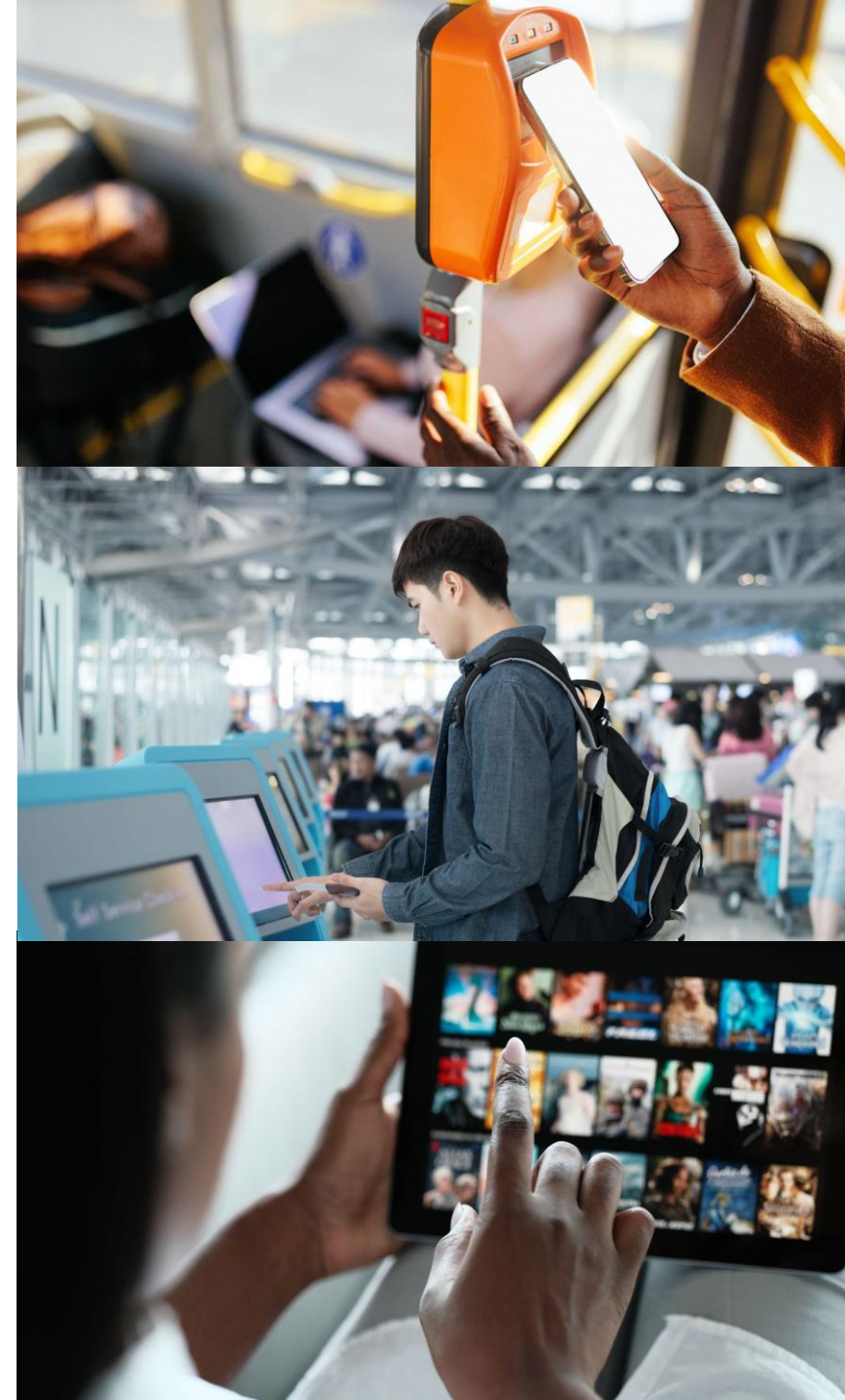




# Por qué necesitas **Portworx** en tu despliegue de OpenShift

Miguel Pleite  
Alberto Vicente  
Pure Storage



# 3 Takeaways From This Meeting



## Reduce cost

- Performance
- Scalability
- Agility
- Automation
- Self-service
- Productivity



## Enterprise Scale

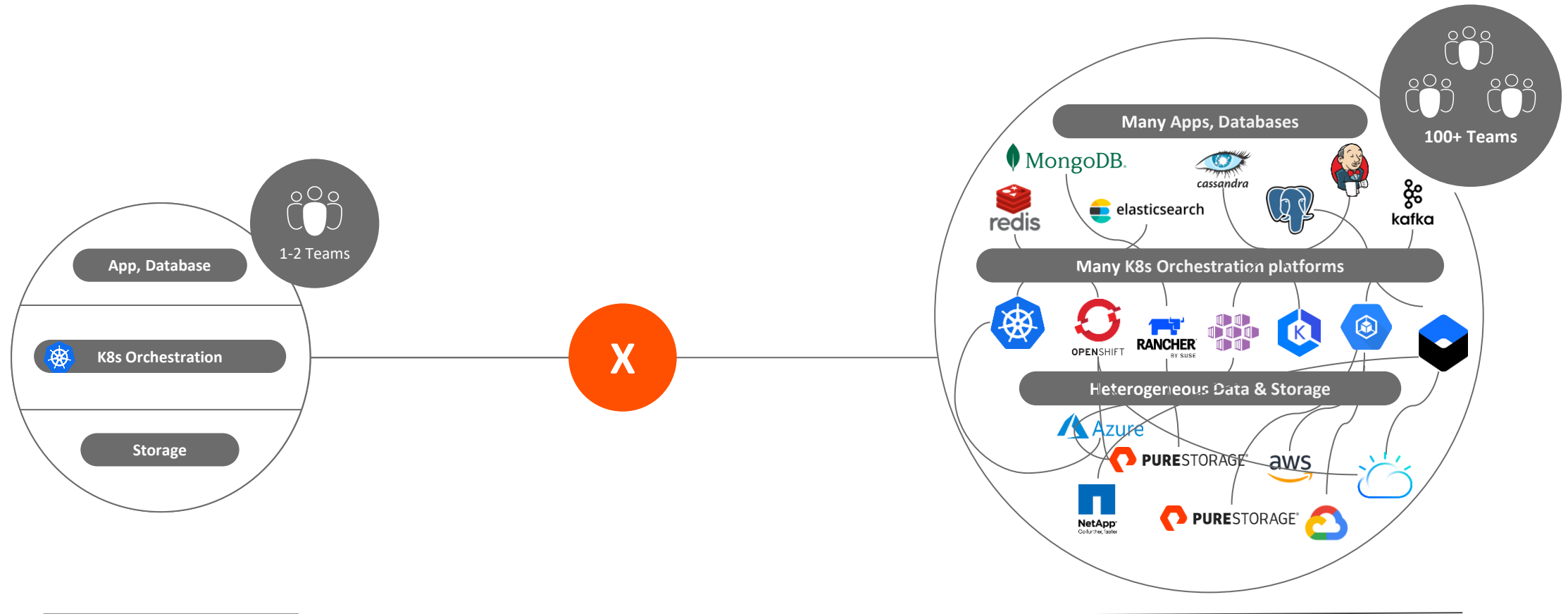
- Zero RPO
- Security
- Backup
- High Availability
- Migration
- Multi-cloud



## Portworx & Red Hat

- Easy
- Complete
- Agnostic
- Leader

# Kubernetes at Enterprise Scale is COMPLEX



Initial Kubernetes project

Enterprise Scale Kubernetes Deployment

Kubernetes Platforms **will FAIL** without a Storage & Data Management Solution

## The challenge?

Kubernetes doesn't address key storage, data management, and data protection requirements



