

DISCOVER THE FOUNDATIONS OF DIGITAL TRANSFORMATION

Red Hat Cloud Suite

Eric D. Schabell, Global Technology Evangelist Directory @ericschabell



THE FOUNDATIONS

Solutions Foundational Overview

Specific Cloud Use Cases

Red Hat Cloud Tools





OUR CUSTOMERS GOING THROUGH A DIGITAL TRANSFORMATION

You need a continuous competitive advantage

You are a software company

Your competition is everywhere

Kodak

Google

















UBER



MUST BALANCE INNOVATION AND OPTIMIZATION

THEIR TOP IT PRIORITIES AND CHALLENGES



Optimize the IT you have



Integrate apps, data, and processes



Add and manage cloud infrastructure



Build more modern applications



MUST ALSO SHOW BUSINESS VALUE FROM I.T.



Optimize the IT you have



GAIN EFFICIENCY



Integrate apps, data, and processes



IMPROVE PRODUCTIVITY



Add and manage cloud infrastructure



INCREASE AGILITY



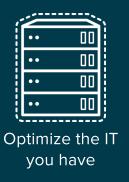
Build more modern applications



MOVE FASTER



SPECIFIC CUSTOMER USE CASES





infrastructure



Build more modern applications

- Accelerate Service Delivery
- Add self-service capabilities
- Migrate virtualized infrastructure
- Migrate legacy applications to cloud-like infrastructure
- Storage migrate to SDS

- Build a private cloud
- Develop, deploy and manage new container-based applications
- Support massively-scalable applications
- Align workloads to right cloud environment
- Manage hybrid cloud or multi-cloud environments



RED HAT'S VISION: OPEN HYBRID CLOUD

EFFICIENT, STABLE TECHNOLOGY FOUNDATION ACROSS ALL 4 FOOTPRINTS

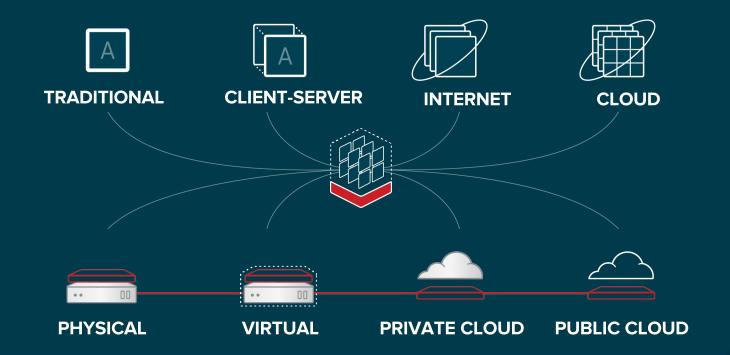
RED HAT' ENTERPRISE LINUX'





RED HAT'S VISION: OPEN HYBRID CLOUD

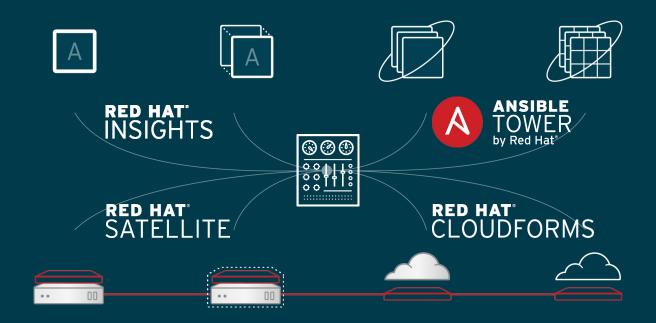
ALL KINDS OF APPS AND ENVIRONMENTS, INCLUDING CONTAINERS





RED HAT'S VISION: OPEN HYBRID CLOUD

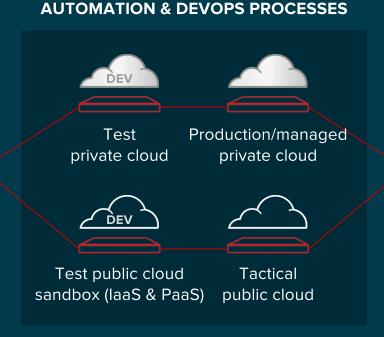
COMMON MANAGEMENT, INTEGRATION, AND AUTOMATION TO KEEP IT ALL GOING





IT'S A DIFFERENT JOURNEY FOR EVERYONE

BUT HERE'S WHAT IT LOOKS LIKE FOR ONE FINANCIAL SERVICES CUSTOMER







Strategic hybrid cloud



Traditional

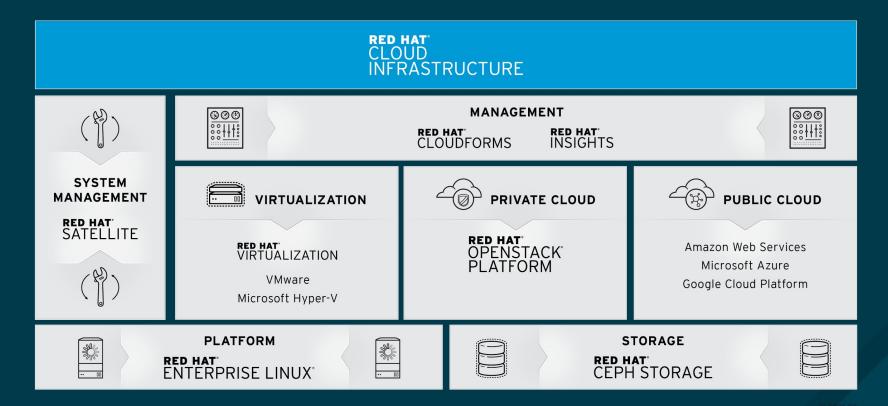
physical

environment

Strategic

virtualization

RED HAT CLOUD INFRASTRUCTURE (RHCI)





RED HAT CLOUD SUITE

RED HAT CLOUD SUITE







RED HAT CLOUDFORMS

RED HAT' INSIGHTS



SYSTEM MANAGEMENT

RED HAT SATELLITE











Kubernetes





VIRTUALIZATION

RED HAT"
VIRTUALIZATION

VMware Microsoft Hyper-V



PRIVATE CLOUD

RED HAT OPENSTACK PLATFORM



PUBLIC CLOUD

Amazon Web Services Microsoft Azure

Google Cloud Platform



PLATFORM

RED HAT' ENTERPRISE LINUX'





STORAGE

RED HAT'
CEPH STORAGE





RED HAT CLOUD SOLUTIONS ALIGNED TO CUSTOMER CHALLENGES









Build more modern applications

Red Hat JBoss Middleware

Red Hat Cloud Infrastructure

Red Hat Cloud Suite

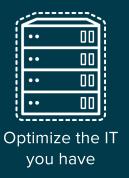
OpenShift Container Platform

Red Hat Storage / Security / Management





SPECIFIC CLOUD USE CASES









Build more modern applications

- Accelerate Service Delivery
- Add self-service capabilities
- Migrate virtualized infrastructure
- Migrate legacy applications to cloud-like infrastructure
- Storage migrate to SDS

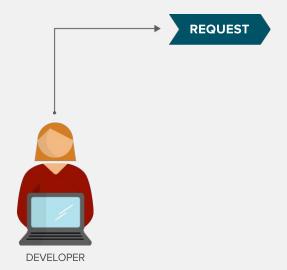
- Build a private cloud
- Develop, deploy and manage new container-based applications
- Support massively-scalable applications
- Align workloads to right cloud environment
- Manage hybrid cloud or multi-cloud environments



