SOLUTION BRIEF

Accelerate Banking Transformation with Portworx

Build a platform to automate, protect, and unify container data management at scale

Financial services firms face an incredibly challenging dual mandate of needing to transform and innovate while meeting stringent compliance and regulatory requirements. To transform and innovate quickly, banks, credit issuers, payment processors, and investment managers must move quickly in a market disrupted by digital-first fintechs, peer-to-peer payments, buy-now-pay-later (BNPL), mobile-first services, and more. On the other hand, these firms must address evolving cybersecurity threats, new fraud attacks, and ever-changing compliance and regulatory requirements.

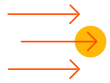
Successfully navigating this dual mandate is crucial for the survival and growth of financial firms. For virtually every firm, innovating with software development, data, and AI has led them to modern, cloud-native application development processes and tools such as Kubernetes.

CSI Data Management Challenges

Kubernetes provides a state-of-the-art foundation for managing containerized applications at scale. The container storage interface (CSI) was launched in Kubernetes in 2018 and storage vendors quickly wrote plug-ins to expose their storage arrays to Kubernetes clusters. While these CSI plug-ins solve the short term problem of managing data outside of Kubernetes, they create a host of challenges to financial firms ranging from application development times and performance implications to vendor lock-ins.

Reduced Application Development Velocity and Innovation

Financial firms today need to accelerate innovation by harnessing the power of data and AI. Developers working with containers and Kubernetes are the engine that drive these innovations; however, CSI plug-ins cannot keep up with the dynamic nature of cloud native applications. As firms incorporate Kubenetes into their transformation journey, they often experience initial success in early deployments, but their stateful workloads soon run into performance and scalability issues as more applications and workloads are deployed on Kubernetes. Firms building internal developer platforms are challenged to provide easy and efficient, self-service access for 100s or 1000s of developers to those rapidly evolving data services, contributing to slowed or stalled modernization initiatives.



Accelerate Banking Transformation

Automate storage and data management processes and accelerate the software development lifecycle

Architect Data Resiliency

Deliver enterprise business continuity, performance, and scale for cloud-native applications

Achieve Data Agility

Manage, migrate, backup, and restore data across any on-premises, hybrid, or cloud Kubernetes environment

Application Performance, Outages, and Data Loss

Financial firms require a range of reliability SLAs including zero data loss in the event of failures resulting in an outage, but traditional BCDR approaches are unable to support mission-critical Kubernetes applications at scale. CSI plug-in based approaches can create multiple, siloed solutions for providing data resiliency, BCDR, and data protection which can lead to increased application downtime. Traditional VM-based data protection solutions were not designed for Kubernetes and are not application-aware (or container-aware), leading to inconsistent implementation of security policies and increased risk of data loss.

Complexity and Vendor Lock-in

As every large financial firm becomes hybrid/multi-cloud, the complexity of each environment (public, private, or hybrid) adds additional learning curves, compatibility issues and storage management challenges. To accelerate transformation and control infrastructure costs, firms need the flexibility to build, deploy or migrate their applications across any part of their multi-cloud/ hybrid environments. However, today's data and storage architectures lock-in applications and prevent enterprises from making these choices easily and quickly, contributing to slowed or stalled multi-cloud adoption initiatives.

