Introduction To Puppet And Usage In Cloud

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Topics

- Challenges faced by a System Administrator
- Why scripts fail to scale
- Need of a config management tool, Puppet
- Puppet installation and configuration
- Centralized infrastructure management
- Cloud Is Different
- Cloud Intelligence For Puppet
- Scaling Puppet master
Challenges Faced By A System Administrator

- New servers. New applications. Updates.
- New joinees. People Leaving Organization.

Read Again from first bullet. Essentially "SyaAd Loop"
Why Scripts Fail To Scale

- Looks Dirty, specially when exceed 1000 lines (50 for perl)
- Master Slave Transport: Usually SSH :
- Changes with platform
- More focus on "how to do?" than "what to do?"
- Do you like to Document?
Centralized Configuration Management
Easy To Introduce New Nodes
Platform Independent Configs
Clear Structure = Self Documenting
Saves you from Carpel Tunnel!
Puppet vs Chef

- Usually more people on IRC, faster replies on mailing lists
- Puppet is older, more recipes available
- Awesome documentation and reference books like Pro Puppet
- Derived from my limited experience, criticism welcomed

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Puppet Installation And Configuration

- yum, apt, gem
- Client-Server Architecture
- Preconfigured with basic setup.
- TLS security: Puppet CA
- The Magic File: site.pp
Puppet Installation And Configuration

node 'localhost.localdomain' {
    include test
    include vim
    include apache
}

class test {
    file {
        '/test':
        ensure => directory
    }
}

class vim {
    package {
        "vim":
        ensure => installed,
    }
}

vim /etc/puppet/manifets/site.pp
Puppet Installation And Configuration

```
/tree /etc/puppet/
|-- auth.conf
|-- fileserver.conf
|-- manifests
`-- site.pp
|-- modules
`-- apache
`-- files
`-- manifests
`-- init.pp
`-- install.pp
`-- service.pp
`-- templates
`-- puppet.conf

6 directories, 7 files
```
- Manifests and Modules
- Classes and Nodes
- include and inherits
- Providers and Facts
- Serving Static Files
Cloud Is Different

- Everything is Virtual
- On-the-fly Provisioning
- Puppet Needs to be Cloud Aware
- Plan for Capacity
Cloud Intelligence For Puppet

- Update Config Frequently
- Handle Security Certificates of Clients
- Regex Awesomeness
Scaling Puppet Master

- Webrick? Get Passenger/Unicorn
- Splitting off the File Server
- Load balancer and Puppet Cluster
- Git can do Magic!
Now is your chance :)

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