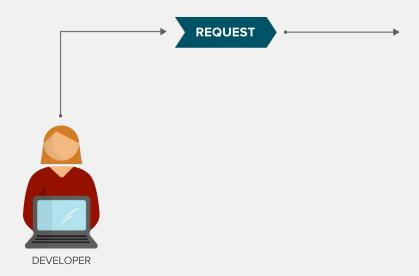


DEVELOPER

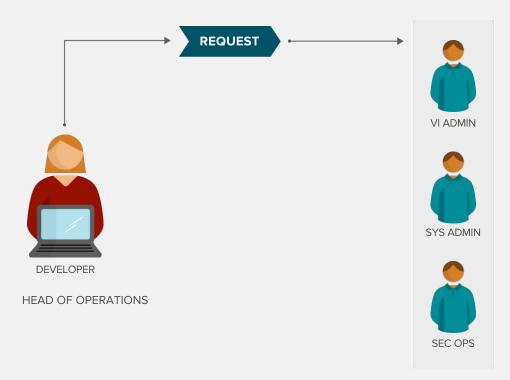
HEAD OF OPERATIONS

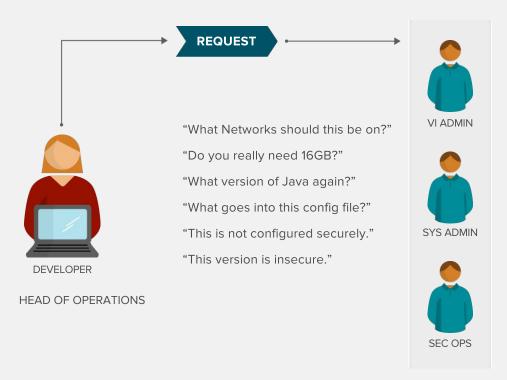


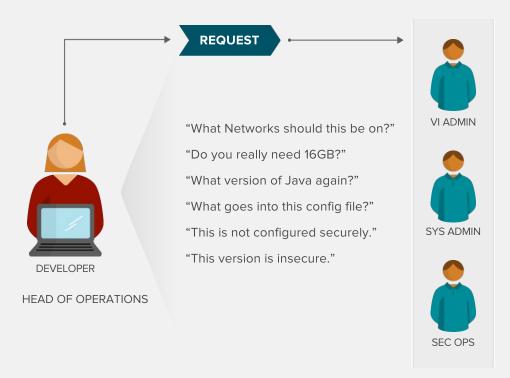
HEAD OF OPERATIONS

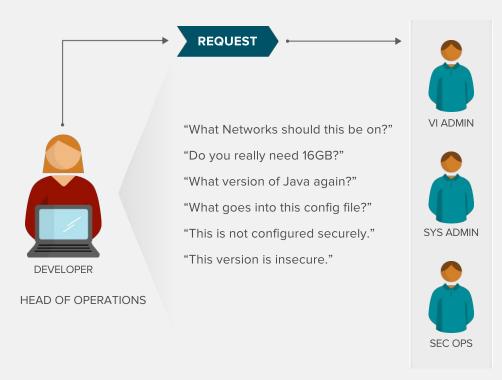


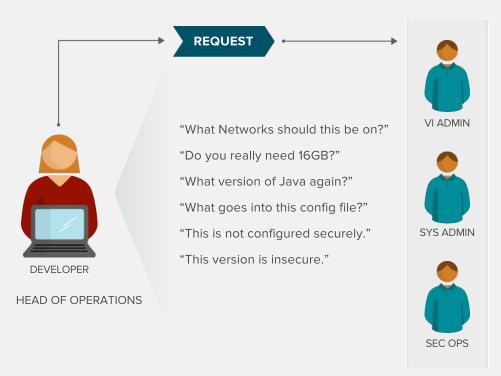
HEAD OF OPERATIONS











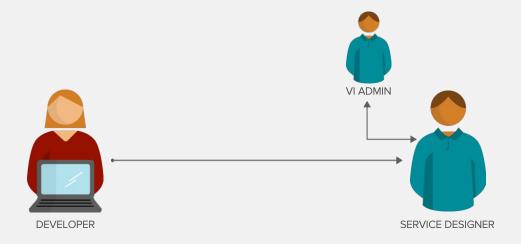
TASK	TIME (MINS)
Create virtual machine	30
Add storage and networking	30
Queue between teams	4 Days
Install operating system	90
Wait after install	60
Configure operating system	120
Install application platforms	180
Configure application platforms	90
Queue between teams	5 Days
Security configuration and scan	270
ACTIVE WORK TIME	12 hours
TOTAL TIME	10 Days



