

DEC VAX Systems



		Paid-up License Primary Sys. (\$)	Initial License Fee (\$)	Periodic Payment Primary Sys. (\$)	Per-sys. Paid-up Cluster Lic. (\$)
ULTRIX-32 SOFTWARE					
Q5716	DECnet-ULTRIX for VAX 8250	3,287	788	54	NA
Q7716	DECnet-ULTRIX for VAX 8350	4,274	788	54	NA
Q2716	DECnet-ULTRIX for VAX 8550	7,235	788	159	NA
Q5418	VAX Lisp-ULTRIX for VAX 8250	13,104	1,008	363	NA
Q7418	VAX Lisp-ULTRIX for VAX 8350	13,104	1,008	363	NA
Q2917	VAX Lisp-ULTRIX for VAX 8550	20,160	1,428	515	NA
VAXELN SOFTWARE					
Q2375	VAXELN for VAX 8550	18,575	1,197	431	NA
Q2376	VAXELN Runtime License (single-use)	11,550	NA	NA	NA

NA—Not applicable. ■

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Product Enhancement

In response to customer demands for greater computing power, Digital Equipment Corporation recently introduced

- The VAX 6300 Series superminicomputers,
- VAX 6312 and VAX 6333 VAXcluster Systems,
- A new complementary line of VAX-based high-performance storage products,
- DECstation 210/310 Series PC workstations,
- DECtp 3000 and DECtp 6000 application development systems, and
- VAX Fileserver 6300 System network servers.

In addition, Digital renewed its commitment to supply complete systems consisting of hardware platforms and end-user applications. Also, leasing plans have been introduced.

Analysis

The recent announcement of the VAX 6300 Series, new VAX 6300-based VAXcluster Systems, new high-performance storage products, new workstations, application development systems, new network servers, and leasing programs come within a year of Digital's last major system announcement—the VAX 6200 family and new 8800 models. These VAX product line enhancements demonstrate Digital's commitment to follow its strategy of introducing new products rapidly and turning over its VAX line frequently. Such speed is necessary because Digital's growth is slowing for the first time in several years. If Digital is to maintain its position within the turbulent market, it must continually enhance its flagship VAX line to demonstrate its capability to provide competitive computing.

Among the new products, the most significant are the VAX 6300 Series and the VAX 6312 and VAX 6333 VAXcluster Systems. These computer systems provide the basis for more processor performance, system capacity, and growth options to accommodate expanding existing applications and those emerging, strategic applications that consume a significant amount of computer resources. Moreover, these new product announcements keep VAX computing competitive with products from IBM and Hewlett-Packard—Digital's primary competitors.

New VAX Superminicomputers: The VAX 6300 Series provides major enhancements to the VAX 6200 line—Digital's current midrange VAX superminis for workgroup, departmental, and enterprise computing—and dramatically improves processing capabilities throughout the midrange of the VAX supermini line. By replacing the VAX 6200 with the VAX 6300, Digital can compete more effectively across three IBM product lines: the AS/400, 9370, and 4381. The VAX 6300s deliver approximately 35 percent more performance and two times more expandability than the VAX 6200.

Although the new VAX 6000s offer attractive price/performance and benefits, it is highly unlikely users will replace a comparable system from a competitor with a new VAX 6000. The VAX 6300s do, however, give Digital a better chance of competing directly against IBM, Hewlett-Packard, and others for new corporate accounts or first-time automation sales.

In many instances, the new VAX 6300s will upgrade existing VAX superminicomputer models. Peripheral, communications, and application software compatibility with the rest of the product line allows easy migration of the new VAX 6000 systems into environments where VAX 8250s, 8350s, and 6200s are already in use.

