

# What is CloudForms

5.1. Infrastructure Providers

  5.1.1. Red Hat Virtualization

  5.1.2. VMware vSphere

  5.1.3. Microsoft SCVMM

5.2. OpenStack Platform Director  
Infrastructure Providers

5.3. Cloud Providers

  5.3.1. Red Hat OpenStack  
Platform

  5.3.2. Amazon EC2

  5.3.3. Microsoft Azure

5.4. Container Providers

5.5. Network Providers

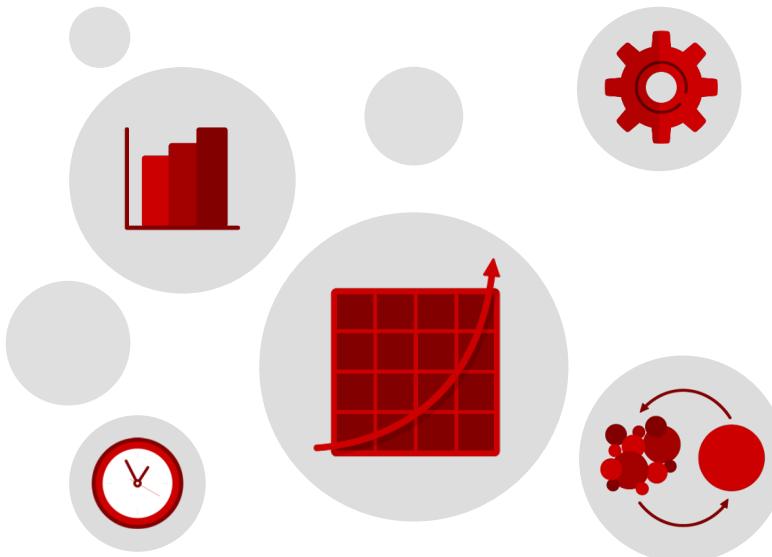
5.6. Configuration Management  
Providers

**Red Hat® CloudForms® is an on-premise infrastructure management platform that allows IT departments to control users' self-service abilities to provision, manage, and ensure compliance across virtual machines and private clouds.**

[https://access.redhat.com/documentation/en-us/red\\_hat\\_cloudforms/5.0/html/support\\_matrix/index](https://access.redhat.com/documentation/en-us/red_hat_cloudforms/5.0/html/support_matrix/index)

# Red Hat CloudForms

Orchestration and Management for Virtualization and Private Cloud



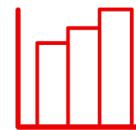
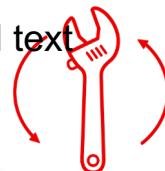
Discovery  
Capacity Planning  
Reporting  
Auditing Compliance  
Analysis  
Monitoring  
Orchestration  
Policy

# CloudForms Use Cases

## CLOUDFORMS OFFERS



Click to add text



### On-Premises IT Lifecycle Management

- Discover & manage existing infrastructure and unify management across private cloud environments

*On prem - VMWare / OpenStack...*

*Public cloud AWS / Azure...*

### Policy Driven Self-Service

- Provisioning and Day 2 Operations** - Implement corporate infrastructure policies.

**Capacity Planning** - Control sprawl, optimize capacity, and right-size workloads

# Business Values



OPERATIONAL  
EFFICIENCY



USER  
EXPERIENCE



POLICY &  
COMPLIANCE



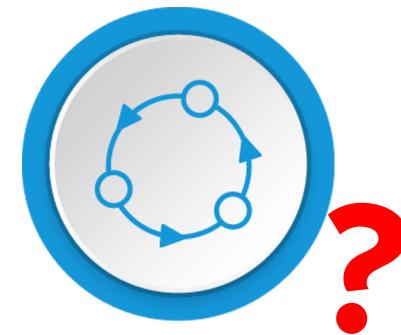
TIME TO  
MARKET

# IT Operational efficiency



- How many nodes/ networks / storage do I actually have across all my deployments?
- Where are my resources located and how are they connected?
- How can I troubleshoot issues across the stack?
- How can I automate common tasks?

CMDB ?



# IT Operational efficiency



- CloudForms continuously discovers your infrastructure in near real time.
- CloudForms discovers and visualizes relationships.
- CloudForms tracks compute, storage and networking.
- CloudForms offers custom automation via control policy or UI extensions (*ansible*).

*Only provide endpoints – VCentre or any manager from your infrastructure*



# User Experience



- Are my configurations correct and not drifting?
- How I can get notified of issues?
- Are my resources sized correctly?
- Do I have enough spare capacity?  
When will I run out?



# User Experience



- CloudForms enforces configuration and tracks it over time.
- CloudForms alerts on performance thresholds or other events.
- CloudForms offers right-sizing recommendations (e.g. *cpu/mem/disk*).
- CloudForms provides optimization and planning capabilities

*Enforce – track – alert - recommend*



# Policy & Compliance



- Do my nodes and VMs comply with my enterprise policy?
- Are my developers using untrusted software?
- Do I have VMs running with unauthorized users?
- Has my configuration changed over time?
- How can I limit permissions on my users?



