ENTERPRISE COMPUTING GROUP

October 29th Product Announcement

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Compaq Innovation Delivers the Power You Need With the Industry Standards You Want

To meet customers' growing demands for high-performance, integrated and easy-to-manage enterprise computing solutions, Compaq announces the Compaq Professional Workstation 5000. With the Compaq Professional Workstation 5000, Compaq makes its debut in the workstation market, the Compaq Professional Workstation brings together the best industry-standard ingredients to deliver a high-performance, well-integrated and easy-to-deploy workstation for business-critical environments.

Executive Overview

Today, Compaq makes its emergence into the workstation arena by introducing a highly competitive product offering based on the Pentium Pro processor and Microsoft Windows NT, the Compaq Professional Workstation 5000. The new Compaq Professional Workstation 5000 provides the same performance, seamless integration, reliability and support as traditional workstation products based on the RISC-UNIX platform, but with substantially better price:performance value. The Compaq Professional Workstation 5000 has been designed to provide outstanding performance, easy problem free setup, and integration allowing customers to confidently deploy their business-critical applications in financial, software development and CAD/CAE areas.

Compaq also introduces a new version of the DLT Tape Array that does not include software. By introducing this new version of the DLT Tape Array Compaq has added new levels of flexibility as well as establishing a new standard in backup performance, fault tolerance and reliability.

Compaq continues to meet the evolving needs of enterprise-wide environments, delivering new levels of performance and industry-standard features that customers expect from Compaq.

COMPAQ

Announcement Summary

New Hardware:

Compaq Professional Workstation 5000

The Compaq Professional Workstation 5000 is the ultimate professional workstation that brings together the best industry-standard ingredients: seamless integration, powerful hardware platform, and confident deployment all in a powerful, well-integrated solution.

New Options:

DLT Tape Array

The DLT Tape Array Model 4, is a rack-mountable storage device that is capable of holding up to four DLT Tape Drives.

Product Availability

Workstations:

Compaq Professional Workstation 5000   At Announcement

Options:

DLT Tape Array Model 4   At Announcement

Product Descriptions

Compaq Professional Workstation 5000

As part of its commitment to providing enterprise-wide solutions, Compaq introduces the Compaq Professional Workstation 5000. The Compaq Professional Workstation brings together the best industry-standard ingredients to deliver a high-performance, well-integrated solution that customers can confidently deploy for their business-critical applications in the financial, software development and CAD/CAE areas.

Based on Intel's Pentium Pro processor and Microsoft's Windows NT operating system, the Compaq Professional Workstation provides the same performance, seamless integration, reliability and support as traditional proprietary workstation products based on the RISC/UNIX platform but at a substantially better price:performance value. Some of the Compaq Professional Workstation's features are:

Powerful, industry-standard platform: The Compaq Professional Workstation has been designed to provide outstanding performance for processor-intensive and graphics-intensive applications. Utilizing dual Pentium Pro processors, a Matrox MGA Millennium graphics controller and 64MB of EDO, ECC DIMM memory, the Compaq Professional Workstation delivers a blazing processor performance. Additionally, certain models of the Compaq Professional Workstation come standard with 3D graphics controllers providing outstanding graphics performance.

Superior performance is not measured solely by processor speed. Disk and network performance are also critical to optimizing the overall performance of a workstation. That is why the Compaq Professional Workstation includes the latest generation Wide-Ultra SCSI controller and an integrated 10/100 Mb/s NIC as standard features. The integrated Wide-Ultra SCSI controller delivers 40MB/s data throughput, effectively doubling the Fast-Wide SCSI-2 transfer rate. The integrated 10/100 TX Ethernet controller is autosensing to provide support for both 10 Mb/s and 100 Mb/s networks.

Seamless integration of operating system, applications and networking

To ensure easy, problem free setup and integration, the Compaq Professional Workstation comes standard with SmartStart for Workstations. Based on the exceptional technology of SmartStart from Compaq, SmartStart for Workstations provides a flexible, optimized installation and integration of the operating system and support software.

For seamless access to corporate internetworking environments including UNIX and host systems, the Compaq Professional Workstation provides Hummingbird Maestro and Exceed software products for high-performance multi-platform NFS client and server solutions and high-speed remote access to host computers.

Compaq has established strong relationships with key Independent Software Vendors (ISVs) for comprehensive testing and certification of the Compaq Professional Workstation with their applications.

Confident deployment: Customers can confidently deploy Compaq Professional Workstations into their business-critical applications with the peace of mind that they will perform at optimum levels. Continuing its tradition of providing quality products, Compaq has utilized its tremendous engineering and manufacturing expertise to incorporate countless hours of quality, reliability and compatibility testing into the development of the Compaq Professional Workstation.

