Infinidat and Kasten: Application-Centric, Lightning-Fast Backup and Recovery at Multi-PB Scale

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Data Protection Challenges of Kubernetes Platforms

- Application Consistency
- Volume Consistency
- Scalability
- Performance impact
- Disaster recovery
One SDS Architecture, All Platforms

- Lower TCO and Rapid ROI
- Guaranteed Performance
- Autonomous Automation
- Archive · Backup · Disaster Recovery
- Rapid Recovery · Long-Term Retention
- Set-it-and-forget-it IT Operations
- 100% Availability Guaranteed
- Multi-petabyte Scalability
- Cyber Resilience Guarantees
- Broad-based Consolidation
- InfiniBox®
- InfiniBox™ SSA
- InfiniGuard®

AI/ML · Analytics · Big Data · Business & Office Apps
Containers · Cyber Defense · Data Warehouses · HPC
Mission-and Performance-critical Apps · VDI · Virtualization
One SDS Architecture, All Platforms

Storage at its best.

Storage Engineer, Healthcare & Biotech | InfiniBox™ SSA

Multi-petabyte Scalability

Guaranteed Performance

100% Availability Guaranteed

Lower TCO and Rapid ROI

Wide Bandwidth

InfiniGuard®

Cyber Resilience Guarantees

InfiniBox™ SSA

Rapid Recovery · Long-Term

100% Availability

Guaranteed

BBR

Multi-petabyte Scalability

AI/ML · Analytics · Big Data · Business & Office Apps · Containers · Cyber Defense · Data Warehouses · HPC · Mission-and Performance-critical Apps · VDI · Virtualization

Backup · Disaster Recovery
In what way does persistent storage integrate with Kubernetes?

- Kubernetes is the de-facto standard for container orchestration
- Heavy demand to run Stateful Applications
- Advanced Storage and Data protection capabilities
- CSI is a standard for exposing arbitrary block and file storage systems to containerized workloads on Kubernetes
- CSI increased the autonomy and flexibility of developers
InfiniBox Container Storage Interface (CSI) Driver

• Features
  ✓ Multiple InfiniBox systems
  ✓ Dynamic provisioning
  ✓ Raw block
  ✓ Cloning
  ✓ Resize
  ✓ Immutable snapshots
  ✓ Restore
  ✓ Import

• Protocols
  ✓ FC / iSCSI / NFS / NFS-TreeQ

• Deployment Methods
  ✓ Helm for upstream K8s
  ✓ Operator for OpenShift

“Infinidat is the front-runner for enterprise storage innovation” GigaOm 2023
PV creation flow

1. Developer / App creates a PVC, specifies a StorageClass
2. CSI driver is notified of a request
3. CSI driver provision volume in InfiniBox
4. CSI driver creates a PV resource
5. Kubernetes binds PV and PVC
Simplify Storage Operations with Infinidat CSI integrations
End-to-End Data Management with Kasten & Infinidat
Customer Use Cases
Customer Value – DevOps at Scale

**Production**

- Monitoring Tools
- Security Tools
- App #1
- App #2
- App #3

**Dev / Test**

- Pods
- Monitoring Tools
- Pods
- Security Tools
- App #1
- Pods
- App #2
- Pods
- App #3

Each environment gets a Single **Namespace**

. . . **Hundreds** of environments!
Summary:

- The joint solution provides
  - High-performance storage that helps our customers seamlessly implement backup and recovery, disaster recovery, and stateful application mobility using Kasten by Veeam
- Multi-protocol flexibility
  - Infinidat CSI driver natively manages Kubernetes Persistent Volumes attached via block and file protocols, including Fibre Channel, iSCSI, and NFS, with all access modes
- Multi-petabyte scalability
  - Support hundreds of thousands of PVs per InfiniBox system and control multiple InfiniBox arrays within a single Kubernetes cluster
- Advanced enterprise features
  - Manage native InfiniBox snapshots and clones, including restoring from snapshots, and importing PVs created outside of InfiniBox CSI Driver
The End Users Have Spoken

**InfiniBox Reviews**
by Infinidat in Primary Storage
4.9 ★★★★★ 441 Ratings

**InfiniBox SSA Reviews**
by Infinidat in Primary Storage
4.9 ★★★★★ 11 Ratings

**InfiniGuard Reviews**
by Infinidat in Data Center - Others
4.8 ★★★★★ 17 Ratings

As of October 26, 2023
The End Users Have Spoken

InfiniBox Reviews
by Infinidat in Primary Storage

"Infinidat is the Golden Standard for Enterprise Storage."
Storage Operations Supervisor, Banking

InfiniGuard Reviews
by Infinidat in Data Center - Others

Gartner Peer Insights Customers’ Choice 2023

As of October 26, 2023
Infinidat Drives Dramatic CAPEX and OPEX Savings

162% 5-year ROI

48% Reduced OPEX

51% More efficient storage management

11 Month Payback in 11 months

Under Pressure: The Business Case for Better Enterprise Storage

Video Webinar

Thank you

SCAN ME