next generation hp AlphaServer systems deliver for Oracle customers

- performance
- availability
- lower cost
- investment protection
which would you like first?

the good news. the good news.
or, the good news?

Three new systems. Same great family. Ideal for Oracle environments. And, while ongoing improvements come as no surprise to current AlphaServer system users, these next generation systems are enhanced to deliver:

increased productivity for end users
• excellent performance and available for the increasing demands of Oracle environments
• outstanding Alpha technology with rich operating systems functionality (Tru64 UNIX and OpenVMS)

increased cost savings for IT
• improved investment protection with a family of systems based on common components
• new consolidation opportunities with increased single system capacity
• seamless growth and simplified management
• ability to use existing applications without modification

adaptive to your needs

Thanks to a modular, building block architecture and common components that can be re-used across the entire family, you buy only what you need now. You do not need to pay for additional headroom, and can easily grow in small, affordable, easy-to-manage steps.

In addition, there is unique near-linear pricing from the smallest to the largest configurations. If you need more capacity just add more building blocks. The technology required to connect building blocks into a large SMP system is embedded in the EV7 Alpha microprocessor.

On the other hand, your more immediate business need may be to consolidate your operations and information in order to streamline IT resources and management. In this case, you can consolidate multiple applications running on older systems onto one new adaptive AlphaServer system to improve performance while reducing cost.

From healthcare to finance – to government – to telecom and more, these new HP AlphaServer systems are ready to work as:
• back end Oracle scalable/high performance database servers
• mixed (2-Tier) database and application servers
• high performance application servers
• high performance technical computing SMP systems

so much about these AlphaServer systems is new

• new systems: AlphaServer ES47 tower/rack, ES80 and GS1280 rack systems
• new EV7 Alpha microprocessor
• new switchless mesh architecture
• new flexible common building blocks
• new growth capacity to 64 processors
• new RAID Memory
• new ability to partition departmental and workgroup systems
• new management tools
• new performance & scalability; single system reliability & availability; flexibility & manageability.

And, while so much is new, the intent is to increase the return on your existing IT investments by letting you use the skill sets you already have and retain binary application compatibility. Quite simply, your existing Oracle applications will run faster!

“With our joint customers’ businesses growing and getting more complex they look forward to greater system performance for their applications. The Oracle and HP partnership has an excellent history of providing solutions that excel at addressing these needs. The next generation EV7 based AlphaServer Systems from HP will enable us to continue to meet our customers’ most demanding Oracle9i Database and application performance requirements.”

Conway Synder
Senior Director
RISC Platform Partners
Oracle Corporation
EV7 Alpha microprocessor and unique switchless mesh architecture

The new systems are based on a major enhancement to the Alpha microprocessor, which eliminates obstacles on traditional systems that cause applications to wait. These include: waiting for data to be brought from memory into the L2 cache; waiting for data to be brought from the L2 cache into memory; and waiting for communications to take place between processors.

The switchless mesh architecture improves application performance automatically with significantly reduced latencies, greater memory and I/O bandwidth, and record-setting scalability.

This breakthrough technology enables improvements to the microprocessor without requiring application changes. The integration of the L2 cache, the memory controller and inter-processor communications onto the chip itself have no effect on applications. Only customer-written applications that are optimized for cache size will need to be changed, as is common in the industry.

ideal for consolidation

In addition to performance, these next generation HP AlphaServer systems help you consolidate your Oracle applications and provide cost savings through:

- superior single system scalability
- a 5-10 times memory-bandwidth advantage for critical applications

This is ideal for enterprises running business intelligence, customer response management, enterprise resources planning and technical computing applications.

“We are absolutely impressed by the performance that the new AlphaServer GS1280 delivers... Timely end of day roll up is a challenge for many financial operations. The GS1280 dramatically accelerates this process and cuts the time required in half.”

Karin Spevak
Manager, IT
Financial Markets Information Service
WAVE Solutions Information Technology GmbH
a Bank Austria Creditanstalt company

AlphaServer ES47 tower or rack
This versatile system supports:
- 2-4 Alpha EV7 CPUs
- 8-32GB of memory
- Oracle Standard Edition
- Tru64 UNIX or OpenVMS

AlphaServer ES80 rack system
This more expandable system supports:
- 2-8 Alpha EV7 CPUs
- 16-64GB of memory
- Tru64 UNIX or OpenVMS

AlphaServer GS1280 rack system
This more powerful system supports:
- 2-16 Alpha EV7 CPUs (32:64 later)
- 16-128GB of memory
- Tru64 UNIX or OpenVMS

source: www.cs.virginia.edu/stream/top20/Bandwidth.html
Sun has only reported a Sun Fire 15K result with 72 processors at 50724.3
scale up

Whether you are using the Oracle9i Database for mission-critical OLTP, data warehousing applications, business intelligence, or in support of extensive web functions, your system must be capable of handling all types of information, while providing transparent scalability.

