

Unified Data Management for Kubernetes Workloads

Enable unified, policy-driven data management for containers, AI workloads, and VMs on Kubernetes.

The integrated Portworx® and Everpure™ Kubernetes data management solution delivers agility, enterprise resilience, and consistent fleet-wide governance across block and file storage for containers, virtual machines (VMs), and AI workloads on Kubernetes. This integrated stack includes:

- **Portworx Enterprise (PX-Enterprise®)**—provides enterprise-grade data management for Kubernetes workloads, including persistent storage, data protection, disaster recovery, and simplified Day 2 operations for scaling, backup, migration, and lifecycle management.
- **Everpure FlashArray™**—provides the high-performance data plane for low-latency block storage.
- **Everpure Fusion™**—federates the fleet, auto-discovering arrays and driving policy-based workload placement through Kubernetes StorageClasses.

Kubernetes data challenges in the Enterprise Data Cloud

The Enterprise Data Cloud (EDC) is a storage and data management architecture that unifies data across your estate into a virtualized cloud, governed by the Everpure Intelligent Control Plane. It blends the performance, efficiency, and reliability of enterprise infrastructure with the agility and automation of cloud across on-premises, public cloud, and edge environments.

As enterprises modernize with containers, Kubernetes, and AI, the following challenges consistently slow them down:

- **Fragmented data management:** VMs, containers, and AI workloads each have their own storage tooling, policies, and operational model.
- **Manual, per-array toil:** Platform teams configure each FlashArray endpoint by hand in every cluster, with policy and placement enforced by institutional knowledge instead of automation.
- **Container Storage Interface (CSI)-only deployments that fall short:** CSI drivers handle basic provisioning but leave teams to solve Day 2 data operations like high availability, disaster recovery, capacity automation, multi-tenancy, and app-aware protection on their own.
- **Developer toil:** Manual, inconsistent storage provisioning and a lack of policy-driven self-service capabilities hinder both standard and agentic deployment workflows.

Portworx Enterprise, Everpure FlashArray and FlashBlade®, and Everpure Fusion combine to solve all of these challenges, extending the EDC to Kubernetes workloads. Together, they deliver an integrated, enterprise-grade data platform that combines high-performance storage infrastructure with Kubernetes-native automation under a single intelligent, policy-driven control plane.



Modernize VMs on Kubernetes

Run KubeVirt VMs on FlashArray with Portworx for high availability and disaster recovery in a modern, cost-effective way.



Simplify Kubernetes data management at scale

Use Everpure Fusion and Portworx to extend fleet-wide policy and placement into Kubernetes, eliminating per-array toil.



Operationalize AI on Kubernetes

Run feature stores, vector databases, training, and inference on low-latency FlashArray NVMe block, managed with Portworx.



Protect mission-critical stateful apps

Get zero-RPO/low-RTO disaster recovery with ActiveCluster™ for high availability or Portworx PX-DR for Kubernetes recovery.

How Everpure addresses Kubernetes data challenges

Everpure and Portworx deliver an integrated data platform for VMs on Kubernetes, containerized apps, and AI workloads, managed by the same policies and the same control plane as the rest of your enterprise storage.

- **Portworx Enterprise** enhances developer experience by dynamically provisioning FlashArray block volumes via standard APIs. It enables platform teams to meet SLAs with automatic capacity management and application I/O controls across multiple tenants. Portworx builds on the capabilities of the CSI driver included with your storage and adds application-granular snapshots, backup, replication, and multi-cluster disaster recovery for VMs and containers.
- **Everpure FlashArray** delivers consistent, low-latency, high-IOPS NVMe block performance with inline dedupe, compression, ActiveCluster™, SafeMode™, and secure multi-tenancy.
- **Everpure FlashBlade** delivers unified fast file and object storage at scale that is ideal for AI/ML data sets, model checkpoints, analytics, content repositories, and ReadWriteMany (RWX) workloads on Kubernetes.
- **Everpure Fusion** federates FlashArray systems into a single fleet, exposes presets as Kubernetes StorageClasses through Portworx, and drives policy-aware workload placement.

Key capabilities of the Portworx and Everpure solution

The integrated solution provides the following capabilities and benefits.

Capability	Benefits
Cloud-like elasticity on enterprise flash	Abstracts CSIs to deliver cloud-like elasticity at scale across heterogeneous storage environments, adding policy-driven automation, built-in resilience, and integrated data operations for stateful Kubernetes workloads
Application-aware disaster recovery	Allows platform engineers to automate consistent, workload-level failover and recovery across Kubernetes environments, reducing manual effort and operational risk while improving overall recovery speed and reliability
Multi-tenant isolation, Kubernetes to array	Provides strong, application-specific tenant isolation across clusters and storage, enabling secure multi-team environments that have predictable and consistent performance without manual tuning
Performance and I/O control without trade-offs	Delivers software-defined I/O controls governing workload prioritization, isolation, and policy-based allocation, eliminating unpredictable performance and overprovisioning so platform teams can safely consolidate workloads on shared infrastructure
Fleet-wide management with Everpure Fusion	Centralizes storage policy management across all arrays, making it easy to standardize and expose storage to developers
Policy-driven workload placement	Automatically places workloads on the right storage based on policy, removing guesswork and eliminating manual placement decisions
Self-service developer experience	Empowers developers to provision and manage storage via Kubernetes APIs and policies, reducing platform team tickets and accelerating deployment velocity

Why an integrated solution matters

Organizations need a consistent, scalable approach to data management across modern workloads. The following table highlights the difference the Everpure and Portworx integrated solution makes.

Without integration	Integrated solution (Portworx, FlashArray/FlashBlade, and Everpure Fusion)
Separate tooling for VMs, containers, and AI	One unified data platform across VMs, containers, and AI
Manual, per-array configuration in every cluster	Auto-discovery of supported fleet and presets as StorageClasses
Manual workload placement relying on institutional knowledge	Policy-driven, application-optimized placement via the Everpure Fusion engine in supported environments
CSI driver-only deployments that provide simple provisioning and do not include data management and protection such as backup, high availability, disaster recovery, and I/O control	Intelligent provisioning and placement, app-aware high availability, disaster recovery, backup, and I/O control
Inconsistent policies across app estate	Consolidated platform for on-premises, multicloud, and hybrid-cloud environments with fleet-wide policy enforcement end to end

Customer spotlights

25,000

transactions per second

“The impacts are clearly reliable software deployments, where we’re deploying more features.”

Director of IT, Fiserv

1000s

of VMs to containers

“Low cost of ownership, works on-prem, in the cloud, or at the edge... from a storage point of view, it just fits.”

Director of Platform Operations, SiriusXM

70%

faster safety analysis

“Portworx has enabled us to automate around 99% of our [AI] platform... we’ve achieved 70% reduction in the time it takes to deliver analyses.”

IT Service Architect, Rosen

With Portworx and Everpure, enterprises can eliminate silos and operate a single, intelligent Kubernetes data platform across all workloads.

Additional resources

- [Learn more about Kubernetes data management with Portworx.](#)
- [Preview FlashArray, FlashBlade, Portworx, and Everpure Fusion with Pure360 demos.](#)

Try Portworx with Hands-On Labs

Visit Our Website

800.379.PURE