Moreover, much attention will be given to customers migrating from VAX 6200 to the VAX 6300. With the in-place, field-upgrade options, VAX 6200 customers can easily and cost effectively transform the VAX 6200 into a VAX 6300. The transformation occurs without having to change base system packaging or 

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- ▷ modifying any software. In contrast, a move from a VAX 8250 or VAX 8350 to a VAX 6300 requires the more expansive processor exchange along with some software evaluation and change.

New VAXcluster Systems: The VAX 6312 and VAX 6333 VAXcluster Systems introduce cost-effective entries to the VAXcluster Systems family. Furthermore, by combining the new VAX 6300 processors, new storage products, and symmetric processing capabilities into one high-end system, Digital extends the functionality and benefits of VAXcluster Systems to existing and emerging applications. Positioned between the 8800 Series (the high-end VAXs) and the VAX 8974 and 8978 VAXclusters (large-scale, high-end VAXs with mainframe-like capabilities), the VAX 6312 and VAX 6333 represent a more functionally and price-competitive solution for growing applications upward and for attacking large work loads within the IBM 4381 high-performance midrange computer and low-end and midrange 3090 mainframe categories.

New Storage Peripherals: Digital developed its new set of VAX-based storage arrays, mass storage servers, and a cartridge tape drive subsystem to address the power and economic needs of current and emerging, strategic applications which consume a significant amount of computer resources. I/O bottlenecks can be reduced and application performance can increase through the deployment of the new magnetic-media storage peripherals.

The release of the RV64 Optical Library System—the new optical disk storage subsystem—represents Digital's continuing efforts to build its base of optical storage technology products which drastically expand the upper limit and economics maintained by current magnetic-storage peripherals. The RV64 Optical Library System is Digital's first mass storage subsystem—i.e., multiple-drive, multiple-disk cartridge subsystem—for optical disk technology. As such, the new optical disk storage subsystem offers more price/performance and capabilities and less operator intervention than a combination of RV60 optical disk drives—small, single-drive, single-cartridge subsystems.

New PC Workstations: Digital's seriousness about delivering PC workstation computing is demonstrated by the release of new PC workstations with the Digital product label. The DECstation 210/310 Series—the new PC workstations—are more competitive than Digital's three-year-old, MS-DOS-compatible VAXmate PC. The new Digital PCs offer more compute power, better graphics, greater expandability, and more configuration flexibility. Furthermore, the DECstation 210/310 Series is more capable of handling MS-DOS applications for industry-standard IBM-compatible PCs.

Dedicated Servers: Digital released dedicated application development systems and new workstation servers to enhance overall VAX performance within larger environments. The DECtp 3000 and DECtp 6000 both maximize application development within the transaction processing/mission-critical/online operations environment. The dedicated development systems off-load application development from the VAX host, and in turn, provide more power for developing software.

The VAX Fileserver 6300 Systems—i.e., VAX Fileserver 6310 and Fileserver 6320—provide more capacities and I/O throughput for large workstation networks than the VAX Fileserver 6210 and 6220 Systems—Digital's previous high-performance servers. The VAX Fileserver 6300 models deliver approximately 35 percent more performance and two times more expandability than the VAX Fileserver 6200 models. They are designed to grow the capabilities of the VAX Fileserver 6210 and 6220 and the MicroVAX-oriented workstation servers.

Commitment to Applications: Digital's renewed interest in building, maintaining, and enhancing alliances with third parties demonstrates its commitment to supplying complete and comprehensive solutions instead of basic computers. Through its cooperative marketing agreements and other marketing and technical liaison programs with independent software developers, Digital makes required production-oriented software readily available and accessible to the VAX customer.

Leasing: New leasing programs introduced for the VAX computer make the VAX systems more obtainable. These optional leasing programs permit Digital to attract customers who previously withheld purchasing VAX systems due to financing difficulties. ▷

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▷ The VAX 6300

The VAX 6300 Series, as the second-generation VAX 6000, targets processing which falls between the entry-level VAX superminicomputers—i.e., VAX 8250 and 8350 computers—and the 8800 Series—the high-end, 6-to-22 MIPS VAX systems. Although more expensive than the VAX 6200s, the VAX 6300s have one-and-a-half to two times more price/performance than their predecessors and twice the expandability. Their capabilities cross the application range of the IBM AS/400, 9370, and 4381.