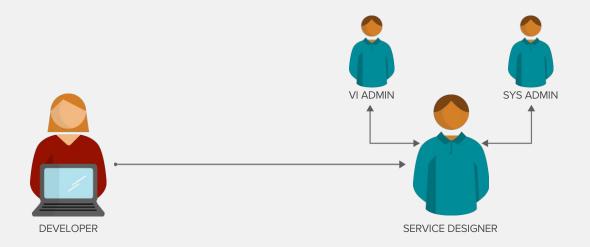




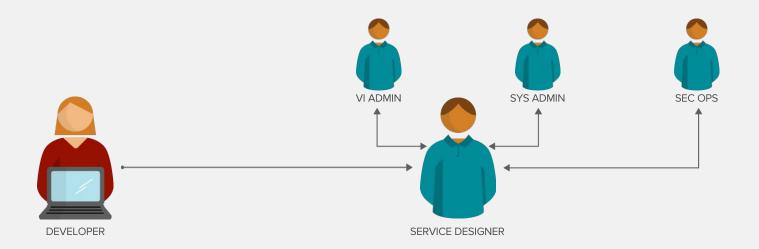




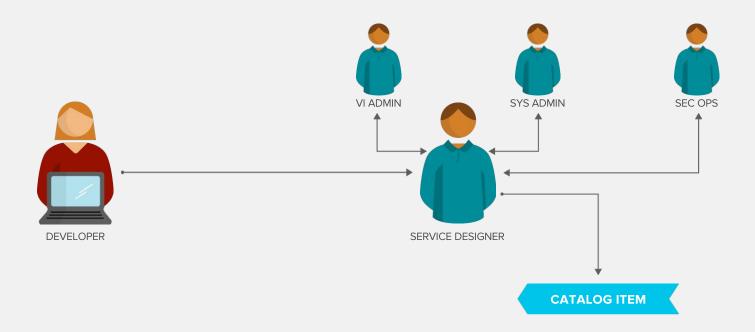




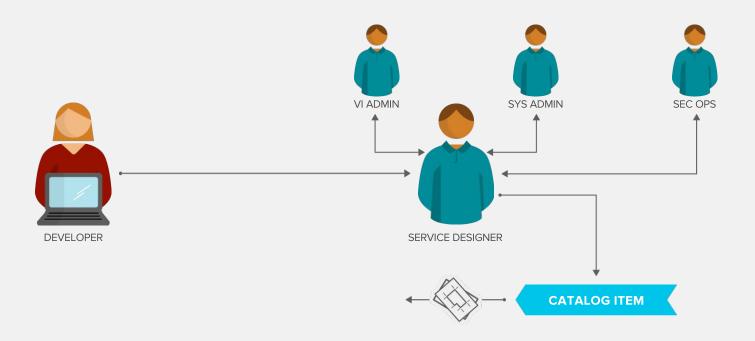




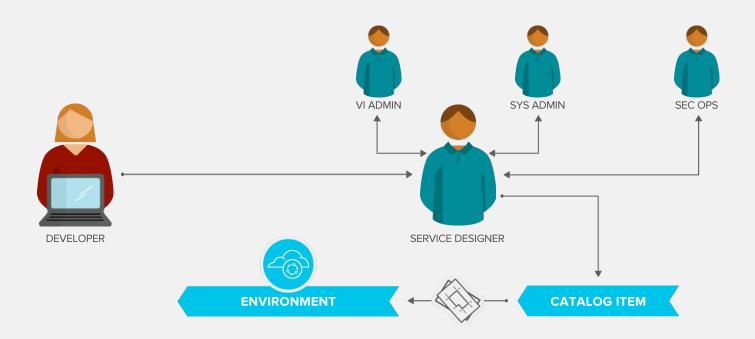




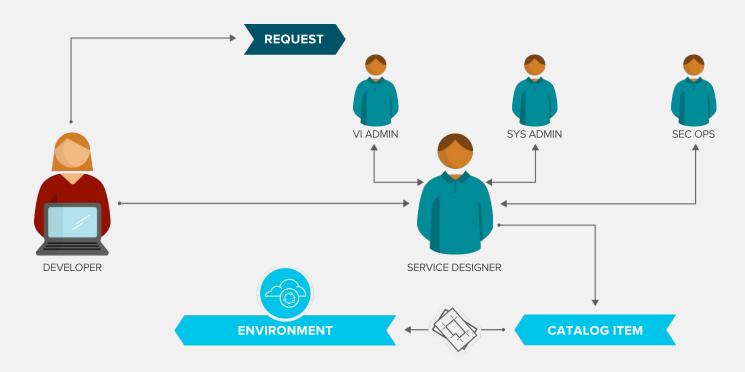


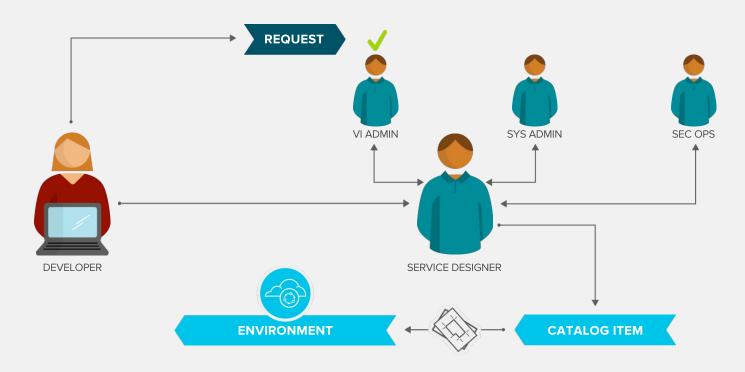


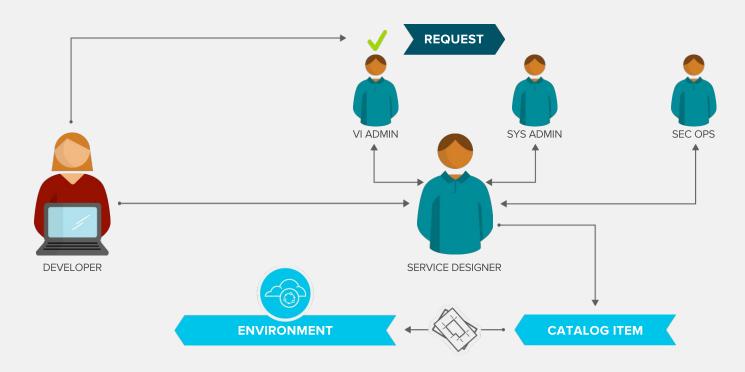




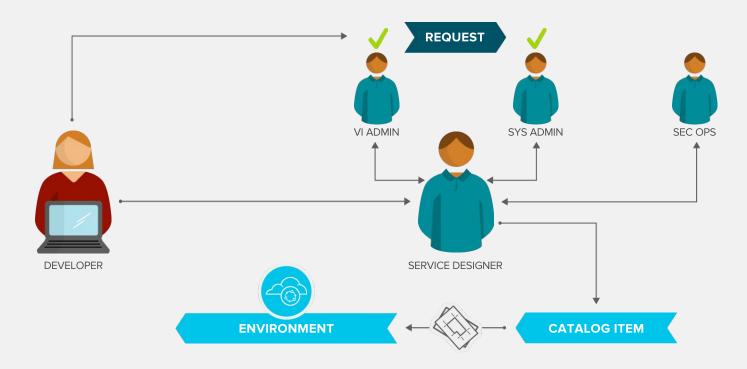




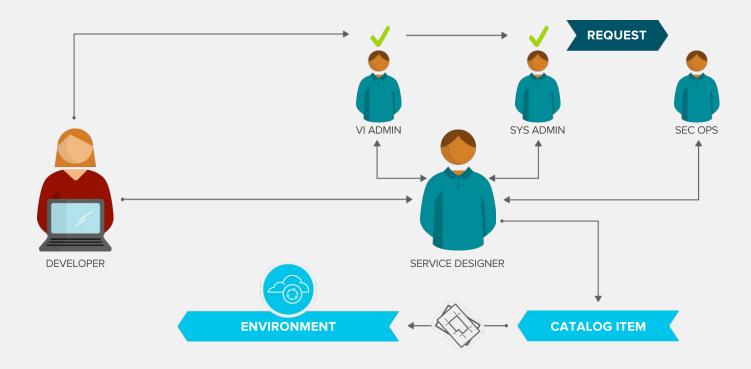




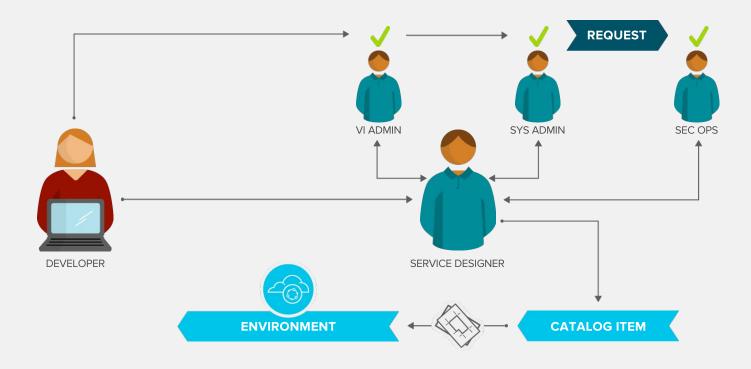




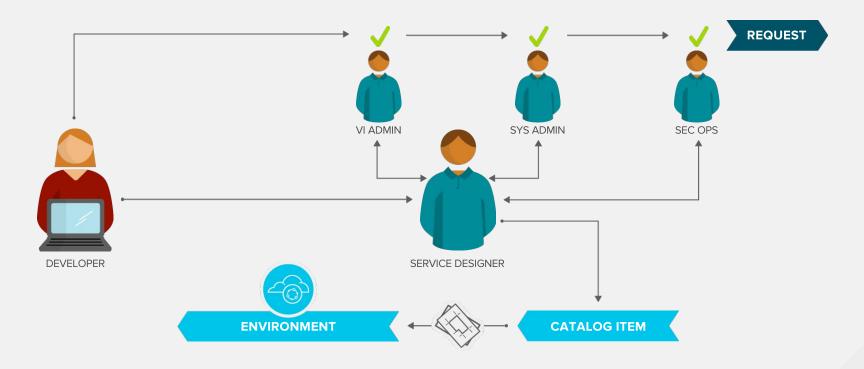




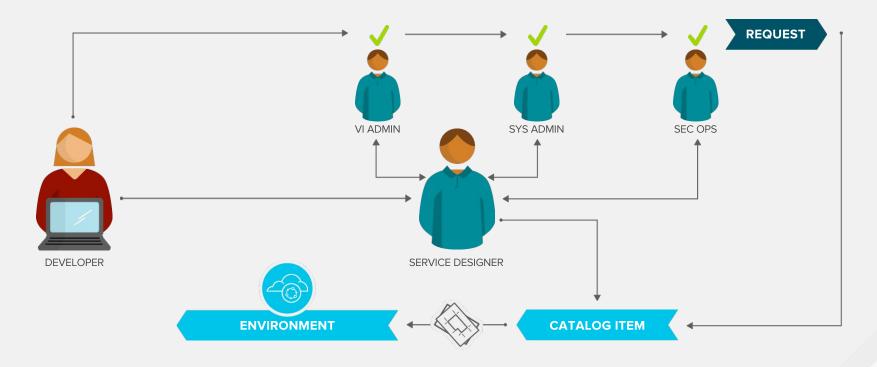




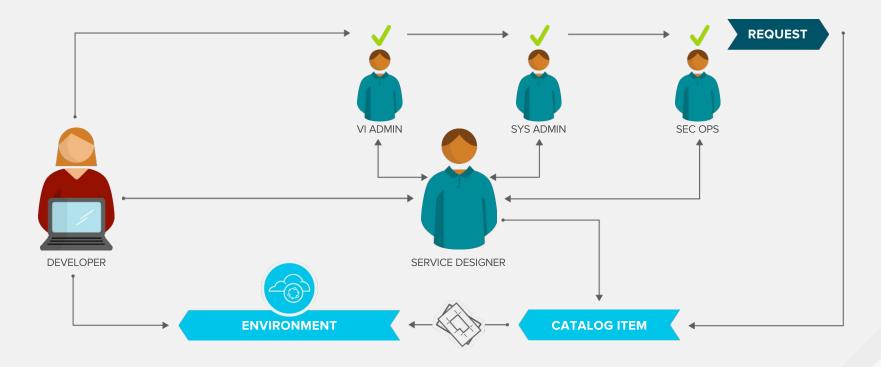
















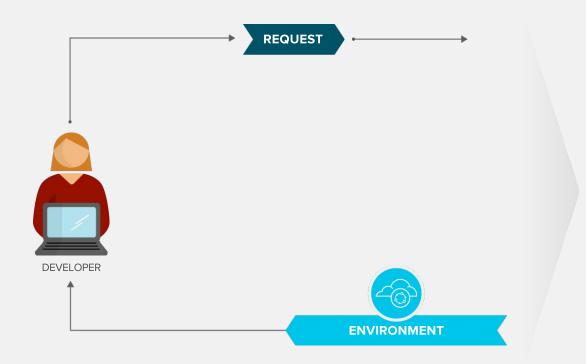
















TASK	TIME (MINS)
Create virtual machine	2
Add storage and networking	3
Queue between teams	120
Install operating system	2
Wait after install	60
Configure operating system	1
Install application platforms	2
Configure application platforms	1
Queue between teams	120
Security configuration and scan	2
ACTIVE WORK TIME	13 minutes
TOTAL TIME	313 minutes





TASK	TIME (MINS)
Create virtual machine	2
Add storage and networking	3
-Queue between teams	120
Install operating system	2
Wait after install	60
Configure operating system	1
Install application platforms	2
Configure application platforms	1
Queue between teams	120
Security configuration and scan	2
ACTIVE WORK TIME	13 minutes
TOTAL TIME	180 mins





TASK	TIME (MINS)
Create virtual machine	2
Add storage and networking	3
-Queue between teams	120
Install operating system	2
-Wait after install	60
Configure operating system	1
Install application platforms	2
Configure application platforms	1
Queue between teams	120
Security configuration and scan	2
ACTIVE WORK TIME	13 minutes
TOTAL TIME	120 minutes





TASK	TIME (MINS)
Create virtual machine	2
Add storage and networking	3
-Queue between teams	120
Install operating system	2
-Wait after install	60
Configure operating system	1
Install application platforms	2
Configure application platforms	1
-Queue between teams	120
Security configuration and scan	2
ACTIVE WORK TIME	13 minutes
TOTAL TIME	13 minutes





