What's new in Cloud and Automation Software: New Suites, New Architecture
August 29, 2017
Brought To You By:

- Vivit Automation and Cloud Builders SIG
- Led by Darren Blumenthal
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  http://www.vivit-worldwide.org/group/CloudAutomation
Today’s Speakers:

Darren Blumenthal
Alliance Solution Architect
Accenture

Megan Glick
Product Marketing Manager
HPE

Neil Miles
Product Marketing Manager
HPE
Webinar Housekeeping

- This “LIVE” session is being recorded
- Recordings are available to all Vivit members
- To enlarge the presentation screen, click on the rectangle in the upper right hand corner of the Presentation pane
Webinar Control Panel

- **Session Q&A:**
  Please type questions in the Q&A pane and click on “Ask”
- Choose the language in which you would like to ask your questions
About me: Darren Blumenthal

- Live in the UK with my Family - my wife Dominique, our two sons, Lake (7) and Kairo (6), and our 3 dogs... Sushi, Onagi and Skabenga (“Troublemaker”)
- Made in South Africa
- Been in IT professionally for over 21 years
- 15 years as a Solution Architect
- Hobbies: Martial Arts instructor and Close up Magician
- Specialise in Cloud Architecture Design Storage / Networking / Virtualisation / Security and Business Continuity & DR
Introduction

• Automation & Cloud Builders SIG
  • Advocacy
  • Community
  • Education
HPE IT Operations Management Software
New Suites, More Innovation
IT Operations Management Suites
Simple, integrated, easy to consume

- Hybrid Cloud Management
  DevOps ready, multi-cloud management and orchestration

- Data Center Automation
  Comprehensively automated data center

- Operations Bridge
  Autonomous operations with actionable insight for stakeholders

- Network Operations Management
  Service management for enterprise networks

- IT Service Management Automation
  Self-service, intelligence-driven fulfillment
From Point Products to Suites
Capabilities and products aligned to the new suites

Hybrid Cloud Management Suite

Data Center Automation Suite

Cloud Service Automation
Operations Orchestration
Cloud Optimizer

Server Automation
Operations Orchestration
Database and Middleware Automation
IT Operations Compliance
The Container Deployment Foundation

Key Features

– Embedded container orchestration

– Leveraged shared services

– Built for delivery model for software downloads

– Deliver suite wizard installation framework for easy bootstrap

– Provide out-of-the-box workload monitoring

– Offer single suite licensing
Key open source components that make up the Foundation

– Docker: https://www.docker.com/
  – Container runtime

– Kubernetes: https://kubernetes.io/
  – Container orchestration

– Vault: https://github.com/hashicorp/vault
  – Secure configuration store / certificates

– Etcd: https://github.com/coreos/etcd
  – Distributed configuration database

– Flannel: https://github.com/coreos/flannel
  – Network overlay

– Heapster: https://github.com/kubernetes/heapster
  – Monitoring and metrics

– Kubernetes-vault: https://github.com/Boostport/kubernetes-vault
  – Token and certificate generation/maintenance
Container Deployment Foundation—modular, flexible, scalable
The future of IT Operations Management software

**ITOM Suite**

![Diagram showing ITOM Suite components: Provisioning Lifecycle, Operations, Analytics, Data Workflow, Data Store, System, Web Server, Suite, Specific Microservice, Shared Services, REST APIs, Bots, Microservices, Container Orchestration, Linux, Container Platform, Physical, Virtual, Cloud, Container.]

- **Pre-integrated containers**, **unified license model**, and **shared services**
- **Easy to install, maintain and patch with zero downtime upgrades**
- **Auto-scaling, HA/DR, self-healing and secure**
- **Flexible Deployment Options**

**Deployment Options**
- Fixed to Flexible

**Managed Container Environment**

- **Time to integrate**: 2-3 weeks to Few hours
- **Time to install/upgrade**: 2-15 days to Few mins
- **Time to Scale**: Months to Pre-Built

**Hewlett Packard Enterprise**
Hybrid Cloud Management
DevOps ready, multi cloud management, and orchestration
HPE Hybrid Cloud Management
DevOps ready, multi-cloud management and orchestration