✓ Kubernetes solves the application orchestration problem

✗ Speed

✗ Scalability

✗ Security

✗ Backup

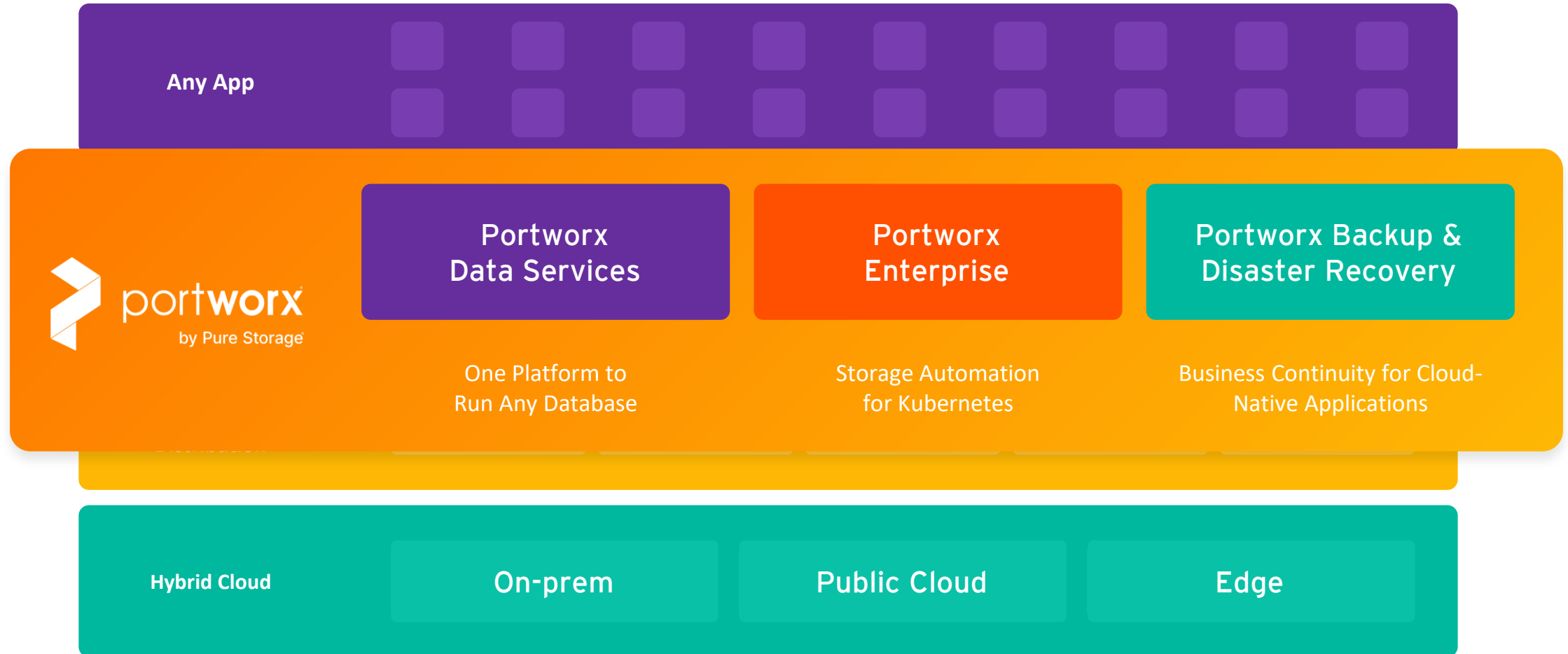
✗ Protection

✗ Zero RPO

✗ Migration

✗ No lock-in

# Build Apps Anywhere and Run them at Production Scale with High Availability, Reliability, and Security

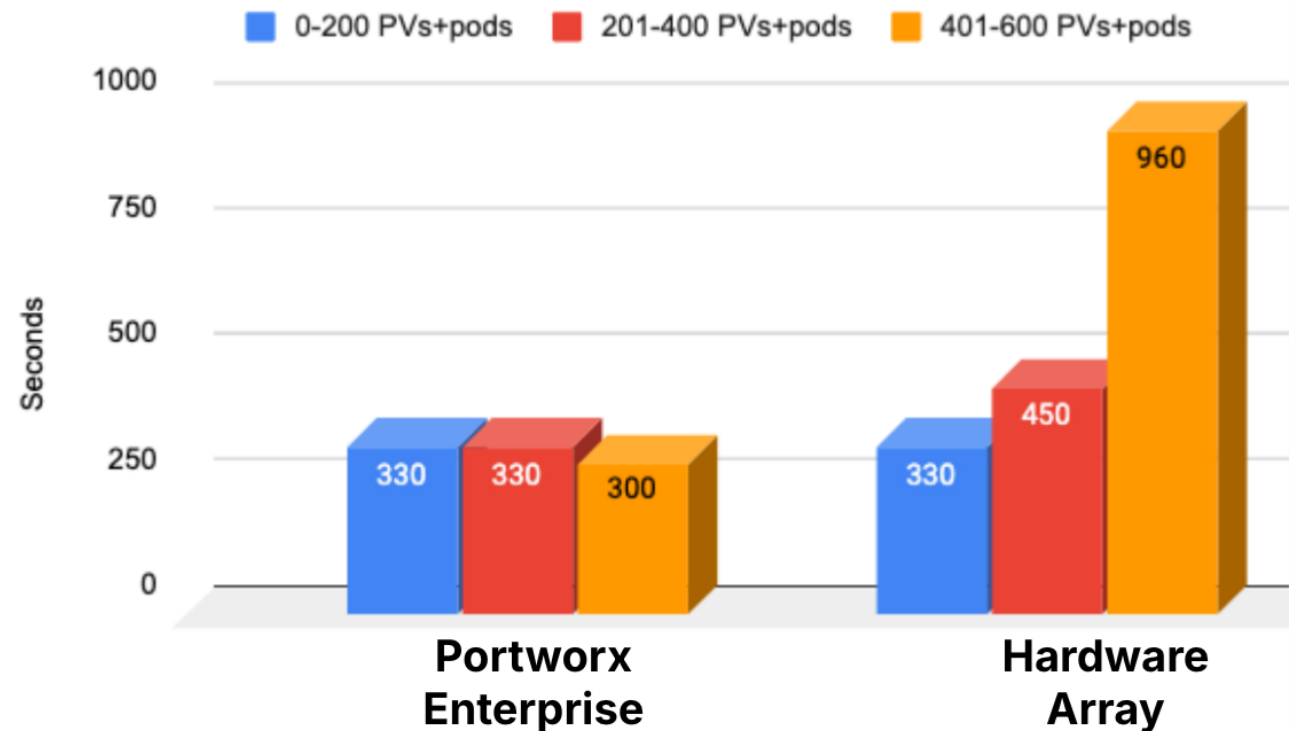


Red Hat OpenShift is the industry's leading enterprise Kubernetes platform, providing a consistent foundation for developers to build, deploy, manage, and scale containerized applications. **Portworx