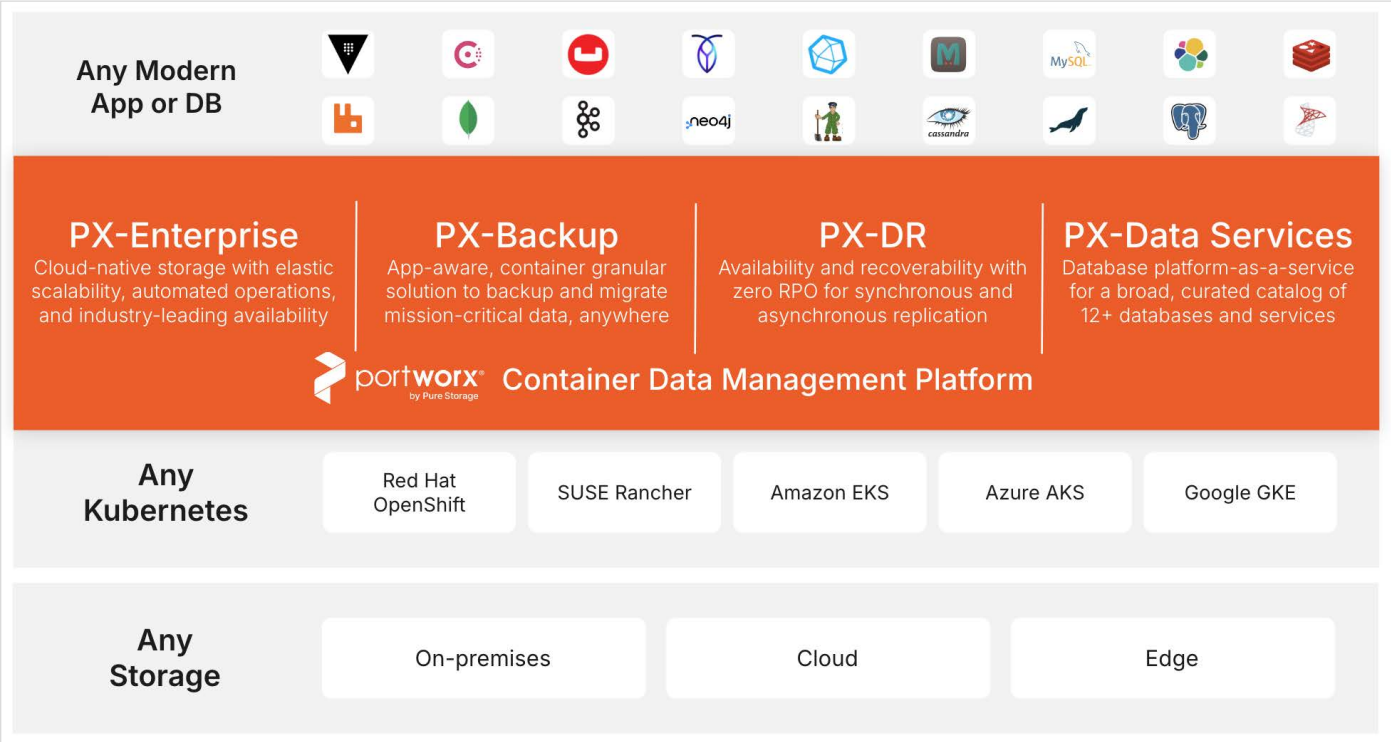


FIGURE 1 The Portworx Container Data Management Platform

Portworx: A Leader in Container Data Management for Financial Firms

Portworx® by Pure Storage® is a fully-integrated data management platform that includes container-native storage, backup, business continuity, disaster recovery, and database services in a single, unified solution. It includes the following components to accelerate banking transformation:

PX-Enterprise

PX-Enterprise® delivers elastic scalability, industry-leading availability, and self-service access to any storage infrastructure for nearly any Kubernetes distribution. It includes automated capacity management and flexibility across hybrid, multi-cloud, and on-premises deployments. PX-Enterprise enables firms to:

- Maximize application performance by quickly provisioning storage, optimizing Kubernetes storage for performance and resiliency, accelerating IO paths, and ensuring high availability
- Automate storage management and optimize your infrastructure with thin provisioning, intelligent volume placement, dynamic balancing and scaling, and application migration between clusters
- Increase development velocity by empowering developers with self-service to storage, integrating with existing developer tooling and CI/CD toolchains

PX-Backup & Disaster Recovery

PX-Backup & Disaster Recovery protects your data with container-granular and application-aware backup and disaster recovery. It secures persistent data for nearly any Kubernetes environment and ensures comprehensive protection and easy recovery for Kubernetes applications. PX-Backup & Disaster Recovery enables firms to:

