Puppet, HEP-Puppet, Foreman Discussion

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HEP Puppet

- 32 puppet modules in total

  - 21 are Grid-related

    – 12 are forked from other sources

    – 4(5) are used by people outside the UK

    – 2 are forked by CernOps

    – 4 are stubs

- 8 Members from 5 Organisations (1 from CERN)

- Apart from the members, apparently not many contributions from UK sites.

- No useful information on how many people are using it.

HEP Puppet Improvements

- How can we make modules more useful ?

    - Ensure to use Puppet best practices and styles.

    - Integrated testing (e.g. Travis).

    - Improve documentation.

    - Add modules to Puppet Forge.

    - Use a strict module layout in HEP Puppet.

    - Unify deployments across the UK.

        - Easier to support.

        - Classes with 1 entry point.

        - Provide profile / roles and configuration examples.

- Regular meetings to discuss / schedule HEP Puppet work.

HEP Puppet Improvements

- How do we deal with RPM repositories ?

  - Currently, modules tend to define their own yum repositories (e.g. arc_ce).

  - The grid_repos module was supposed to provide a common class to define repositories, but did not catch on.

  - Do admins want to handle repositories themselves ?

- How do we deal with VOMS configurations ?

  - Add them to the module as classes (now) ?

  - Use Hiera and provide example yaml files ?

  - Could VOMS snooper test / create the classes, configurations ?

Foreman Architecture
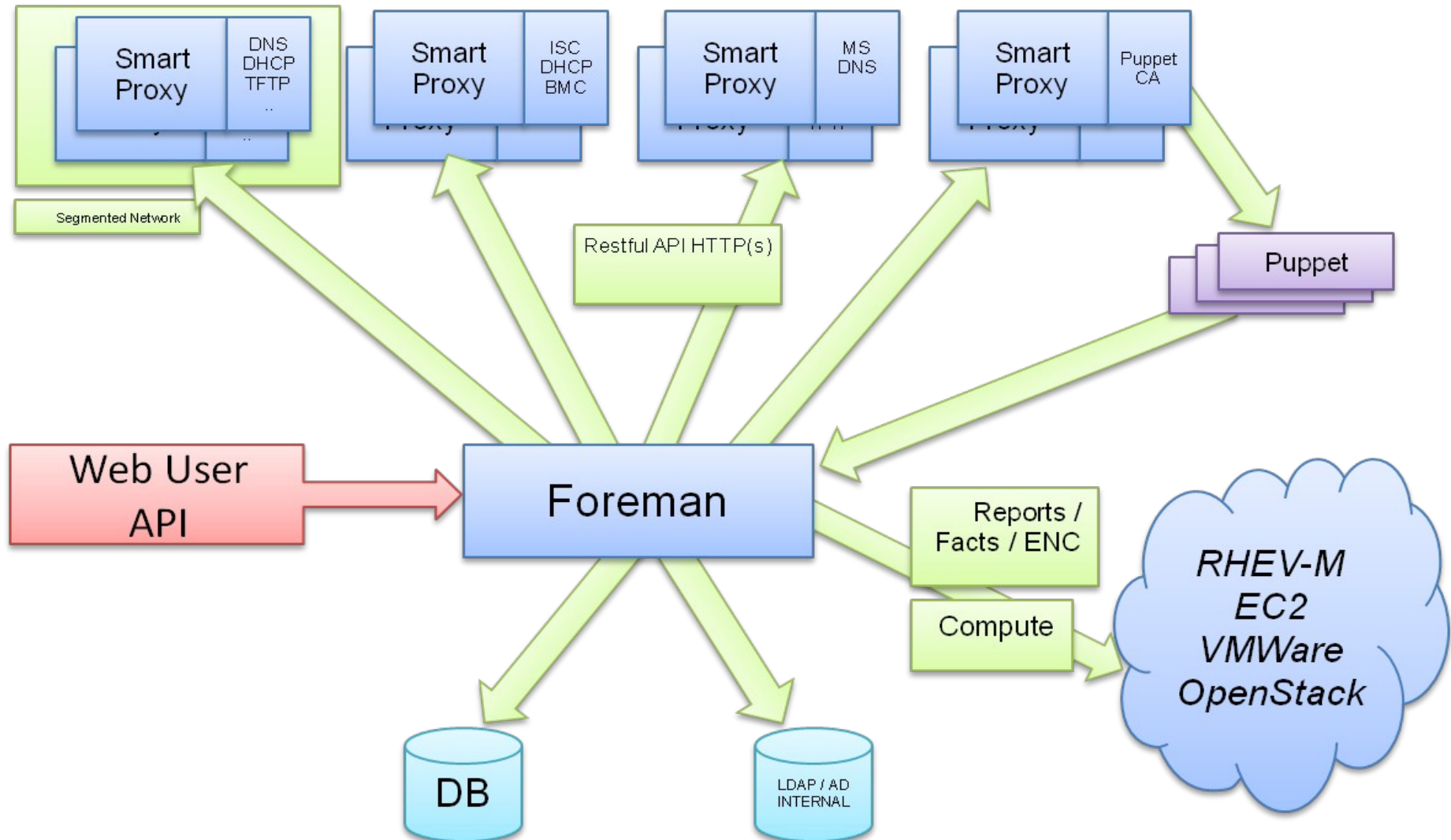
Foreman Notes

- Good at provisioning machines.
  - It can manage the all aspects involved in provisioning (DNS, DHCP, TFTP, etc.).
  - Use of templates (kickstart scripts, partition tables).
- Good support for different VM management tools.
- Flexible, functionality can be added by plugins.
- API and CLI available.
- Flexible permission model.
- Luke: Have been running Foreman for 2 years.
  - Foreman ENC in Puppet slow, replace it with Hiera ENC.
  - Not a good provider for data.
  - Not good at versioning.
  - Not using CLI.
- Using the Web GUI can be cumbersome for some operations (e.g. adding new OS).
  - Potentially easier to script those operations using the CLI.
- Currently only supports one-to-one mapping and usage of smart proxies.
- No force update of DHCP (DNS) servers.