ADVANCED TECHNOLOGY GROUP (ATG)

Accelerate with ATG Webinar: Fusion and OpenShift Virtualization

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Accelerate with ATG Technical Webinar Series

Advanced Technology Group subject matter experts cover a variety of technical topics.

Audience: Clients who have or are considering acquiring IBM Storage solutions. Business Partners & IBMers are welcomed, too.

To automatically receive announcements of upcoming Accelerate with IBM Storage webinars, Clients, Business Partners & IBMers are welcome to send an email request to **accelerate-join@hursley.ibm.com.**

2026 Upcoming Webinars – Register Here!

February 24 – Defender - OpenShift backups

February 26 – Fusion 2.12 - What's new

Important Links to bookmark:

ATG Accelerate Site ← Click here to access the Accelerate with ATG webinar schedule for 2026, view presentation materials, and watch past replays.

ATG MediaCenter Channel ← This channel offers a wealth of additional videos covering a wide range of storage topics, including IBM Flash, DS8, Tape, Ceph, Fusion, Cyber Resiliency, Cloud Object Storage, and more . . .

ATG Offerings

Client Technical Workshops	Date (Location)
Cyber Resilience with IBM Storage Defender	2026 - Coming Soon!
IBM Fusion & Ceph	2026 - Coming Soon!
IBM DS8000 G10 Advanced Functions	2026 - Coming Soon!

TechZone Test Drive / Demo's

- IBM Cloud Object Storage Test Drive - (VMware based)
- IBM DS8900F Safeguarded Copy (SGC) Test Drive
- IBM DS8900F Storage Management Test Drive
- IBM Fusion Test Drive – Backup and Restore with OpenShift Virtualization
- Managing Copy Services on the DS8000 Using IBM Copy Services Manager Test Drive
- IBM Storage Ceph Test Drive
- IBM Storage Ceph Test Drive - (VMware based)
- IBM Storage Protect Live Test Drive
- IBM Storage Scale and Storage Scale System GUI
- IBM Storage Virtualize Test Drive

Please reach out to your IBM Representative or Business Partner for more information.

***IMPORTANT* The ATG team serves clients and Business Partners in the Americas, concentrating on North America.**

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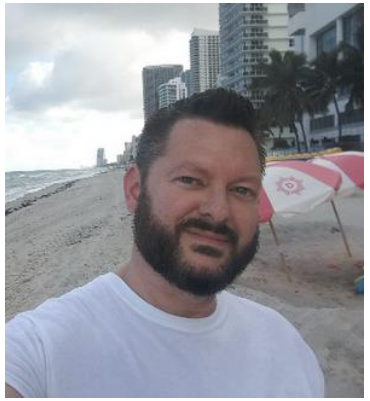
Meet the Team

Speaker

Shu Mookerjee is a Level 2 Certified Technical Specialist with nearly twenty-five years at IBM, working in a variety of roles including sales, management and technology. For the last twelve years, he has focused exclusively on storage and has authored three (3) Redbooks. Currently, Shu is part of the Advanced Technology Group where he provides education, technical guidance, Proofs of Concept and Proofs of Technology to IBMers, business partners and clients.

Panelists



Andrew Rice is an Infrastructure/Storage Engineer with over 17 years of experience implementing cloud infrastructure design, storage solutions and virtualization. Andrew's expertise extends across IBM's storage portfolio primarily in IBM Storage Scale, Fusion, Storage Protect, IBM FlashSystems and encompasses technical proficiencies in VMWare and Red Hat OpenShift

Agenda

- Goals and Objectives
- IBM Fusion Overview/Refresher
- Virtual Machines “vs” Containers
- OpenShift Virtualization (OSV)
  - KVM Framework
  - Terminology
  - VMWare Comparison
  - OSV + Fusion
- Demo!

