

**Hardware and Software
Engineered to Work Together**



End-to-End Choices in Tiered Storage Solutions

Oracle's tiered storage strategy lets you effectively manage and store data across multiple types of storage media while reducing your total cost of ownership up to 54 percent. Oracle is the only technology leader to provide a scalable, end-to-end storage solution that aligns data value with the right combination of cost, performance, and capacity.

There's no question that the tremendous challenge of managing and storing business data is on everyone's short list. How can companies manage and protect their most precious asset—information—while lowering IT costs, coping with data growth, and reducing risk?

One Choice Is Not Enough

If all data were equal, a "one size fits all" data storage strategy is all anyone would need. But the fact is that older data is used less often than new data. So, while it makes sense to use fast, high-density media to store current or mission-critical data, using that same media to store older data is an unnecessary expense.

Oracle's tiered storage solution delivers end-to-end, high-performance storage systems with simple management capabilities, giving organizations options for handling their data storage needs. Oracle uses a holistic, integrated approach to categorize data into tiers based on criteria such as the age of the data and

how often it's used. Data is then stored on the media that works best for each category. With this strategy, customers can store large volumes of structured and unstructured data from heterogeneous environments and manage that data—from creation to archive—across multiple types of storage media.

The Oracle Difference

Oracle is the only market leader to provide a seamless, integrated, end-to-end, tiered storage solution that helps you

- Lower IT costs
- Manage data growth
- Reduce risk

Oracle's storage solution is backed by proven technologies and by Oracle's commitment to the storage media market, a commitment that lets Oracle customers optimize their storage options by choosing the combination of media—flash, disk, or tape—that works best for their business.

WHAT IS TIERED STORAGE?

A tiered storage solution assigns different data to different types of storage media, with the goal of preserving accessibility and reducing your total cost of storage. The three components of a tiered storage strategy are

- **Primary storage.** Stores new data from high-performance, mission-critical applications and databases. Access time is measured in milliseconds; storage media includes ultra-high-performance flash or solid-state drives (SSDs) and fibre channel (FC) storage.
- **Secondary storage.** Stores 30- to 90-day-old data needed for business continuity. Also used to store fixed content and backup and recovery data. Access time is in seconds; storage media includes unified storage, capacity disks (SATA), and hybrids.
- **Long-term or archival storage.** Stores data older than 90 days (usually for legal compliance). Access time is measured in minutes; storage media includes capacity disks and tape.



“Our return on investment is instant because it would have cost us US\$14 million to make videotape copies. [Oracle’s] Sun solution is saving us US\$6 million. We plan to completely replace and recycle existing tapes every three years, and even doing that, this solution is far less expensive than any other.”

Sam Gustman, CTO, USC Shoah Foundation

Provide Choices and Lower Costs

Oracle’s tiered storage solution offers the lowest cost per gigabyte available and dramatically reduces overall storage costs and your total cost of ownership (TCO).

You can combine flash or disk storage (optimized for performance or capacity) with less expensive disk or tape storage (optimized for lower cost, power, cooling, and space) and then integrate this mix of storage media with enterprise content management applications that streamline the handling of data. Only Oracle lets you mix and match your storage media drive by drive, providing the highest levels of consolidation available.

With Oracle’s tiered storage solution, you protect your long-term IT investments by using valuable IT resources more efficiently. You can also leverage your existing environment—hardware, security, work policies, previous training, and accumulated knowledge—for a faster return on your investment.

Manage Data Growth from Applications to Archives

Storing and managing the data in your organization is a process that must include a plan for managed growth. Oracle’s unsurpassed scalability makes it easy for you to expand your solution as your storage needs grow.

By integrating business-level content management policies with storage-level

data management policies, Oracle delivers a seamless, unstructured content management solution that uses policies and automated movements to manage data and provide easy interoperability within and among generations of storage media. Oracle uses an open data model that provides flexibility and long-term data access, so migrating data to new storage media is transparent to applications and users. A consistent view of data across all storage tiers lets IT managers confidently track data through every phase of the lifecycle.

Reduce Risk and Increase Confidence

Only Oracle’s tiered storage strategy reduces risk for your organization with a certified, single-vendor solution. You also get industry-leading performance, quality, and reliability that helps you reduce downtime, avoid bottlenecks, and increase performance. Oracle’s unwavering commitment to the success of its tiered data storage solution protects your IT investment for the long term—a commitment that’s backed by Oracle’s unparalleled support specialists around the world.

Oracle’s Storage Tek solutions represent more than 40 years of technology leadership, and Oracle’s Sun Storage Archive Manager has long provided the best policy-based hierarchical storage management software for maintaining

large amounts of stored data. In fact, Oracle is the only vendor supporting customers with data storage solutions spanning four generations of tape media reuse and more than seven generations of FC disk arrays. Oracle enterprise customers include leading archives around the world, storing tens—and soon hundreds—of petabytes (PB) each.

Oracle offers the highest levels of encryption and data protection for every aspect of your data storage plan, with road-tested, proven technologies that help you reduce risk by

- Lowering the risk of data loss
- Ensuring compliance with privacy and stringent government regulations
- Protecting against security failures
- Reducing both scheduled and unscheduled outages

Complete Tiered Storage Solutions

From applications to archives, Oracle’s tiered storage solutions combine the best of Sun storage media with Oracle’s technology leadership and best-of-breed applications to offer enterprises around the world a strategy for efficiently storing and effectively managing the data at the heart of their business.

Integrated, high-performance storage systems with simple data management solutions—only from Oracle.



Oracle is committed to developing practices and products that help protect the environment

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