

## SOLUTION BRIEF

# Portworx Enterprise

Maximize performance, optimize costs, and increase developer velocity with secure, scalable Kubernetes storage for any environment

Kubernetes is at the heart of AI, digital transformation, and modern application development. However, many organizations face challenges with persistent data management and protection for enterprise Kubernetes deployments. PX-Enterprise is a Kubernetes storage solution that offers elastic scalability, high availability, and developer self-service access across any storage infrastructure or cloud environment for popular Kubernetes distributions.

## Challenges of managing Kubernetes storage at scale

### Disparate storage solutions (CSI, Open Source, Hybrid Cloud)

Managing persistent data in Kubernetes often requires disparate solutions, including CSI plugins and open-source solutions, deployed across hybrid- and multi-cloud environments. These lack standardized feature sets, with inconsistent support for Kubernetes objects and data, leading to significant challenges ensuring consistent data management across the business.

### Lack of developer self-service

Without a unified interface and standardized storage APIs, developers struggle to independently provision and manage Kubernetes volumes, requiring intervention from infrastructure teams. The lack of a consistent workflow to request, allocate, and resize storage limits the ability of developers to rapidly iterate and deploy applications, slowing time to market for new features.

### Poor performance and scalability

Many Kubernetes storage solutions struggle to efficiently handle diverse, dynamic workloads, particularly when resources are shared among multiple tenants. Scaling storage to meet the needs of Kubernetes applications requires tuning and optimization, which can be resource-intensive and error-prone with traditional storage solutions.

### Lack of automated operations

Automated processes for managing Kubernetes storage are critical to minimizing downtime and ensuring data reliability. Without robust automation, teams must manually handle tasks like provisioning and resizing, which introduces delays and a higher risk of human error, while increasing operational costs and performance challenges across their Kubernetes environments.



### Maximize application performance

- Run applications in production with high performance and on-demand scalability
- Automated Day-2 operations at scale



### Increase development velocity

- Enable developer self-service provisioning and data management to any storage within Kubernetes
- Provide storage golden paths to developers as part of an Internal Development Platform (IDP)



### Optimize infrastructure costs

- Automated, intelligent thin-provisioning to reduce over-provisioning

## About Portworx Enterprise

PX-Enterprise is a container-native storage solution that provides Kubernetes data storage and data management capabilities. It offers automated data operations, elastic scalability, and flexible deployment options across hybrid, multi-cloud, and on-premises environments. PX-Enterprise ensures high availability for persistent data and self-service capabilities for developers, enhancing infrastructure efficiency, optimizing data-driven application performance, and accelerating development. As the cornerstone of the Portworx platform, PX-Enterprise provides the essential foundation for comprehensive container data storage and management in modern, distributed environments.



## Kubernetes Storage

### Any Kubernetes Service

Amazon EKS | SUSE Rancher | Red Hat OpenShift | Azure AKS | Google GKE | + more

### On-premises storage

Pure Storage | Dell | NetApp | HPE | + more

### Cloud storage

Amazon | Azure | Google | + more



Developer-ready storage



Automated capacity management



Thin provisioning and intelligent volume placement



App and volume IO tuning

## Maximize application reliability and optimize performance

PX-Enterprise automates data storage and management for Kubernetes applications. It offers rule-based automation, thin-provisioning allocation and flexibility for multi-cloud, hybrid-cloud and on-premises environments.

- **Storage abstraction and simplification** aggregates and pools storage for consumption in a simple, centralized platform which enables users to dynamically provision their own volumes with capabilities based on defined parameters.
- **Automated capacity management** with intelligent, rule-based dynamic growth of persistent volumes and storage pools prevents application downtime due to storage failure.
- **Application and data reliability** through high availability across nodes, racks, and availability zones so failover can occur in seconds.
- **Optimized application performance** with storage-aware class-of-service (COS) and application aware I/O tuning.

## Increase software development velocity

PX-Enterprise enhances internal development platforms by adding persistent data orchestration, CI/CD automation, and giving developers self-service provisioning to storage and container data management capabilities.

- **Accelerate developers** with self-service to storage for any environment which can remove process delays and reduce cognitive load on developers and data scientists.
- **Accelerate testing and CI/CD** with faster, more reliable incremental builds based on known snapshots.
- **Integrate fast, scalable storage** with key Kubernetes solutions like [Red Hat OpenShift](#), [SUSE Rancher](#), and more.

## Automate storage management and operations

PX-Enterprise intelligently allocates storage from its virtual storage pool to reduce over-provisioning of volumes and overspending on storage. As applications need more storage over time, it's automatically and dynamically provisioned for them.

- **Automatically resize** individual container volumes or your entire storage pools.
- **Rules-based engine with customization capabilities** to optimize application storage and avoid over-provisioning.
- **Easily migrate Kubernetes applications and data** across clusters and clouds.
- **Storage integrations** for Amazon EBS, Google PD, Azure Block, and more.

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## Get started with PX Enterprise

- Learn more about Portworx Enterprise at [portworx.com](https://portworx.com)
- [Try Portworx for free](#) with a personal trial
- [Request a demo of Portworx](#), the leader in Kubernetes storage and container data management

[portworx.com](https://portworx.com)

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