- Recover applications and data in one-click, with awareness of Kubernetes application data, configurations, objects, ensuring more complete and faster restores over traditional backup solutions
- Migrate or recover applications anywhere within minutes across on-premises and cloud infrastructure
- Secure and defend data with enterprise-grade RBAC, ransomware protection, 3-2-1 rule support, and support for air-gapped environments
- Maintain compliance with any resilience requirements or application tier SLAs with configurable synchronous and asynchronous disaster recovery

PX-Data Services

PX-Data Services is a database platform-as-a-service that automates deployments and streamlines lifecycle management for a broad, curated catalog of databases. It offers developers self-service to new databases provisioned within minutes, subject to sizing, configuration, and policies managed by platform engineering and database teams. PX-Data Services enables firms to:

- Accelerate product development by automating database provisioning from a broad, curated catalog including SQL Server, PostgreSQL, Kafka, and more, while reducing the time from request to deployment from weeks to minutes
- Drive operational efficiencies with Day 0 through Day 2 automated database operations, anywhere, without lock-in to managed cloud databases
- Reduce database downtime with the same resiliency, performance, and scalability as the rest of the Portworx container data management platform

Enterprise Security and Control

Portworx includes enterprise-grade security and granular controls financial firms require throughout the entire platform, including single sign-on (SSO), role-based access control (RBAC), while enabling data encryption at-rest and in-transit.

Integrations and Ecosystem

The Portworx platform integrates broadly within the cloud-native ecosystem, including on-premises storage providers like Pure Storage, Dell, and NetApp, as well as cloud storage from Azure, AWS, Google Cloud, and IBM Cloud and more. Portworx also integrates with open-source Kubernetes installations, hybrid cloud distributions like Red Hat OpenShift and SUSE Rancher, and managed Kubernetes services from AWS, Azure, Google Cloud, and more.

Customer Use Cases

Portworx supports a wide range of financial firms' needs by simplifying and scaling data management on Kubernetes. With its unified platform, firms can streamline operations, enhance productivity, and deliver robust data services for modern applications, all while ensuring seamless integration and automation across various workloads.

- **Internal developer platform**: Enable self-service access to data storage and infrastructure, streamlining developer workflows and accelerating application delivery.
- **Modern virtualization**: Manage storage and data for virtual machines alongside containers on a single Kubernetes platform, ensuring streamlined, unified operations.
- **AI/ML**: Ensure fast, reliable data portability to localize data to compute, increasing processing speed, maximizing utilization, and minimizing cloud ingress/egress costs.
- **Database-as-a-service**: Automate database provisioning, management, and scaling, with built-in data protection and storage optimization for Kubernetes-based databases

Analyst Validation

Industry analysts have recognized Portworx as a leader in container data management. The following quotes reflect the position Portworx has attained in the market:

> "Organizations that are running or looking to run mission-critical applications, databases, CI/CD tools, or AI/ML workloads in containers will want to consider Portworx by Pure Storage."
>
> **IDC**

> "Portworx remains the gold standard in cloud-native Kubernetes storage for the enterprise. Portworx is a complete enterprise-grade solution with outstanding data management capabilities, unmatched deployment possibilities, and superior management features."
>
> **GIGAOM**

What Our Customers Say

We're helping many of the world's largest financial firms build Kubernetes data platforms to accelerate their transformation journeys.

> "Having a reliable storage partner in Pure Storage has freed up significant management time so we can look at bigger pictures. It really does help us better engage with both the market and our clients."
>
> **JAMES LAMING,**
> **GLOBAL HEAD OF INFRASTRUCTURE, OPTIONS**

> "The unparalleled performance and reliability of Pure's platform was convincing, and how it supported our sustainability initiatives really won over our team."
>
> **STEVE ALLGEIER,**
> **VP, DISTRIBUTED INFRASTRUCTURE, FISERV**

Additional Resources

- Visit our web site where you can request a demo of Portworx
- Read what customers have to say about using Portworx
- Try Portworx for free

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