Deploying Imagefactory

Automating the build and upload of images to OpenStack

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The Project Challenge

Process of Image building

TDL → oz-install → glance

Base Image

Credentials

XML markup

Kickstart

Shell script
Problems with this process

- Tedious
- Only partial automation possible
- Have to rely on Bash scripts
- SSH is the only way
Advantages

- Abstraction
- Fully automated
- Multiple ways to achieve the same
Giving Freedom to the user

Client -> REST API -> ImageFactory -> REST API -> GUI Dashboard

Client interacts with ImageFactory via REST API, which provides SSH access.
One-click solution
Work done

› 2 major patches submitted upstream
  – Support for openrc.sh
  – Support for glance custom properties

› Miscellaneous bug fixes

› Wrote a python client for ImageFactory's API

› Added image building feature to Horizon
How CERN benefits

› Image building now possible for users not familiar with Linux/command-line

› Process no longer needs human intervention

› Support for newer distros just one XML file away
Future work

› Use Kerberos
› Integrate with Jenkins
› Move Image building to the cloud
› Add support for Windows images