Tech Day the Netherlands

Workshop
OpenShift Virtualization Advanced

Operations and Automation with OpenShift Virtualization

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What we'll cover

Enabling Basic Day to Day Operations

Security and compliance, configuring network policies, and automated VM management.

Real World Scaling Scenario

Assess and triage a high-use scenario and mediate it through various scaling operations.

Scaling to the Moon with Ansible

Interactive Scenario

Enabling Basic Day to Day Operations

- Creating a Dynamic Inventory for OpenShift Virtual Machines
- Security and Compliance Using the OpenShift Compliance Operator
- Configure Network Policies to Manage VM Traffic
- Enable and Explore Alerts, Graphs, and Logs
- Automated VM Management

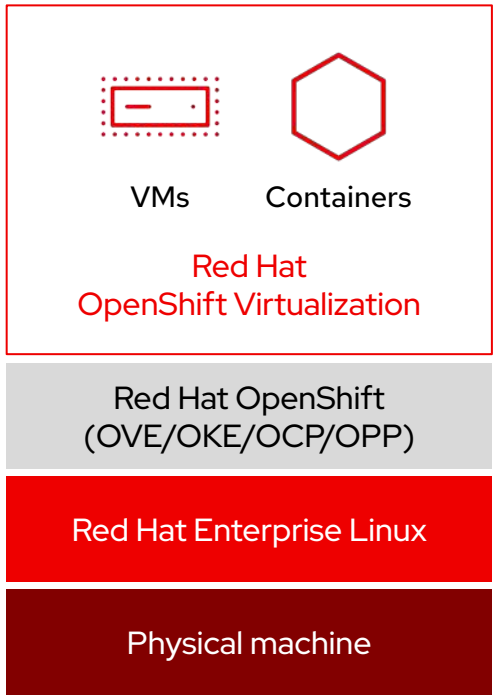
Real World Scaling Scenario

- Examining Resource Utilization on Virtual Machines
- Horizontally Scaling VM Resources
- Vertically Scaling VM Resources
- Discussing Swap/Memory Overcommit
- Scaling a Cluster By Adding a Node

Scale to the Moon

- Example Scenarios Created by the Lab Team

Red Hat OpenShift Virtualization
The modern option for general purpose virtualization



- **Unified platform**
  for virtual machines and containers*
- **Consistent management**
  tools, interfaces, and APIs incl. ACM and AAP integrations
- **Performance and stability**
  of Linux, KVM, and qemu
- **Healthy open source community**
  the KubeVirt project is a top 10 CNCF active project, with 200+ contributing companies
- **Diverse ecosystem**
  of Red Hat & partner operators

- **Included feature**
  of all OpenShift subscriptions (OVE/OKE/OCP/OPP)
- **Includes Red Hat Enterprise Linux**
  guest entitlements*
- **Supports Microsoft Windows**
  guests through Microsoft SVVP
- **Inbound guest migration**
  using Ansible Automation Platform + Migration Toolkit for Virtualization, Training and Consulting
- **Virt admin focused training**
  DO316, EX316

*excluding OVE which is virtual machines only and includes no RHEL guest entitlements

Red Hat Ansible Automation Platform & OpenShift Virtualization
Automating the virtualized application lifecycle

Install application

Use native Linux or Windows modules to install applications, modify configuration settings and deploy services

Automation for Linux/Windows

Orchestration

Physical network DNS, load balancers, and firewalls
Public/private cloud services Hosted database services, hypervisors, and serverless functions
Software as a Service (SaaS) ServiceNow ITSM, service catalogs, and other hosted apps
Security Audits, incident response, and remediation
Automation for Infra & ITSM/CMDB

