

RED HAT  
**SUMMIT**

# AUTOMATING RED HAT VIRTUALIZATION WITH CLOUDFORMS AND ANSIBLE

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# AGENDA

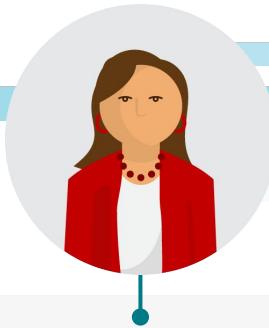
Click to add subtitle

- 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

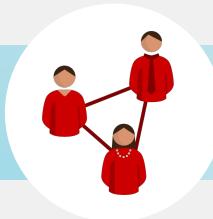
Must provide infrastructure on-demand that scales as needed

# NEED TO PROVIDE GREATER VALUE



## REGAIN CONTROL

- Cost
- Compliance
- Resources



## CONNECT EXISTING INVESTMENTS

- Path to the cloud
- Interoperability



## ACCELERATE SERVICE DELIVERY

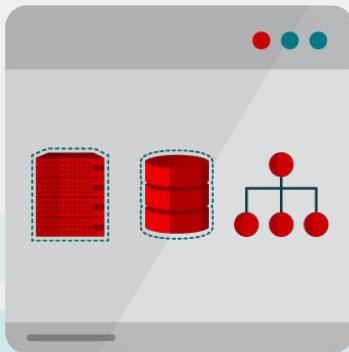
- Stop the need for “shadow IT”
- Push-button configuration