ACCELERATE SERVICE DELIVERY

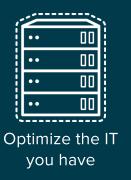
What it does: Demonstrates defining a multi-tier application in a self-service catalog (CloudForms) that deploys across Red Hat Enterprise Virtualization and vSphere using content and configuration obtained from Satellite. Available in Red Hat Product Demo System (RHPDS).

Why it's technically differentiated: The combination of CloudForms and Satellite allow for a single definition of the complex application to be deployed across multiple providers. This lowers complexity by allowing a single Red Hat Enterprise Linux image to be customized on deployment time.

(Demonstration available)



SPECIFIC CLOUD USE CASES





infrastructure



Build more modern applications

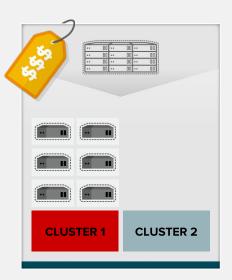
- Accelerate Service Delivery
- Add self-service capabilities
- Migrate virtualized infrastructure
- Migrate legacy applications to cloud-like infrastructure
- Storage migrate to SDS

- Build a private cloud
- Develop, deploy and manage new container-based applications
- Deliver massively-scalable infrastructure
- Align workloads to right cloud environment
- Manage hybrid cloud or multi-cloud environments





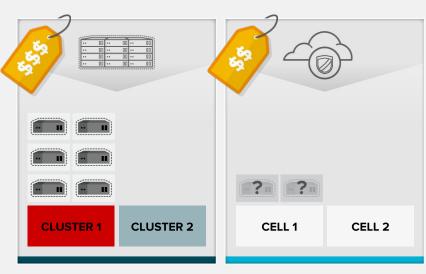




"My workloads are running poorly because cluster 1 is running hot."

"I would like to move workloads to my less expensive private cloud infrastructure."





"My workloads are running poorly because cluster 1 is running hot."

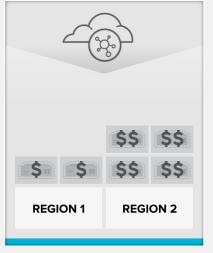
"I would like to move workloads to my less expensive private cloud infrastructure." "My private cloud is not yet certified to run workloads with Personally Identifiable Information on them."







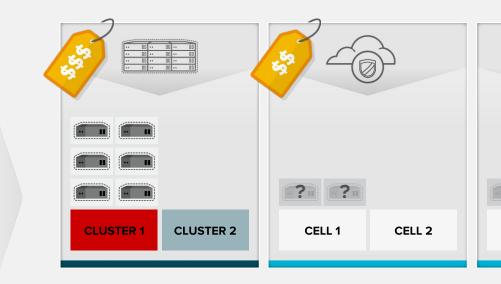




"My workloads are running poorly because cluster 1 is running hot."

"I would like to move workloads to my less expensive private cloud infrastructure." "My private cloud is not yet certified to run workloads with Personally Identifiable Information on them." "I need to place workloads on regions based on cost and proximity to my users."