Optimize

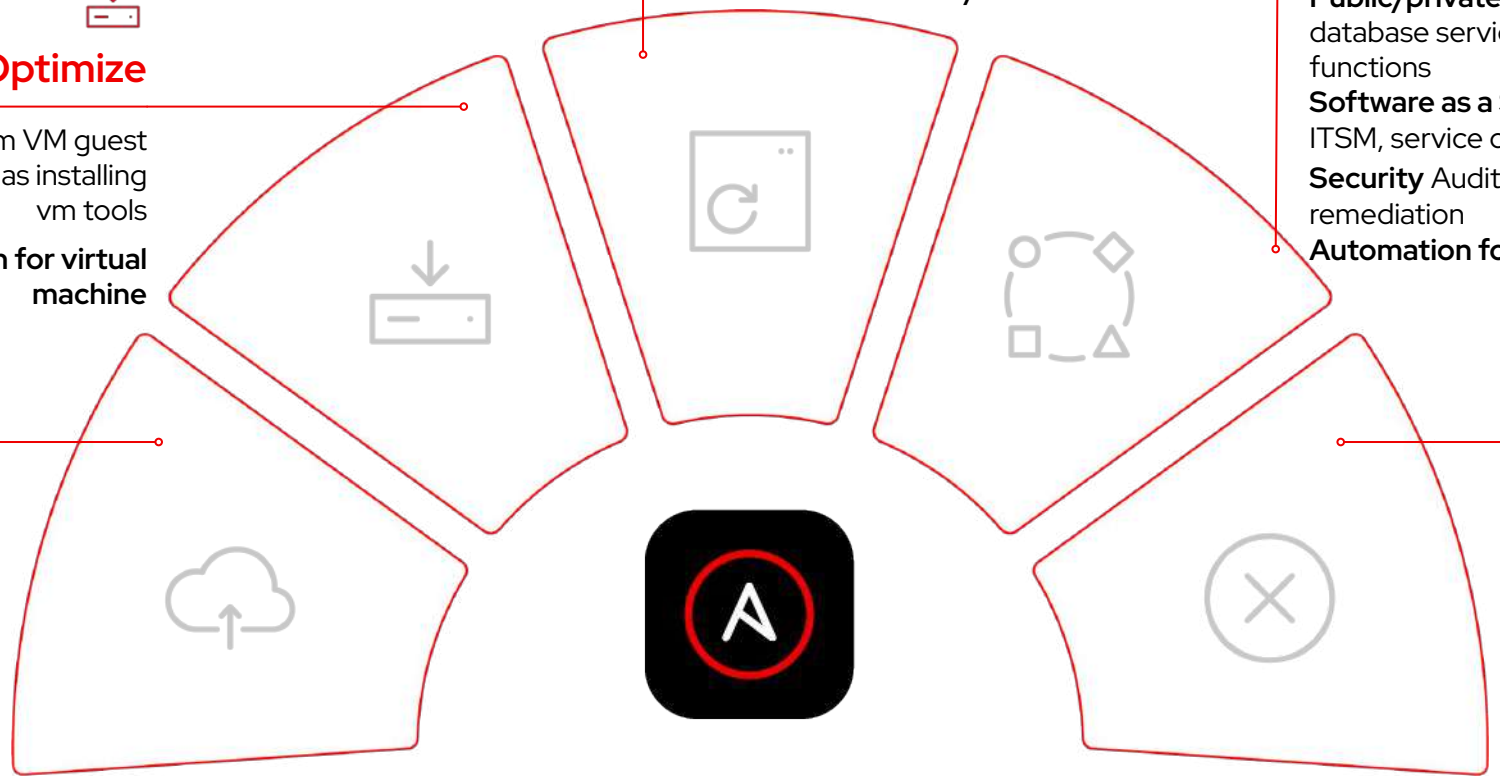
Perform VM guest modifications such as installing vm tools

Automation for virtual machine

Deploy VM

Provision virtual machine with specified resources on to OpenShift Virtualization

