



Compaq AlphaServer DS20

"Alpha is the only server powerful enough to satisfy our requirements, providing the growth potential we need..."

Darrell Mollett
Application Services
Technical Manager
Lucent Technologies



Benefits of *Compaq AlphaServer DS20 System* at a glance

- **Superfast performance of your most demanding applications – with the fastest microprocessor available today!**
- **Large system performance and features – delivered at departmental server prices**
- **No-compromise reliability and availability**
- **Sleek, compact and powerful**
- **Global service and support**
- **Fastest Dual Processor Server – Faster matters.** When you can double your speed with dead-on accuracy at a competitive price, you need to make a move. Using up to two new 500 MHz Alpha 21264 processors; up to 4 GB of memory; incredible 5.2 GB/s memory bandwidth and two 256-bit wide (512 total) datapaths employing new cross-bar switching technology; and dual 64-bit PCI buses for 532 MB/s I/O throughout... Compaq™ has the fastest dual UNIX® system available.
- **Affordable, Rock-Solid System – Big system features, small system price.** The Compaq AlphaServer™ DS20 does it all, whether you're running SAP®, PeopleSoft™, Oracle® or Baan® – or you need a Web server; business intelligence/datamarts running SAS; or high-performance technical computing. You get the advanced features you need with hot-swap disks, ECC memory, remote-management console, and optional redundant power supply – without breaking your budget.
- **Supports Top-Quality Software – Choice is the new standard.** Whether it makes sense for you to run **Compaq Tru64™ UNIX®**, Compaq OpenVMS™, Microsoft Windows NT™, or LINUX, the Compaq AlphaServer DS20 is ready to perform... today... and support the leading environments you need to grow your enterprise. Plus, we've included Internet-energized software (such as Netscape® Enterprise Server™, which is included with **Tru64 UNIX**) and time-saving server management software to add even more value to an intelligent investment.

Compaq AlphaServer DS20 System

Master your toughest departmental server applications with supercomputer power

When it comes to building business and technical solutions for the 21st century, the Compaq AlphaServer DS20 system offers you an entirely new class of computing power. Running up to two new generation Alpha 21264 processors – and boosted by new high-speed memory access – the Compaq AlphaServer DS20 gives you industry-leading price/performance.

In fact, the two-processor performance and features of the Compaq AlphaServer DS20 often surpasses that of four-processor servers! So you get supercomputer power at an entry-level server price point – unheard of in the market until now.

AlphaPowered™



*Compaq
AlphaServer
DS20 System*

And what does this added power and performance from Compaq really mean to you? They mean you can expect a 200% – perhaps even a 300% – boost in the performance of your most demanding applications.

They mean you'll have enough headroom so you don't have to fear success. With the AlphaServer DS20, you'll be able to handle the unpredictable system demands – and rewards – of doing business on the Internet.

And of course, as with every AlphaServer, price and performance are just the beginning. You'll be able to rely on a smooth upgrade path; continued service excellence; and an unshakable commitment from Compaq to improving the Alpha platform well into the next century.

With the AlphaServer DS20 system, Compaq has done nothing less than raise the expectations of what an entry-level server can accomplish. In a class by itself, the AlphaServer DS20 offers the first glimpse of a new paradigm: that you can, and should, expect more from technology.

productivity

How can I use this "New Class of Computing?"

The Compaq AlphaServer DS20 system is ideal for branch deployment, department and workgroup business and database applications, ISP solutions, Web servers, and Telecom applications.

So whether you're deploying large numbers of servers at remote locations, or trying to keep up with the scalability demands of Internet applications – the AlphaServer DS20 system is the right solution for you.

And if you've been impressed with the award-winning AlphaServer systems of the past, then the new AlphaServer DS20 system – powered by the new generation Alpha 21264 processor – will blow you away. New and totally redesigned dual 64-bit 500 MHz processors put supercomputer power at your fingertips in a proven solution that's ready to run... today.

So whether you are looking to increase productivity through better business application performance. Or feed power-hungry Web-based applications to turn opportunity into profit. Or supply complex, high-performance technical applications with enough power to make them practical. Or make your data work harder through improved business intelligence and datamart applications. Or you simply want large system features at a small system price. There really is no other choice. The Compaq AlphaServer DS20 system is ready to handle anything you can throw at it today... and down the road.