Goals and Objectives

Objective:
Provide an overview of the Fusion and OpenShift Virtualization Solution

We WILL:
- Review key features of OpenShift Virtualization (OSV)
- Cover the services provided by Fusion
- Provide a demonstration of OSV and VMWare Migration

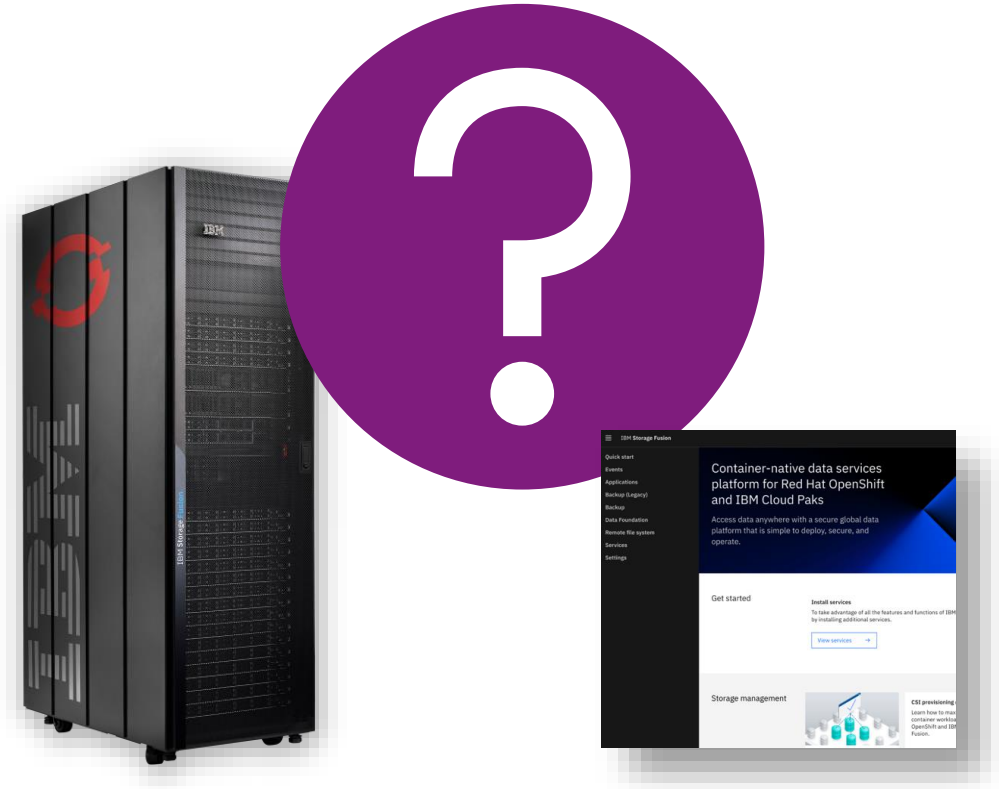
We WILL Not:
- Cover ALL the features of OSV
- Provide a detailed walkthrough of feature installation/implementation
- Discuss licensing and pricing

IBM Fusion Recap

What is IBM Fusion?
A set of **data services** for OpenShift applications.
However, it's evolving into an integrated hybrid cloud platform.

Why is it called "Fusion"?
It started as a "fusion" of several existing containerized IBM products (Scale CNSA, Spectrum Discover, Spectrum Protect Plus, etc) but has evolved into its own thing

How is Fusion deployed?
IBM Fusion is available as either a turnkey Hyperconverged Infrastructure (HCI) or a Software Defined Storage deployment



