Management a automatizace - cesta k moderní IT infrastruktuře (Red Hat & Intel)

Sergey Goncharov, Solution Architect CEE
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Monitorujte své IT prostředí aneb od vlastního datacentra po veřejný cloud - Red Hat CloudForms (hands-on)

INTEGRATION AND AUTOMATION

RED HAT®
ANSIBLE®
Automation

RED HAT®
CLOUDFORMS

RED HAT®
SATELLITE

Fast, repeatable configuration for virtual resources

Automation, orchestration, and self-service

Provision and update hosts and VMs

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RED HAT SERVICE PROVISIONING

HYBRID CLOUD MANAGEMENT AND AUTOMATION

RED HAT®
CLOUDFORMS

RED HAT®
ANSIBLE®
Tower

Deliver services across your hybrid cloud

- Hybrid cloud management
- Self-service provisioning
- Policy-driven compliance

Centralize automation governance

- Centralized control
- Team and user delegation
- Audit trail

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RED HAT®
CLOUDFORMS

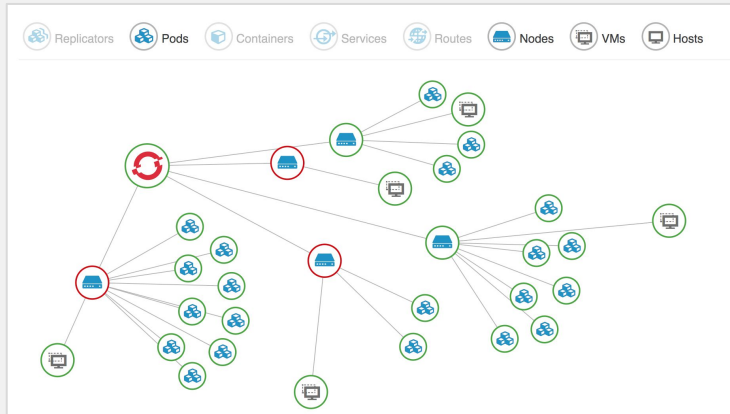Operational Management
Across the Stack

- Real-time discovery
- Visualize relationships
- Monitoring and alerts
- Vulnerability scanning
- Security compliance
- Workflow and policy
- Automation
- Chargeback

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OPERATIONAL EFFICIENCY

- CloudForms continuously discovers your infrastructure in near real time.

- CloudForms discovers and visualizes relationships between infra components

- CloudForms cross references inventory across technologies.

- CloudForms offers custom automation via control policy or UI extensions

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OPERATIONAL EFFICIENCY

SERVICE HEALTH

- CloudForms monitors resource consumption and shows trends

- CloudForms alerts on performance thresholds or other events

- CloudForms offers right-sizing recommendations

- CloudForms enforces configuration and tracks it over time.

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SERVICE HEALTH

CPU (Mhz)

Memory (MB)

Network I/O (KBps)

Time Stamp	Type	Name	Event Type	Severity	Message
01/02/18 07:23:10 UTC	Cluster / Deployment Role	Raleigh	Memory Usage	1	Memory - Peak Aggregate Used for Child VMs for Collected Intervals (MB) is projected to reach 765.6 GB (100% of Memory Max Total)
11/01/17 06:18:52 UTC	Cluster / Deployment Role	Raleigh	Memory Usage	1	Memory - Peak Aggregate Used for Child VMs for Collected Intervals (MB) is projected to reach 689 GB (90% of Memory Max Total)
07/31/17 04:42:25 UTC	Cluster / Deployment Role	Raleigh	Memory Usage	2	Memory - Peak Aggregate Used for Child VMs for Collected Intervals (MB) is projected to reach 574.2 GB (75% of Memory Max Total)
02/26/17 02:01:39 UTC	Cluster / Deployment Role	Raleigh	Memory Usage	3	Memory - Peak Aggregate Used for Child VMs for Collected Intervals (MB) is projected to reach 382.8 GB (50% of Memory Max Total)

Normal Operating Ranges (up to 30 days' data)

	Max	High	Average	Low
CPU	745.90 MHz	705.74 MHz	663.99 MHz	622.23 MHz
CPU Usage	100.00%	15.36%	14.10%	12.84%
Memory	7.7 GB	7.57 GB	7.37 GB	7.18 GB
Memory Usage	65.00%	63.46%	61.78%	60.11%

Right-Sizing (Conservative - derived from Absolute Maximum)

	Current	Recommended	% Savings	Savings
Processors	4	5	-25.0%	-1
Memory	12288 MB	7988 MB	35.0%	4300 MB

Right-Sizing (Moderate - derived from High NORM)

	Current	Recommended	% Savings	Savings
Processors	4	1	75.0%	3
Memory	12288 MB	7800 MB	36.5%	4488 MB

Right-Sizing (Aggressive - derived from Average NORM)

	Current	Recommended	% Savings	Savings
Processors	4	1	75.0%	3
Memory	12288 MB	7596 MB	38.2%	4692 MB

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SECURITY & COMPLIANCE

- CloudForms finds and marks nodes non-compliant with policy.

- CloudForms allows reporting on container provenance.

- CloudForms scans container images using OpenSCAP.

- CloudForms tracks genealogy between images and containers.