What about major applications?

When you choose a Compaq AlphaServer DS20 system, you can expect price/performance leadership for business applications – ranging from manufacturing and distribution to finance and human resources.

Whether you're deploying leadership applications like SAP R/3,[®] Baan or PeopleSoft. Or you require leading database tools from Oracle, Sybase[®] and Informix[®]. Or you want more speed and power to boost the performance of what you've got. The Compaq AlphaServer DS20 system offers you a clear path to success.

And with more than 12,000 popular and proven 64-bit applications to choose from – operating in a true 64-bit environment – you can be confident you'll have whatever you need to handle the most demanding tasks, boost productivity, and shorten your time-to-solution.



Is the AlphaServer DS20 Internet-ready – right out of the box?

Yes. Of course. The Compaq AlphaServer DS20 system ships with a complete suite of Web server software. **Tru64 UNIX** systems from Compaq feature one of the industry's leading web content and authoring tools – Netscape Enterprise Server.

In addition, Compaq systems for Windows NT and OpenVMS offer premier Web authoring, security and management tools as well – ensuring a smooth migration to future Internet applications that can help you turn opportunity into profit.

Is the AlphaServer DS20 built to handle intranets and extranets?

Absolutely. Compaq understands that your use of Internet technology can – and must – go far beyond simple e-mail and Web-based publishing. For example, a company-wide Intranet is a resource that can help you stay competitive – linking your people, partners, suppliers and customers for greater efficiency and massive savings on telecommunications dollars.

That's why the Compaq AlphaServer DS20 system is designed to support a broad scope of communication and collaboration applications. By supporting applications such as AltaVista[™] search, firewall and tunnel products, and Netscape SuiteSpot[®], the AlphaServer DS20 provides a perfect foundation for your Intranet infrastructure. Your team will access data more quickly, and you'll enable the management and sharing of that data – across the hall and around the world – with a few keystrokes.

scalability

Tell me more about your new memory access breakthrough.

For too long, your data had to navigate a series of stop signs in order to process your requests. Not anymore. The new Compaq AlphaServer DS20 is constructed with advanced cross-bar capabilities that intelligently manage your data flow – keeping your data in continuous motion by allowing both processors to speak directly to memory.

This breakthrough cross-bar technology eliminates the contention for system resources that is associated with bus-based topologies. Technically, this means CPUs, memory, and I/O data sources and destinations are dynamically connected, for simultaneous communication over multiple paths.

The result? The fastest single CPU SPECfp95® result ever!

Compaq's system bandwidth doesn't artificially limit the performance of the Alpha microprocessor – a problem that can limit even the fastest server. And the numbers really start to stack up in your favor.

For example, the Compaq AlphaServer DS20 system now offers 5.2 GB peak memory bandwidth – more than double the nearest competitor. Once again, the AlphaServer DS20 redefines what you can expect from an entry-level server – while remaining at an extremely attractive entry-level price point. Moreover, this high bandwidth will be a key to the success of your growing business.

High data availability is the least I'll accept. Can you deliver?

The engineers at Compaq understand that today's businesses never stop. And that's why the Compaq AlphaServer DS20 system has been designed to run continuously, no matter what.

With the world's most advanced clustering, you'll have the best technology working hard for you, keeping you in business 24 x 365 – even during routine maintenance. You'll receive maximum uptime with uncompromising data integrity, regardless of the operating system you run, with features like redundant fans; redundant power supplies; auto reboot; thermal management; hot-swap disks; RAID; ECC memory and cache; and much more.

How are you making management easier?

The AlphaServer DS20 system includes Compaq server management software: a complete package of integrated system and network software tools that delivers "out-of-the-box" network and server management. Server management software provides – at no extra charge – a view of your server and desktop network, enabling proactive control and management of your network and computer resources. This improves uptime and user productivity – while also reducing overall cost of ownership.

Can you sum up a few of the benefits for me?