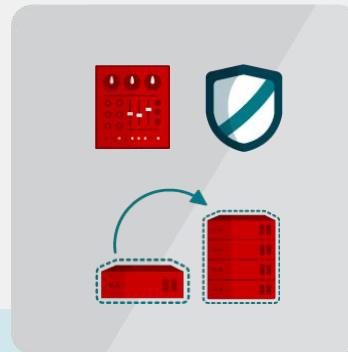
## WITHOUT VENDOR LOCK-IN

- What you need when you need it
- No licenses, no CapEx, no contract fine print

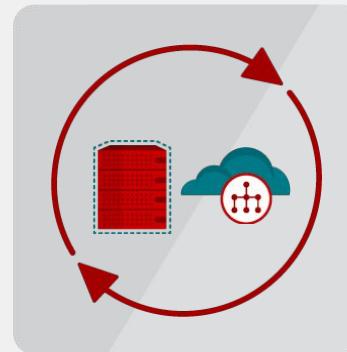
# RED HAT VIRTUALIZATION



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



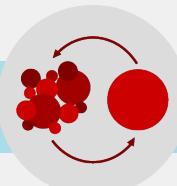
Service health



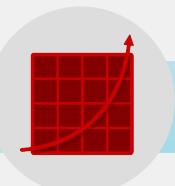
Security & compliance



Financial management



Lifecycle management



Resource optimization

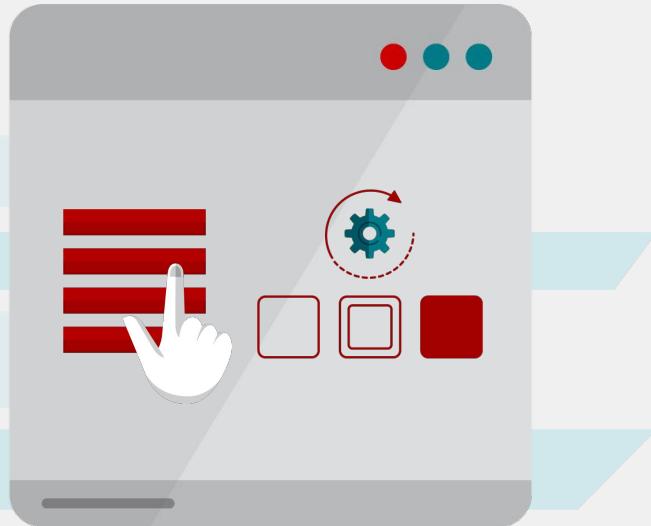


Root-cause analysis



Capacity management

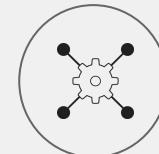
# RED HAT ANSIBLE



## 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

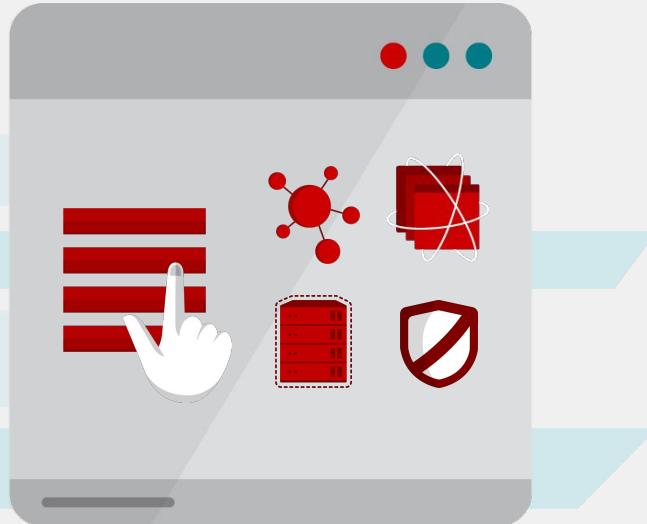
Let's fix this with simple automation:

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



# AUTOMATE CLOUDFORMS DEPLOYMENT

FIRST DEMO - Deploying CloudForms on top of Red Hat Virtualization

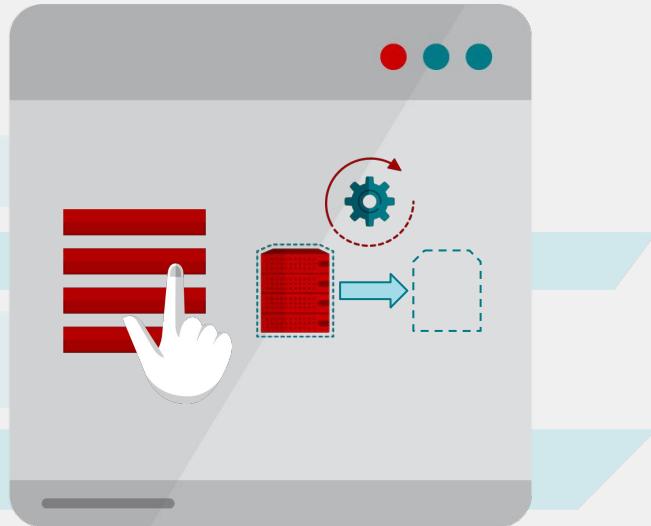


## CENTRALIZED REPORTING

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

# 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

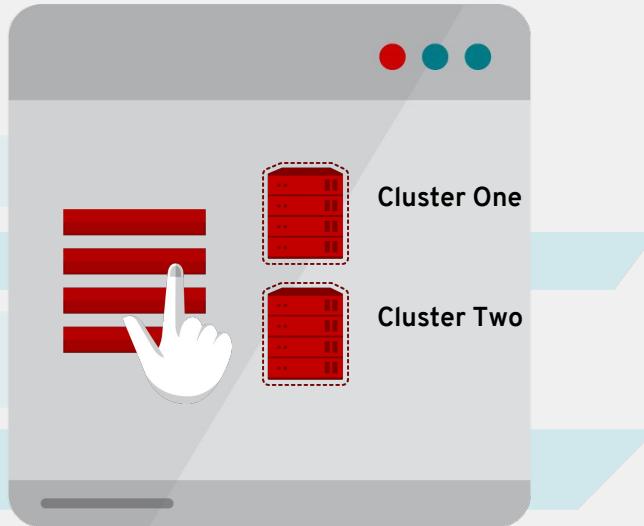


## SERVICE DELIVERY CATALOG

- ▶ **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 to 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

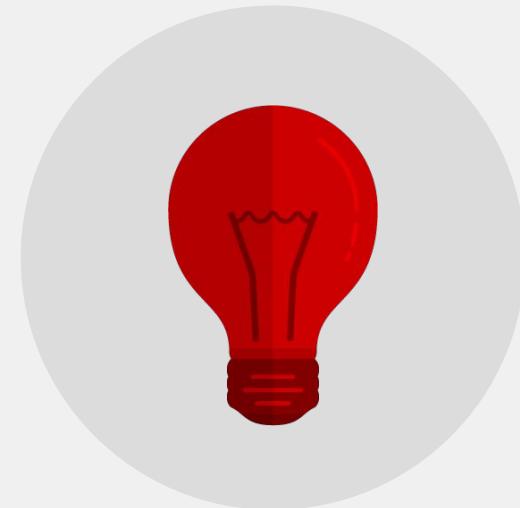
<https://RedHat.com/CloudForms>

Red Hat Ansible

<https://RedHat.com/Ansible>

Product documentation

<https://docs.redhat.com>





# THANK YOU



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# RED HAT VIRTUALIZATION SUITE

## RED HAT® VIRTUALIZATION



Enterprise virtualization



## RED HAT® CLOUDFORMS



Orchestration and automation

# RED HAT VIRTUALIZATION SUITE