The VAX 6300 Series achieves its relatively high system performance—from 3.8 to 22.0 times the performance of the VAX 11/780, Digital's original VAX computer—through the combination of multiple central processors, multiple high-speed I/O channels, and a 100M-byte-per-second interconnect. Furthermore, symmetrical multiprocessing is featured with Digital's Symmetrical Multiprocessing (SMP) architecture. The CMOS technology used in the central processor (i.e., the central processor unit [CPU] and the floating-point unit [FPU]) permits greater reliability since it provides the system with fewer components and less heat dissipation.

The robustness of the VAX 6300 allows customers to perform a wide range of tasks. The VAX 6300 architecture supports the applications on the entry-level VAX superminis and VAX 6200s as well as those emerging applications that demand greater computer resources. Both simple and complex compute-intensive, timesharing, and transaction-oriented applications at the workgroup, department, or large-scale enterprise level are accommodated.

The VAX 6300 addresses work loads using a mix of up to six central processors, one to eight 32M-byte memory modules, and two to six VAXBI I/O channels. A maximum of 38.4G bytes of on-line, direct access, mass disk storage can be attached to the I/O channels. Support is provided for up to 600 workstations in a timesharing office application. The VMS Version 5 operating system is standard. This operating system maintains object-code compatibility with other VMS-based systems and implements Digital's Symmetrical Multiprocessing (SMP) architecture. For those customers who require a native, POSIX-standard-oriented UNIX, Digital's ULTRIX is available; however, it is only available for a VAX 6300 with one or two central processors. Furthermore, like all VAX computers, the VAX 6300 has options for VAXclustering. Ethernet local area networking and basic DECnet communications are included with the basic system platform.

System expansion occurs without having to exchange system packaging. The computer's capabilities are increased by simply inserting central processor boards and memory into the existing system cabinet. I/O growth occurs by attaching expansion cabinets to the system cabinet. No software changes are needed when upgrading the VAX 6300's capabilities and size.

The VAX 6200—the predecessor to the VAX 6300—can take advantage of the new VAX technology through a simple and economical growth path. The VAX 6200 is transformed into a VAX 6300 by simply exchanging the appropriate system boards. I/O controllers, peripherals, and software do not have to be exchanged. Furthermore, the VAX 6200 and VAX 6300 both use the same type of system cabinetry, thus, system packaging does not have to be changed. Such designs permit fast field upgrades since no new systems, new peripherals, or massive software revisions are required.

Packaging. The VAX 6300 comes in a variety of packages. These packages enable customers to choose from multiple entry points, have adequate growth, and address multiple application types.

The 6310. The VAX 6310 is the smallest and cheapest VAX 6300. It serves as a workgroup, departmental, branch office, or small business computer system.

With the VAX 6310, customers receive 3.8 MIPS and a 60M-byte-per-second I/O throughput rate. The VAX 6310 executes its tasks with one central processor, 32M to 256M bytes of memory, two to six VAXBI channels, and the proprietary VMS or ULTRIX operating system.

The standard VAX 6310 base system (processor) costs \$184,500 when it contains VMS. The ULTRIX version for the standard, basic VAX 6310 costs \$155,200. A chargeable in-place, field-upgrade option is available to migrate from the 6210 version of the VAX 6200 to the VAX 6310 version of the VAX 6300. ▷

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▷ *The 6320.* The VAX 6320 addresses larger and more complex applications within small businesses, departments, or branch offices. It performs at 7.5 MIPS and delivers a 60M-byte-per-second I/O throughput. Two central processors, 32M to 256M bytes of memory, two to six VAXBI channels, and VMS or ULTRIX are used.

