# Dramatically Increase Database Performance and Efficiency with Oracle All Flash FS Storage Systems

## ORACLE'

You can dramatically increase business agility and results by using Oracle All Flash FS storage systems with Oracle Database. Oracle All Flash FS storage is architected for the cloud and co-engineered with Oracle Database and the rest of Oracle's converged infrastructure stack to accelerate Oracle Database and applications, cloud-enable storage resources, reduce multitenant security and deployment risks, and lower your on-premises storage spend by up to 75 percent so you can invest in new revenue generating activities.

#### ORACLE ALL FLASH FS KEY BENEFITS

- Architected for multitenant clouds with high security and performance
- High all-flash performance for every application and Oracle Database
- Co-engineered with Oracle Database to reduce storage footprint by up to 75% and speed database queries by up to 5x
- Support 24/7 operations with no single point of failure and rapid failurer
- Efficiently consolidate legacy SAN storage systems leveraging All Flash IO Prioritization and All Flash Storage Domains
- Simplify IT and reduce management costs automating many administrative tasks with Oracle's co-engineered converged infrastructure stack
- One-click storage provisioning and management using tuned and tested out-of-the-box "application profiles" for Oracle Database and key enterprise applications.
- Lower risk with a storage solution that has been co-engineered with Oracle Database and applications, and tested to work together

## Today's IT Challenges Require a New Approach to Storage

Let's face it. IT budgets aren't keeping pace with exponential data growth, the increasing transaction loads from enterprise databases, and the requirements of latency-sensitive applications. To meet these needs without breaking your budget, you need a storage solution that is architected for the cloud, delivers exceptional storage efficiency, superior database and application performance, and reduces risk— all at an affordable cost.

Oracle All Flash FS Storage System delivers on all of these, and more. It is designed to deliver enterprise-grade all flash capabilities with low latency, high throughput, and extreme security for business-critical data. Its high-availability design provides you with predictable, fast performance for all of your Oracle databases and applications so you can confidently consolidate data for business-critical applications in a private cloud environment without worrying about multitenant performance impacts or security.

Using patented All Flash IO Prioritization, All Flash Oracle FS Storage systems ensure that IO requests from your most business-critical Oracle Databases are completed first so your customers and employees never have to wait. And, by automatically taking advantage of both performance-optimized and capacity-optimized flash technologies, Oracle All Flash FS Storage systems enable you to simultaneously maximize Oracle Database and application performance while minimizing cost with no additional effort.

### Simplify IT and Reduce Costs

Oracle engineered storage solutions are co-developed with Oracle Database and applications to optimize performance and efficiency so you can meet business-critical IT requirements at dramatically lower costs. As part of the Oracle engineered storage portfolio, Oracle All Flash FS is the only all-flash storage solution that supports Oracle Database Hybrid Columnar Compression. With Hybrid Columnar Compression, you can compress the historical portion of your Oracle Database by 10x-50x, reducing average storage requirements by up to 75% and increasing query speed by up to 5x. To you this translates into savings in both upfront and ongoing costs.



# ORACLE ALL FLASH FS STORAGE SYSTEM

The Oracle All Flash FS storage system is an enterprise-grade all-flash storage system that is co-engineered with Oracle Database and the complete Oracle converged infrastructure stack to maximize performance, efficiency, and multitenant security. It uses patented All Flash IO Prioritization technology to prioritize I/O requests according to their business critically and auto-tune storage based on its usage patterns. The Oracle All Flash FS storage system enables you to consolidate storage for multiple mission-critical applications or databases and meet your service level agreements with a minimum of DBA or Storage Administrator intervention.

And to simplify database and application deployments, the Oracle All Flash FS comes with predefined flash application profiles that provide tuned and tested out-of-the-box storage optimization for Oracle Database and key enterprise applications, including non-Oracle applications such as Microsoft Exchange. With one-click provisioning you can optimize flash performance and manage Oracle Database or Oracle Applications with a minimum of administration.

## Meet Higher SLAs Within Budgets

With Oracle All Flash FS Storage systems, you can confidently consolidate your legacy SAN storage systems into one high-performance, robust platform and cost-effectively meet your SLAs. Oracle All Flash FS storage has sophisticated All Flash IO Prioritization which uses your business priorities to ensure that business-critical, latency-sensitive Oracle Database IO requests are handled first and that all applications are able to achieve predictable performance.

In addition, with All Flash Storage Domains you can create virtual all-flash storage machines within an Oracle All Flash FS storage system, each with its own custom-tailored All Flash IO Prioritization settings. Each Storage Domain physically isolates performance-sensitive or multitenant data in private resource pools—in effect separating "noisy neighbors," and further ensuring that your business-critical Oracle Databases and applications receive the premium level of IO services that they deserve. With All Flash FS Storage Domains, you can not only meet your SLAs but also lower operational expenses by consolidating storage infrastructure, reducing management, power, cooling, and datacenter costs.

### Support Cloud and Traditional IT

By running Oracle Database with Oracle storage, you are preparing your IT infrastructure for the delivery of cloud services. Oracle Database 12c is designed for the cloud with a new multitenant architecture that simplifies consolidation and delivers high density schema-based consolidation. However, getting the most out of Oracle Database 12c requires that the storage that supports it is also designed for the cloud. Oracle All Flash FS Storage is architected for the cloud and works with Oracle Database 12c to maximize the benefits of cloud services with co-engineered storage efficiency, performance optimizations, and multitenant security.

Storage domains in the Oracle All Flash FS Storage system accelerate the deployment of Oracle Database in clouds with secure, reliable multitenancy and granular SLA management that deliver predictable performance for multiple diverse workloads. These dedicated virtual storage machines can be created for users, applications, or companies, making Oracle All Flash FS an ideal platform for private, hybrid, and public clouds. Storage Domains can also simplify regulatory compliance and make it easy to implement chargeback models.

Oracle's complete cloud lifecycle management solution, Oracle Enterprise Manager, also enables you to quickly set up, manage, and support enterprise clouds as well as Oracle Database and traditional Oracle IT environments.

#### Reduce Risk

As enterprise-grade storage, Oracle All Flash FS is essential in keeping your highperformance business running 24/7. To this end, Oracle All Flash FS has a highavailability design that features such no single point of failure, mirrored caches, and rapid failover. The consolidation capabilities of Oracle All Flash FS Storage reduce integration points, complexity, risk, and cost of storage for Oracle Databases while automation of much of the management stack including Oracle Database and application provisioning reduce the chance of human error.

As Oracle engineered storage, Oracle All Flash FS has been co-developed, tested and tuned to work together with Oracle Database and the complete Oracle converged infrastructure stack, enabling you to avoid the typical challenges in getting a multivendor environment up and running and going for the long term. With one phone call to Oracle, you get you support for the entire stack, eliminating the need to trace issues to a specific system component before calling for support.



#### CONTACT US

For more information about Oracle storage solutions for Oracle Database visit http://www.oracle.com/storage/ or call +1.800.ORACLE1 to speak to an Oracle representative. .

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#### Hardware and Software, Engineered to Work Together

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