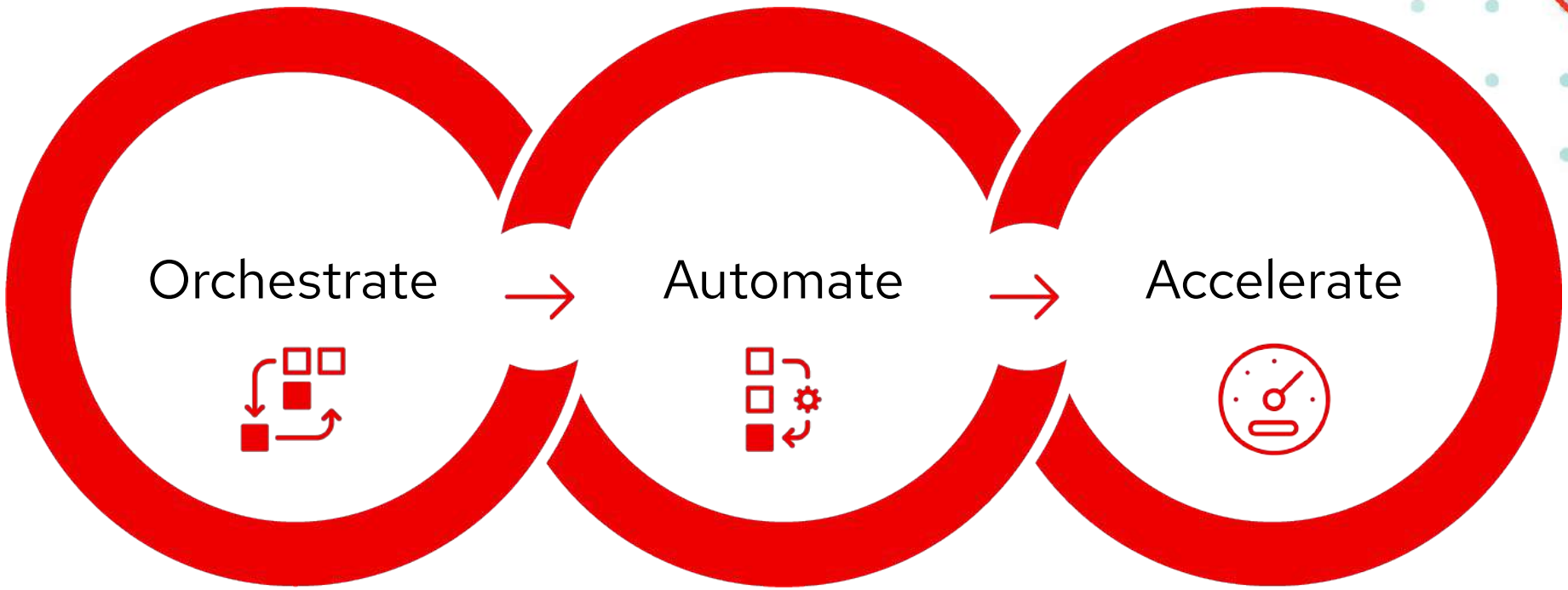
Automation for OpenShift Virtualization



Deprovision

Remove or stop virtual machine when application is no longer required

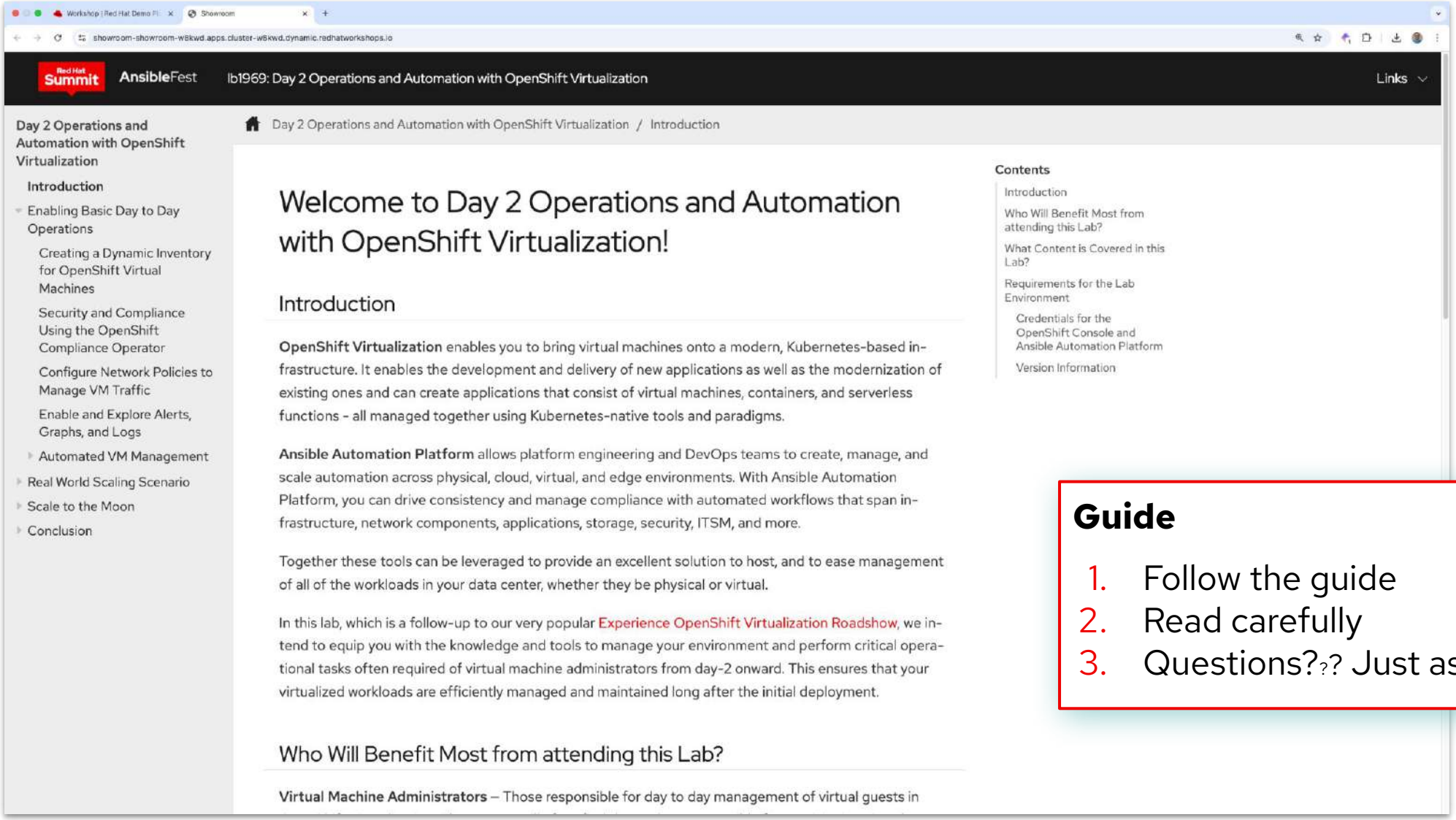
Automation for OpenShift Virtualization


Orchestrate
Automate
Accelerate

The Workshop

- Let’s get busy...

Workshop guide



Guide

1. Follow the guide
2. Read carefully
3. Questions?⁇ Just ask...

GitHub repo for the lab: https://github.com/rhpds/lb1969-virtday2-showroom
GitHub page for the lab: https://rhpds.github.io/lb1969-virtday2-showroom/modules/index.html

Takeaways

- Day to day operations on OpenShift Virtualization
- Automate with Ansible Automation Platform
- Quick feel for Microsegmentation and Compliance
- Observe, troubleshoot and manage Virtual Machines
- Real world scaling scenarios on OpenShift Virtualization

Please provide feedback

- https://**red.ht/day2feedback**

red.ht/day2feedback

Invitation to our next In-house event

Modernize your infrastructure with Red Hat OpenShift Virtualization

Wednesday 2 July 2025

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Get started with
"**Red Hat OpenShift Virtualization**"
E-book

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