



Red Hat CloudForms Roadmap

Summer 2017

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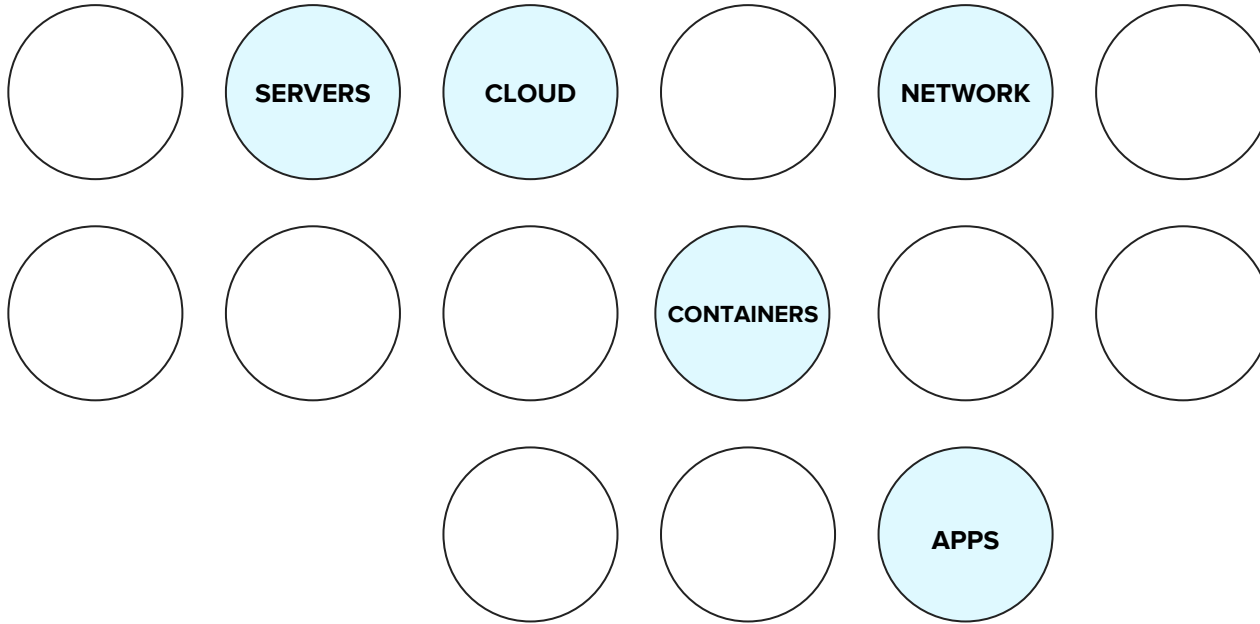
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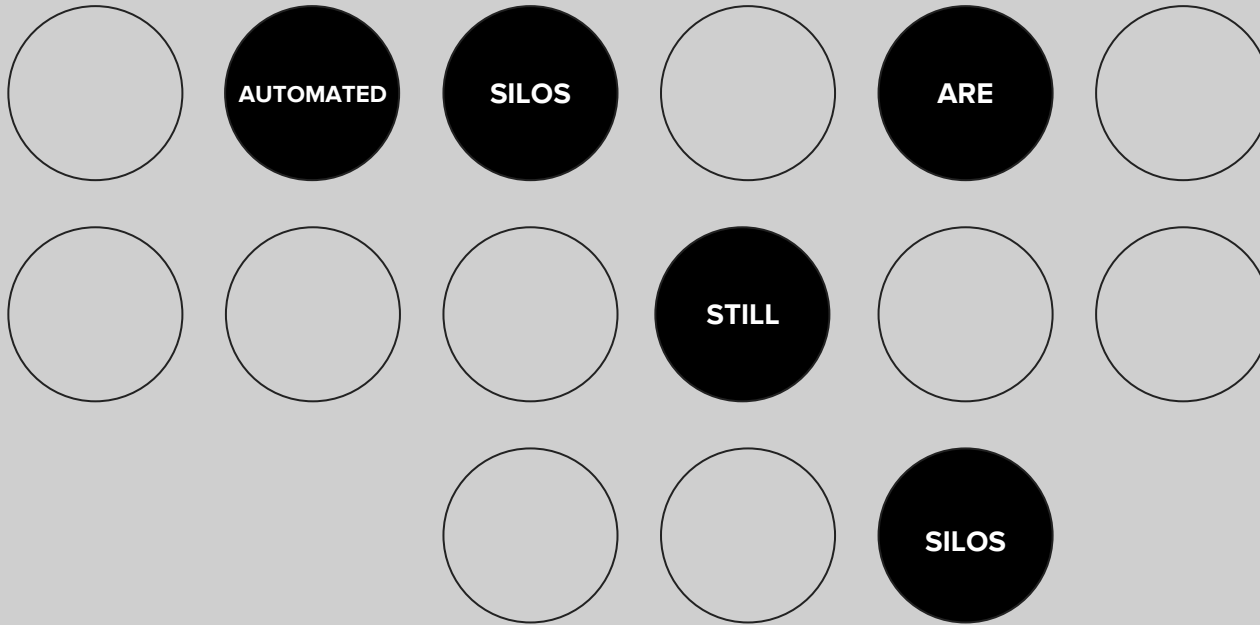
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Everyone is talking about **automation**.