*Common questions for e.g. OpenStack*

# Policy & Compliance



- CloudForms finds and marks nodes and VMs non-compliant with policy.
- CloudForms retrieves packages, init processes and files.
- CloudForms can retrieve information about users and groups.
- CloudForms can compare the VM config over time
- CloudForms can provide granular RBAC in OpenStack as well as tenant synchronization

*Smart estate analysis – scans virtual disk via hypervisor. No VM credentials required.*



# Time To Market



- How can I select what's available for my users?
- How can I standardize my deployments?
- How can I automate the most common tasks?
- How can I speed up my deployments?

*Governance and self-service improves time to market*



# Time To Market



- CloudForms offers a service catalog
- You can create custom buttons with specific scopes
- CloudForms ships Ansible Automation insider
- You can customize your state machines to include any step you want



*Create buttons allows users with unlimited, or no access to the virtual machine, to perform certain predefined actions.*

*State machines allows a workflow and control the process flow.*

# Features

Discover existing objects like VMs,  
Instances, Clusters, Hosts, ...

*key to understanding what you have...*

**RED HAT®**  
**CLOUDFORMS**



DISCOVERY



CAPACITY  
PLANNING



REPORTING



AUDITING  
COMPLIANCE



ANALYSIS



MONITORING



ORCHESTRATION



POLICY

# Features

Collect Usage data to calculate trends  
and identify bottlenecks

*Using existing monitoring data e.g.  
ceilometer*



# Features

Use collected data to create reports



# Features

SmartState Analysis to enforce Compliance

e.g. I don't want any apache v2 installed or MOTD configured on every machine



The image shows the Red Hat CloudForms interface. On the left, the 'RED HAT® CLOUDFORMS' logo is displayed. To its right is a horizontal bar containing eight feature icons, each with a corresponding label below it. From left to right, the icons and labels are: 1. Discovery (magnifying glass icon), 2. Capacity Planning (compass rose icon), 3. Reporting (bar chart icon), 4. Auditing Compliance (checklist icon), 5. Analysis (line graph icon), 6. Monitoring (ECG wave icon), 7. Orchestration (interconnected nodes icon), and 8. Policy (document icon).

RED HAT®  
CLOUDFORMS

DISCOVERY CAPACITY PLANNING REPORTING AUDITING COMPLIANCE ANALYSIS MONITORING ORCHESTRATION POLICY

# Features

Detect drift for root cause analysis

Compare configuration across time...

**RED HAT® CLOUDFORMS**



The image shows the Red Hat CloudForms interface with various feature icons and labels. The features listed are: DISCOVERY (magnifying glass icon), CAPACITY PLANNING (compass icon), REPORTING (bar chart icon), AUDITING COMPLIANCE (checklist icon), ANALYSIS (line graph icon), MONITORING (ECG wave icon), ORCHESTRATION (circuit board icon), and POLICY (document icon).

DISCOVERY	CAPACITY PLANNING	REPORTING	AUDITING COMPLIANCE	ANALYSIS	MONITORING	ORCHESTRATION	POLICY
							

# Features

Monitor load of VMs, Hosts, Datastores and Networks

*High level monitoring with ability to send traps*



# Features

Provisioning and Lifecycle Automation



# Features

Policies to alert and perform action for specific events



# Infrastructure Migration Solution

*Safely migrate from proprietary virtualization to flexible open source alternatives e.g. VMWare to RHEV & OpenStack*



## Planning and platform setup

- Define approach and architecture
- Operationalize alternative platform
- Identify and characterize VMs for migration



## Migration tooling and approach

- Included comprehensive tooling for VM migration.
- Analyze workloads and develop an approach for migration with key stakeholders to ensure success



## Migration execution

- Validate and refine migration approach
- Pilot migration of a representative set of workloads
- Set the stage to migrate thousands of workloads with a strategic approach and proven tools

# Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.



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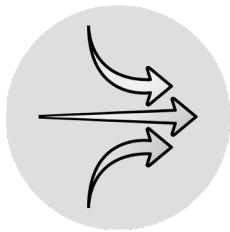
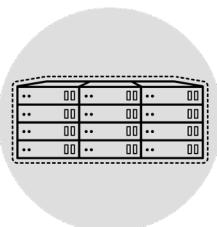


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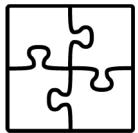
# Infrastructure Migration Solution



- Combines technologies, consulting services, and leading subscriptions to deliver significant infrastructure savings
- Alternative platforms including Red Hat Virtualization and Red Hat OpenStack Platform
- Provides a modern, flexible infrastructure supporting hybrid cloud and cloud-native architectures
- Safely migrate from proprietary virtualization to flexible open source alternatives

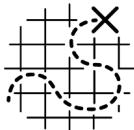
<http://red.ht/possibilities>

# What's new in CloudForms 4.7?



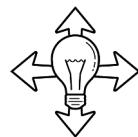
## EXTENSIBILITY

ANSIBLE AUTOMATION



## USABILITY

USER EXPERIENCE IMPROVEMENTS  
CENTRALIZED MAIL



## KEY ENHANCEMENTS

RHV  
OPENSTACK  
LENOVO



## NEW FUNCTIONALITY

NEW PROVIDER NUAGE  
NEW PROVIDER CNV **TECH PREVIEW**  
NEW PROVIDER RED FISH **TECH PREVIEW**