Top Reasons for Enterprise Resiliency for Containerized Workloads

Simplified deployment and increased resiliency, mobility, and efficiency for Kubernetes mission-critical environments.

Overview

Running mission-critical workloads on containers is accelerating fast. Companies have been quick to adopt new containerized application orchestration platforms such as Kubernetes to take advantage of:

- Faster time to market for applications
- Less IT infrastructure
- Portability between cloud platforms to avoid vendor lock-in

Virtual machines have forever changed the IT landscape during the last 20-plus years. And now, business-critical applications in container ecosystems are the next evolution of virtualization.

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The Move to Containerized Workloads

According to Gartner, by 2027 more than 90 percent of global organizations will be running containerized applications in production. And more than 65 percent of commercial-off-the-shelf (COTS) vendors will offer software in a containerized format.

Such shifts offer advantages, but like many emerging technologies, it takes engineering experience and time to run your business on containers with confidence. This is especially true of open-source software such as Kubernetes, which depends heavily on third-party software vendors such as Veritas for enterprise-class functionality to successfully run mission-critical containerized workloads.

What is needed is a solution that:

- Provides a higher level of resiliency to handle unforeseen failures
- Increases business mobility to move IT resources whenever and wherever they are needed
- Controls cost through increased storage efficiency

Resiliency, Mobility, and Efficiency

Veritas InfoScale for Kubernetes is specifically designed for the Kubernetes container market to deploy applications in containers with increased resiliency, mobility, and efficiency. The solution draws from years of IT engineering expertise to maximize the benefits of today's container environment. And, it combines the cost-effectiveness and portability of containers with the data services that top companies have depended on for more than 25 years.

Simplified Deployment

InfoScale for Kubernetes is deployed directly as a cloud-native, containerized application on each Kubernetes cluster worker node. The InfoScale CSI plug-in provides the interface between the application pods that require InfoScale-managed storage, and the other data resiliency services responsible for managing I/O fencing, enabling disaster recovery, licensing of InfoScale itself, and keeping Veritas InfoScale for Kubernetes software current.

The figure below provides an overview of how InfoScale integrates with Red Hat OpenShift—a leading Kubernetes container—to provide persistent storage for containerized workloads.

**Enterprise Storage Management for OpenShift Powered by InfoScale for Kubernetes**
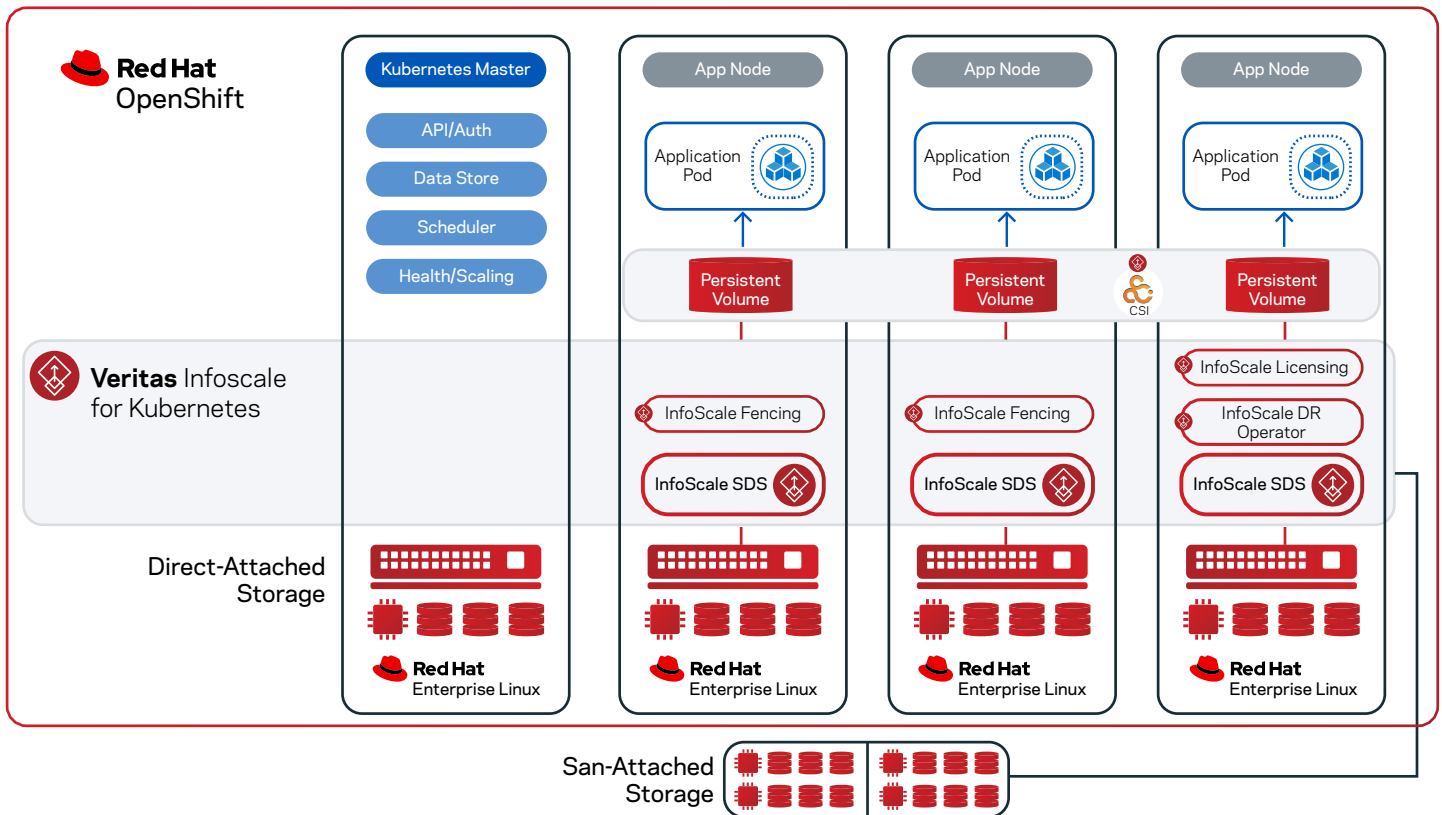
For businesses deploying mission-critical containerized applications in production, here are the top reasons to choose Veritas:

