

SOLUTION BRIEF

Modernize Storage for Open-source Databases

Get a Modern Data Experience™ with speed, scale, simplicity and resilience for your open source databases.

With digital transformation ambitions, more businesses are rapidly adopting open-source databases for their application needs. The open-source database landscape is very diverse, ranging from relational database management systems like MySQL and PostgreSQL to varieties of NoSQL databases (MongoDB, Apache Cassandra, CouchDB, and many more). In general, open-source databases have lower TCO than commercial databases, plus the scale to process large amounts of structured and unstructured data.

You want to innovate and derive value from your data. The rise of open-source databases adds challenges to managing data environments, particularly with explosive data growth. Traditional data-storage systems such as direct-attached storage (DAS) lack the ability to meet modern data demands. They are prone to disruptions, complex, and lack scalability—all of which leads to administrative overhead.

Whether your workload focuses around transactions, data warehousing, or conducting analytics, Pure Storage® solutions can help optimize open-source database deployment and improve application performance. Provide an amazing user experience, avoid disruptions, eliminate hidden costs, and minimize capacity needs with always-modern Evergreen™ storage. Pure's Modern Data Experience™ delivers:

- Increased levels of performance, enhanced speed, resiliency and rapid technology adoption with Pure's ground-breaking DirectFlash™ and DirectMemory™
- Simplified deployment and management
- Reduced operational costs



Fast Matters

Get fast database operations with rapid response, low latency, and high throughput. Pure's all-flash NVMe delivers superior performance and availability.



Simple Is Smart

The unified management framework and storage are designed to make setup, management, and planning easier than ever. Avoid DAS complexity and administrative overhead.



Cloud Everywhere

Benefit from a consistent experience and data mobility across on-premises and public cloud with flexible operations, open APIs, and management. Align budget to outcomes and eliminate risk.