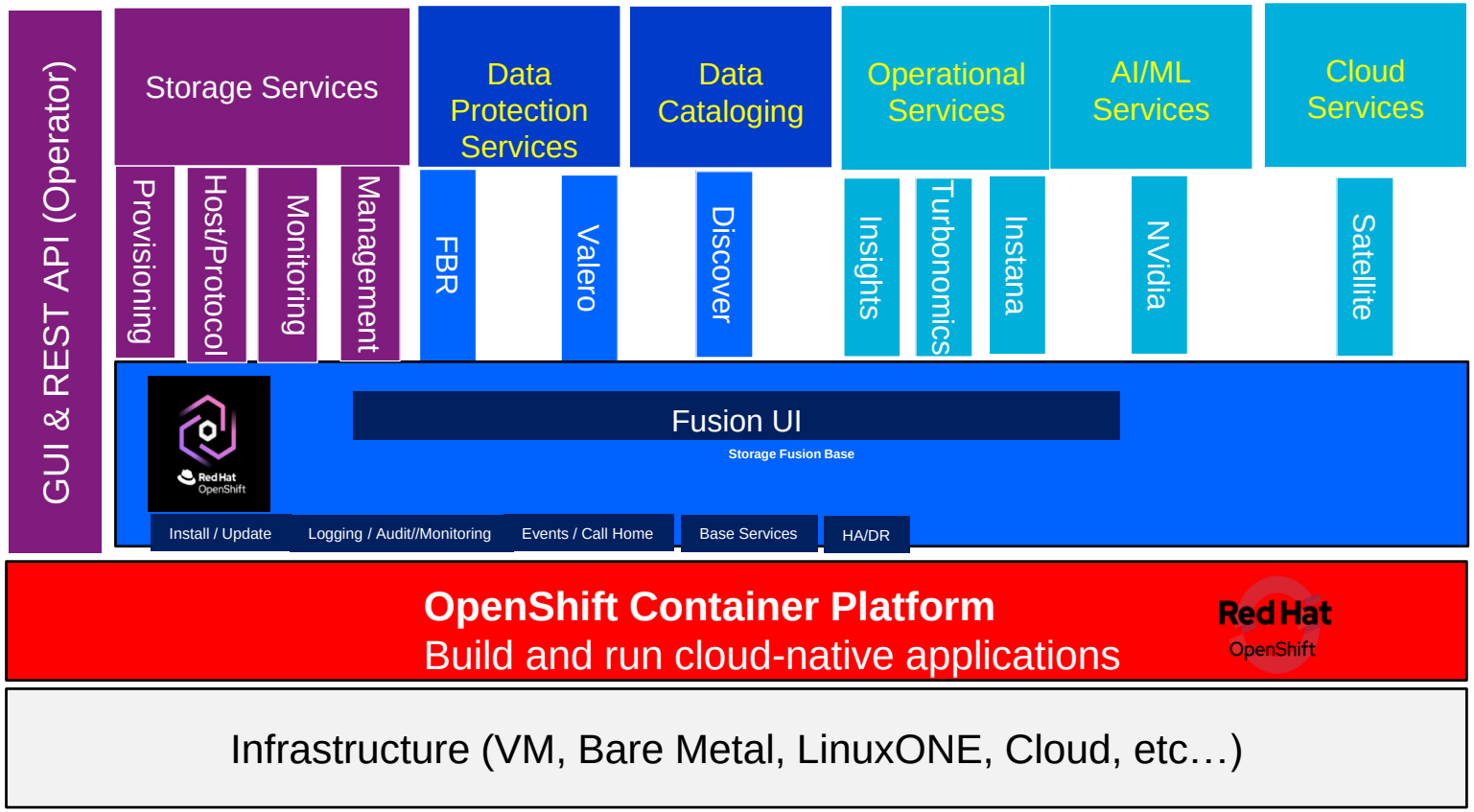
IBM Fusion Recap – The "Fusion Five" Data Services