1. Application Resiliency

In IT, resilient means being prepared for any type of disruption—planned or unplanned—and being ready to mitigate the risk of application downtime or service disruption. InfoScale for Kubernetes provides:

- Faster failover of faulty nodes within the cluster to help protect against potential data corruption, which allows stateful application operations to resume in seconds

- Automated or manual disaster recovery plans and capabilities to protect against site failures
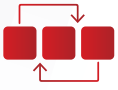
2. Workload Mobility

Mobility is critical for IT agility. With InfoScale for Kubernetes, IT can move application data and services freely and easily to meet the needs of the business by:

- Migrating application data between clusters to load balance, perform maintenance, and failover applications quickly due to cluster nodes, and persistent storage failures
- Replicating application data to a remote cluster for disaster recovery in case of site failure, maintenance, or migration
- Creating persistent storage volume snapshots for backup and recovery to a different cluster

3. Storage Efficiency

IT efficiency is about doing more with less by maintaining or improving the quality of IT services delivered to the organization, while reducing costs. InfoScale for Kubernetes makes this possible by providing:

- A software-defined storage layer that enables IT to leverage existing server-attached and SAN storage to create enterprise-class persistent storage volumes, while decreasing the need for additional capital expense
- The ability to create persistent storage volume classes for high performance, without the need to purchase expensive all-flash cloud storage

4. Cyber Security

Cyber Security is the protection against the criminal or unauthorized use of electronic data, and is the number one concern for customers today.

- Support for persistent volume encryption at rest to safeguard against electronic data theft
- Enforcement of Federal Information Processing Standard Compliance (FIPS-140) to adheres to the Federal Information Security Management Act and the Federal Information Security Modernization Act
- Compliance with the Federal Executive Order (EO) to detect malicious cyber activity on federal networks by enabling a government-wide endpoint detection and response

Learn More

For more information about how Veritas InfoScale for Kubernetes provides you the confidence to run containerized workloads, download the Veritas InfoScale for Kubernetes white paper.

To try Veritas InfoScale for Kubernetes software for 60-days, please click here.

About Veritas

Veritas Technologies is a leader in multi-cloud data management. Over 80,000 customers—including 95 percent of the Fortune 100—rely on Veritas to help ensure the protection, recoverability, and compliance of their data. Veritas has a reputation for reliability at scale, which delivers the resilience its customers need against the disruptions threatened by cyberattacks, like ransomware. No other vendor is able to match the ability of Veritas to execute, with support for 800+ data sources, 100+ operating systems, 1,400+ storage targets, and 60+ clouds through a single, unified approach. Powered by Cloud Scale Technology, Veritas is delivering today on its strategy for Autonomous Data Management that reduces operational overhead while delivering greater value. Learn more at www.veritas.com. Follow us on Twitter at @veritastechllc.

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