AUTOMATION IN ENTERPRISE IT TODAY



AUTOMATION IN ENTERPRISE IT TODAY



Ansible solves these problems
where no other technology has
been able to do so.

SIMPLE AGENTLESS EXTENSIBLE

Almost here:

CloudForms 4.5



Ansible Inside

ANSIBLE AUTOMATION INSIDE

Default Automation Language for Red Hat CloudForms



A N S I B L E

Ansible Automation baked Inside of CloudForms

- **Out-of-the Box** - Only CloudForms subscription required.
- **Role Based** - No setup or configuration, turn key and go.
- **Instant Value** - Three top Cloud Management use cases.
- **Re-use** - Take existing playbooks and run.
- **Extensible** - 900+ integrations into Enterprise Management.
- **Easy** - The simplest and fastest growing Automation Language.

Empowering End Users



SERVICE CATALOG, SHOP WINDOW

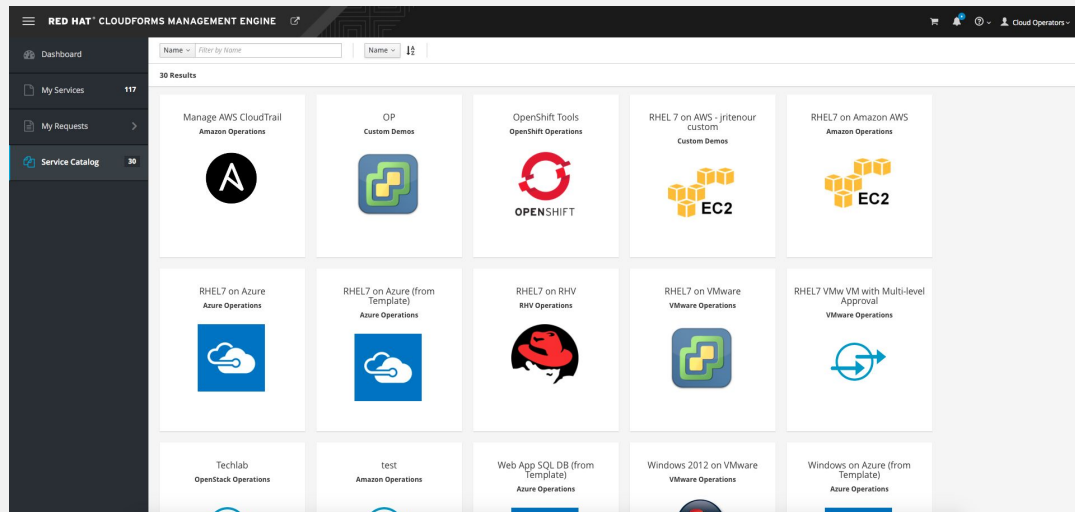
Request, Order, Approve



ANSIBLE

Service Centric Management for Users

- Order Apps, IaaS, Containers and Automation
- Manager Approval
- Quota Management
- Detailed User Feedback
- Resource Control
- Chargeback