The basic VAX 6320 base system with VMS costs \$318,200. The ULTRIX version costs \$256,600. A chargeable in-place, field-upgrade option is available to upgrade from the VAX 6220 version to the VAX 6320. Also, the VAX 6310 can field upgrade to a VAX 6320.

The 6330 and 6340. The VAX 6330 and 6340 are the midrange VAX 6300 models and are oriented toward large communities with many user demands. The VAX 6330 runs at 11.3 MIPS and contains three central processors, 64M to 256M bytes of memory, and two to six VAXBI channels controlled by VMS. The VAX 6340 offers 15 MIPS and a 60M-byte-per-second I/O throughput with four central processors, 128M to 256M bytes of memory, and four to six VAXBI channels.

The standard base system for the VAX 6330 costs \$418,300. The basic VAX 6340 processor costs \$584,400. Chargeable options are available to field upgrade a VAX 6230 to a VAX 6330 and a VAX 6240 to a VAX 6340. Also, field upgrades are available to transform a VAX 6330 into a VAX 6340.

The 6350 and 6360. The VAX 6350 and 6360 are high-end VAX 6300 models. The VAX 6350 handles complex applications for large communities. The VAX 6360 targets time-critical applications with heavy user demands. The VAX 6350 offers 18.6 MIPS and 40M-byte-per-second I/O throughput. It addresses its work load with five central processors, 128M to 192M bytes of memory, and two to four VAXBI channels. The VAX 6360 gives 22 MIPS and 40M-byte-per-second I/O throughput with six central processors, 128M to 192M bytes of memory, and two to four VAXBI channels.

The standard basic VAX 6350 processor costs \$666,700. The basic processor for the VAX 6360 carries a starting price of \$751,900. The VAX 6340 can field upgrade to a VAX 6350. The VAX 6350, in turn, can expand into a VAX 6360 through the use of available field-upgrade options.

VAX 6312 and VAX 6333 VAXcluster Systems

The VAX 6312 and VAX 6333 VAXcluster Systems are intended for large environments that demand mainframe power coupled with high availability and broad expansion flexibility. They position themselves for processing between the VAX 8800 Series and the level maintained by the VAX 8974 and VAX—large systems that deliver 24 to 48 MIPS with four to eight “VAXcluster’ed” VAX 8810 models to the VAX 8800 Series. The VAX 6312 and VAX 6333 provide one third to one half more price/performance than the VAX 8800 Series and one third to two thirds the performance of the VAX 8974 and VAX 8978.

VAX 6312. The VAX 6312 features two VAX 6310 processors interconnected into a single-image-like system through the VAXcluster system coupling scheme. Two on-line, direct access mass storage servers, one 4.8G-byte storage array, the VAXcluster controller, a console system, VMS licenses, and a performance analyzer also are included. As a VAXcluster system, the VAX 6312 allows the capabilities of each VAX 6310 processor to be upgraded. Both VAX 6310 processors can expand to processors that each contain six central processors and 256M bytes of memory. Furthermore, the two-processor-based VAX 6312 can expand to a configuration that contains a combination of 16 coupled VAX processors and mass storage servers that address hundreds of gigabytes of data.

The starter (base) system for a VAX 6312 costs \$715,300. A one-year warranty is included with the purchase of a basic VAX 6312 platform. An upgrade can be performed to transform the VAX 6312 into a VAX 6333.

VAX 6333. The VAX 6333 addresses processing the VAX 6312 cannot reach. The VAX 6333 features three VAX 6330 processors interconnected into a single-image-like system via the VAXcluster. Two on-line, direct access mass storage servers, one 9.5G-byte storage array, the VAXcluster controller, a console system, a VMS for each processor, volume shadowing software, and a performance analyzer are included. As a VAXcluster, the VAX 6333 grows the capabilities of each VAX 6330 processor. Each VAX 6330 can be ▷

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- ▷ upgraded to a processor with six central processors and 256M bytes of memory. Additionally, the three-processor-based VAX 6333 can grow to a configuration that contains a combination of 16 coupled VAX processors and mass storage servers.