• Provision and manage any mix of cloud and on-premise resources
• ‘Design-once – run anywhere’ service designs
• Container lifecycle management
• Customizable service portal
• Proven end-to-end IT orchestration with massive OOTB content library
• Automated stage gates for continuous application delivery
• New suite container deployment options
What’s in Hybrid Cloud Management 2017.05
Flexible control of your cloud services

<table>
<thead>
<tr>
<th>Capabilities ↓</th>
<th>Use Case →</th>
<th>Express</th>
<th>Premium</th>
<th>Ultimate</th>
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<tbody>
<tr>
<td>Hybrid IT Delivery</td>
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<tr>
<td>Cloud-agnostic service designs enable “design once – run anywhere” services</td>
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<td>Proven, enterprise-grade E2E orchestration engine</td>
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<td>OOB content and open APIs for integration with any cloud, container, or infrastructure</td>
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<td>Unified self-service portal with attribute-based options simplifies catalog offerings</td>
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<td>Analytics to showback costs and usage</td>
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<td>Workload optimization</td>
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<td>Next generation container-based architecture for easier installation and management</td>
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<td>Application release automation</td>
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<tr>
<td>Application Release Automation and analytics speeds application delivery</td>
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<tr>
<td>Built-in, fully customizable, automated stage gates for continuous delivery</td>
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<td>Offer PaaS and XaaS with comprehensive OOB content for DB &amp; MW</td>
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<td>Cloud brokering and governance</td>
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<td>Catalog aggregation and brokering</td>
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<td>Existing service discovery</td>
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<td>Service-level compliance and remediation that crosses IT silos</td>
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Product similarity → CSA, OO, CO, UCMDB, ITBA + Codar, DMA content + ITOC, UD, Brokering
HCM Suite May 2017 – What’s New – Overview
with ITOM Container Deployment Foundation (CDF)

- ARA (CODAR) – CMP (CSA) “Bridge”
- OO Designer improvement
- Unit Based Licensing & AutoPass 9.4
- Containerized HCM Suite on next-gen ITOM CDF

Content
- Content Store Improvements
- CSA Content for IaaS (AWS, Azure, OpenStack, etc)
- New OO Content (F5BigIP, Docker, etc)
- CSA / OO content - version updates
- Content Development Platform Improvements
- Content Market Place Portal Migration

ITOM Container Deployment Framework (CDF)
Unify management of hybrid and conventional resources
Provision and manage any mix of cloud and on-premise resources

- Show workload distribution across cloud providers and environments
- Integrated dashboard to manage hybrid cloud resources
- Manage multiple tenants
- Customizable & user created widgets
- Service level compliance management

New dashboard 2017.01
‘Design once – run anywhere’ service designs
Designs are cloud agnostic and run in any target environment

- Design once... then deploy it anywhere
- On-the-fly ability to update or upgrade services already deployed
- Designs can include complete enterprise IT processes
- Designs may represent complex, hybrid services or simple, on-premise environments

App store-like library for out-of-the-box components and your service designs
Provision and manage container workloads

Container lifecycle management

Native container support.
Marathon / Mesos, Docker, Kubernetes

Container-based application scaling spans different container vendors and different cloud environments

Design hybrid applications that include containers and traditional components

Deploy and scale container hosts

Manage ongoing compliance

Container enhancements 2017.01
Customizable service portal
Simple but powerful self-service experience for IT, developers and LOB users

- Supports multiple tenants and/or organizations
- Flexible options with dynamic pricing
- Offer simple or advanced hybrid IT services across private or public clouds
- Native container and microservice support enables hybrid service designs
- Broker services from multiple clouds

Updated portal 2017.01
Proven end-to-end IT orchestration with OOTB content library

Orchestrate complete IT actions and processes

Intuitive IT workflow designer & execution engine

Leverage a library of 8000+ out-of-the-box operations and flows!