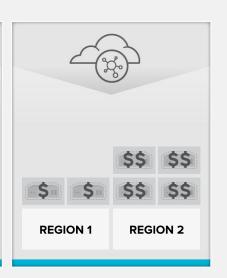


REGION 1

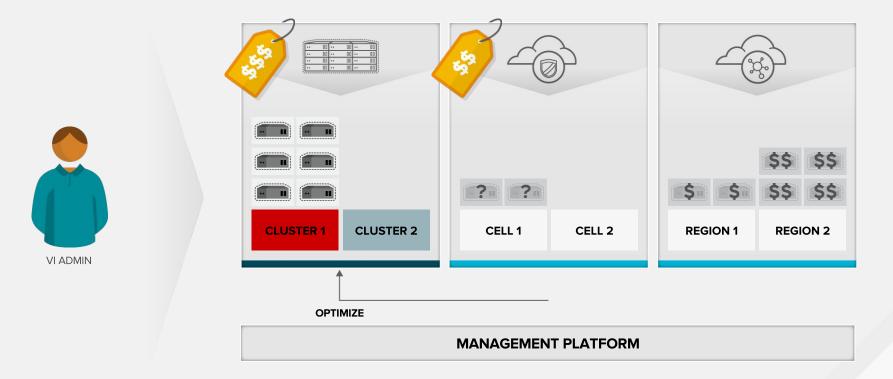
REGION 2

VI ADMIN

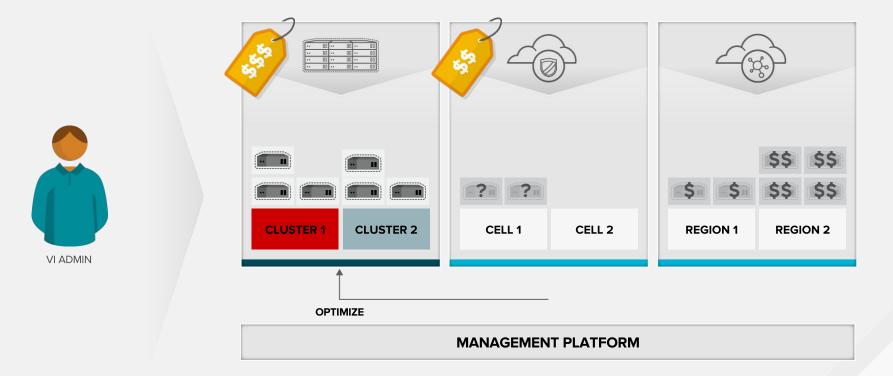




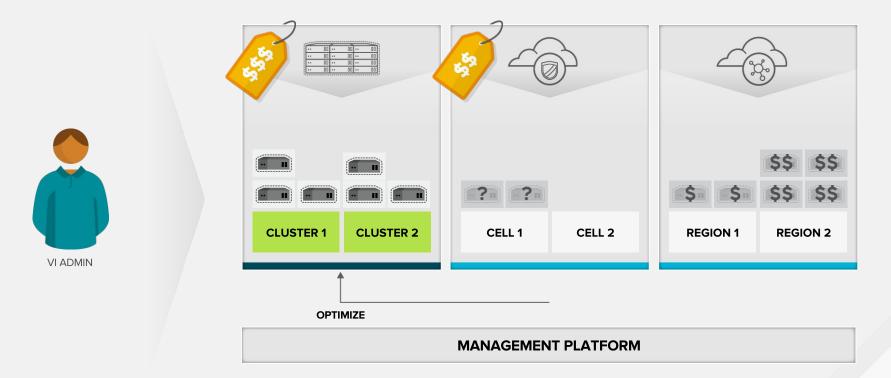
MANAGEMENT PLATFORM



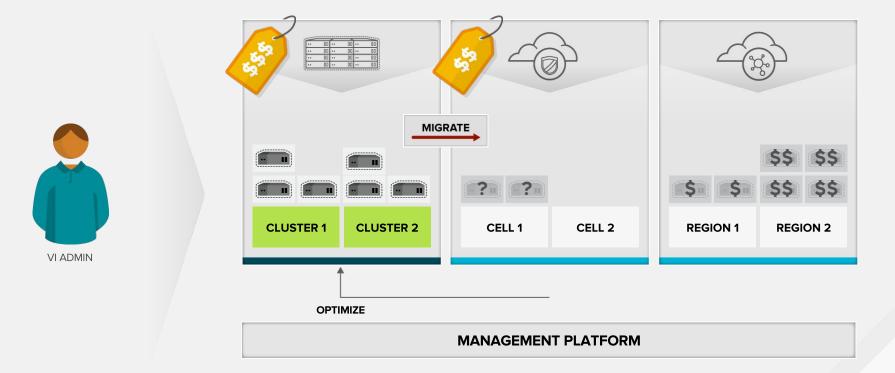




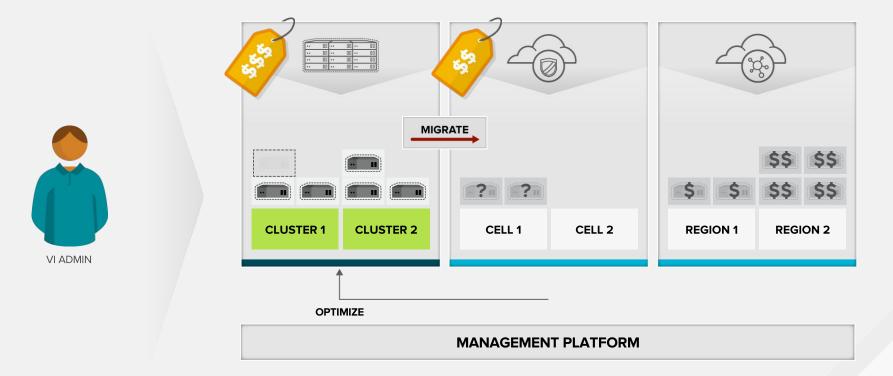




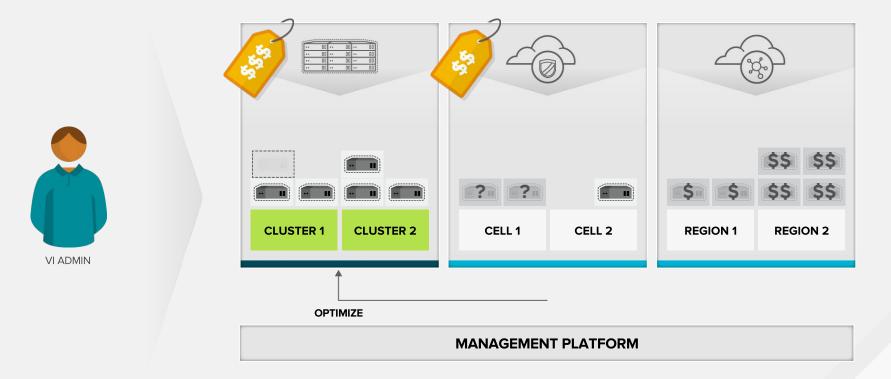




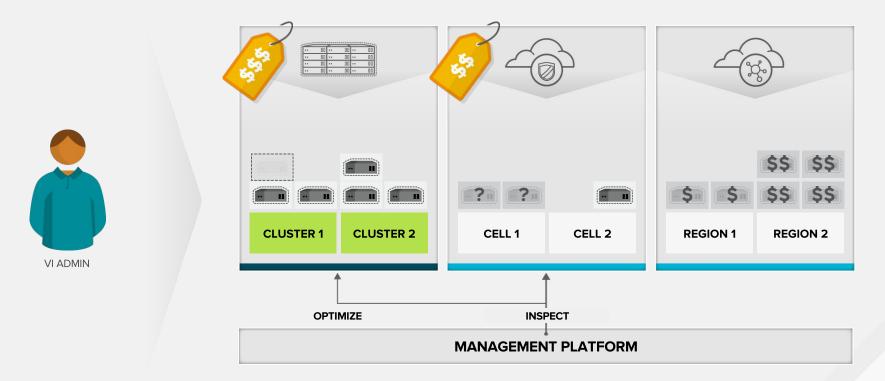




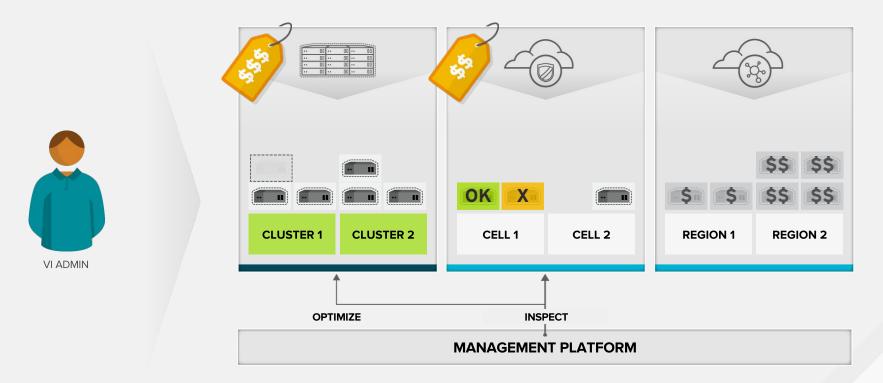




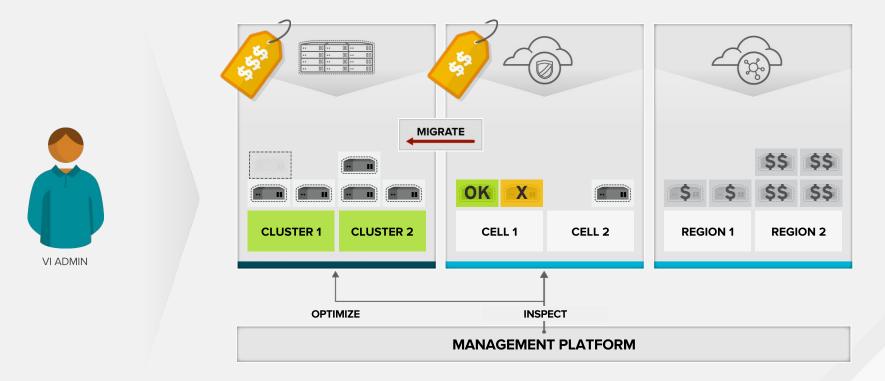




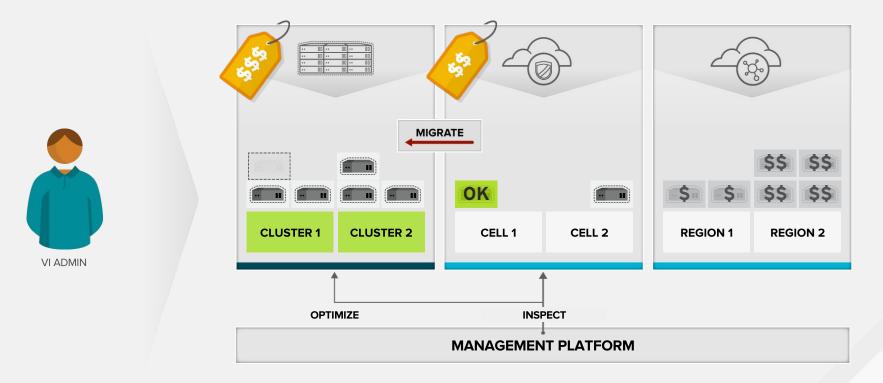




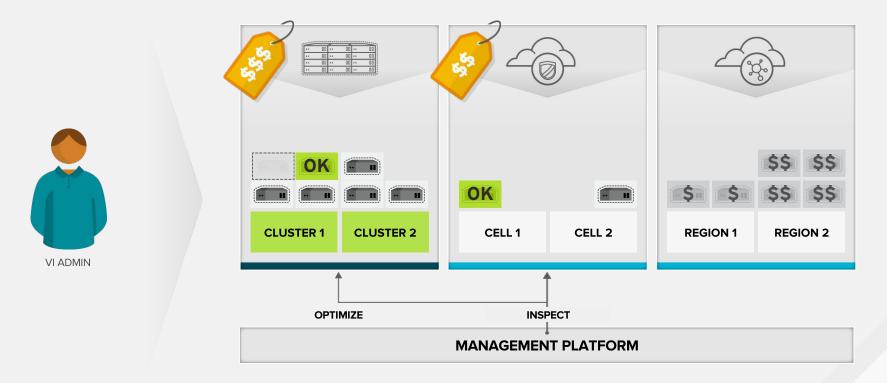




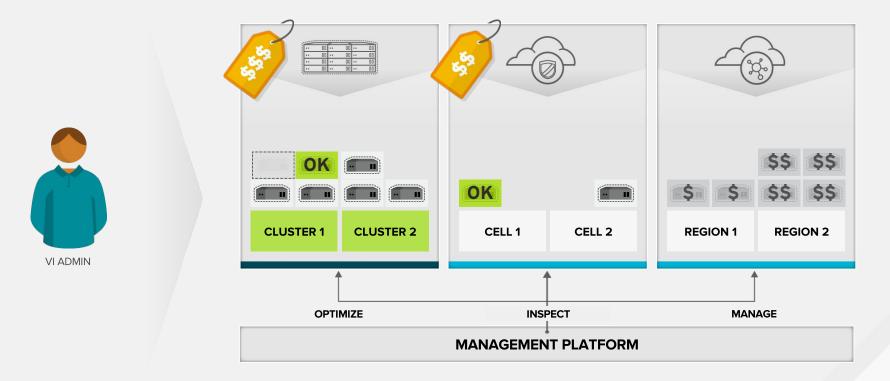




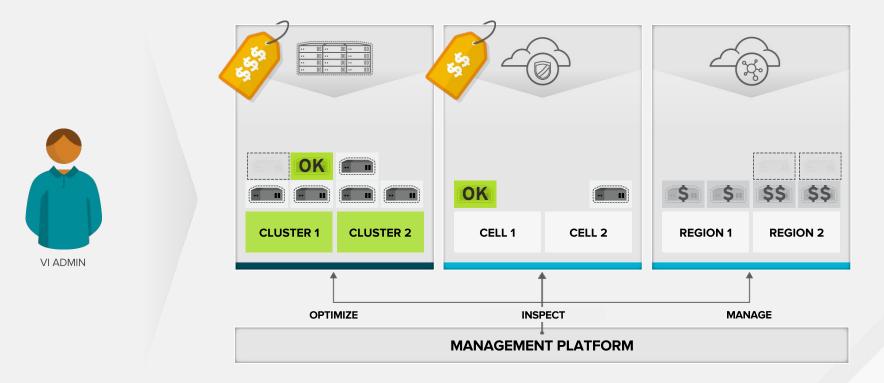




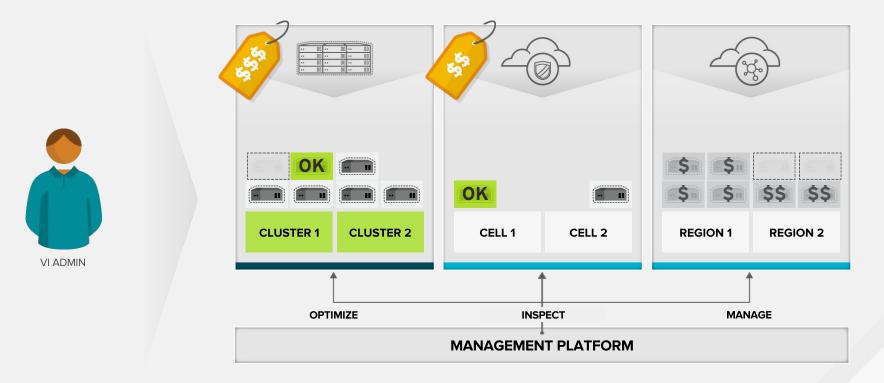
















OPTIMIZE IT (DEMO)

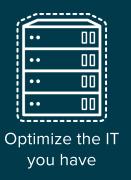
What it does: Demonstrates automated migration of a complex application from Red Hat Enterprise Virtualization and vSphere to Red Hat Enterprise Virtualization and OpenStack using CloudForms and virt-v2v. Available in Red Hat Product Demo System (RHPDS).

Why it's technically differentiated: The combination of the state machine to provide automation with the virt-v2v tooling included with Red Hat Enterprise Virtualization and Red Hat Enterprise Linux OpenStack Platform allow for automated VM migration. This is a feature that most other infrastructure-only providers lack and full stack vendors fail to demonstrate.

