

# Advanced Topics in Puppet

Cascadia IT Conference

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# # whoami



# Puppet Labs is Hiring

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

- Release Engineer
- Software Developer
- Certification Program Manager
- 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](http://docs.puppetlabs.com/guides/style_guide.html)

# four digit mode

```
file { '/etc/sudoers':  
  mode => '0440',  
}
```

# default fail()

```
# Include OS specific module
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

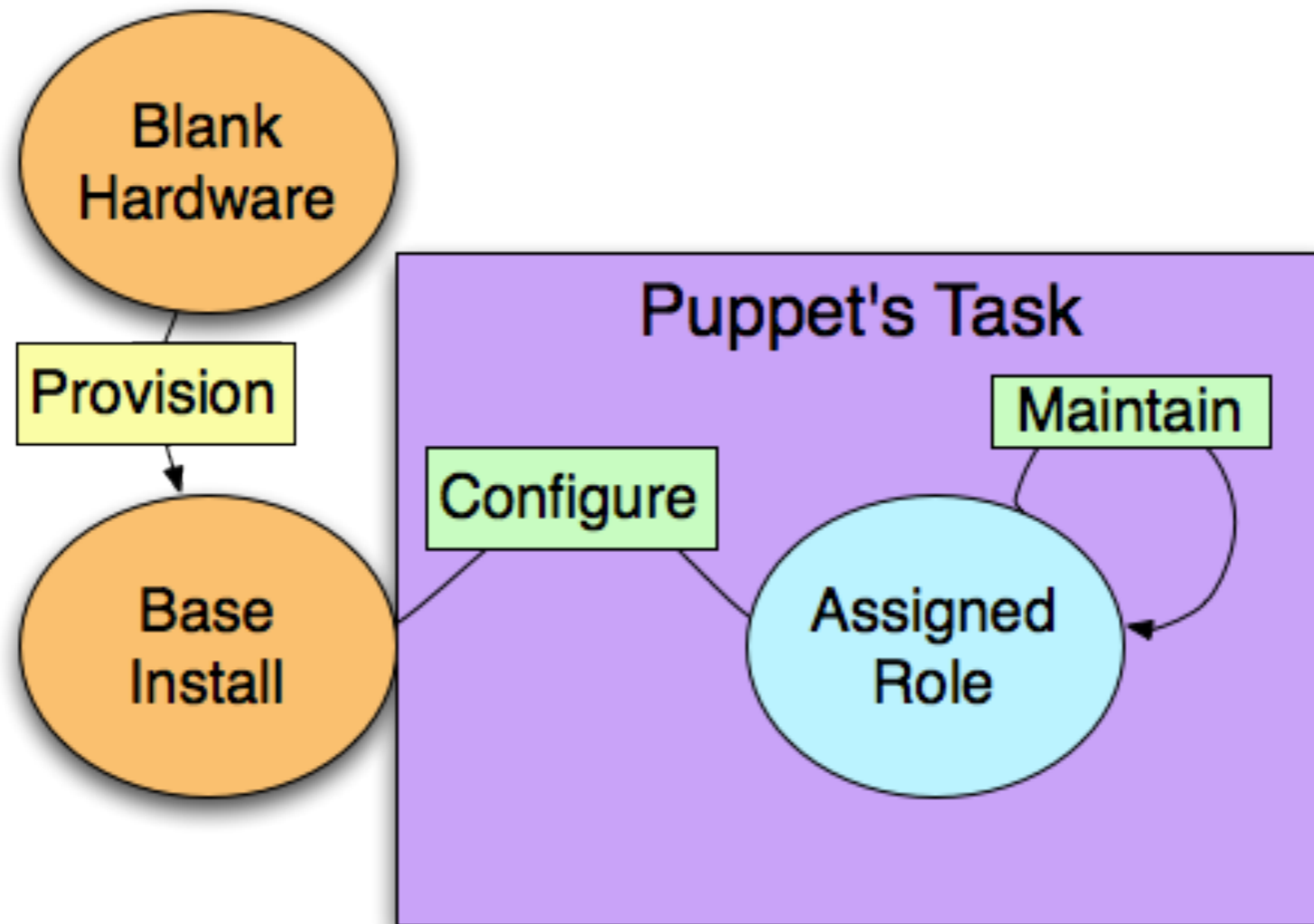
```
node 'www1' {  
  include apache  
  include common  
}
```

# Best Practices

**Start from a known  
base**

**Provision small**

# Provisioning process



# Software Repo's

- No `ensure => latest` in your code.