Now, thanks to the common components and modular architecture of the new HP AlphaServer systems, you have more power to ‘scale up’ – all in one system. This means you can:
- consolidate your resources and eliminate costly server sprawl
- improve performance by replacing older systems with smaller, faster systems
- grow in incremental steps in the same cabinet
- improve application availability

scale out

Oracle, with HP as its development partner, has helped customers worldwide to realize the cost saving and scalability benefits of deploying clustered databases with Oracle9i Real Application Clusters (RAC).
- only clusters achieve highest availability levels, with no single points of failure
- only HP clusters put all clustered systems to work for your database environment, with no idle standby systems
- only HP delivers near-SMP cluster scalability for Oracle9i RAC with management ease and lower cost of single-system

Use what you buy, all the time, for a productivity increase. And, as your environment requires more computing capacity, simply cluster a new AlphaServer system into your existing Oracle environment. Adding a node takes less than thirty minutes, and brings the performance and cost-savings advantages of the newest AlphaServer family to your environment.

As always, you can manage clustered systems as easily as a single server. TruCluster Server 5.0 eliminates much of the overhead associated with previous generation cluster products, and saves up to 82%* of the time required to perform certain maintenance and administration tasks.

* Source – study conducted by D.H. Brown Associates, Inc (June 2000)

performance

- 64-way systems will deliver up to 2.3 times performance advantage over current 32-way AlphaServer systems
- massive I/O bandwidth: 1GB/second/CPU
- 10 times more memory bandwidth
- SC1280 HPTC systems deliver the highest performance in the industry (37+ TFllops)

“Our goal is keep the power flowing, to deliver excellent service and do it at the lowest possible cost. We dramatically increased efficiency through technology and now handle 454 customers per employee. Green Mountain Power consolidated five out of nine disparate databases into a single enterprise database infrastructure based on Oracle9i RAC and HP Tru64 UNIX. This moved us well above the industry average of 297 for this most important metric. At the same time we have improved our response times for outages.”

Mary Powell
Chief Operating Officer
Green Mountain Power

dynamic partitioning

Created through software, partitions provide database, application and operating systems isolation that runs on single server nodes or within single-system hard partitions. This enables everything to coexist in the same server, while assuring complete privacy. Just think – you can:
- consolidate (e.g., smaller footprint, less management) without sacrificing customized performance
- mix your workloads (e.g., test in one partition, and run production in the other)
- run Oracle9i Database in one partition, and Oracle E-Business Suite in another – both on the same server

* Source – study conducted by D.H. Brown Associates, Inc (June 2000)
adaptive infrastructure for investment protection

The HP AlphaServer ES47, ES80 and GS1280 systems are a major advancement in performance, capacity, reliability and manageability for customers, and demonstrate HP’s commitment to deliver on the stated road maps and promises made (i.e. HP AlphaServer systems will be sold through at least 2006 and supported through at least 2011). They also extend our system management capabilities, continuing to drive to simpler operational procedures designed to support high-availability business practices. These systems also present a major step forward on the path to the Itanium based systems.

In addition to the modular architecture and common components, these next generation AlphaServer systems:

• offer the proven power and stability of Tru64 UNIX or OpenVMS
• integrate seamlessly into existing environments
• integrate into existing system management tools and operations policies
• will help you achieve true database and application consolidation
• ensure that applications do not need to be re-qualified, updated or recompiled
• ensure that your Oracle applications run faster and have better scalability
• boost your clustered database or application performance with no incremental management cost

+ collaborative hp/Oracle partnership

HP is clearly the best platform for running Oracle, as HP and Oracle collaborate on development and testing of complete, reliable solutions based on a combination of Oracle software and HP servers, software, storage and IT services.

Over a 20-year period, this working relationship has extended from the boardroom – to engineering – sales – consulting – support and more. In fact, more Oracle database customers use HP systems than any other vendor.

HP Verified for Oracle is a qualification and information program that draws on the companies’ combined leadership in clustering technology, expertise in implementing Oracle9i RAC across major enterprise platforms, and support of related benchmark studies.

Joint support services with coordinated support from HP and Oracle ensure faster resolution of interoperability issues, including access to remote support tools.

HP StorageWorks participates on the Oracle Storage Compatibility Program (OSCP), ensuring rock-solid compatibility with your Oracle environment. HP solutions such as Data Replication Manager, Continuous Access, Enterprise Volume Manager and Business Copy, in addition to others, are qualified and provide you with the highest level of business continuance. We provide first-line technical support for integrated Oracle and HP storage solutions. Exclusive to HP, HP is Oracle-qualified for asynchronous, as well as synchronous, mirroring.

In addition, our 80,000 plus combined customers benefit from our 13 worldwide technology and competency centers.

= agility for your business

In addition, you can draw upon an array of specialized services to reduce business or infrastructure complexity, including:

• financing services to fit your capital plans for purchase or lease
• upgrade programs for existing AlphaServer customers
• factory integration services for simple and fast deployment
• Customer Assurance Program with the tools, resources and services to aid in a seamless transition to future Itanium®-based systems

HP’s Oracle 10.7 to 11i application upgrade program brings together special hardware pricing and financing; the infrastructure and Oracle expertise of HP and select systems integrators; and the wide range of choice offered by HP AlphaServer platforms.

the next step in a long-term future with hp and Oracle

This next generation HP AlphaServer systems family delivers incredible improvements in single-system performance, reliability, manageability and flexibility. Plus, these adaptive systems address requirements for highly reliable, scalable systems that are easy to manage, integrate into the existing IT infrastructure without disruption, and are flexible enough to support changing Oracle database and application requirements. Three new systems. Same great family. Ideal for Oracle environments.

This is the kind of good news your business deserves.