To enhance productivity, Workstations support the full array of Compaq's asset, fault, security, and support software management. To meet business-critical management requirements, the Workstation includes Compaq Insight Manager software for remote system management, and the Compaq Systems ManagementToolkit for integrating Workstations into leading enterprise management platforms.

Compaq Professional Workstations are backed by Compaq's award-winning 3 year limited warranty. Included with this is the Compaq Pre-Failure Warranty program that covers the Pentium Pro processor, hard drives and system memory. Thus, when customers receive advance warning, through Compaq Insight Manager, that one of these components may fail, they can have the component replaced free-of-charge during the warranty period, before the component actually fails.

For those customers with specialized service and support requirements, several options are available allowing them to create a plan through CarePaq and the Compaq Service and Support Offerings that meets these needs. Through CarePaq, the standard warranty can be upgraded from 1 year of on-site service to 3 years. Under the Compaq Service and Support Offerings program, customers can chose from a menu of options including installation to technical consulting.

DLT Tape Array Model 4

The introduction of the Compaq DLT Tape Array opened a new era in tape backup performance. Since that introduction Compaq has seen new software products come to market that can take advantage of the capacity and performance provided by the DLT Tape Array. To add flexibility, Compaq has introduced a new version of the Compaq DLT Tape Array Model 4 that does not include software. This new model can now be used with new software packages such as the Cheyenne ARCserve 6 for Windows NT, ARCserve 6 for Netware or JETserve for Netware. The DLT Tape Array also supports other packages that don't support tape based RAID such as Seagate Backup Exec and Legato Networker. With this introduction Compaq adds flexibility as well as sets a new standard in backup performance, fault tolerance and reliability.

High capacity

The DLT Tape Array comes complete with four 15/30-GB DLT Drives providing up to 90 GB of fault tolerant (ARCserve 6.0 or JETserve RAID 5) storage or 120 GB of high-performance backup (ARCserve 6.0 RAID 0). Two DLT Arrays can be combined on one server providing up to 210 GB of high availability storage capacity.

Reliability, Integration, & Manageability

The DLT Tape Array has many features that customers have come to expect from Compaq. The RAID implementation ensures that even if a drive fails, the backup will continue. But even without fault tolerance, the high reliability features of the Compaq DLT Family make the DLT the most reliable tape product available. As with all Compaq products, the new DLT Tape Array has passed through the Compaq testing & integration "torture" test. Compaq tests all new peripherals on test systems that simulate real-world computing environments. Compaq tests tape drives on every network operating system provided by Compaq with full user loads to ensure that the new DLT drive will work reliably in customer environments. To make the DLT tape more manageable, Compaq has added tape manageability features to Compaq Insight Manager. If something happens to the tape drive while it is waiting to do a backup at 2:00 A.M., such as a media failure, administrators can now be alerted through Compaq Insight Manager. This new configurable feature allows customers the opportunity to correct the problem while there is still time to complete the backup. This is just one of the new manageability features added to Compaq Insight Manager for the Compaq DLT family.

Questions and Answers

Compaq Professional Workstation 5000

Q.   Why is Compaq entering the workstation market?

A.   Compaq views the Windows NT workstation market as critical to our overall objective of becoming one of the top three computing companies in the world by the year 2000. As the world's largest PC manufacturer, the leading server vendor with over 36% of the industry-standard server market (according to market researcher IDC), and a leading supplier of Windows NT-based PCs and servers for the distributed enterprise, Compaq has the Windows NT systems expertise, brand, and worldwide distribution focus needed to deliver outstanding value to workstation customers around the world.

Q.   Why will Compaq be able to compete in this market against companies like Sun and SGI?

A.   Compaq has significant expertise in producing high-performance systems, with high levels of manageability and application/network integration, which are also features critical to workstation customers. In addition, Compaq has developed key relationships with industry partners (such as Intel and Microsoft), which we can leverage for our workstation business. Moreover, Compaq has the know-how and experience in forming successful partnerships with industry-leading ISVs, and will do so with financial/business and engineering/technical ISVs to ensure the right applications are available and optimized for our workstation products. The combination of these factors will enable Compaq to offer industry-standard application workstations that are well tested and highly integrated at much lower costs, yet with the same (or better) performance, than proprietary RISC workstations.