data management and data protection offerings help unlock key use cases for Red Hat OpenShift workloads in production.**

– Chris Gray, VP North America Ecosystem, Red Hat

# CSI “connector” approach (NetApp/Dell or AWS/GKE EBS/PD )

- ▶ Lack of Scalability: limit to 100s PV
- ▶ DevOps waiting for Infrastructure
- ▶ Poor Performance
- ▶ Lack of Data Protection: Zero RPO, Backup
- ▶ Lack of Ransomware protection
- ▶ No Multi-Cloud
- ▶ Vendor Lock-in



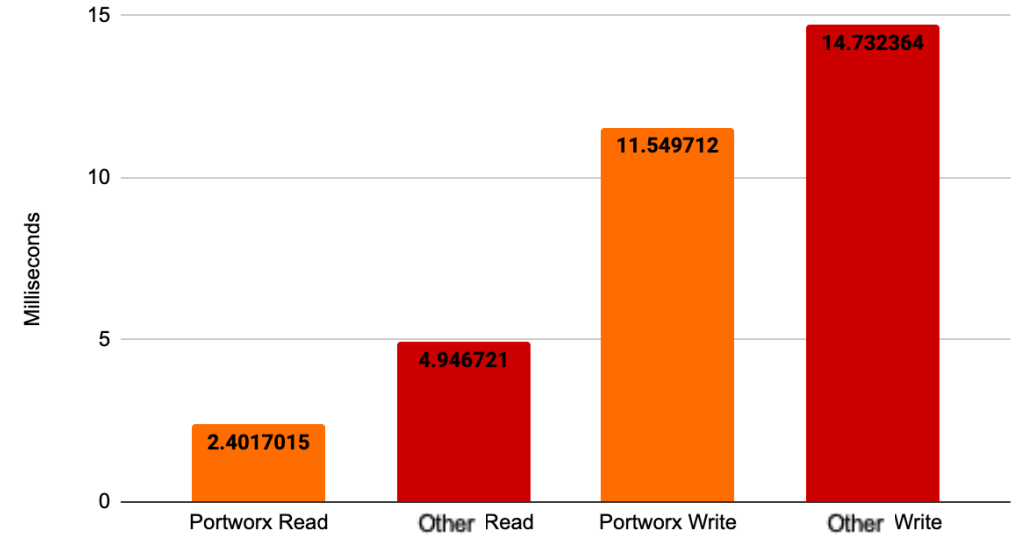
# Other SDS limitations (ODF, Tanzu,... )