Fusion provides Five key data services for OpenShift applications

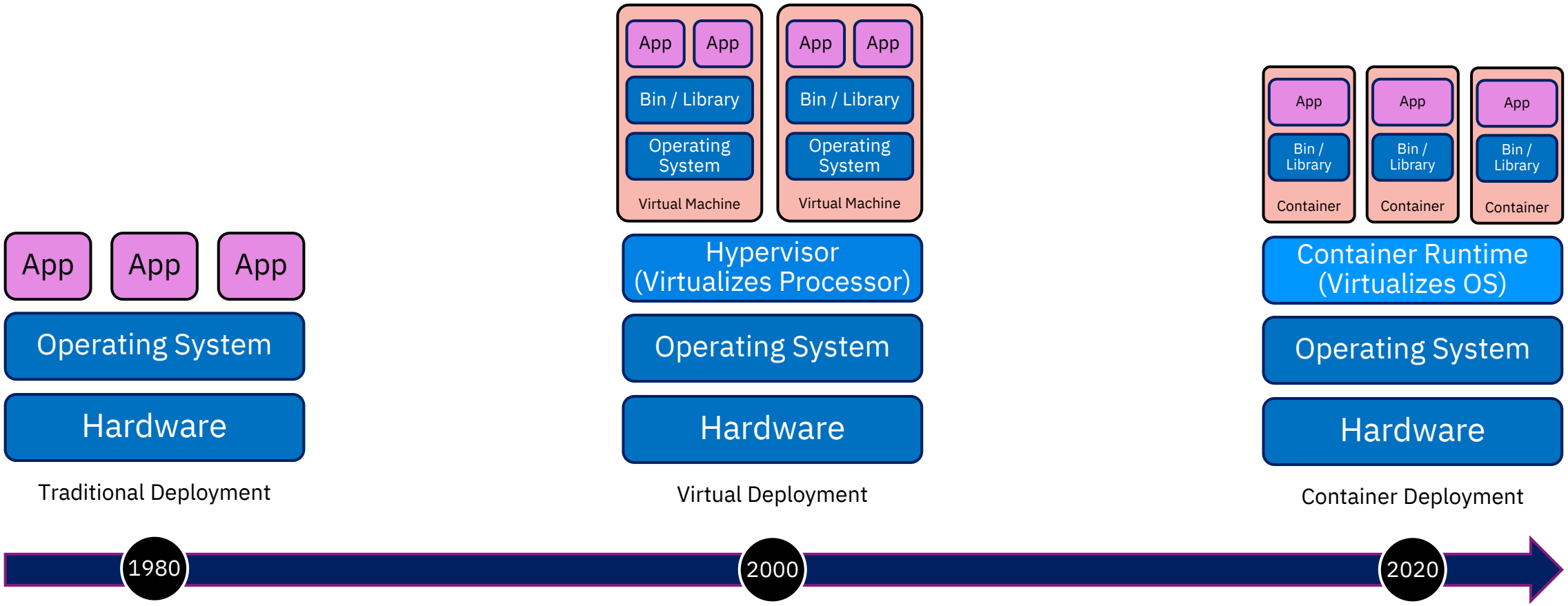
Data Persistence	→	Keeps data when the host container moves or goes down
Data Security	→	Protects data from cyber attacks and enables a quick recovery
Data Discovery	→	Understands, organizes and cataloging data
Data Mobility	→	Ensures that data is put in the right place with the right policies and controls
Data Resilience	→	Provides copy and back up services for data to keep applications running

Supports ALL OpenShift applications…including containers AND VMs!