ANSIBLE AUTOMATES TECHNOLOGIES THAT YOU USE

OVER 900 INTEGRATIONS

CLOUD

AWS
Azure
CenturyLink
Digital Ocean
Docker
Google
OpenStack
Rackspace
+more

VIRT & CONTAINER

Docker
VMware
RHEV
OpenStack
OpenShift
Atomic
CloudStack
+more

WINDOWS

ACLs
Files
Packages
IIS
Regedits
Shares
Services
Configs
Users
Domains
+more

NETWORK

Arista
A10
Cumulus
Bigswitch
Cisco
Cumulus
Dell
F5
Juniper
Palo Alto
OpenSwitch
+more

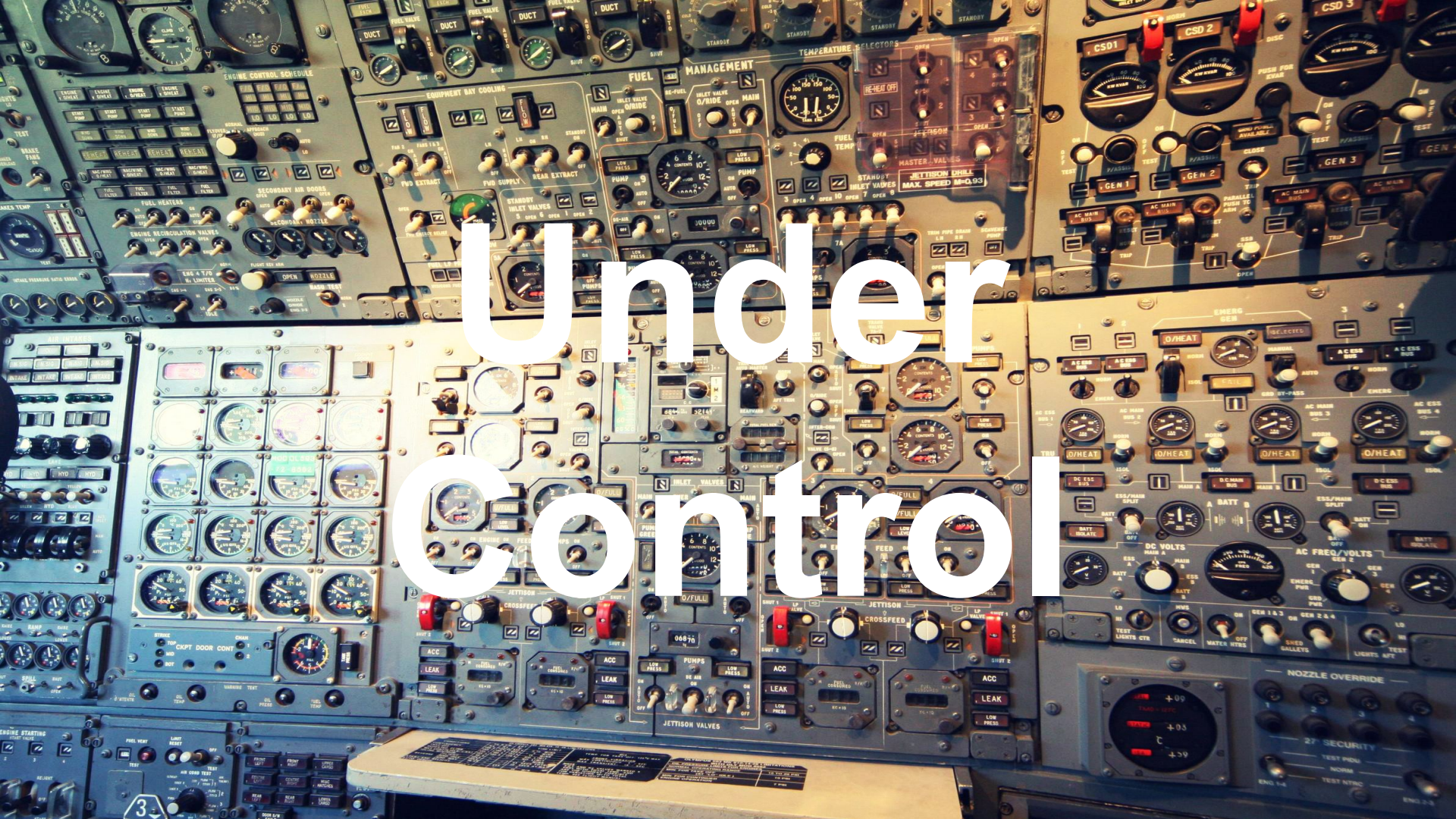
CHAT

HipChat
IRC
Jabber
Email
Rocketchat
Sendgrid
Slack
Twilio
+more

MONITORING

Airbrake
BigPanda
Datadog
LogicMonitor
Monit
Nagios
New Relic
PagerDuty
Sensu
StackDriver
Zabbix
+more

Under Control



GOVERNANCE, STATE MANAGEMENT

Raise and Ansible powered Action



ANSIBLE

Events drive business change, can be positive but also detrimental.

Solution - Event Based State Management

