

SOLUTION BRIEF

Prepare for Modern Oracle Database Workloads with Pure Storage

Eliminate bottlenecks, accelerate transactions, and shrink database storage footprint and costs with a simple, resilient platform.

Oracle remains one of the most widely deployed and trusted database platforms for mission-critical environments, supporting everything from transactional systems to data warehousing and business intelligence. Oracle23ai introduces groundbreaking advancements from native AI integration and vector search. As Oracle data volumes grow and workloads diversify, you need the right data infrastructure to realize its full potential. Whether you're modernizing your data infrastructure or launching new initiatives, Pure Storage® ensures Oracle runs at its absolute best, right out of the gate.

Storage Challenges for Modern Oracle Workloads

When people talk about improving Oracle database performance, the spotlight usually falls on compute and memory. But storage is another piece of the puzzle that often gets ignored and frequently the silent bottleneck that holds everything back.

In a busy Oracle database environment, transactions are constant and queries are running nonstop to meet business expectations. But behind the scenes, many of these systems are still running on traditional storage architectures that simply weren't built for today's demands. As workloads become more diverse, organizations start seeing the impact. Latency increases, throughput suffers, and managing everything becomes more complicated than it should be. On top of that, as database volumes grow, so do the physical space and energy requirements. Without an efficient storage solution, organizations struggle to reduce their data center footprint while maximizing performance.

And the problems don't stop with performance. Legacy storage tends to be complex, requires more manual tuning and often lacks high availability options. That puts more pressure on IT teams, slows down access to insights, and increases the risk of outages. When data is lost or systems go down, it can seriously affect business operations and customer trust. Even backup and restore processes can become a major pain point. They take too long, require too much manual effort, and make it harder to meet recovery objectives.



Unmatched Performance Density

Up to 3X more performance and efficiency per rack unit¹ vs. other solutions on the market.



Shrink Costs and Data Center Footprint

Consolidate workloads with industry-leading data reduction that saves space and energy. Cut TCO by up to 72% and reduce AI vector embedding storage footprint by 50%.¹



End Downtime for Good

Get software and hardware updates as well as infrastructure expansions without any service interruption. Your database storage stays always-on and disruption-free with proven 99.9999% uptime guarantee.

These challenges become even more pressing with Oracle23ai. This release brings powerful new features like vector search, retrieval-augmented generation (RAG), and improved hybrid cloud capabilities. These are designed for advanced applications that rely on speed, scale, and constant access to data. But they also place heavy demands on the underlying data storage infrastructure. When AI-powered workloads, real-time transactions, and large volumes of data all hit the same system, traditional storage just can't keep up. The results are slow performance, limited scalability, and growing frustration for both users and IT teams.

To truly get the most out of their Oracle database environment, organizations need a modern storage platform that not only keeps pace with what's next but also drives broader business outcomes.

Accelerating Oracle Database Environments with the Pure Storage Platform

Pure Storage unifies all your Oracle database storage on a single, as-a-service platform that is simple to deploy, manage, and scale, and is built on the proven, non-disruptive Evergreen® architecture. At the core of the platform are Pure Storage FlashArray™, which provides fast, efficient unified block and file storage, and Pure Storage FlashBlade® for fast backup, restore, and scalable unstructured data workloads. With capabilities like non-disruptive upgrades, AI-driven management, automation and intelligent workload placement, the Pure Storage platform simplifies operations, strengthens resilience, and provides a future-ready foundation for scaling modern database workloads with confidence.

Maximized Performance with a Minimal Footprint

As part of the Pure Storage platform, FlashArray delivers high performance at any scale for Oracle database environments. The FlashArray family includes different models designed to meet a wide range of database storage needs. FlashArray//XL™ offers ultra-low latency, high throughput, and consistent performance at massive scale. This makes it ideal for consolidating demanding Oracle database workloads onto fewer arrays with room to grow. The latest generation of FlashArray//XL delivers up to 3X IOPS per RU compared to similarly configured competitive systems, and reduces storage footprint for AI vector embeddings by up to 50%.¹ FlashArray//X™ supports a broad range of general-purpose Oracle workloads with strong performance and efficiency, while FlashArray//C™ offers cost-effective, high-capacity storage for backups, archives, and capacity-heavy use cases.

Operational Simplicity

Infrastructure teams can eliminate SQL storage silos with a simple data management experience across all workloads, whether on premises, in the cloud, or in hybrid environments. Pure Storage enables seamless data mobility, including snapshot replication across arrays or to the cloud, while maintaining consistency, integrity, and availability. Teams can automate SQL storage management with intelligent workload placement and seamless integration options. Pure Storage supports management via GUI, REST APIs, and third-party tools, enabling alignment with your organization's workflows and scalability requirements.

Pure Storage snapshots also provide versatility to managing Oracle data, by allowing infrastructure team members to recover data by restoring the original volume, to overwrite that data, to create copies on new volumes, to replicate asynchronously to another array, or to offload for long-term retention to object storage. These snapshots simplify data management, enhance recovery options, and support flexible, scalable storage practices for Oracle environments.



Reduce Risk and End Downtime for Good

The Pure Storage platform can help teams protect their critical Oracle data with always-on encryption, always-on logging, industry-leading reliability, and robust replication capabilities, ensuring unmatched uptime, availability, and SafeMode™ protection. With Pure Storage Evergreen®, teams can also benefit from proactive updates and non-disruptive upgrades that keep their storage infrastructure modern, secure, and resilient, providing predictable access and safeguarding Oracle data against disasters or breaches without downtime or unexpected costs.

Pure Storage can also reduce backup and recovery times, with minimal overhead and bandwidth requirements. Teams can combine Pure Storage snapshots with native database-level features to quickly restore and meet the most stringent recovery point objectives. They can also replicate Oracle to other arrays with ActiveCluster™ and ActiveDR®. ActiveCluster also enables non-disruptive workload migration between arrays, allowing them to decouple database operations from underlying storage maintenance. Both features can be combined with native platform and/or database-level availability features to further enhance resiliency. Additionally, FlashArray™ provides a SLA guarantee of 99.9999% uptime as well as a zero planned downtime guarantee. All components of Pure Storage arrays are also designed to minimize or eliminate disruptions during updates or upgrades.

Control Costs and Fuel Ongoing Savings

The Pure Storage platform delivers enterprise-grade data services with no additional licensing or complexity. This includes industry-leading data reduction technologies like inline deduplication and compression which enable organizations to store more data in less physical space. The result is greater storage efficiency, lower energy consumption, and significant cost savings.

Lastly, organizations can solve the unpredictability of AI data growth with SLA-driven Evergreen//One™ storage-as-a-service that is perfectly aligned with the scalability, cost-efficiency, and continuous operation needs of AI workloads.

Additional Resources

- Learn more about [Pure Storage solutions for Oracle](#).
- Find more what analysts [say about the role of data storage in database environments](#).
- Read the [Oracle ransomware recovery](#).
- Read about [Pure Storage file services for Oracle](#).

¹ Based on internal benchmarking. Results may vary depending on configuration, usage patterns and workload.