Q.   How does Compaq view workstations in relationship to the traditional PC business?

A.   Compaq believes there are many similarities between PCs and workstations and that the two markets are complementary. Both are multifunction computing devices based on a set of hardware/software components that are optimized to run specific software. PCs are optimized for general-purpose business productivity applications such as the Microsoft Office Suite. They have continued to grow in performance and functionality to cover a wide spectrum of mainstream and advanced user requirements. Workstations are optimized for specialized business and engineering tasks. They are used in complex design, development, and analysis applications that require high-performance, tight application and network integration, and business-critical support.

Q.   Who are the Target segments for the new Professional Workstation?

A.   Initially, Compaq will target customers in the Business/Financial, CAD/CAE, and Software/Content Development markets.

Q.   Why were these particular segments chosen?

A.   These segments were selected by evaluating: (1) the total opportunity each segment provides, (2) the penetration and momentum of Windows NT within the segment, and (3) Compaq's ability to provide compelling Windows NT systems and solutions to the customers within these segments.

Q.   In what instances would customers want a Compaq Professional Workstation versus a Deskpro 6000?

A.   Customers should choose a Compaq Professional Workstation when they have one or more of the following requirements:

1.   When running high-performance, specialized design, development and/or financial applications that require the highest performance system available, including disk, I/O, networking and multiprocessor support.

2.   Require high-performance 3D graphics to run their applications.

3.   Want the assurance that their specialized application for Financial, CAD, software or content development has been tested and certified for optimum performance and compatibility with their platforms.

4.   Require seamless UNIX interoperability to connect into their legacy systems.

ISVs

Q.   Which key workstation application ISVs is Compaq currently working with?

A.   Compaq is partnering with a variety of leading ISVs within the targeted segments. These include:

CAD/CAE ISVs	Financial ISVs	Content Development ISVs
AutoDesk	Reuters	Kinetix/AutoDesk
SDRC*	RICH	SoftImage*
Bentley		Adobe
EDS/Unigraphics*		
PTC*		

*Pursuing certification with these ISVs that have a formal process

Q.   Why was ELSA selected as the 3D graphics vendor?

A.   Several graphics controller vendors were evaluated but ELSA was chosen of five main reasons:

1.   Proven experience and expertise in providing high-performance award-winning 3D graphics solutions.

2.   Manufacturing capabilities that meet Compaq's strenuous requirements for quality and reliability.

3.   In evaluating a wide range of GLINT-based graphics products, ELSA outperformed all competitors due to their high-performance driver architecture.

4.   Won numerous awards from industry publications such as CADENCE, Cadalyst, Byte and New Media Magazine.

5.   Endorsed by leading 3D software vendors such as Kinetix, Sense 8 and Solidworks.

Q.   What is GLINT?

A.   GLINT is a 3-D graphic processor used on Gloria-L for 3-D acceleration. It provides large screen resolutions and high-precision buffers demanded by graphics professionals.

Q.   Will the Compaq Professional Workstation products have their own line of monitors?

A.   The Compaq Professional Workstation will offer Compaq's award-winning performance monitors as options. The 17" P70 and 21" QV210 are the recommended monitors for the Compaq Professional Workstation.

Q.   Will Workstations come pre-loaded with software?

A.   Compaq Workstations come standard with SmartStart for Workstations which provides customers a quick and easy way to load and optimize their operating system and support software. The Workstation does contain a factory-installed diagnostic partition containing Compaq Diagnostics, Setup, and Inspect for Workstations. Through the use of SmartStart for Workstations, the installer can add Windows NT 4.0, Compaq Support Software, and "Try and Buy" applications.

Q.   Is there a difference between SmartStart for Workstations and SmartStart 3.0 (for servers)?

A.   The two products are similar in that they share a common goal that is to provide the user with a productive means of consistently deploying optimized, well-integrated, and reliable computing platforms. The differences between the two products reflect the fact that one is optimized for workstations while the other is engineered for servers. SmartStart for Workstations installs off-the-shelf software CDs like Windows NT 4.0, reinstalls the diagnostic partition along with Compaq utilities, and installs and licenses fully-functional "Try and Buy" applications for evaluation. SmartStart 3.0 performs hardware detection to support the variety of server hardware options, handles disk carving to partition hard drives, supports diskette building for making driver and boot diskettes, allows network OS optimization, supports database performance tuning, and builds Integration Servers.

Q.   What operating systems will the Compaq Professional Workstation support?

A.   Microsoft Windows NT Workstation NT 4.0 and 3.51. Windows NT offers a high-performance, highly reliable, multithreaded operating system that meets the demanding needs of our targeted customers. Furthermore, Windows NT has been optimized to provide maximum 32-bit performance with Pentium Pro processors. Thus, Compaq Workstations will provide full support for Windows NT 4.0 and 3.51.