- Specific version strings are even worse



# Run your own Software Repo's

# Version control your Repo's

`/data/repos/CentOS_6.1_Base`

**symlinks to**

`/data/repos/CentOS_6.1_Base-2012032400`

**Hiera**

# Decoupling data and modules

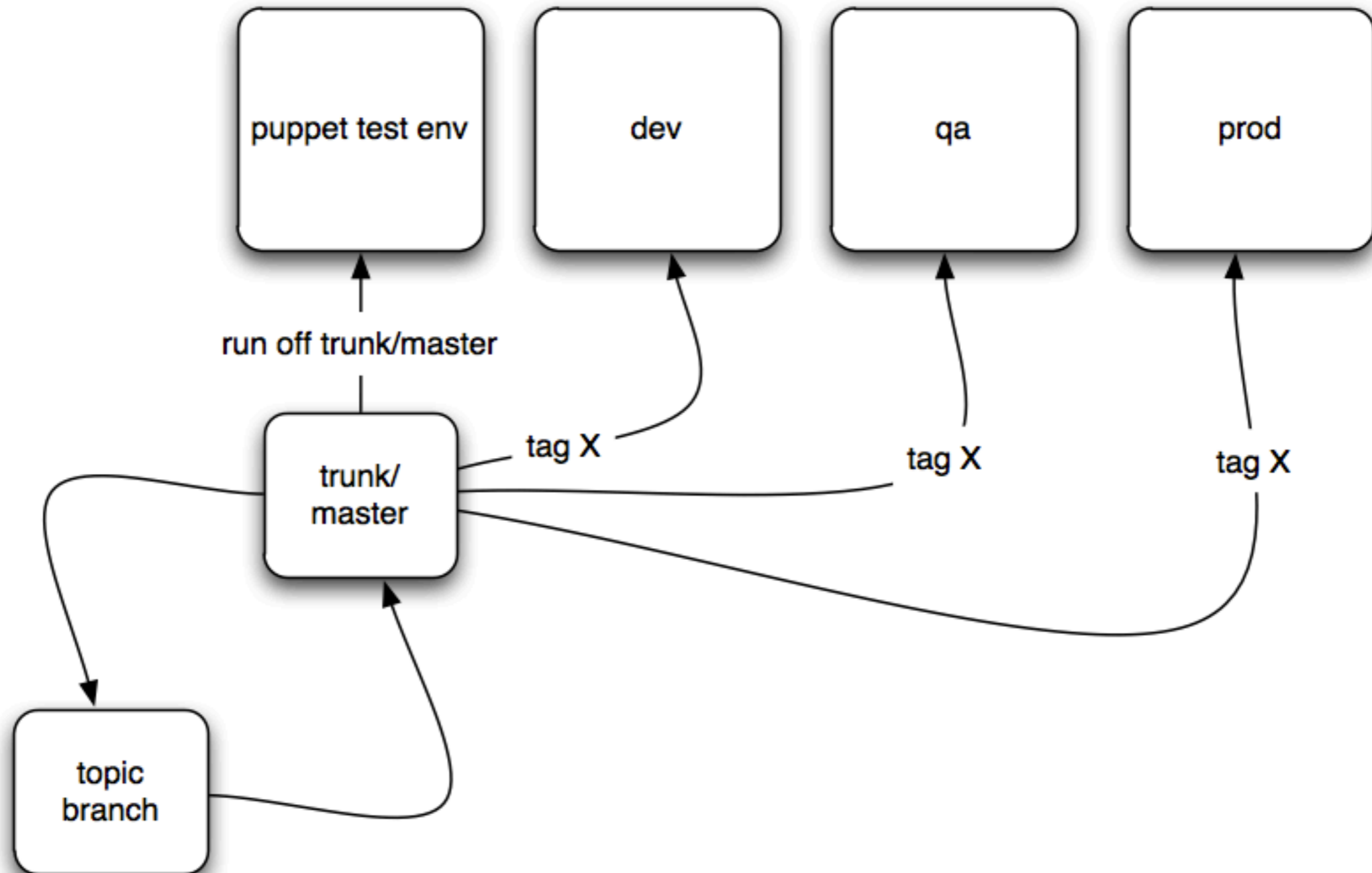
- show me the code

**MCollective**

# VCS Structure (SVN view)

```
├── branches
│   ├── 644
│   │   ├── manifests
│   │   │   └── site.pp
│   │   └── modules
│   │       ├── apache
│   │       └── zenoss
│   └── 755
│       ├── manifests
│       │   └── site.pp
│       └── modules
│           ├── apache
│           └── zenoss
├── tags
│   ├── 2011041100
│   ├── 2011041101
│   └── 2011041200
└── trunk
    ├── manifests
    │   └── site.pp
    └── modules
        ├── apache
        └── zenoss
```

# Flow



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