- ▶ **Poor Performance - Overhead**
- ▶ **Lack of Data Protection:** Zero RPO, Backup, App-aware
- ▶ **Lack of Ransomware protection**
- ▶ **Vendor Lock-in**

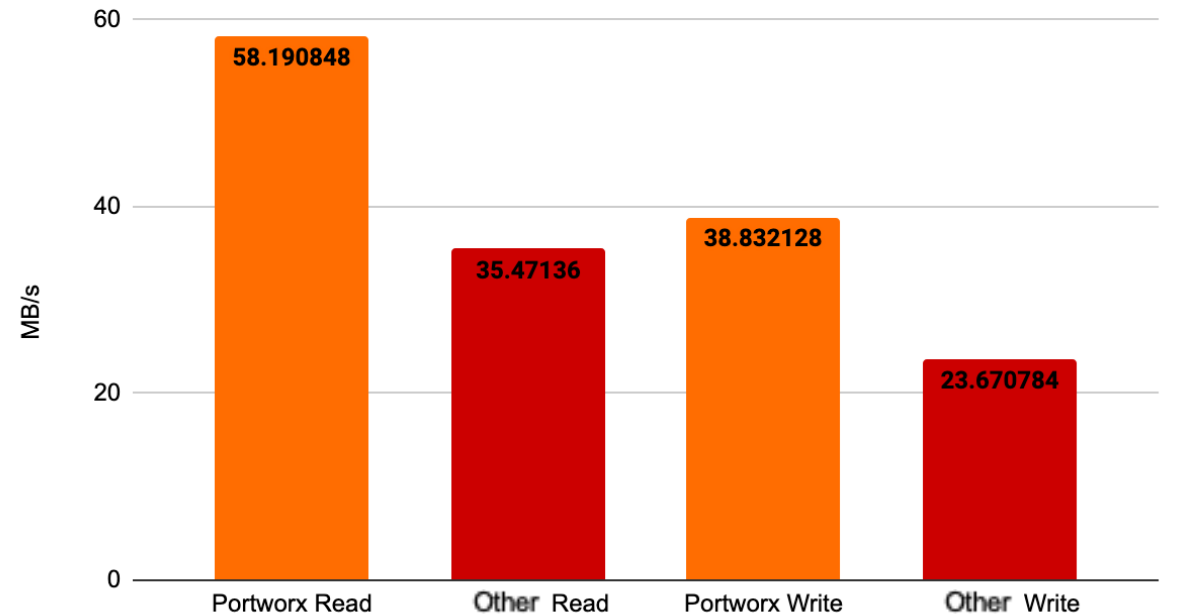
IOPS - Random RW 60/40 Mix, 4k block size



