AUTOMATING RED HAT VIRTUALIZATION WITH CLOUDFORMS AND ANSIBLE

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AGENDA

- Introduction and background
- User stories
- Demo’s
- Q&A
INTRODUCTION and BACKGROUND
NEED TO ADDRESS GREATER CHALLENGES

LINE OF BUSINESS
Challenged to deliver services faster, at scale, and more efficiently

DEVELOPERS
Need to develop applications faster with greater productivity

I.T. OPERATIONS
Must provide infrastructure on-demand that scales as needed
NEED TO PROVIDE GREATER VALUE

REGAIN CONTROL
- Cost
- Compliance
- Resources

CONNECT EXISTING INVESTMENTS
- Path to the cloud
- Interoperability

ACCELERATE SERVICE DELIVERY
- Stop the need for “shadow IT”
- Push-button configuration

WITHOUT VENDOR LOCK-IN
- What you need when you need it
- No licenses, no CapEx, no contract fine print
Centralized Management of virtualized compute, network, and storage resources using the Open Source KVM Hypervisor

Automated workload management, scalability, and security features for virtualized applications

Engineered to optimize current IT and integrate with future technologies using a RESTful API.

EASY TO OPERATIONALIZE, EASY TO AUTOMATE, EASY ON THE BUDGET, NO VENDOR LOCK-IN
RED HAT CLOUDFORMS

- Operational efficiency
- Service health
- Security & compliance
- Financial management
- Lifecycle management
- Resource optimization
- Root-cause analysis
- Capacity management
RED HAT ANSIBLE

AUTOMATION MANAGEMENT

Red Hat Virtualization Ansible:
- Ansible roles called from UI
- Ansible based services and policies
- Automation steps can be codified in Ansible playbooks or natively in CloudForms.

Integration to external IT systems allows CloudForms to automate and orchestrate all process steps.
USER STORIES & DEMO’S
LET US TELL A STORY - WITH DEMO’S!

All our hero wants to do is do his job...

Simply and securely

Let’s fix this with simple automation:

- Deploy CloudForms
- Create Templates
- Deploy Applications
- Upgrade Clusters
- Automate Security & Compliance
AUTOMATE CLOUDFORMS DEPLOYMENT

FIRST DEMO - Deploying CloudForms on top of Red Hat Virtualization

- Automate the deployment of the CloudForms appliance on RHV
- All initialization, configuration, and provisioning activities needed for the appliance are handled by Ansible roles

CENTRALIZED REPORTING

#redhat #rhsummit
AUTOMATE TEMPLATE CREATION
Repeatable VM deployments from thin templates

STREAMLINE OPERATIONS

- Ansible performs the “heavy lifting” - download, create, and cleanup
- Template built on Red Hat Enterprise Linux “cloud image” - already a “purpose built” image
AUTOMATE WORKLOAD DEPLOYMENT

THIRD DEMO - Repeatable VM deployments from service catalog

SERVICE DELIVERY CATALOG

- **Configure** auto-approvals and authorization or route for approval as needed.
- **Allow** multiple services to be requested at one time via Shopping cart functionality.
- **Manage** the entire lifecycle of the service - design, provisioning, day 2, compliance/security, financial management, and retirement.
AUTOMATE CLUSTER UPGRADES
FOURTH DEMO - Upgrades without disruption to users or administrators

STREAMLINE OPERATIONS

- “Rolling” upgrades to avoid downtime and disruption
- CloudForms manages the process, Ansible handles the “heavy lifting”
AUTOMATE COMPLIANCE & SECURITY

FIFTH DEMO - Provide standards without disruption

POLICY AND ACTION

- **Implement** corporate and federally mandated standards and policies.
- **Create** policies that can be created and acted upon automatically in a manner that enables users and developers but without being in the way.
- **Apply** policies based on Smart State data without being disruptive.
- **Scan** systems with Smart State Analysis to provide policy engine with detailed information.
Q & A | MORE INFORMATION
MORE INFORMATION

Red Hat Virtualization
https://RedHat.com/RHV

Red Hat CloudForms
https://RedHat.com/CloudForms

Red Hat Ansible
https://RedHat.com/Ansible

Product documentation
https://docs.redhat.com
THANK YOU
RED HAT VIRTUALIZATION SUITE

**RED HAT® VIRTUALIZATION**
- Enterprise virtualization

**RED HAT® CLOUDFORMS**
- Orchestration and automation
Broader hybrid support
for OpenStack, RHV, VMware, Hyper-V, AWS, Azure.