- *Rock-solid systems that do more work in less time, but remain scalable enough to allow your business to grow unimpeded.*
- *Bet-your-business data availability through advanced clustering technology – expect maximum uptime and the highest data integrity.*
- *Exceptional systems management at your fingertips. That's because Compaq server management software is included with every Compaq AlphaServer system.*
- *Internet-Energized software, included free with your Compaq AlphaServer system – meaning your server is Internet-ready right out-of-the-box, regardless of your operating system.*
- *Freedom of choice – all AlphaServer systems are designed to run Tru64 UNIX, OpenVMS, Windows NT, and LINUX.*

performance

Remote management – that's got to be tough.

Not with the Compaq AlphaServer DS20 system. Compaq's Integrated Remote Management Console (RMC) provides easy remote management and system diagnosis, thus reducing the need to be on-site to manage the server. With RMC, an operator can monitor vital signs such as temperature and power, and control the server (on/off, reboot) – all from a remote location. An auxiliary regulator allows the system to be interrogated, even if it is turned off or shuts down.

AlphaServers are ready to run LINUX?

Yes. And run it better than anyone else. No other server is as operating system-friendly as Compaq AlphaServer systems. Period. So if you've decided LINUX should be a part of your business, then we're here to provide the best systems in the industry.

Many companies are looking to LINUX to solve difficult computing problems in a user-friendly, stable environment. Moreover, some companies see LINUX as a cost-effective way to begin building for a future that will include **Tru64 UNIX**.

Today and down the road, you can rest assured that the AlphaServer DS20 system is the best dual-processor platform to take advantage of the exciting opportunities offered by LINUX.

Tell me more about my operating system choices.

Compaq AlphaServer systems offer you a choice of four operating systems allowing you the freedom to choose, remain with, or move to, the operating environment that makes the most sense for your business. And with the ability to redeploy the AlphaServer platform to meet your changing business needs, your system investment remains protected.

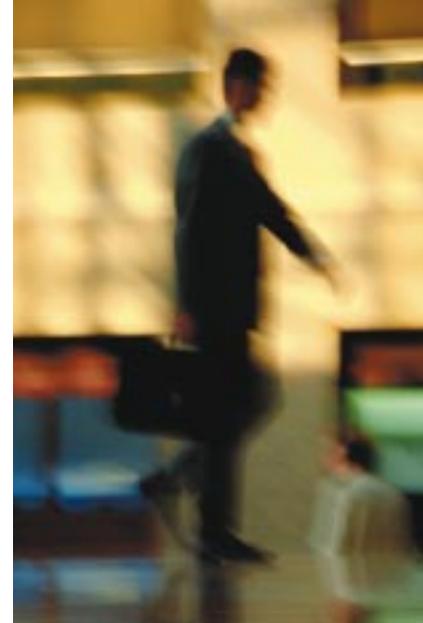
And if it's a mix of operating systems that will serve your business best, then Compaq is ready to help with integration resources such as the AllConnect™ for UNIX or Affinity™ for OpenVMS programs. Here, Compaq can provide the comprehensive collection of software, tools, middleware, services and people it takes to develop, deploy, integrate, and manage cross-platform applications.

What kind of warranty are we talking about?

The Compaq AlphaServer DS20 system comes standard with a three-year hardware warranty. If your system should need service during the full three years after purchase, you can count on Compaq to be there with one of the most highly acclaimed worldwide services organizations in the industry.

So what's my next step?

For a closer look at the Compaq AlphaServer DS20 system, go to our AlphaServer Web site at: www.compaq.com/alphaserver. Or call 1-800-344-4825 via a touch-tone phone in the U.S. and Canada or call 1-978-506-3777 from other regions.



Customer Successes

"The DS20 shows a strikingly powerful capability for numerical calculations in scientific/technical research. We are creating a large parallel computer system with 64 DS20s... its performance exceeds that of existing parallel computers with more than 1,000 nodes. We are looking forward to having our parallel system completed and running our heavy calculations of nuclear physics, which cannot be performed anywhere else."

