

Data management at scale for multicloud data mobility

Speed up application development, enhance data protection, and enable any-cloud mobility in multicloud Kubernetes environments

Highlights:

- Speed up and modernize app development
- Enhance data protection
- Enable any-cloud mobility in multicloud environments

Enterprises using Kubernetes data storage for their stateful applications face several challenges:

- **Slow app development:** Onboarding apps is not easy or fast, which can cause developer frustration. Using traditional storage with a Container Storage Interface (CSI) plug-in fails to take advantage of the automation offered by Kubernetes and relies on the underlying array to deliver key data services.
- **Operational complexities:** Hardware lock-in hinders migrating apps between the data center and the cloud and requires specialized skills.
- **Lack of data availability:** Mission-critical, stateful Kubernetes apps require higher levels of resilience against threats and infrastructure failures.

More easily manageable and accessible storage for Kubernetes applications

Portworx® by Pure Storage® provides a fully integrated solution for persistent storage, disaster recovery, data protection, cross-cloud data migrations, and automated capacity management for applications running on Kubernetes. Kyndryl-deliver Red Hat OpenShift clusters with Portworx help customers simplify workload management in distributed core, edge, and cloud IT environments. Joint customers realize many benefits including increased agility, performance, and security.

Speed up and modernize app development

Despite the fact that 78% of businesses are deploying apps with containers¹, enterprises continue to struggle with application scalability, data management, and lack of persistent storage. Kyndryl-deliver OpenShift clusters with Portworx address these challenges by providing on-demand volume provisioning and workload mobility. These features can reduce application development time and accelerate time to market.

The solution also provides persistent storage and data management for containers that are scalable and consistent across applications and environments. Kyndryl is a leader in application and platform integration, while Portworx is the leading Kubernetes data platform to operate, scale, and secure cloud native applications and stateful data services.²

Enhance data protection

More than 58% of companies are actively adopting containers, with an additional 31% in proof-of-concept stages or planning trials.³ However, companies cite concerns about the following:

- Data security and the threat of ransomware
- Data integrity and reliability
- Low confidence in disaster recovery

Kyndryl-delivered OpenShift clusters with Portworx provides a broad array of security and reliability-enhancing features. These range from role-based access control (RBAC) and best practices for data redundancy to increased ransomware protection.

To assist with business continuity and resilience, the solution delivers zero recovery point objective (i.e., no data loss) and near-zero-second recovery time objective. Customers also get app-aware backups, which helps ensure that all Kubernetes containerized data is backed up and fully protected.

Enable any-cloud mobility in multicloud environments

Half of the total managed cloud market is captured by hybrid cloud services.⁴ Yet, companies struggle with data migration and data management, as well as with application portability. Kyndryl-delivered OpenShift clusters with Portworx offer a consistent platform for on-premises and cloud containerized workloads, with seamless application and data portability across cloud and on-premises infrastructure.

Backups are app-aware and container granular, which means customers can back up and restore applications, application data, and the associated metadata across multiple clusters. Application migrations take only minutes and can be accomplished with a few clicks. Backups can occur in one environment (such as on-premises) while the restore can occur in another environment (such as a public cloud).



Conclusion:

Kyndryl has strategically partnered with industry leaders Pure Storage® (Portworx) and Red Hat to deliver exceptional solutions to clients who are using Kubernetes. With Kyndryl-delivered Red Hat OpenShift clusters with Portworx, customers achieve the following benefits:

- Flexibility of infrastructure, which enhances developer agility and enables self-service access to storage and data services
- Optimal performance and on-demand scalability for containerized mission-critical applications
- A highly available and resilient Kubernetes environment that supports disaster recovery across data centers

Why Kyndryl?

Kyndryl has deep expertise in designing, running, and managing the most modern, efficient, and reliable technology infrastructure that the world depends on every day. We are deeply committed to advancing the critical infrastructure that powers human progress. We're building on our foundation of excellence by creating systems in new ways: bringing in the right partners, investing in our business, and working side by side with our customers to unlock potential.

For more information:

For more information about how Kyndryl, Red Hat, and Pure Storage are partnering to serve joint customers, please visit:

<https://www.kyndryl.com/us/en/about-us/alliances>



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1. ["State of Cloud Native Application Security," Synk, 2023](#)
2. [portworx.com website](#)
3. ["The evolution of containers: Docker, Kubernetes and the future," TechTarget, January 2023](#)
4. ["Worldwide Managed Cloud Services Forecast, 2023-2027: An Extraction View of Technology Outsourcing Services Markets," IDC, August 2023](#)