(Demonstration available)



SPECIFIC CLOUD USE CASES









Build more modern applications

- Accelerate Service Delivery
- Add self-service capabilities
- Migrate virtualized infrastructure
- Migrate legacy applications to cloud-like infrastructure
- Storage migrate to SDS

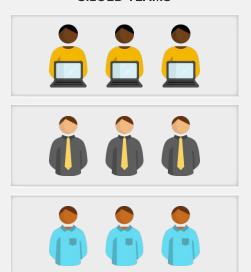
- Build a private cloud
- Develop, deploy and manage new container-based applications
- Deliver massively-scalable infrastructure
- Align workloads to right cloud environment
- Manage hybrid cloud or multi-cloud environments











SILOED TEAMS

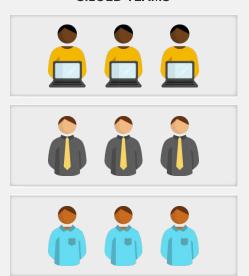








SILOED TEAMS



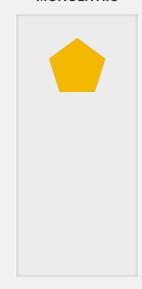


SILOED TEAMS











SILOED TEAMS

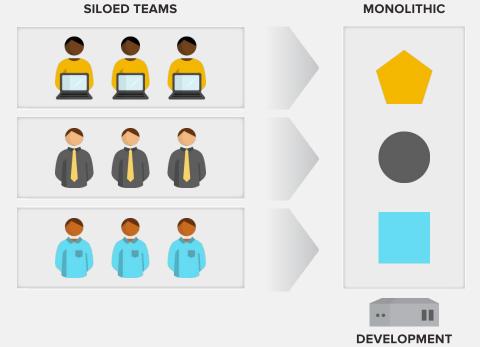






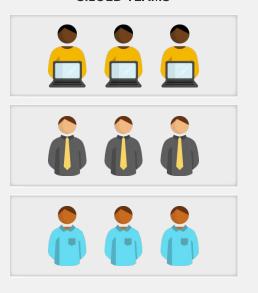


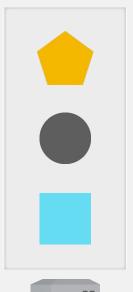






SILOED TEAMS



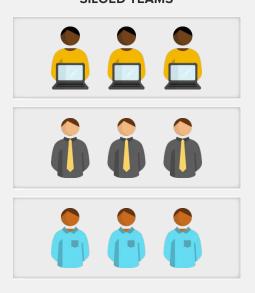


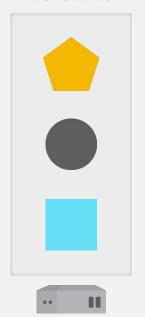






SILOED TEAMS









SILOED TEAMS







MONOLITHIC







DEVELOPMENT

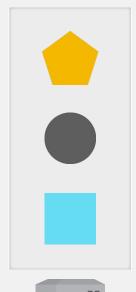
SILOED TEAMS







MONOLITHIC







How to deploy in production?

How to configure and secure?

How to scale?

How to update?



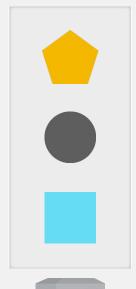
SILOED TEAMS







MONOLITHIC







How to deploy in production?

How to configure and secure?

How to scale?

How to update?



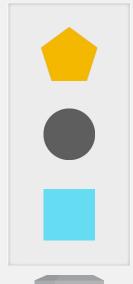
SILOED TEAMS







MONOLITHIC







How to deploy in production?

How to configure and secure?

How to scale?

How to update?





DEVELOPMENT













































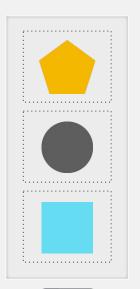


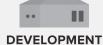












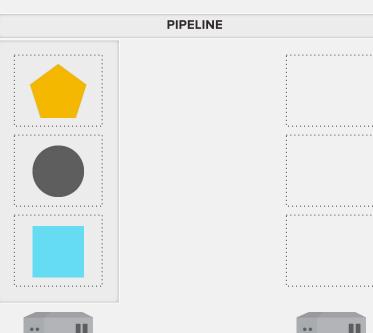




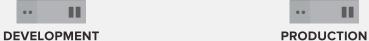




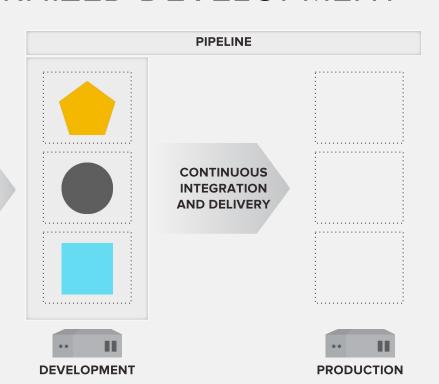








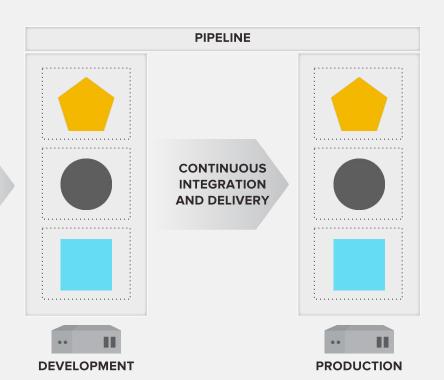






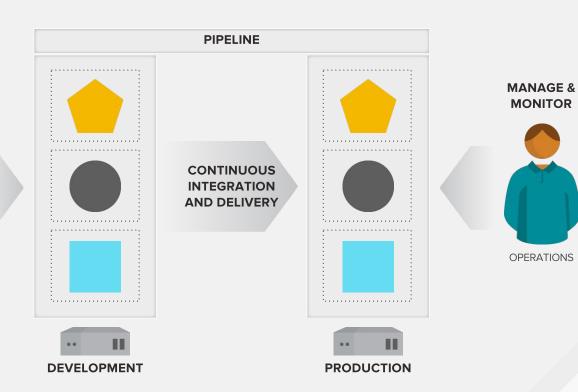
















MODERNIZE DEV AND OPS

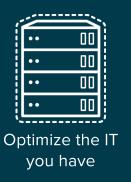
What it does: Demonstrates developing an application across OpenShift and OpenStack that is then audited by CloudForms. Available in Red Hat Product Demo System (RHPDS).

Why it's technically differentiated: The combination of OpenShift and OpenStack allow for unique flexibility in creating mixed service model applications (containers and virtual machines) or using infrastructure services within a platform as a service model (OpenShift application with Cinder volumes for persistence). CloudForms ability to manage vertically from hosts to virtual machines to containers is all differentiating.

(Demonstration available)



SPECIFIC CLOUD USE CASES





infrastructure

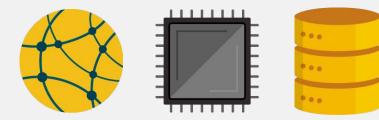


Build more modern applications

- Accelerate Service Delivery
- Add self-service capabilities
- Migrate virtualized infrastructure
- Migrate legacy applications to cloud-like infrastructure
- Storage migrate to SDS

- Build a private cloud
- Develop, deploy and manage new container-based applications
- Deliver massively-scalable infrastructure
- Align workloads to right cloud environment
- Manage hybrid cloud or multi-cloud environments

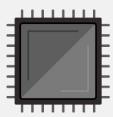






SCALE UPFinancially and technically unsustainable

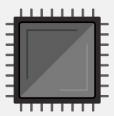






SCALE UPFinancially and technically unsustainable



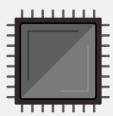


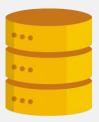




SCALE UPFinancially and technically unsustainable

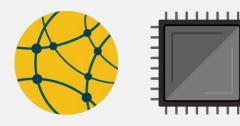


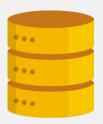






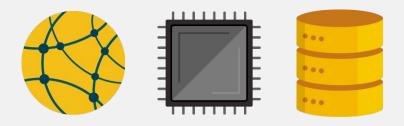
SCALE UPFinancially and technically unsustainable