Latency - Random RW 60/40 Mix, 4k block size

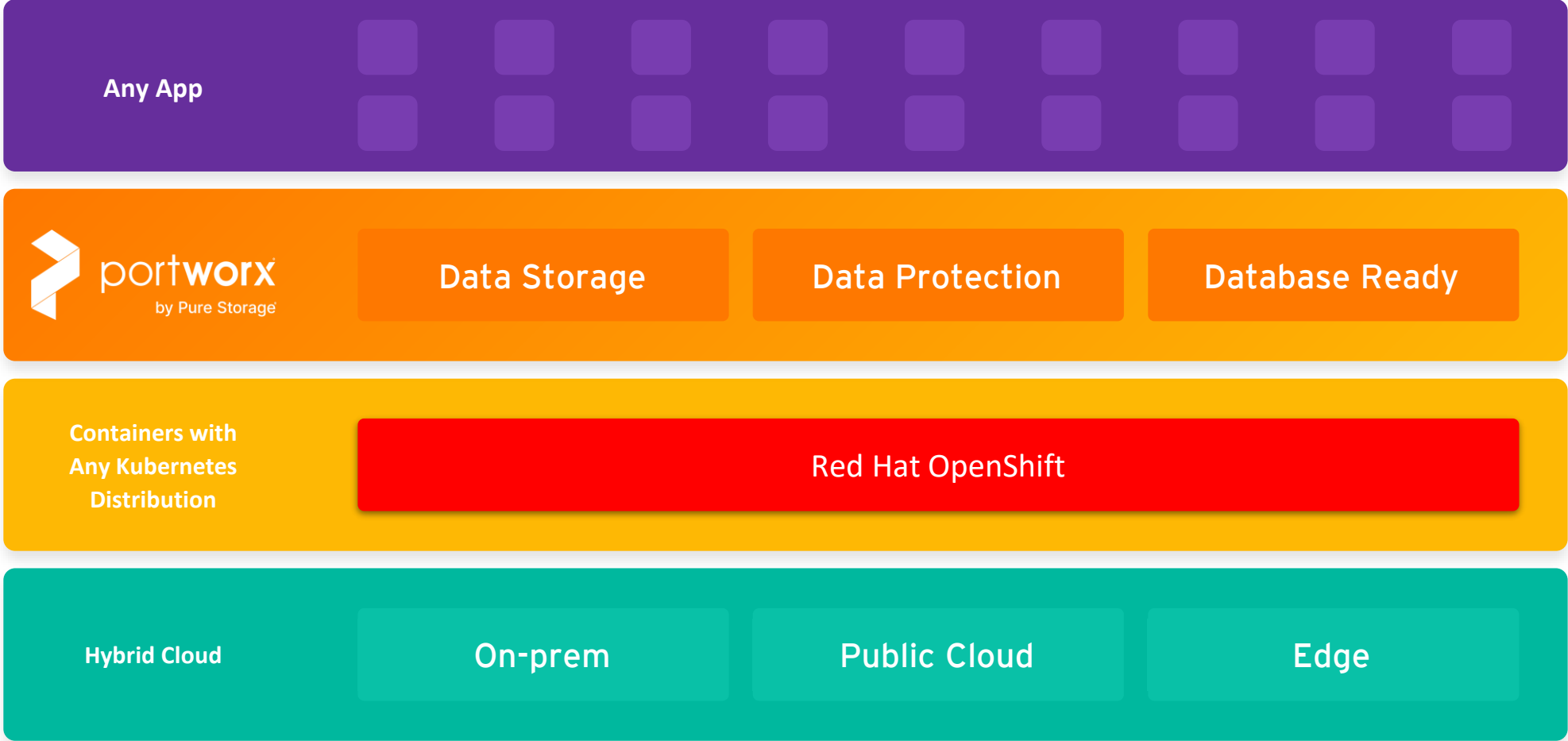


Throughput - Random RW 60/40 Mix, 4k block size





# Introducing Portworx + Red Hat OpenShift: The #1 K8s Data Platform & Leading K8s Distro





**portworx**  
by Pure Storage®

**The #1 Kubernetes  
Data Platform**

**300%**

**Faster time to  
production for apps**

**99.9999%**

**Application  
uptime**

**75%**

**Savings in cloud  
infrastructure**

# Developer Productivity: One Platform To Run Any Database

Ship in Minutes with a Consistent Developer Experience  
Anywhere Using a One-Click DBPaaS For All Data Services

## Any Data Service

Kafka | Cassandra | MongoDB | Postgres | Elastic | MySQL |  
Couchbase | Consul | Redis | RabbitMQ | Zookeeper | More coming...







Cloud-native Database-Platform-  
as-a-Service

## Hybrid & Multi-cloud Ready

On-prem | Hybrid Cloud | Public Cloud | Edge

## Portworx Data Services

-  Deploy ANY Database from the Broadest Catalog
-  Operate ALL Databases using a SINGLE Pane of Glass
-  Manage ONE Database Platform for 24\*7 Support
-  Adopt a Cloud-native Platform to Avoid Any Lock-ins

# Application Performance: Storage Automation for Kubernetes

Run Kubernetes in Production with On-Demand Access to ANY Storage, Unmatched Availability & Elastic Scalability