IBM Fusion Recap – Software Architecture



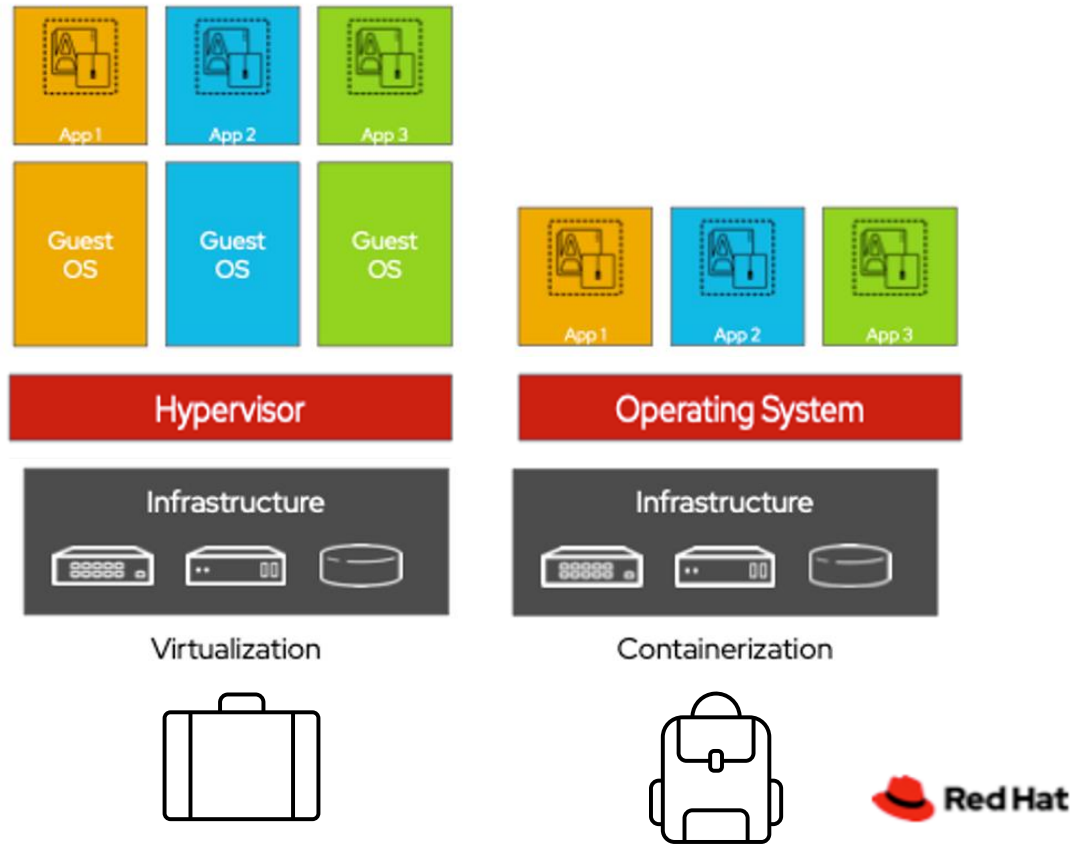
Virtual Machines “vs” Containers



Virtual Machines “vs” Containers

Containers are not virtual machines

- Containers are process isolation
- Kernel namespaces provide isolation and cgroups provide resource controls
- No hypervisor needed for containers
- Contain only binaries, libraries, and tool which are needed by the app
- Ephemeral



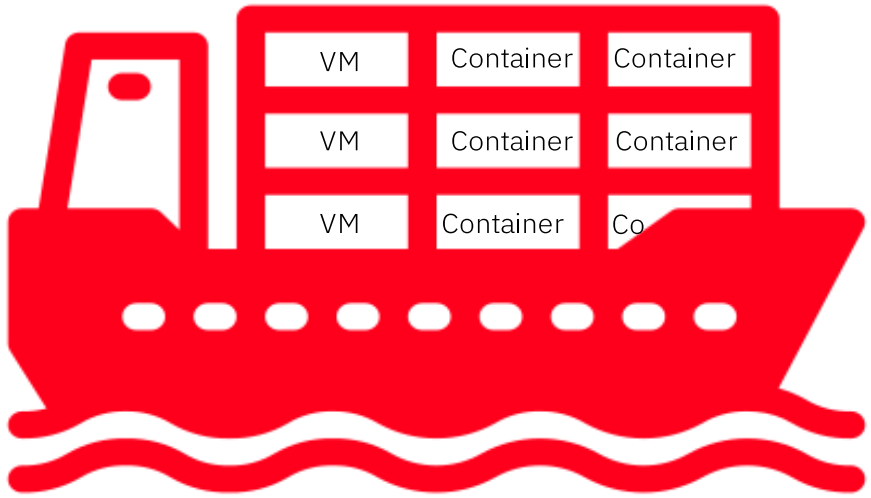
OpenShift Virtualization

The Nerdy Stuff…

- Leverages Kernel-based Virtual Machines (KVM)
  - KVM is a process
  - Containers encapsulate processes
  - Containers and KVM share orchestration
    - Consistent management (YAML)
    - Shared infrastructure
    - Consistent HA/DR, Backup/Recovery

- Tooling
  - Red Hat Migration Toolkit for Virtualization (MTV)
  - Live Migration (non disruptive VM migration)

- Costs
  - Hypervisor, RHEL guest OS included
  - Optimized infrastructure and operations



