Red Hat CloudForms, Red Hat Satellite 6, & Puppet for automating JBoss EAP 6

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Forgone Conclusion

PROBLEM?

SOLVED!
Investigate

Determine Purpose
Know Thyself
Choose Your Path
“...your scientists were so preoccupied with whether or not they could that they didn't stop to think if they should.”

- Dr. Ian Malcolm

Source: Jurassic Park, Universal Pictures (1999)
Know Thyself: Existing Infrastructure

ONE DOES NOT SIMPLY
WALK INTO AUTOMATION

“Aahh, now, are you going to go ahead and have those TPS reports for us this afternoon?”

- Bill Lumbergh

*Source: Office Space, Twentieth Century Fox Film Corporation (1999)*
Implement

Puppet
Satellite
CloudForms
JBoss EAP 6.x

Inconsistent vs Consistent
Puppet and Community

Custom Modules

jboss_eap_server

Community Modules

jboss_admin

stdlib

apt

firewalld

maven

wget
Puppet & JBoss Example:
jboss_admin Module

jboss_admin::server {'main':
  base_path => '/opt/jboss'
}

jboss_admin::resource::data_source{'/subsystem=datasources/data-source=ExampleDS':
  ensure => present,
  connection_url => 'jdbc:h2:mem:test;DB_CLOSE_DELAY=-1',
  driver_name => h2,
  jndi_name => 'java:jboss/datasources/ExampleDS2',
  jta => true,
  user_name => sa,
  password => sa,
  server => main
}

jboss_exec {'Enable Data Source':
  command => '/subsystem=datasources/data-source=ExampleDS:enable',
  unless => '(result == true) of /subsystem=datasources/data-source=ExampleDS:read-attribute (name=enabled)',
  server => main
}
Satellite: Providers
Satellite: Workflow

- Red Hat RPMs
- Community RPMs
- Custom RPMs

- Community Puppet Modules
- Custom Puppet Modules

Products

- Content Views
- Composite Content Views

Lifecycle Environments

- Activation Keys
- Hostgroups
Satellite: Content Views

Products
- JBoss EAP 6
- RHEL 7
- Puppet Modules

Content Views
- JBoss EAP 6.3.3
- JBoss EAP 6.4.0
- JBoss EAP 6.4.1
- JBoss EAP 6.x
- Puppet Modules
- RHEL 7.0
- RHEL 7.1
- RHEL 7.x
Satellite: Lifecycle Environments

Lifecycle Environment Paths

Environment Path

Library ➔ Development ➔ Test ➔ Production ➔ +
Satellite: Activation Keys

Composite Content Views
- RHEL v7.x and Puppet Modules
- JBoss EAP v6.x and RHEL v7.x

Activation Keys
- JBoss EAP v6.x and RHEL v7.x - Production
- RHEL v7.x - Production
- JBoss EAP v6.x and RHEL v7.x - Test
- RHEL v7.x - Test
- JBoss EAP v6.x and RHEL v7.x - Development
- RHEL v7.x - Development
Satellite: Host Groups

Activation Keys
- JBoss EAP v6.x and RHEL v7.x - Production
- RHEL v7.x - Production
- JBoss EAP v6.x and RHEL v7.x - Test
- RHEL v7.x - Test
- JBoss EAP v6.x and RHEL v7.x - Development
- RHEL v7.x - Development

Hostgroups
- RHEL v7.x - Development
- JBoss EAP v6.x and RHEL v7.x - Development
- RHEL v7.x - Test
- JBoss EAP v6.x and RHEL v7.x - Test
- RHEL v7.x - Production
- Nexus - Production
- JBoss EAP v6.x and RHEL v7.x - Production

Puppet Classes
- nexus_server
- jboss_eap_server
CloudForms: Services

Service "jboss eap v6.x - development"

Properties
- Name: jboss eap v6.x - development
- Description: Provision Service
- Management Engine GUID: d5d89a8b-1566-11e5-800b-001adad884c7

Lifecycle
- Retirement Date: Never
- Retirement State: None
- Owner: Administrator
- Group: EnvGroup:super_administrator
- Created On: Thu Jun 18 03:55:18 UTC 2015

Relationships
- Parent Catalog Item: Provision Service
- Parent Service: enterprise

VMs
- enter.com
- enter.com
- enter.com
CloudForms: User Experience

Satellite

CloudForms

Order Service "Provision Service"

General

- Service Name
- Hostgroup
- Memory: 2048
- vCPUs: 1
- Subnet
- Domain
- Instance Count: 1

#redhat #rhsummit
CloudForms: Integration with Satellite
Demo
Inspire

Train
Profit
Feedback
Train

Source: Jurassic World, Universal Pictures (2015)
Profit
Gather Feedback

What you thought the users wanted
How you described it to the users
First iteration delivered to the users
What the users actually want

Source: http://projectcartoon.com
Source: http://www.paragoninnovations.com/guide.shtml
Links

● CloudForms Automate Code:
  ○ [https://github.com/jbennett7/summit.git](https://github.com/jbennett7/summit.git)

● Puppet Modules:
  ○ jboss_admin: [https://github.com/cpitman/puppet-jboss_admin](https://github.com/cpitman/puppet-jboss_admin)
  ○ jboss_eap_server: [https://github.com/itewk/puppet-jboss_eap_server](https://github.com/itewk/puppet-jboss_eap_server)
  ○ nexus_server: [https://github.com/itewk/puppet-jenkins_server](https://github.com/itewk/puppet-jenkins_server)
  ○ jenkins_server: [https://github.com/itewk/puppet-jenkins_server](https://github.com/itewk/puppet-jenkins_server)

● Connect
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