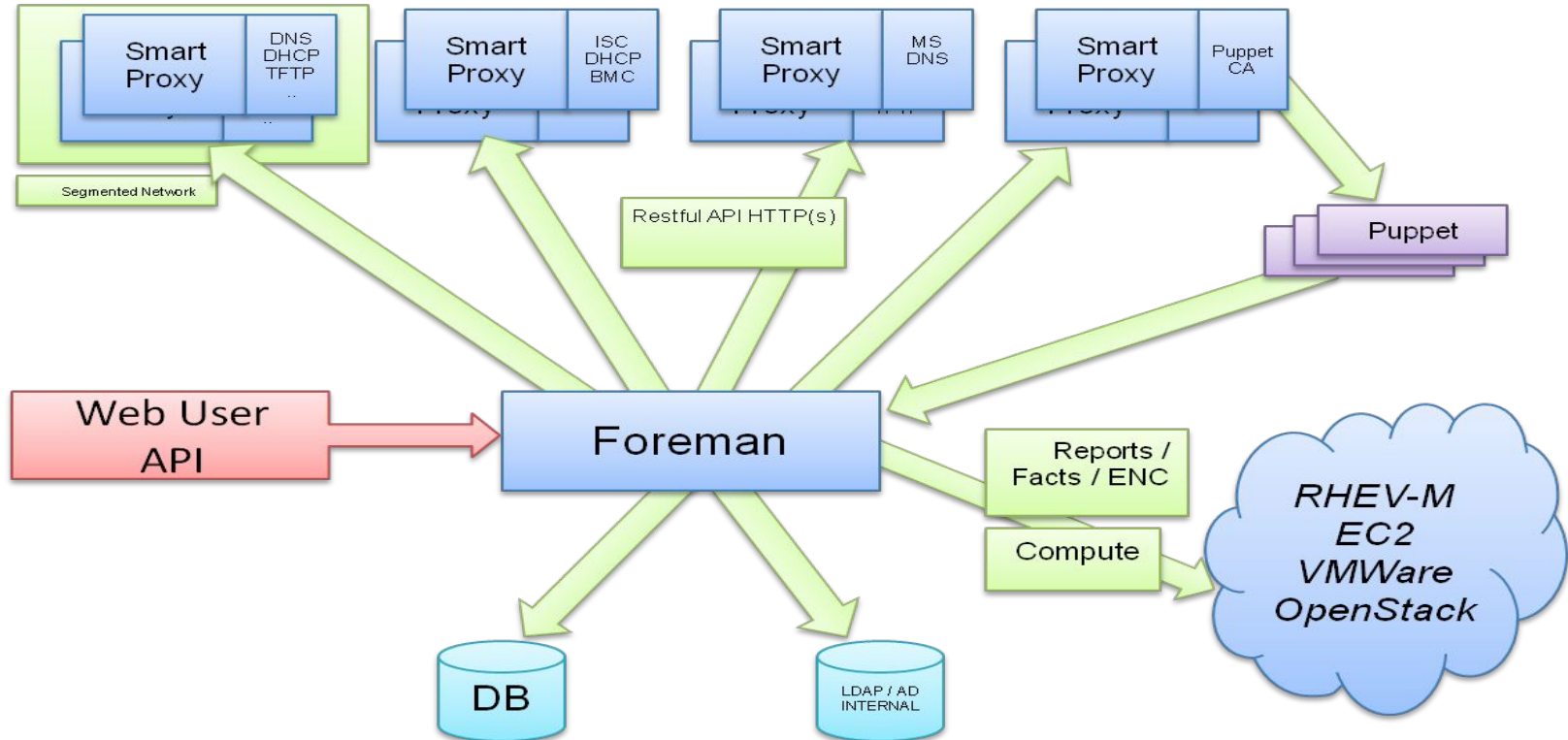
Agenda

- What is Foreman ?
- Foreman Architecture
- Lifecycle Management
 - Provisioning
 - System Management
 - Upgrades or decommission system
- What else Foreman can do ?
- Where you can use Foreman ?
- Questions ?

What is Foreman ?

Foreman is a complete lifecycle management application for physical and virtual servers. It gives system administrators the power to easily automate repetitive tasks, quickly deploy applications, and proactively manage servers, on-premise or in the cloud.

Foreman Architecture



What is Life Cycle Management ?

- Provisioning
- Managing and maintaining state of system which could be packages, configuration and services
- Update, upgrade or decommission

Provision from anywhere

- Bare metal (MaaS), Amazon EC2, Google Compute Engine, OpenStack, Libvirt, oVirt, VMware, Azure and many other providers allow you to manage a hybrid cloud through Foreman.

Use cases of provisioning ?

- Bare metal or physical server installation
 - PXE or PXELess methods
- Virtual system installation
 - PXE, PXELess or image based method
- On cloud installation
 - Image based method

System Management

- Configuration :
 - An external node classifier, hiera-like parameters, and reports monitoring for Ansible, Puppet, Salt and Chef are included. Completely ready to tweak host groups in your data center.
- Content Management :
 - Katello and Pulp provide functionality to mirror yum, deb, file, git, puppet contents locally. Has functionality to snapshot content, configurations for reproducible builds; further extending it to issue package and errata updates.
- Monitor:
 - Foreman reports will tell you exactly what happened in your nodes, and alert you when things go awry. See in your dashboard which hosts are healthy, and which ones are outdated.

Use cases of system management

- Manage what version or snapshot of content is available to systems.
- Make specific version of packages and configuration available for systems.
- Tests packages, configurations in QA environment and promote those to production systems.
- Issue package and errata updates to single or multiple systems.

Upgrade or decommission

- Upgrade system to next major release
- Reinstall system if required
- Fully decommission system and delete all associated resources

What else Foreman can do ?

- The Foreman has more than 35 plugins to make system management effortless.
 - Reliable CLI hammer is available.
 - RBAC and LDAP integration
 - Extensive audits are available to see when, who and what has been modified.
 - Plugins available for Ansible, Puppet, Chef and Salt.
 - Compute plugins for Amazon, Azure, DigitalOcean, HyperV, Xen.
 - Multiple Provisioning extensions available like Discovery, Bootdisk, Setup and Rescue.
 - Many software package extensions including OpenScap, Abrt, Vault and Git Templates.
 - Many and many more:
 - The details of all plugins are available at <https://theforeman.org/plugins/>

Where you can use Foreman ?

- Theoretically there is no limit on how many systems Foreman can manage, it can be deployed for small lab which has 5 systems to huge scale which has 50000 systems
- Bare Metal or Physical systems
- Virtual Systems
- AWS Cloud
- Google Compute Engine
- Microsoft Azure
- OpenStack.

Experience Foreman !

- WIFI Network : ansible_meetup
 - WIFI Password: foreman23
- Foreman URL: <https://192.168.0.3>
 - Username: admin
 - Password: foreman

Any Questions ?

- Visit us <http://theforeman.org/>
- You can find us:
 - IRC: [#theforeman](irc://irc.freenode.net)
 - [#theforeman](#)
 - [#theforeman-dev](#)
- Reach out to us at Foreman discourse
 - <https://community.theforeman.org/>