The Business Stuff…

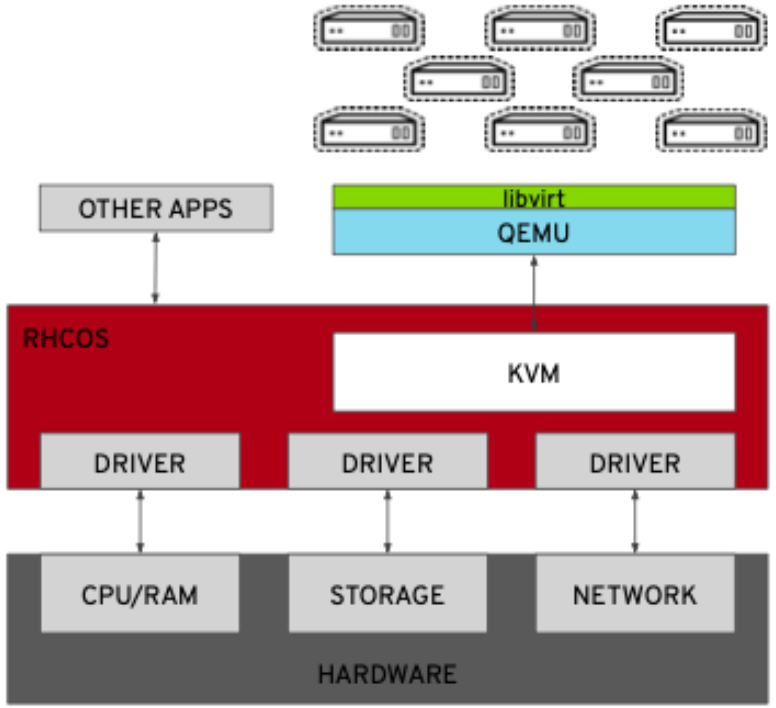
- ⇩ Cost combined with Fusion
- ⇧ Simplicity combined with Fusion
- ⇧ Performance combined with Fusion
- ⇧ Protection with Fusion
- ⇧ Availability with Fusion

Red Hat Virtualization is developed, tested, and supported enterprise virtualization based on over **10 years of open source *KVM* and oVirt innovation**

OpenShift Virtualization – KVM Framework

OpenShift Virtualization uses KVM

- OpenShift Virtualization uses KVM, the Linux kernel hypervisor
- KVM is a core component of the Red Hat Enterprise Linux kernel
  - KVM has 10+ years of production use: Red Hat Virtualization, Red Hat OpenStack Platform, and RHEL all leverage KVM, QEMU, and libvirt
- QEMU uses KVM to execute virtual machines
- `libvirt` provides a management abstraction layer
- Currently supported on x86 bare metal
- For other platforms contact Product Management for roadmap



Red Hat

OpenShift Virtualization - Terminology

Feature	vSphere	OpenShift Virtualization
Where VM Disks are Stored	Datastore	PVC/PV
Policy Based Storage	SPBM (Storage Policy Based Management)	Storage Class
Non-Disruptive VM Migration	vMotion	Live Migration
Non-Disruptive Storage Migration	Storage vMotion	N/A
Active Resource Balancing	DRS (Dynamic Resource Scheduling)	Pod eviction policy, descheduler
Physical Network Configuration	vSwitch/DvSwitch	NMState Operator/Multus
Virtual Network Configuration	NSX-T	OVM-Kubernetes, Multus
Host/VM Metrics	vCenter/vRealize Operations	OpenShift Metrics and Monitoring