Q.   Can a customer use Compaq Insight Manager on a Compaq Workstation?

A.   Yes. Insight Manager is a 32-bit, client/server, graphical application and the workstation makes an excellent management console.

Q.   What support does the Compaq Professional Workstation have for DMI?

A.   The Compaq Professional Workstation has received DMI certification by submitting our Management Information Files (MIFs) to the Desktop Management Task Force (DTMF). Our next objective is to instrument DMI into our Windows NT management agents so that customers can use DMI-compliant management applications to manage Compaq Workstations. Our last objective is to evaluate support for DMI through Compaq Insight Manager and to work with third party software vendors to test and certify Compaq Workstations with their DMI-based management tools for Windows NT.

Q.   What is the warranty on Compaq's new Workstation products?

A.   Compaq Professional Workstation will come standard with a 3-year limited warranty covering 3 years of free parts, 1 year of on-site service and 1 year of free labor.

Q.   What service and support programs will be available for the new Compaq Professional Workstation products?

A.   Customers can upgrade the standard warranty in two ways:

1. Through CompaqCare, customers can upgrade the on-site service and labor coverage from 1 year to 3 years.

2. Through Compaq Service and Support Offerings (CSSO), customers can tailor a service and support package to their requirements. The CSSO offerings available for Workstations are:

- On-site hardware maintenance
- Enhanced software support
- Installation
- Interoperability services
- LAN management support
- Remote system management
- System management support
- System healthcheck
- Technical consulting

DLT Tape Array Model 4

Q.   What is a DLT Tape Array?

A.   A DLT Tape Array is a rack-mountable storage device that is capable of holding up to four DLT Tape Drives.

Q.   What is different about this model of the DLT Tape Array?

A.   The DLT Tape Array now comes standard without the software, but at a lower price point that will allow individual choices according to specific back up needs.

Q.   Does the DLT Tape Array connect to the SMART-2 Array Controller?

A.   No, the DLT Tape array is connected to standard SCSI controllers.

Q.   What operating systems does the DLT Tape Array use?

A.   Working as an array the DLT Tape Array is only compatible with Novell NetWare or Windows NT operating systems at this time. ARCserve 6 for NT and NetWare plus JETserve support the DLT Tape Array in the array mode. The DLT Tape Array will function as four individual tape drives when used with any other backup package such as Seagate Backup Exec or Legato Networker just to name a few.

Q.   Is the DLT Tape Array available in a tower form factor?

A.   No, the DLT Tape Array is specifically designed to be a rack-mountable storage device.

Q.   If a customer already owns Compaq DLT drives, can the customer install those drives into the DLT Tape Array?

A.   Yes, any of the Compaq DLT Drives can be mounted into the DLT Tape Array Model 0. The Model 0 ships with four sets of rails so that even external DLT drives can be mounted once the external enclosure is removed.

Note: The capacity mode of the array is determined by the lowest capacity of any drive or cartridge in the array. Example: If an array is configured with one 10/20-GB DLT Drive and three 15/30-GB drive, the array will default to the 10/20-GB DLT mode. Also, if one drive in a four 15/30-GB DLT Drive tape array contains a 10/20-GB DLT Tape Cartridge, then the entire array will default to the 10/20-GB DLT capacity mode.

Q.   Does the DLT Tape Array require the us of an Array Controller?

A.   No. The DLT Tape Array can attach to a Fast-SCSI-2 Controller, a Fast-Wide SCSI-2 Controller or a Wide-Ultra SCSI controller. However, for maximum throughput, the best performance is achieved when the hard disks are configured with the Compaq SMART-2 Array Controller.

Q.   What kind of SCSI controllers are required for use with the DLT Tape Array?

A.   For the best performance and reliability, Compaq recommends that customers use only Compaq SCSI controllers. Any Compaq SCSI controller will work including the one embedded in the ProLiant and ProSignia servers.

Q.   How many SCSI controllers are required for use with the DLT Tape Array?

A.   Compaq recommends that customers use one controller for every two DLT drives. This will provide maximum performance. See the chart below for more details:

Number of DLT Tape Drives	One SCSI	Two SCSI	Three SCSI	Four SCSI
3	14.0 GB/hr.	15.0 GB/hr.	15.0 GB/hr.	
4	11.0 GB/hr.	21.0 GB/hr.	22.0 GB/hr.	22.0 GB/hr.
6		24.0 GB/hr.	33.0 GB/hr.	34.0 GB/hr.
8		23.0 GB/hr.	33.0 GB/hr.	46.0 GB/hr.

Note: Based on a configuration of the ProLiant 1500 5/133 with SMART-2 Array Controller and fourteen 2.1-GB disk drives running RAID 5.