Administrator made a mistake and removed all the servers from the cluster?

- Let CloudForms detect and Ansible Automation reprovision if Cluster is Empty

Or

- Let CloudForms proactively stop the event happening by Policing changes.

THRESHOLD, ALERT

Monitor and React



ANSIBLE

Utilization tracking of resources, clusters and services with Ansible Automation as an Alert action.

- Settings Change
- CPU, Memory utilization
- Scale out
- Scale back
- Reconfigure
- Chargeback Rate Change
- Reclassify
- Backup



Video Demo

CloudForms with Ansible Inside

Managing Red Hat



OPENSIFT

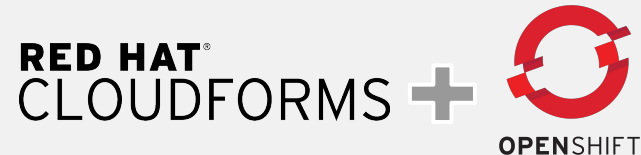
RED HAT®
OPENSTACK®
PLATFORM

RED HAT® **JBoss®**
MIDDLEWARE

RED HAT®
VIRTUALIZATION

CONTAINER MANAGEMENT

User Experience & monitoring

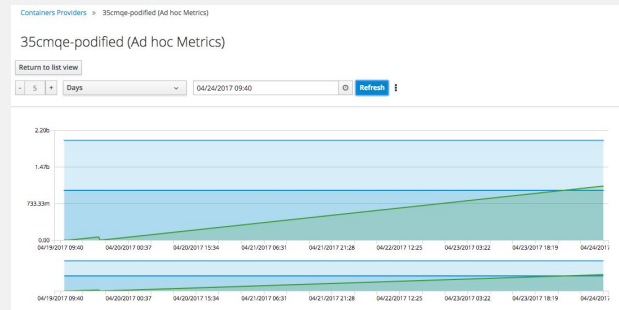
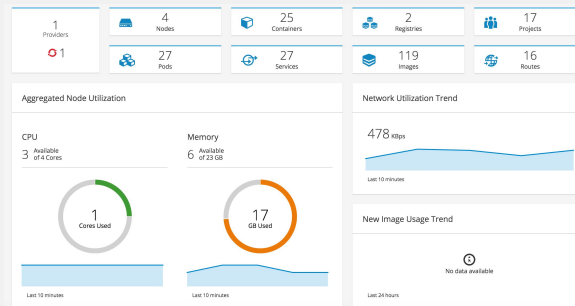