Red Hat OpenShift



Kubernetes Data Management Platform

Hybrid & Multi-cloud Ready

On-prem | Hybrid Cloud | Public Cloud | Edge

## Portworx Enterprise

- Developer-ready Storage
- High Availability and Performance
- Enterprise Business Continuity with DR
- Thinly Provisioned K8s Storage

# Protect your apps: Business Continuity for Red Hat OpenShift apps

Protect Apps Anywhere with a Fast, Easy, Fault-tolerant and Secure Kubernetes Data Protection Platform

Red Hat OpenShift



+



Kubernetes Data  
Protection  
Platform

Hybrid & Multi-cloud Ready

On-prem | Hybrid Cloud | Public Cloud | Edge

## Portworx Backup & Disaster Recovery



Self-service Backup  
in a Few Clicks



Recover & Migrate  
Anywhere in Minutes



Sleep Sound with Ransomware  
Protection



Ensure Enterprise  
Business Continuity

# Storage & Data Management: VMware vs KubeVirt

Portworx addresses key storage and data management capabilities within Kubernetes.

Benefit/Feature	VMware Capability	KubeVirt Capability	KubeVirt + Portworx Capability
<b>Application Availability</b>	VMware vSphere HA	Deployments / Services	Deployments / Services
<b>Application Deployment</b>	VMware Templates	Container Images	Container Images
<b>Application Resource Utilization</b>	VMware DRS, SIOC, NIOC	Kube Scheduler, Requests / Limits	Requests / Limits
<b>Application Portability</b>	vMotion	Delete/Redeploy with Load Balanced Apps	Live Migration and Delete/Redeploy with Load-balanced Apps
<b>Storage Infrastructure</b>	VASA/VAAI/SPBM/vVols	StorageClasses, CSI Provisioner	StorageClasses, CSI Provisioner
<b>Data Availability</b>	Shared Storage or vSAN FTT	X	Portworx Enterprise StorageCluster
<b>Async Disaster Recovery</b>	VMware Site Recovery Manager	X	Async PX-DR
<b>Sync Disaster Recovery</b>	VMware Metro Storage Cluster	X	Sync PX-DR
<b>Encryption</b>	Security Abstraction / Volume Encryption	X	PX-Security
<b>Data Protection</b>	VM Aware Backups (Partner)	X	Container Aware Portworx Backup
<b>Data Portability</b>	Storage vMotion	X	Portworx Backup / PX-Migrate
<b>Capacity Management</b>	Thin Provisioning	X	Thin Provisioning / PX-Autopilot

# Portworx<sup>®</sup> + Red Hat

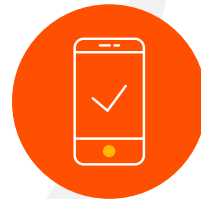
## Modern Application Development Platform



Optimize operational costs



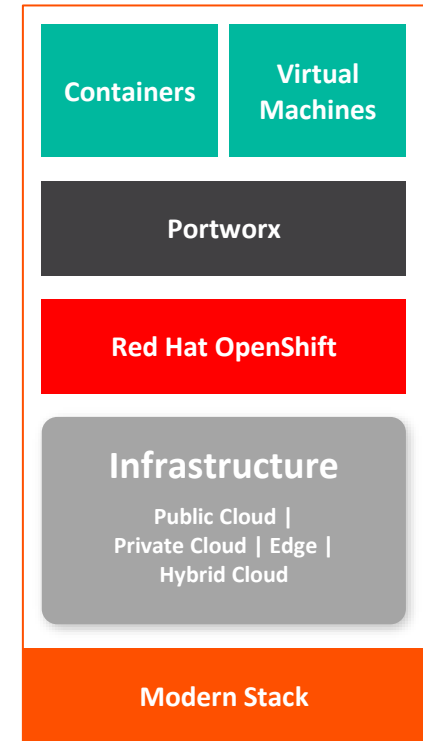
Mitigate enterprise risk



Accelerate time to revenue



Achieve data agility



# Portworx & Red Hat Demo!



# Hands-on Lab: Portworx 101



Red Hat  
**Summit**

**Connect**

**Thank you**



[linkedin.com/company/red-hat](https://www.linkedin.com/company/red-hat)



[facebook.com/redhatinc](https://www.facebook.com/redhatinc)



[youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)



[twitter.com/RedHat](https://twitter.com/RedHat)