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SECURITY & COMPLIANCE

Compliance

Status	❌ Non-Compliant as of 5 Days Ago
History	↺ Available

Configuration

Packages	📦 528
OpenSCAP Results	🛡 431
OpenSCAP HTML	Available
Last scan	Tue, 28 Mar 2017 11:05:54 +0000

OpenSCAP Failed Rules Summary

Medium	1
High	3

	Name	Result	Severity
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20170386	Fail	High
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20170372	Fail	High
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20170294	Fail	High
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20170286	Fail	Medium
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20140685	Pass	High
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20140686	Pass	High
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20140679	Pass	High
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20140703	Pass	Medium
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20140684	Pass	High
🛡	xccdf_com.redhat.rhsa_rule_oval-com.redhat.rhsa-def-20140704	Pass	Medium

Compliance and Scoring

The target system did not satisfy the conditions of 4 rules! Please review rule results and consider applying remediation.

Rule results

427 passed	4

Severity of failed rules

1 medium	3 high

Score

Scoring system	Score	Maximum	Percent
urn:xccdf:scoring:default	99.071922	100.000000	99.07%

Rule Overview

☐ pass   ☑ fail   ☐ notchecked
☐ fixed   ☐ error   ☐ notselected
☐ informational   ☐ unknown   ☐ notapplicable

| Search through XCCDF rules | Search |

Group rules by: Default

Title	Severity	Result
▼ Automatically generated XCCDF from OVAL file: com.redhat.rhsa-RHEL7.xml 4x fail		
RHSA-2017:0286: openssl security update (Moderate)	medium	fail
RHSA-2017:0294: kernel security update (Important)	high	fail
RHSA-2017:0372: kernel-aarch64 security and bug fix update (Important)	high	fail
RHSA-2017:0386: kernel security, bug fix, and enhancement update (Important)	high	fail

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FINANCIAL MANAGEMENT

- Define cost models for infrastructure and understand your cost.

- Rate schedules per platform and per tenant with multi-tiered and multi-currency support

- CloudForms shows top users for CPU, memory, as well as cost.

- Chargeback/showback to projects based on container utilization.

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FINANCIAL MANAGEMENT

Top CPU Consumers (Last Hour)

VM Name	CPU Usage	Allocated vCPUs	VM Vendor
overcloud1-telus	21.4%	8	vmware
manageiq-euwe-2	18.3%	4	redhat
manageiq-euwe-3	14.0%	4	redhat
Lenovo XClarity Administrator - Do not delete	9.1%	2	vmware
vcenter6	8.0%	4	vmware

Updated December 21, 2016 20:17 | Next January 11, 2017 23:45

Top Memory Consumers (last hour)

| VM Name	Memory Usage	Allocated Memory
CF41_DB	100.0%	16 GB
CF42_UI2	97.7%	8 GB
CF42_UI1	97.7%	8 GB
manageiq-euwe-3	97.6%	8 GB
CF42_google1	97.0%	8 GB

Updated January 11, 2017 23:49 | Next January 12, 2017 00:05

Saved Report "ChargeBack by Project - Tue, 18 Apr 2017 17:59:28 +0000"

Date Range	Project Name	Project Uid	Cpu Cores Used Cost	Memory Used Cost	Total Cost
04/17/2017	cicd	b8f35aee-e974-11e6-89d9-fa163ec3f31d	$24.00	$30.33	$66.34
04/17/2017	default	4c767b2b-df4d-11e6-8850-fa163ec3f31d	$24.00	$4.90	$40.90
04/17/2017	ifixed	acc6113d-ed77-11e6-8c6a-fa163ec3f31d	$24.00	$28.77	$64.77
04/17/2017	jritenour-demo	47ee9d2a-efae-11e6-8c6a-fa163ec3f31d	$24.00	$28.80	$64.80
04/17/2017	mlbparks	4666e252-e296-11e6-8a49-fa163ec3f31d	$24.00	$406.96	$442.96
04/17/2017	openshift-infra	4e37af93-df4d-11e6-8850-fa163ec3f31d	$24.06	$992.75	$1,290.78
04/17/2017	stage	b771432a-e974-11e6-89d9-fa163ec3f31d	$24.00	$491.89	$527.89
04/17/2017					
Totals:			$168.07	$1,984.40	$2,498.43
All Rows					
Totals:			$168.07	$1,984.40	$2,498.43

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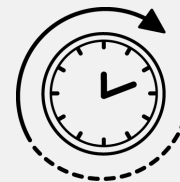## COMPLETE SELF-SERVICE AND AUTOMATION FOR I.T. PROCESSES
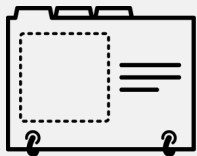
Visibility, efficiency, and optimization

Improve resource utilization and operational efficiency

Self-service and service management

Automate and delegate service delivery processes, saving time and money
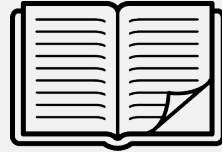
Compliance and governance

Responsibly enable users and developers, without being in the way

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HANDS-ON LAB
Accelerate service delivery through self-service and automate IT processes.

KEY TAKEAWAYS

Path 6: Manage IT with automation

- IT services can be delivered rapidly via a self-service portal.

- Automating IT processes, like service provisioning or problem identification and remediation, saves time.