A New Approach to Datacenter Efficiency
Complete Technology Stack Solutions for Today’s Datacenter
Only Oracle Is Innovating Across the Entire Technology Stack
For years, datacenters delivered the support and services required to maintain enterprise IT systems. But the role of the datacenter is evolving to meet today’s changing business challenges. Maybe it’s time for a new approach.

As the pace of business change accelerates, datacenters struggle to support existing systems while implementing new business processes. Information technology (IT) organizations are seeking to redefine themselves as strategic business partners rather than as expensive cost centers, and are looking for new ways to foster innovation in all areas of the business.

Dramatic increases in the amount of data your business handles require more compute power, more storage, and better data management. However, simply doing more of the same probably isn’t the best way to handle new challenges and changing requirements—especially when your organization is dealing with tight budgets, cramped facilities, under-utilized system components, and escalating energy costs.

Oracle leads the way with a new approach to datacenter efficiency that includes complete technology stack solutions. Oracle offers an advantage you won’t find anywhere else—industry-leading hardware and premier business software, engineered to work together in an integrated solution that delivers maximum flexibility, minimum overhead, and unprecedented performance.

All areas of the enterprise are affected by the decisions made about the datacenter. By aligning your datacenter goals of high availability, less complexity, and lower costs with the overall goals of your business, you have a datacenter that’s on track to handle the challenges of today and can grow with your business to take advantage of opportunities to come.
WORKING FOR STUBHUB
StubHub upgraded its mission-critical, online transaction processing (OLTP) application to Oracle’s SPARC servers running Oracle Real Application Clusters (Oracle RAC) and realized a return on their investment in just three months. They also have

- Faster-loading Web pages and faster ticket price updates
- A 52-times increase in total database transaction capacity
- An average transaction response time that is 72 times faster than before

“[Oracle] Solaris is one of the most stable, secure, and scalable operating systems available, and the SPARC processor line is second to none. Our SPARC Enterprise M-Series servers combined with Oracle Database 11g offer rock-solid reliability.”

Bill Dougherty, Director of Site Operations, StubHub

FACT: In 2010, Oracle introduced SPARC T3, the industry’s first 16-core processor, which delivers extreme scalability and performance along with built-in security and virtualization.

Addressing the Challenges of Today’s Datacenter

IT decision-makers are responsible for providing the high performance, high availability, security, and agility to keep their datacenters—and their businesses—operating smoothly. Today’s datacenter managers must also deal with increasingly complex and potentially conflicting requirements such as

- Meeting increasing IT demands with fewer resources
- Reducing costs while increasing services and improving performance
- Improving efficiency while protecting existing investments
- Launching new applications without disrupting ongoing operations
- Meeting new compliance regulations without slowing business processes

Putting Oracle to Work in Your Datacenter

Keep IT Simple

Today’s complex datacenter infrastructures are typically full of individual systems operating at far below their optimal capacity. Often, datacenters have silos of information sitting side-by-side, but on separate machines because of differences in operating systems, or simply because they host different applications. Just staying on top of updates, patches, and other basic maintenance procedures for a complicated infrastructure can take a huge bite out of available IT resources.

By reducing complexity, you create a datacenter that’s easier to manage and maintain and that provides better service.

The Oracle Stack Advantage

Oracle’s complete stack solutions offer hardware and software that’s engineered to work together to give you unprecedented performance and help reduce the complexity, risk, and cost of running a datacenter. By providing the entire technology stack, Oracle optimizes the way the individual technology components work together—something other vendors just can’t do.

From the design of the processors, servers, and storage all the way to the system management tools, all layers of Oracle’s integrated hardware and software solutions are engineered to work together to give you the highest compute density, the lowest power usage, and simple, powerful system management capabilities. The software is optimized to take advantage of Oracle hardware features; the hardware is engineered to provide direct advantages to software; and functionality is moved within the stack as needed to provide unprecedented performance, reliability, and scalability.
With Oracle complete stack solutions, you can

- Consolidate multiple servers onto a single machine that can support hundreds of different applications—even those with varying security, performance, and availability requirements and those running on different operating systems
- Speed the deployment of new applications
- Perform maintenance operations (such as upgrades and patches) faster and with no disruptions or downtime for your users
- Provide system management transparency from applications to disk
- Quickly reallocate resources to meet the changing needs of your users

Increased Efficiency and Lower Costs

A more efficient datacenter uses fewer components and leaves a smaller physical footprint that requires less space, less electricity for cooling and operations, and fewer people to monitor, manage, and maintain the systems. You get the benefits of managing fewer machines: reduced operating costs, lower capital equipment costs, lower energy bills, less complexity, and a faster return on your investment.

Increasing Efficiency with Built-in Virtualization

Only Oracle provides built-in virtualization and consolidation capabilities—including Oracle Solaris Containers, Oracle VM for SPARC, and dynamic domains—at no extra cost. Systems run more efficiently because Oracle automatically puts any available resources to work, and datacenters can increase system utilization to as high as 90 percent. By combining Oracle’s high-efficiency virtualization with space-saving server consolidation, IT organizations can simplify datacenter management and speed the deployment of new applications.

Lowering Datacenter Costs

Oracle offers proven ways to gain maximum value from IT assets while lowering costs and providing IT services faster.

- Faster return on investment. Integrated functionality between hardware and software in the Oracle technology stack provides significantly better performance, and full-stack testing increases the efficiency of your datacenter for greater reliability, availability, and service.
- Unparalleled scalability. Flexible, easily expandable systems scale seamlessly to meet the changing, ongoing demands of growth without disruptive migrations.
- Built-in security with no impact on performance. By default, Oracle hardware and Oracle Solaris provide integrated, no-cost security features. Hardware-based encryption acceleration supports high levels of security in the database, middleware, and storage layers without any performance degradation.

The New Standard in Datacenter Solutions

For more than 16 years, Oracle has collaborated with Sun to provide customers with the best software and hardware options for their business. Today, the combination of Oracle and Sun technology into a complete technology stack solution marks a new standard in how information technology is delivered and supported. For your datacenter, that means higher availability, shorter deployment times, reduced costs, and unprecedented performance.

Delivering Performance—Only from Oracle

Only Oracle offers the full spectrum of datacenter deployment models—best-of-breed components, optimized solutions, and preconfigured, engineered “in-a-box” solutions—with every layer supported by Oracle. Oracle delivers industry solutions that are based on open standards and engineered to deliver the highest levels of performance, availability, security, and manageability. With Oracle’s complete stack solution—applications, database, middleware, operating systems, servers, and storage engineered to work together—you can effectively manage the transition of your datacenter from simple service provider to partner in the business.

Eliminating Complexity

Oracle’s strategy for the modern datacenter involves replacing complexity and uncertainty with greater business agility, lower administrative overhead, and unequaled performance. Oracle helps you evolve your datacenter with complete technology stack solutions that are based on record-setting hardware and world-class business applications. By leveraging engineered solutions that span both hardware and software, Oracle can help you change your datacenter from a bottleneck into a valued partner in the business.

Best-of-breed hardware and software—from one vendor—engineered to work together. Continuous innovation with limitless possibilities.
FACT: More than 50,000 customers run Oracle Solaris, including 10 of the top 10 telcos, 10 of the top 10 utilities, and 10 of the top 10 banks. 100 of the Fortune 100 are Oracle customers.