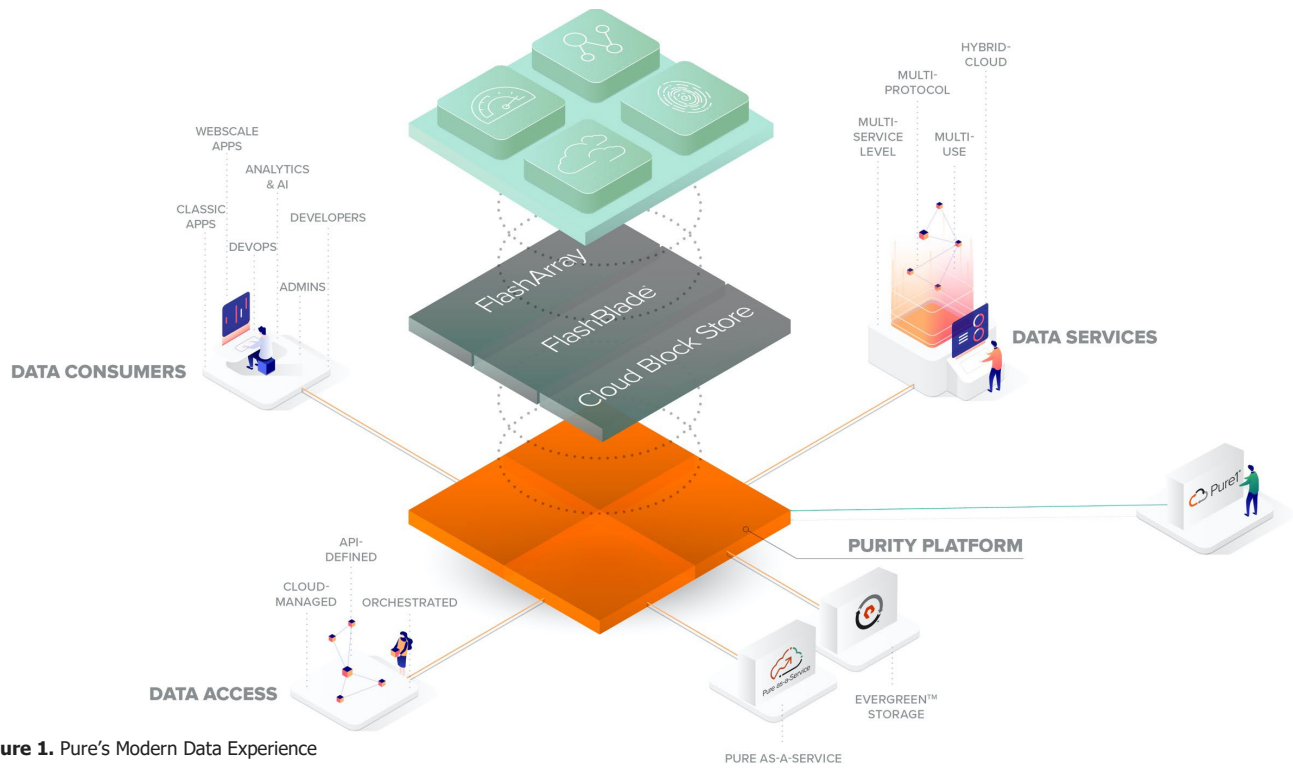


Figure 1. Pure's Modern Data Experience

Optimize Database Operations

Faster applications with rapid response times can build customer value and deliver an amazing user experience. FlashArray//X, now with NVMe-oF, can help speed database operations with the lowest latency at 100 microseconds¹ to support critical business applications. For high bandwidth data analytic and AI / ML workloads, Pure FlashBlade® is second to none in big scale and fast throughput. Pure also offers superior consolidation for Tier-2 applications with the FlashArray//C all-QLC architecture.

Reduce the time and cost of database activities—including copy, clone, and refresh—and provide quick provisioning via APIs, with data copies for dev/test so that your teams are always working off the latest copies of data. Pure offers granular data reduction necessary for virtually any application: pattern removal, deduplication, compression, deep reduction, and copy reduction. This embedded data-reduction capability minimizes both capacity needs and capacity costs.

Simplify Storage Infrastructure

Pure solutions are easy to set up and smart enough to manage themselves. This is critical for two reasons. First, it minimizes overhead, allowing your staff to focus on innovation vs. tactical daily tasks. Second, it eliminates risk. Accidental configuration issues can quickly reduce performance or expose your organization to downtime and data loss, all of which impact customer experience, business delivery times, brand reputation, and legal agreements with suppliers. Pure's cloud-based management tool Pure1® makes it quick and easy to monitor your storage, wherever you are.

¹ May vary based on your IT environment.

Artificial intelligence represents a huge opportunity to manage infrastructure and make it smarter. Pure1 Meta®'s AI-driven workload planner can provide an optimal outlook by right-sizing capacity allocation to avoid DAS's common limitation of over- or under-provisioning. Make better use of resources by identifying which sharded database nodes are over or underutilized. Use the workload planner to help better plan for growth of your open source database cluster by simulating all changes to new and existing workloads. Lastly, the tool also helps plan optimal hardware by simulating controller upgrades, planning for new arrays and adding capacity packs.

Scale On Demand Without Risk

Pure solutions provide scalability and uninterrupted uptime, which is critical to meeting your customers' demanding SLAs. Pure FlashArray™ provides six-nines availability (99.9999% uptime), inclusive of upgrades and maintenance, across both hardware and software. Additionally, Pure's Evergreen Storage delivers continuous improvements to keep your storage fresh, modern, and agile, without effort. It's a subscription to innovation, in your data center. With Pure as-a-Service®, you can purchase storage in a cloud-like fashion to adapt to fluctuating capacity requirements. When it comes to data protection, options start with instant snapshot copies to synchronous replication with ActiveCluster™ and replication resiliency for rapid-restore backup and recovery. Pure's asynchronous replication with ActiveDR™ provides "near-zero" recovery point objective. Combined, these offerings can help limit downtime, data loss, and risk.

Achieve True Hybrid Cloud Agility

Pure's cloud data services, together with on-premises cloud data infrastructure, enable hybrid applications that run seamlessly across clouds. Take advantage of the agility and innovation of multiple clouds, building applications once, then running them seamlessly on-premises and in the public cloud. [Pure1](#) enables cloud-based, fleet management; advanced capacity planning; and [workload simulation](#) to deliver resources faster, control costs and forecast IT need.

[Pure as-a-Service](#) delivers pay-as-you-go billing with scale up and down flexibility, competitive on-demand rates and unified subscriptions for both on-premises and cloud.

The Modern Data Experience from Pure Storage leverages hybrid mobility alongside consistent storage services, resiliency, and APIs across your hybrid environment to give you the most flexibility possible with your database deployments. Pure's focus is both on data mobility across clouds as well as supporting deployment technologies like containers that are critical for application modernization. Pure provides APIs, orchestration and ongoing updates so your investment in storage systems is as agile as your business. Engage with Pure Professional Services to help you fill gaps, assess technology, develop expertise, and create plans that deliver results.

Additional Resources

- [Pure for Open Source Databases](#)
- Get more information about [Pure 1](#), [Pure as-a-Service](#), [Evergreen](#), and [Pure Professional Services](#).
- Explore Pure solutions for [MySQL](#), [MongoDB](#), [PostgreSQL](#), and [Cassandra](#).

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