Fusion and OpenShift Virtualization – VMWare Comparison

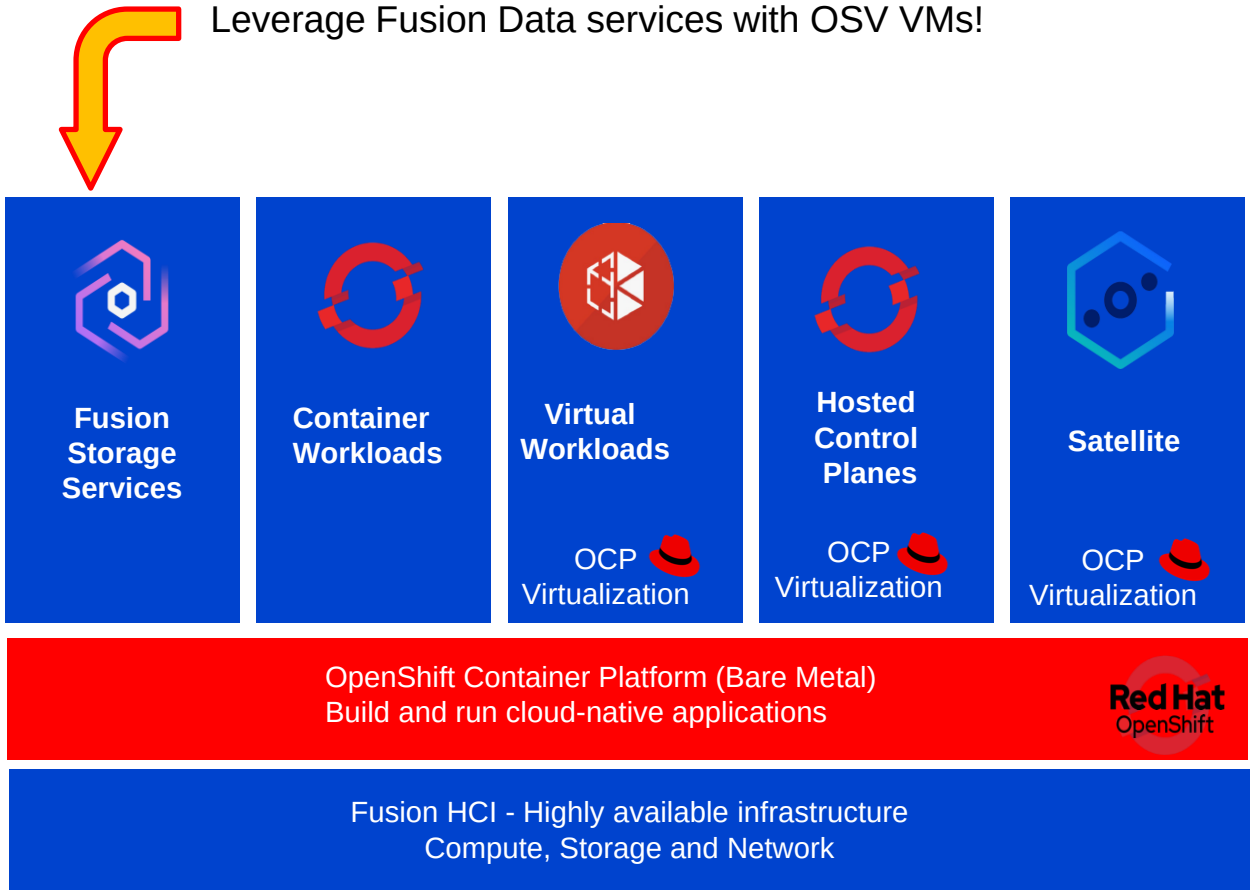
Capability	VMWare Feature	Fusion-OSV Feature
VM Creation, Deletion	Yes	Yes
VM (live) Migration for Resiliency	Yes via vMotion	Yes via Kubernetes
VAAI	Yes in coordination with Storage Provider	**Not needed** as Storage is already available to Pods through CSI enablement.
VASA	Yes in coordination with Storage Provider	**Not needed** as Storage is provided by CSI Container Native or Container Ready solutions.
SRA/SRM	Yes via VMWare optional Software solution and Storage Provider SRA component	Yes via CSI enablement, and either Red Hat ACM, or RAMEN integrated solutions for Failover/Failback support.
NSX	Yes, with many options available	Yes, via Multus, and other SDN options are available.

OpenShift Virtualization – OSV + Fusion

Applications/Storage Services on the same platform
- Tighter integration
- Faster provisioning
- Scalability for compute/storage

Simplified Management Interface
- Use OpenShift to manage cluster services (applications, virtual machines, workload, etc)
- Flexible rapid deployment of applications and storage
- Use OpenShift to manage cluster services (applications, virtual machines, workload, etc)

Unified Platform
- OpenShift used for both containers and virtual machines
- Shared storage services



OpenShift Virtualization – OSV + Fusion

Consistent management experience

Red Hat OpenShift Virtualization

- Build and manage VMs
- Import/clone existing VMs
- Manage network and storage attached to virtual machines
- Move VMs between nodes
- Migrate VMs using the MTV