User Experience

- Dashboard update, new widgets
- Topology enhancement
- Predefined Container Roles, Reports
- External Logging Integration

Monitoring

- Ad hoc Metrics
- Performance Reports
- From Hawkular

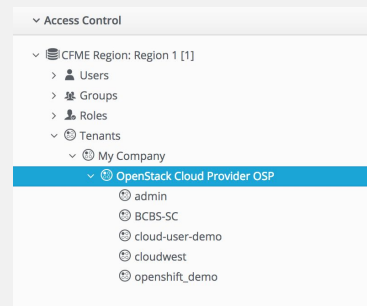


RED HAT OPENSTACK PLATFORM

User Experience, Networking & Architecture update

User Experience

- Task & Notification
- Tenant Synchronisation
- Snapshot view



Networking

- Security Group
- Routers Management
- Floating IP Management

Architecture update: Panko, Gnocchi

All Images Search

	Name	Provider	Type	Compliant	Allocated Size	Architecture	Virtualization Type	Root Device Type	Last Analysis Time	CFME Region
<input type="checkbox"/>	cirros	OSP	Image		12.7 MB			qcow2		Region 1
<input type="checkbox"/>	demosassnap1	OSP	Image		10 GB			raw		Region 1
<input type="checkbox"/>	EvmSnapshot	OSP	Snapshot		30 GB			raw		Region 1
<input type="checkbox"/>	EvmSnapshot	OSP	Image		10 GB			raw		Region 1
<input type="checkbox"/>	rhel73-raw	OSP	Image		10 GB			raw		Region 1
<input type="checkbox"/>	rhel7-raw	OSP	Image		10 GB			raw		Region 1

MIDDLEWARE

Tech Preview

Inventory

- Report, Audit and View Hawkular Middleware assets such as EAP Servers, Domains, Deployments, Data Sources and Messagings

Metrics

- Support for Middleware metrics, such as JVM Heap Size, Garbage Collection, messages count, subscribers...

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CLOUDFORMS



RED HAT® JBOSS®
MIDDLEWARE



OPENSIFT

Life Cycle Management

- Deploy and Operate the Middleware infrastructure. Add/remote datasource, add/remove Deployments.

Topology & Crosslinking

- Visualization of the Middleware infrastructure and applications as well as their relationships to the Virtual, Cloud or *OpenShift infrastructure*.

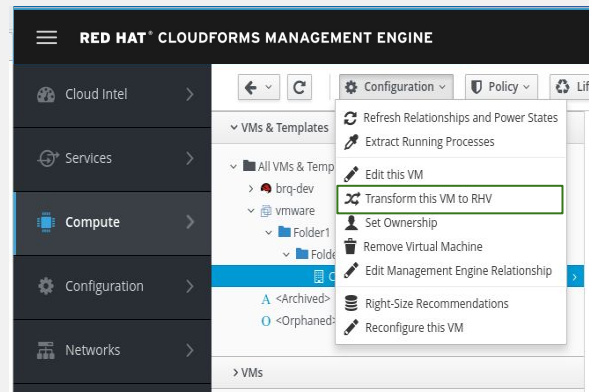
Events

- Support for generated Events to drive orchestration and operations.

RED HAT VIRTUALIZATION

Day 2 Management for Users, and provider infrastructure focus.