Orchestrate to successful completion every time with new default failure handling at every step

Proven orchestrator of orchestrators

Enables direction of other tools or orchestrators

Text authoring accelerates development and enables infrastructure as code
DevOps benefits from integrated application release automation
Automated stage gates for continuous application delivery

Visibility into your release pipeline

Customizable, automated stage gates

DB and middleware automation content enables PaaS and XaaS

Out of the box integration with test automation and IT process orchestration

Effective release automation with release analytics

New 2017.01

New 2017.05

Dev and QA teams can consume HCM catalog services directly from within the release pipeline, and subscriptions are tracked for reporting, costing and dashboard views.
Data Center Automation
Infrastructure lifecycle automation at scale
Data Center Automation Suite
An infrastructure lifecycle management solution

- Heterogeneous provisioning and patching at scale
- Integrated compliance and closed-loop remediation
  - Across heterogeneous OS, DB, and MW
  - Market leading out-of-the-box compliance and remediation content
- Industry’s leading open API orchestrator for seamless data center integration
- New suite container deployment option
## What's in Data Center Automation Suite 2017.05 (classic)

3 editions to meet infrastructure management needs

<table>
<thead>
<tr>
<th>Capabilities ↓</th>
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<td>Server Discovery, Config, OS Provisioning &amp; SW Deployment</td>
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<td>Database &amp; Middleware Discovery, Config &amp; Deployment&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>Infrastructure&lt;sup&gt;2&lt;/sup&gt; LCM with Runbook Automation &amp; Reporting</td>
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<sup>1</sup> Capability for clustered DB/MW instances offered in DCA Premium

<sup>2</sup> Infrastructure includes Servers (Physical or Virtual), Database & Middleware, no platform or scale restrictions
## Compliance microservice (container deployment foundation)

DCA Premium 2017.05 customers have access to compliance microservice

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<th>Ultimate Infrastructure optimization</th>
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¹Capability for clustered DB/MW instances offered in DCA Premium
²Infrastructure includes Servers (Physical or Virtual), Database & Middleware, no platform or scale restrictions
Seamlessly orchestrate data center processes, including integration with 3\textsuperscript{rd} party tools and existing content.

- OOTB content for infrastructure use cases e.g. provisioning, patching
- Open API to integrate with anything
- Fully customizable workflows
  - Enterprise-managed in a single place
  - Repeatable deployments
Be audit-ready with ongoing, integrated compliance
Not just for OS, but also for database, and middleware

- OOTB benchmarks and compliant images
- Automated audit scan
- Closed-loop remediation
- Single-view dashboard and tailored, formatted reports
Get compliance with a view—a single dashboard

**Compliance state**
Resources classified by risk

**Top 5 Failed Requirements**
Based on the highest number of resources where requirement has failed; drill down to display list of resources

**Time to remediate**
Drill down to display resource and benchmark

New 2017.05
ChatOps facilitates collaboration across silos
Collaboration between people and systems in a conversation-like manner

Team collaborates in a conversational manner, across silos to solve issues real-time

Is it a compliance issue?

Dcabot retrieves compliance state

Compliance is OK, but dcabot will alert if compliance score drops
Use analytics to manage VM sprawl

At a glance view
- Overview of health, performance, capacity, usage
- Highlights critical alerts
- Drill-down capabilities

Capacity Optimization
- Right sizing recommendation
- Reclaim wastage by identifying powered off and idle VMs
Container deployment means lower TCO, effortless scale-out

– Easy to install, patch, update
– Horizontal scale-out in minutes
– Agentless deployment

“Stateless containers are an elegant, effortless, and natural way to scale horizontally.”

Abhijit Chaudhuri, Chief Architect DCA

Read the container deployment announcement blog here
www.vivit-worldwide.org
Join the Discover the New World Tour

<table>
<thead>
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<th>REGION</th>
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14 locations in 4 weeks
Still time to register for Protect 2017

There is still time to register for Protect 2017

Security at the speed of innovation.
- 3 days of content, education and networking in a highly immersive and interactive setting.
- HPE’s security vision and roadmap
- Dozens of sessions and hands-on demos targeted at managing digital risk in all forms
- Up to 24 CPE credits at a deep discount
- Onsite support from the engineers who build our security solutions
- Partner speed dating, cyber games, networking activities
- 1:1 meetings with HPE security executives, targeted at your specific needs

Register Now
HPE, soon to be Micro Focus is bringing you an exclusive opportunity to meet their Application Delivery Management (ADM) experts and customers. Hear your peers’ transformation journeys to Scaled Agile, DevOps and/or Continuous Testing, including a deep look at the technologies and techniques that drive success. In addition, you’ll be able to explore our latest innovations, hear timely portfolio roadmaps and plans, and take part in lively roundtable discussions with the ADM Software Management Team and your peers. Event registration is free to HPE Software users.
Thank You
vivit-worldwide.org