Advanced Topics in Puppet

Southeast Linux Fest
2012-06-09
Charlotte, NC

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Puppet Labs is Hiring

http://puppetlabs.com/company/careers/

- Software Developer
- Professional Services Engineer
We’re going to jump around

• style
• provisioning
• software repo’s
• Hiera
• MCollective
• Version Control / Dev workflow / Testing
Coding style

http://docs.puppetlabs.com/guides/style_guide.html
four digit mode

```
file { '/etc/sudoers':
    mode => '0440',
}
```
default fail()

# Include OS specific module

```plaintext
case $::operatingsystem {
  'redhat': {
    include redhat
  }
  'centos': {
    include centos
  }
  'solaris': {
    include solaris
  }
  default: {
    fail("Supported operating systems include RedHat, CentOS, and Solaris. Your OS is identified as \[\$::{::operatingsystem}\]")
  }
}
```
Inheritance

class ssh { ... }
class ssh::client inherits ssh { ... }
class ssh::server inherits ssh { ... }
class ssh::server::solaris inherits ssh::server { ... }
Inheritance

class ssh inherits server { ... }
class ssh::client inherits workstation { ... }
class wordpress inherits apache { ... }

Inheritance

node 'www1' inherits apache {}
node 'app1' inherits base {}
Inheritance

define 'www1' {
    include apache
    include common
}

import
import

is dead
pre-commit hooks
puppet-lint

https://github.com/rodjek/puppet-lint

written by Tim Sharpe @rodjek
puppet parser validate
erb -P -x -T '-' $1 | /usr/bin/bin/ruby -c
Best Practices
Start from a known base
Provision small
Provisioning process

Diagram:
- Blank Hardware
- Base Install
- Provision

Puppet's Task:
- Configure
- Maintain
- Assigned Role
Software Repo's

• No ensure => latest in your code
Software Repo’s

- Specific version strings are even worse
Run your own Software Repo’s
Version control your Repo’s

/data/repos/CentOS/6/Base/prod

symlinks to

/data/repos/CentOS/6/Base/2012060900
Hierarchical
Decoupling data and modules

• show me the code
MCollective
VCS Structure (SVN view)
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