- Performance Enhancements to inventory collection.
 - Live Migration, move VM's live across RHV hosts.
 - Provider updated to use v4 API.
 - Add disk to RHV VM, supported on PXE and ISO.
 - Delete disk from RHV VM, including backing option.
 - Snapshot Management.
-
- V2V - Workload mobility from VMware to RHV.
(Tech-Preview)





Managing the Public Cloud(s)

AMAZON WEB SERVICES



Storage Provider

- Full control of AWS EBS storage
- **C**reate, **R**ead, **U**ppdate, **D**Delete, **A**ttach, and **D**Detach

Eventing

- AWS CloudWatch integration for events
- Bring changes back into CloudForms quickly

Tagging Sync

- Making tags work everywhere
- Pull back all tags(labels) and SYNC to CloudForms native tags as well

MICROSOFT AZURE

Government Clouds

- Support differences in commercial Microsoft Azure and Azure for Government

Stacks

- Enhancement on retirement operations

And much more



MISCELLANEOUS

- **Platform**

- Chargeback without C&U for Virtualization Providers.
- Custom Buttons support Multi Select.
- REST API constant evolution.
- Enhanced IPv6 support and configuration.
- Amazon Image for CloudForms (AMI)

- **Operations UI**

- Performance enhancements, pages minutes to seconds.

- **Self Service UI**

- Chargeback \$/\$\$/\$\$\$
- Snapshot Management for VM resources
- Resource Property Pages
- Custom Buttons
- Resource Power Management

CloudForms.NEXT

ANSIBLE++

Next Generation Ansible Integration

- **Modules**
 - Develop a set of modules to mirror the restAPI. User Management, Appliance Configuration, VMDB Actions etc..
- **Deploying CloudForms from Ansible**
 - Running an Ansible playbook that instantiated CloudForms on the base system (RHEL/CentOS).
- **Policy**
 - Support policy against playbook contents. Check for validity and conformance.
- **Native Custom Button Support**
 - Allow custom buttons to be configured for Service and Resources and be backed by a Playbook (service).
- **Scheduled Task Support**
 - Support playbooks executed from the scheduler.