SCALE UPFinancially and technically unsustainable

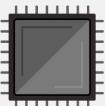






SCALE UPFinancially and technically unsustainable





















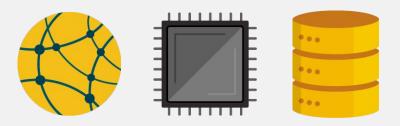




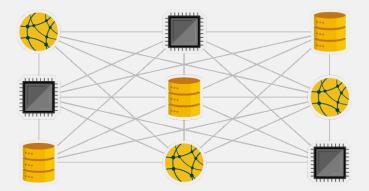




SCALE UPFinancially and technically unsustainable

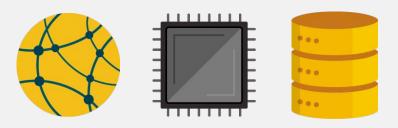








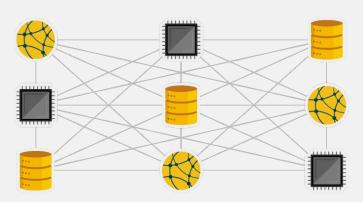
SCALE UPFinancially and technically unsustainable





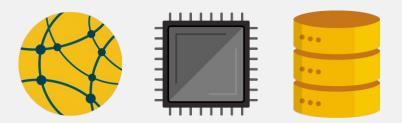
DO-IT-YOURSELF SCALE-OUT

Complex and incomplete

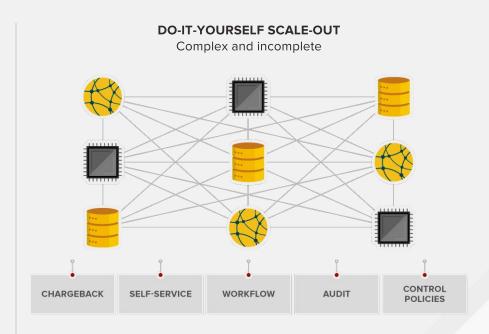




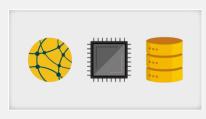
SCALE UPFinancially and technically unsustainable







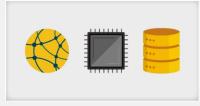




NEW YORK



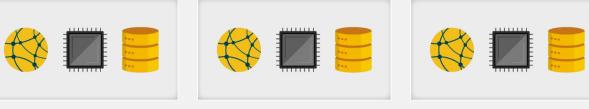


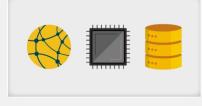


NEW YORK

LONDON



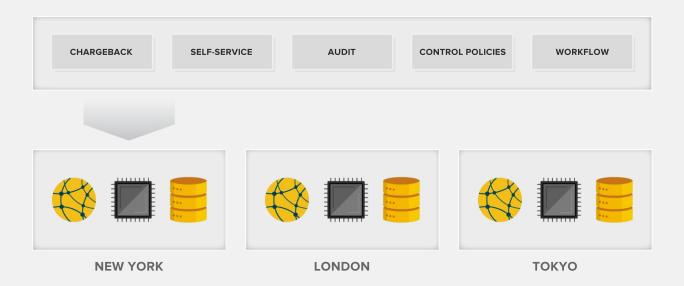




NEW YORK LONDON TOKYO





















ENTERPRISE GRADE SCALE-OUT CLOUD INFRASTRUCTURE **CHARGEBACK** AUDIT **CONTROL POLICIES** WORKFLOW SELF-SERVICE TOKYO **NEW YORK** LONDON





SCALABLE INFRASTRUCTURE

What it does: Demonstrates using CloudForms for chargeback and reporting across a geographically diverse OpenStack deployment (Paris, Tokyo, and New York). Available in Red Hat Product Demo System (RHPDS).

Why it's technically differentiated: Showing chargeback and reporting across multiple OpenStack clouds illustrates how CloudForms can provide enterprise management features for OpenStack while at the same time showing how it can be used to provide a single point of data aggregation across multiple infrastructures.

(Demonstration available)



Red Hat Cloud Suite

Additional Information and Resources

- P105181 Real-world perspectives: Red Hat Cloud Infrastructure
 - o 15:30 16:15 on Wednesday with Unum and Penn State on panel
- Announcements
 - Blog Posts / Videos
 - Scaleable Infrastructure (video)
 - Optimize IT (video)
 - Accelerating Service Delivery (video)
 - Modernizing Development & Operations (video
 - Red Hat Demo Central https://github.com/redhatdemocentra
- Red Hat Customer Portal
 - Available online
 - https://access.redhat.com/products/red-hat-cloud-suite





CLOUD DEPLOYMENT PLANNER

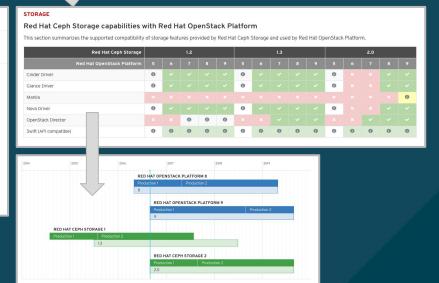
A visual tool to determine compatibility across hybrid cloud products

Select product scenarios

View interoperability information

Cloud Deployment Planner Red Hat Cloud Infrastructure View All Red Hat Products Orchestration Red Hat CloudForms: **Configuration Mgmt** Red Hat Satellite: **Predictive Analysis** Red Hat Insights: PaaS Red Hat OpenShift Container Platform: Red Hat OpenStack Platform: NOT USED Virtualization Red Hat Virtualization: Operating System Red Hat Enterprise Linux: Storage Red Hat Ceph Storage: NOT USED

View product lifecycles





Current State

Integrated products, interoperability, and user functionality

10
PRODUCTS

CloudForms
OpenShift
OpenStack
Satellite
RHV
RHEL / IdM
Ceph
Gluster
Ansible

38
PROD RELEASES

4400+
INTEROP REQUIREMENTS



Feature compatibility

Lifecycle compatibility

Product segmentation



CATEGORIES

Storage

Identity Management
Configuration Management
Provisioning
Management
Proactive Analysis



Cloud Deployment Planner

Additional Information and Resources

- LT122010 Observability and automation lightning talks
 - 11:30-12:15 on Wednesday
- Find more
 - Blog Post
 - http://www.schabell.org/2016/06/howto-setup-redhat-cloud-using-online-deployment-planner.htm
 - Video How To
 - https://youtu.be/tVHZtqmzAlc
- Red Hat Customer Portal
 - Available online
 - https://access.redhat.com/cloud-deployment-planner



RED HAT OPEN INNOVATION LABS







COLLABORATION

Space to work, innovate, and discuss

RESIDENCY

An eight-week accelerated teaming engagement

COMMUNITY INCUBATION

Communities supporting innovation



More Red Hat Summit Activities

Be sure to check out these talks too:

- S101680 Discover the foundations of digital transformation (TUE)
- Mini-Theater:
 - What are your Digital Foundations? (TUE)
 - How to Setup a Container Platform for Modern Application Delivery in Minutes (THU)
- DevZone:
 - \circ Anyone Show You How to Install OpenShift Container Platform in Minutes? (TUE)





THANK YOU

g+ plus.google.com/+RedHat



facebook.com/redhatinc



linkedin.com/company/red-hat



twitter.com/RedHatNews



youtube.com/user/RedHatVideos

Eric D. Schabell, Global Technology Evangelist Directory @ericschabell





LEARN. NETWORK. EXPERIENCE OPEN SOURCE.

Eric D. Schabell, Global Technology Evangelist Directory @ericschabell