Dr. Takaharu Otsuka

*Professor of Physics, University of Tokyo
Senior Visiting Scientist – RIKEN (Institute of Physical and Chemical Research)*

facts & features

Compaq AlphaServer DS20 System

Form Factor	Pedestal (can be rack-mounted)
Processor/cache	Up to two 500 MHz Alpha 21264; each with 64 KB I-cache, 64 KB D-cache on chip, and 4 MB of ECC onboard cache
Memory	128 MB ECC SDIMM memory, expandable up to 4 GB
System Architecture	Dual 256-bit wide memory datapaths and cross-bar switch technology providing 5.2 GB/s (peak) memory bandwidth; dual 64-bit PCI buses providing 532 MB/s I/O throughput
Performance	11,616 tpmC @ \$50.58/tpmC/ Jan. 18,1999 6,065 SPECweb96 (2 CPU), 4,092 (1 CPU) 27.7 SPECint95, 58.7 SPECfp95 (1 CPU); 76.1 SPECfp SMP (2 CPU)
Internal Expansion	6 slots: 5 PCI, 1 PCI/ISA
Storage Controllers	Dual-channel Fast SCSI-2, FW SCSI-2, FWD SCSI-2, Ultra SCSI RAID, CI, DSSI
Network Controllers	10/100 Ethernet, FDDI, Token Ring, asynchronous communications
Drive Bays	Seven hot-swap StorageWorks drive bays for 4 GB, 9 GB or 18 GB disks (maximum 128 GB). Three removable media bays: one 3.5" bay for diskette drive; one 5.25" for CD-ROM; one for tape or hard disk
Power Supply	Optional 675 watt redundant power supply
Interfaces	Two serial, one parallel, keyboard, mouse
High-Availability	Server management software, optional redundant power supply, auto reboot, thermal management software, remote system management, RAID, hot-swap drives, memory failover, ECC memory, ECC cache, SMP CPU failover, error logging, optional uninterruptible power supply (UPS), and UPS Power Management Software
Optional Clustering Software	Tru64 UNIX TruCluster Available Server & TruCluster Production Server, OpenVMS Clusters, Microsoft Cluster Server and Compaq Clusters for Windows NT
Service and Support	Compaq provides a three-year on-site, 5 day x 9 hour warranty with 24-hour response. Optional service options for up to 4-hour same-day response time are available, as well as a complete portfolio of worldwide service offerings to maximize your critical system environments.
Operating Systems	Tru64 UNIX 4.0E, OpenVMS 7.1-2, Windows NT 4.0 SP3, LINUX
Standard Software	Server management software and Internet-Energized software are standard with the AlphaServer DS20.

Compaq, the Compaq logo and Tru64 are copyrighted and are trademarks of Compaq Computer Corporation. AllConnect, AlphaServer, OpenVMS, AltaVista, AlphaPowered, and the AlphaPowered logo are registered with the U.S. Patent and Trademark office.

Microsoft is a registered trademark of Microsoft Corporation, and Windows NT is a trademark of Microsoft Corporation. Baan is a registered trademark and property of Baan Company. Netscape and SuiteSpot are registered trademarks of Netscape Communications Corporation in the United States and other countries. Enterprise Server is a trademark of Netscape Communications Corporation, which may be registered in other countries.

Oracle is a registered trademark of Oracle Corporation. PeopleSoft is a registered trademark of PeopleSoft, Inc. Sybase is a registered trademark of Sybase, Inc. Informix is a registered trademark of Informix Corporation. SAP is a trademark of SAP Aktiengesellschaft. SAP R/3 is a registered trademark of SAP AG in Walldorf.

Memory Channel is a trademark of Encore Computer Corporation. SPECint95, SPECfp95, SPECint95, SPECfp95, and SPECweb96 are registered trademarks of the Standard Performance Evaluation Corporation. tpmC is a registered trademark of the Transaction Processing Performance Council. UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Ltd.

Other product and company names mentioned herein may be trademarks and/or service marks of their respective owners.

Compaq believes the information in this publication is accurate as of its publication date; such information is subject to change without notice. Compaq is not responsible for any inadvertent errors.

Compaq conducts its business in a manner that conserves the environment and protects the safety and health of its employees, customers, and the community.

Printed in U.S.A. Part #EC-FG526-10 Rel. #XX/XX XX XX.X XX

Copyright © 1999 Compaq Computer Corporation. All rights reserved.