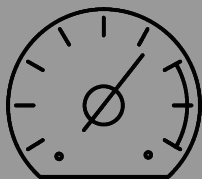


ANSIBLE

PERFORMANCE & SCALABILITY

Management at Scale

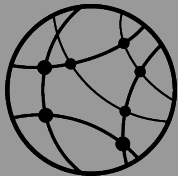
Faster User
Experience



Time Series
Reporting



Platform at
Scale



Broader
Metrics

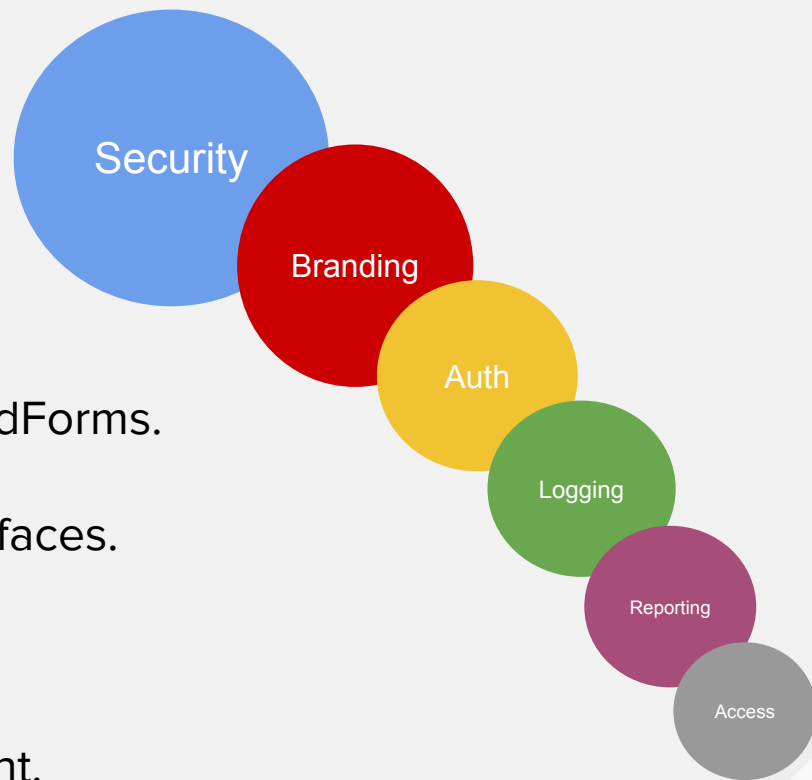


TENANCY

For Service Providers

Complete CloudForms Tenancy to provide

- Secure Resource separation within CloudForms.
- Allow for multi branding of the user interfaces.
- External authentication per Tenant.
- Logging, Access and Reporting by Tenant.

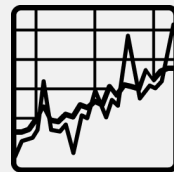
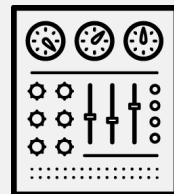


CONTAINER MANAGEMENT



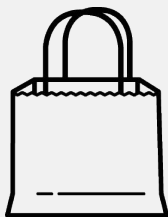
Alerting & more monitoring

- Alerts Dashboard and Life-cycle
- Dynamic Metrics and Alerts
 - *Metrics served by Hawkular to CloudForms*
 - *Support native Hawkular triggers for Alerts*
 - *Knowledge based for Alerts and metrics*
- Podify CloudForms for OpenShift
- Automation
 - *Manage and Provision CloudForms using Ansible*
- Integration with Logging and ELK Stack
- Cockpit Integration - SSO



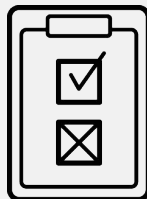
CLOUD FUTURES

Reminder what CF already does, but now even deeper into the clouds



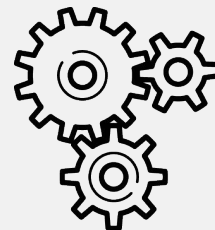
SELF-SERVICE LIFECYCLE

Offers full self-service portal, service catalog and api integration with **full lifecycle** management—from service design to retirement.



POLICY-BASED GOVERNANCE

Provides unified, **policy-based**, management of VMs, containers, and instances in private and public clouds. Manages **financials**, health, operations, and compliance.



CLOUD OPTIMIZATION

Manages and tracks VMs, cloud instances and containers with discovery and tracking from creation through retirement to avoid sprawl, as well as provide **right sizing** and **capacity planning**.

CLOUD FUTURES

Expanding what CF already does deeper into the clouds

- Cost controls
- Management of Stacks and Services
- Change Detection, Policy & Alerting
- User and Role Management Automation
- Eventing and Auditing - Reacting to the unknown

S104974 - Red Hat Virtualization and KVM roadmaps

Tuesday May 2, 3:30 PM - 4:15 PM– Room 152

S102603 - OpenShift Roadmap: What's New & What's Next!

Tuesday, May 2, 3:30 PM - 4:15 PM– Room 153B

S111015 - Accelerating your journey to Microsoft Azure with Ansible and CloudForms

Tuesday, May 2, 3:30 PM - 4:15 PM – Room 103

P101718 - Red Hat Cloud Suite roadmap

Wednesday May 3, 3:30 PM - 4:15 PM– Room 157B

L103963 - Hands-on introduction to Red Hat CloudForms

Wednesday, May 3, 3:30 PM - 5:30 PM – Room 251

S105004 - Managing services with Red Hat CloudForms and Ansible by Red Hat

Wednesday, May 3, 11:30 AM - 12:15 PM – Room 157C

S101957 - Hybrid automation at Rabobank

Thursday, May 4, 4:30 PM - 5:15 PM – Room 157C



THANK YOU



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The logo for Red Hat Summit, featuring the text "RED HAT" in a smaller font above "SUMMIT" in a larger, bold font, all contained within a white speech bubble shape.

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EXPERIENCE
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