HOW TO CHOOSE THE RIGHT STORAGE FOR YOUR CONTAINER-BASED ENVIRONMENT

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AGENDA

● MARKET TRENDS
● CONTAINER ADOPTION PAIN POINTS
● PERSISTENT STORAGE OPTIONS
● OCS FOR CONSIDERATION
● WHERE TO SEE, HEAR, SPEAK, AND DRINK MORE
KEY MARKET TRENDS

NON-TRADITIONAL STORAGE BUYERS
Developers, cloud admins, and DevOps are decision makers

CLOUD-NATIVE IS THE NEW NORMAL
Driven by the rise of Kubernetes for infrastructure orchestration

MODERN, STORAGE INTENSIVE APPLICATIONS
AI, ML and emerging workloads need scalable object storage

HYPERCONVERGENCE
Customers value simplicity and completeness of infrastructure
RED HAT STORAGE

OPENSHIFT CONTAINER STORAGE
COMPLETE DATA PORTABILITY
For OpenShift Across the Hybrid Cloud

HYBRID CLOUD OBJECT STORAGE
MOST SCALABLE DATA PLATFORM
For data analytics, AI/ML, and emerging workloads

HYPERCONVERGENCE
ELASTIC INFRASTRUCTURE ACROSS DATACENTER AND EDGE
Built to enable flexibility, scale, and ease of use

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STORAGE RANKS HIGHEST AMONGST CHALLENGES
Persistence and simplicity are key

Top five challenges with container adoption

1. Persistent storage
2. Data management
3. Multi-cloud or cross-data center
4. Networking
5. Scalability
### WHAT MAKES CONTAINER STORAGE DIFFERENT?

<table>
<thead>
<tr>
<th>WHY DO CONTAINERS NEED STORAGE?</th>
<th>HOW DO CONTAINERS IMPACT STORAGE?</th>
<th>HOW IS CONTAINER STORAGE DIFFERENT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>When containers die, Application data vanishes</td>
<td>Change how enterprises consume infrastructure</td>
<td>Needs to be <strong>natively delivered</strong> to the platform</td>
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<td>Applications need storage provisioned at runtime</td>
<td>Adap<strong>t</strong> to how we deploy apps</td>
<td>Cannot simply be a thin wrapper to extend legacy platforms</td>
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<td>Need data, storage, and applications to <strong>coexist</strong></td>
<td>Standalone storage is not integrated, container storage</td>
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STORAGE NEEDS OF CONTAINER ENVIRONMENTS

Keeping developers and DevOps top of mind

- Persistence
- Versatility in data type
- Seamless yet complete integration
- Application and data portability
- Simplicity (procurement, roll-out, utilization)
- Single support
- Future horizons
STORAGE OPTIONS FOR CONTAINERS

OUTDATED STORAGE ARRAYS & APPLIANCES
- Limited scalability and HA
- Vendor lock-in & high TCO
- Monolithic appliance model

SILOED OR POINT PLAY STORAGE SOLUTIONS
- No hybrid infrastructure
- No unified control plane with Kubernetes
- Limited advanced features

PORTABLE STORAGE ACROSS ON-PREM/ PUBLIC CLOUDS

RED HAT OPENSHIFT
Container Storage
- Runs on any infrastructure
- Tight OCP integration
- Single vendor support
- Seamless user experience for developers and DevOps
WHAT IS OPENSHIFT CONTAINER STORAGE?

De facto storage for Red Hat OpenShift Container Platform

Highly scalable, production-grade persistent storage

- For containerized applications in Red Hat® OpenShift
- Optimized as storage backend for Red Hat OpenShift infrastructure
- Ideal for replacement of legacy storage
- Capable of supporting multi-petabyte workloads
- Developed, maintained, and deployed in synch with Red Hat OpenShift releases
- Supported via single contract with Red Hat OpenShift
BENEFITS OF TIGHT INTEGRATION

- Coordinated installation
- Readiness for dynamic provisioning
- Common management and monitoring
- Seamless scaling and upgrades
- Unified block, file, and object storage
- Complete open source solution for hybrid cloud
- Streamlined consulting and support
- Consolidated roadmap
THE FULL POWER OF OPENSHIFT WITH A SINGLE DEVOPS EXPERIENCE

RED HAT OPENSHPIFT CONTAINER STORAGE

BARE METAL
- RED HAT ENTERPRISE LINUX

VIRTUAL
- RED HAT VIRTUALIZATION

CONTAINERS
- RED HAT OPENSHPIFT CONTAINER PLATFORM

HYBRID CLOUD
- AWS, AZURE, GCP

LEGACY STORAGE
- NetApp, EMC

Infrastructure agnostic
Consistent consumption, management, and operations
Application portability and lower costs
STORAGE SUPPORT WITHOUT OCS

- GlusterFS
- VMDK ***
- Cinder ***
- Azure File *
- AWS EBS **/***  

No dynamic provisioning
No Cross-Availability Zone Support
No Shared-Storage
STORAGE SUPPORT WITH OCS

- **Scalable**
  (1000+ volumes)

- **Highly Available**
  (across availability zones)

- **Automated**
  (Dynamic provisioning)

- **Integrated**
  (installs with / runs on OpenShift)

Persistent, resilient and elastic storage...

...that travels with the platform.
SEAMLESS FABRIC AND PEACEFUL COEXISTENCE

PERSISTENT VOLUMES PROVIDED BY OPENSSHIFT CONTAINER STORAGE

FIBRE-CHANNEL ARRAY

ISCSI SAN

SHARED SAS
TAKE A SURVEY.
WIN A T-SHIRT.


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- At the “Storage” lockers
- At the Red Hat Booth
- At one of Storage dedicated sessions (red.ht/storageatsummit)
- At the Community Happy Hour (Tues 6:30, Harpoon Brewery)
- At the Hybrid Cloud Party (Wed, 7:30, “Committee” restaurant)

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