Argonne NATIONAL LABORATORY

Building Accurate Configuration Management with Bcfg2

Narayan Desai

desai@mcs.anl.gov

Argonne National Laboratory

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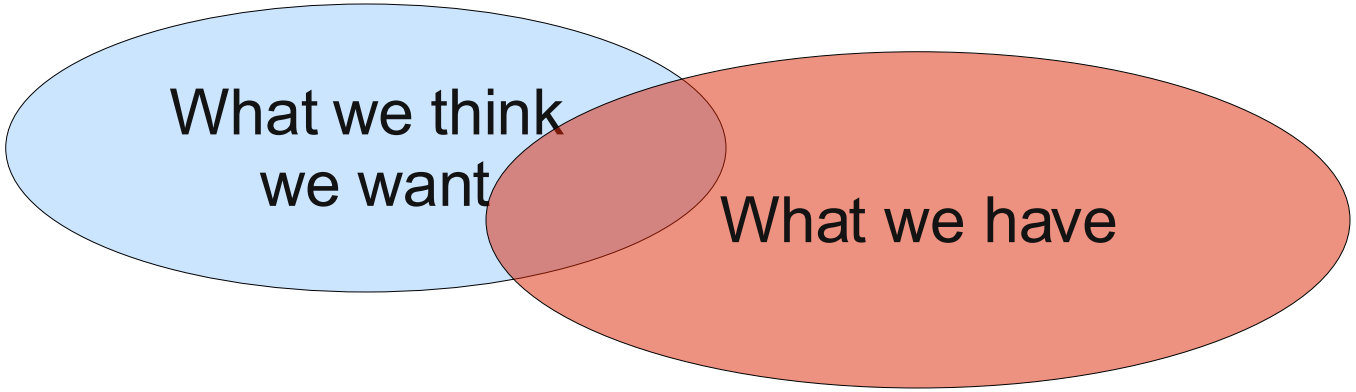
Bcfg2 Overview

- Client/Server Architecture
- Centralized Specification
- Generative tool
  - Like Puppet or LCFG (not like cfengine)
  - Complete client states are described
- In development for 4 years
  - In production for 2
  - At external sites for 1
- Primary focus is on usability
  - Let the user do what they need to do, not what the tool wants them to do
- *Accuracy is a goal*

Why is this interesting?



Accuracy as a Goal

- How do we know we are describing our network accurately?
  - Not just “what we want”
  - Reproducing “what we have”
  - Understanding the relationship between the two
- If we accept accuracy as our goal, we can tell how well we are doing
  - We can detect inaccuracy!
  - Can begin to understand where changes come from
  - Can engineer how configuration should flow
- Can smoothly move configuration between specification and reality
  - In either direction

Configuration Flow Policies

- Desktops apply all updates every night
- Production servers only apply changes during maintenance
- Critical servers only apply changes when supervised
- Modifications on clients can be canonical
- Bcfg2 can monitor conformance only
  - Changes can be performed manually or using bcfg2

More Information

http://bcfg2.org