OPENSHIFT

IBM Fusion

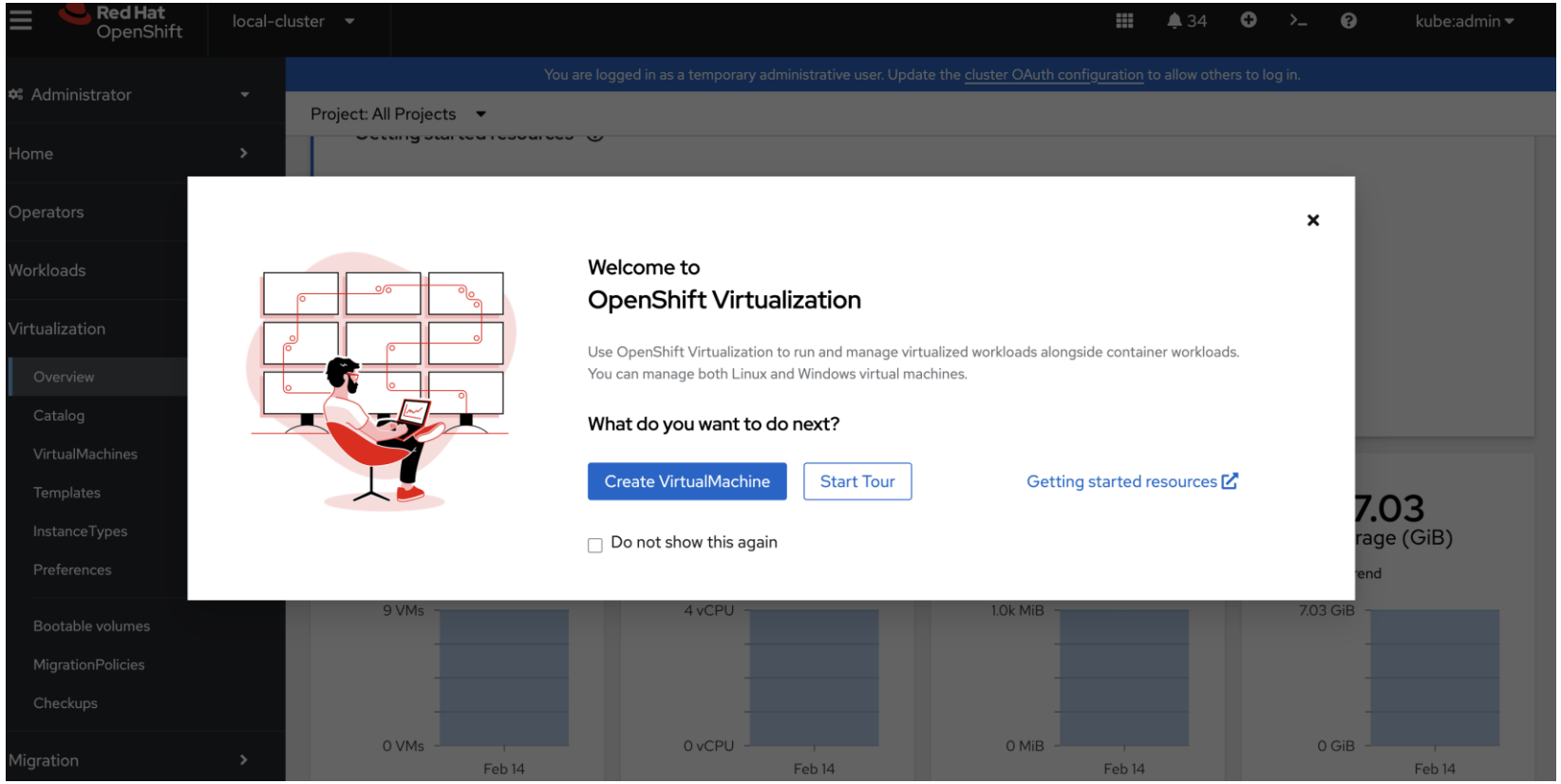
- Shared persistence
- Simplify workload co-location
- Backup and restore for VMs
- Disaster recovery for storage
- Bare metal performance on HCI
- One IBM support approach

IBM Fusion

Container platform and shared data services

OSV + Fusion - Demo

- OSV Walkthrough
- Creating a VM
- “Migrating” a VM
- Backup and Restore



Alright Stop...

Demo Time!

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Thank you!