THE EMERGING IT: FRICTIONLESS, HYBRID, PROGRAMMABLE

HOW TO STAY RELEVANT?

Alessandro Perilli
GM, Cloud Management Strategy
CONSUMERIZATION OF IT

MY ONLY HOPE FOR PRODUCTIVITY IS TO SMOGGLE IN MY HOME LAPTOP

CLAMP

CLAMP

NOW HAND OVER THE NON-STANDARD CELL PHONE YOU KEEP IN THE ELASTIC OF YOUR UNDERPANTS.
CONSUMERIZATION OF IT

- FRICTIONLESS IT
- HYBRID IT
- PROGRAMMABLE IT
TOWARDS A FRICTIONLESS IT
IT JUST WORKS
EASE OF USE
## CLOUDFORMS 3.1 vs vCLOUD SUITE 5.5 & SYSTEM CENTER 2012 SP1

<table>
<thead>
<tr>
<th>Feature</th>
<th>VMware</th>
<th>Microsoft</th>
<th>Red Hat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-service Provisioning</td>
<td>vCAC, vCD, vFAD</td>
<td>SCAC, SCSM</td>
<td></td>
</tr>
<tr>
<td>Service Catalog</td>
<td>vCAC, vCD, vFAD</td>
<td>SCVMM, SCSM</td>
<td></td>
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<tr>
<td>Chargeback</td>
<td>vCAC, vCCM</td>
<td>SCSM</td>
<td></td>
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<tr>
<td>Capacity Management</td>
<td>vCAC, vCD, vCOM</td>
<td>SCVMM</td>
<td></td>
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<tr>
<td>Performance Management</td>
<td>vCOM, vFH</td>
<td>SCOM</td>
<td></td>
</tr>
<tr>
<td>Configuration and Change Management</td>
<td>vCM</td>
<td>SCVMM, SCOM</td>
<td></td>
</tr>
<tr>
<td>Life Cycle Management</td>
<td>vCAC, vCD, vFAD</td>
<td>SCVMM</td>
<td></td>
</tr>
<tr>
<td>Orchestration</td>
<td>vCAC, vCO</td>
<td>SCO</td>
<td></td>
</tr>
<tr>
<td>External Cloud Connection</td>
<td>vCAC, vCC, vFAD</td>
<td>SCAC</td>
<td></td>
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</tbody>
</table>
INTEGRATION
Service "Apache (Container)"

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apache (Container)</td>
<td>Docker based Apache</td>
</tr>
</tbody>
</table>

**Cloudforms with Kubernetes & Docker**

This demonstration shows how Red Hat Cloudforms can deliver Docker Images using the Kubernetes Cluster manager.

We are delivering to a Red Hat Virtualization platform, but this can easily be switched to any of the following:

- Red Hat OpenStack
- Amazon EC2
- VMware vSphere
- Microsoft HyperV (SCVMM)
TOWARDS A HYBRID IT
“HYBRID” MEANS EMBRACING IT DIVERSITY

- Concurrent consumption of legacy and next generation IT virtual infrastructures and clouds IaaS and PaaS clouds private and public clouds traditional and cloud-native workloads
- Maintaining infra/plat/mgmt consistency where possible
MULTI-TIER ARCHITECTURE
MULTI-LAYER CONSISTENCY
MULTI-VENDOR SUPPORT
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS

SCALE UP TIERS

SCALE OUT TIERS

Bare Metal

Server Virtualization

IaaS

PaaS
Server Virtualization

IaaS

PaaS

CLOUD-NATIVE WORKLOADS

TRADITIONAL WORKLOADS

Bare Metal

Server Virtualization

IaaS

PaaS

SCALE UP TIERS

SCALE OUT TIERS

Line of Business App

Database

Middleware

Load Balancer

Web Frontend
Server Virtualization

IaaS

CLOUD-NATIVE WORKLOADS

Consistent Management

TRADITIONAL WORKLOADS

Line of Business App

Database

Middleware

Load Balancer

Web Frontend

Bare Metal

Server Virtualization

IaaS

IaaS

PRIVATE

PUBLIC
TOWARDS A PROGRAMMABLE IT
INFRASTRUCTURE ABSTRACTION
APP INTEGRATION
DATA VIRTUALIZATION
INFRASTRUCTURE ABSTRACTION
APP INTEGRATION
DATA
VIRTUALIZATION
**CONSUME**
- Standards-based data provisioning

**COMPOSE**
- Unified virtual database/Common data model

**CONNECT**
- Standards-based data connectivity

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**Hadoop**
- NoSQL
- SaaS and cloud applications
- Data warehouse and databases
- Mainframe
- XML, CSV, and Excel files
- Enterprise applications
HOW ALL OF THIS COMES TOGETHER?
RED HAT CLOUD INFRASTRUCTURE

**MIDDLEWARE**
- JBOSS

**VIRTUALIZATION**
- RHEL
- RHS
- OpenDaylight

- Compute
- Storage
- Network

- Apps
- Business Processes
- VMs
- Containers
RED HAT CLOUD MANAGEMENT

LIFECYCLE
- JBOSS ON | OPENSHIFT | RHELOSP | RHEV-M
  - Apps
  - Business Processes

MIDDLEWARE
- JBOSS
  - VMs
  - Containers

VIRTUALIZATION
- RHEL
- RHS
- OpenDaylight
  - Compute
  - Storage
  - Network
RED HAT CLOUD MANAGEMENT

- **CONFIGURATION AUTOMATION**
  - SATELLITE

- **LIFECYCLE**
  - JBOSS ON | OPENSIFT | RHELOSP | RHEV-M
  - Apps
  - Business Processes

- **MIDDLEWARE**
  - JBOSS
  - VMs
  - Containers

- **VIRTUALIZATION**
  - RHEL
  - RHS
  - OpenDaylight
  - Compute
  - Storage
  - Network
RED HAT CLOUD MANAGEMENT

- Orchestration: CloudForms
- Configuration Automation: Satellite
- Lifecycle: JBoss on | OpenShift | RHELOSP | RHEV-M
- Middleware: Apps, Business Processes
- Virtualization: RHEL, RHS, OpenDaylight
- Compute, Storage, Network

MIDDLEWARE

VIRTUALIZATION

LIFECYCLE

CONFIGURATION AUTOMATION

ORCHESTRATION

CLOUDFORMS
RED HAT OPEN MANAGEMENT PLATFORM

- CLOUDFORMS
- SATELLITE
- JBOSS ON | OPENSİFT | RHELOSP | RHEV-M
  - Apps
  - Business Processes
  - SAP
  - VMs
  - Containers
  - VMWARE
  - AWS

AWS
VMs
Containers
Business Processes
Apps
SAP
VMWARE
JBOSS ON | OPENSİFT | RHELOSP | RHEV-M
SATELLITE
CLOUDFORMS
RED HAT CONFIDENTIAL
RED HAT® ENTERPRISE LINUX® 7

RED HAT® ENTERPRISE VIRTUALIZATION

RED HAT® ENTERPRISE LINUX® OPENSTACK® PLATFORM 6

230+ CERTIFIED PARTNERS

1K+ CONSULTANTS

RED HAT OPEN STACK CLOUD INFRASTRUCTURE PARTNER NETWORK

INFRASTRUCTURE MIDDLEWARE CLOUD OPEN SOURCE GOVERNANCE
SERVING AND PROTECTING THE BUSINESS