The starter system for VAX 6333 is priced at a mainframe level. The cost for the basic VAX 6333 platform is \$2,770,000. Included with the standard VAX 6333, however, are site and environmental analysis, preshipment manufacturing systems integration, pregeneration of VMS, software startup services, installation project planning and consulting, and the highest level hardware/software warranty.

New Mass Storage Server

The HSC40 is Digital's entry-level HSC product—mass storage server for the VAXcluster—and provides an upgrade path to the HSC70—the high end of the HSC family. Using the same technology as the HSC70, the HSC40 delivers nearly twice the performance of HSC50—the previous entry-level HSC mass storage server. The HSC40 processes up to 1,150 I/O requests per second. Furthermore, the HSC40 uses the same types of disk and tape interfaces as the HSC70. The HSC40 can be configured with any combination of 12 Digital Storage Architecture-compatible disk drives or magnetic tape units. It can upgrade in the field to a full HSC70 to support 32 disk drives or tape equipment. Like the other HSC mass storage servers, the HSC40 allows dynamic porting of devices, volume shadowing, and automatic failover. It gives up to 23 VAX systems in a VAXcluster shared access to the data on the hosted disk drives and magnetic tape units. As the smallest HSC product, the HSC40 costs \$41,157 for a basic model.

New Storage Arrays

The SA550 and SA650 are second-generation VAX storage arrays. As such, they greatly enhance the capabilities of the current VAX storage arrays.

The SA550 provides 160 percent more performance than the SA482—Digital's entry-level storage array—and an additional 2.2G bytes of expansion capacity. Up to 400 I/O requests can be processed per second by the SA550. Storage capacity ranges from 1.1 to over 4G bytes. Unlike the storage on the SA482, SA550's storage is composed of 622M-byte disk drives with 24-millisecond seek time as well as 280M-byte fixed disk drives with 19.5-millisecond seek time.

The SA650 has 75 percent greater performance than the SA600—Digital's high-end, direct access mass storage device at 23 percent better cost/performance (as measured by purchase dollars per requests per second). It can handle over 500 I/O requests per second. In addition to increased processing power and throughput, the SA650 allows the customization of storage. Storage now can contain 280M-byte disk drives as well as the standard 1.2G-byte disk drives. A maximum of eight 280M-byte and six 1.2G-byte disk drives are supported.

Each new storage array comes in several versions. These versions represent different packaging schemes. An entry-level SA550 costs \$44,000, and a high-end model costs \$123,000. Prices for the SA650 storage array range from \$103,320 to \$243,250.

New Magnetic Tape Equipment

The TA90 Cartridge Tape Subsystem is Digital's new high-performance tape subsystem. It serves as the format for large-file backup, data interchange, journaling, transaction logging, and archiving. Key features include the following:

- Streaming technology with a start/stop capability.
- High-speed operations. The TA90 completes file backup in two thirds the time required with currently available reel-to-reel tape subsystems. For other applications, such as data collection, the data transfer rate is 2M bytes per second.



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- ▷ • Large storage capacity. Although tape cartridges measure 4 inches high, 5 inches wide, and 1 inch deep, or one fourth the size of a standard tape reel, it stores up to 38 percent more data than a 2,400-foot reel. Up to 200M bytes of data can be stored on each removable tape cartridge. The TA90 writes 38,000 bytes per inch on 18-track, half-inch-wide tape.
- Optional cartridge loaders. These devices enable each TA90 drive to read and write up to six cartridges in sequence without operator intervention.
- Improved reliability and data integrity over reel-to-reel tape subsystems.
- More economy. The TA90 gives significant savings in power, cooling, and drive space requirements compared to reel-to-reel tape subsystems.
- Full IBM 3480 tape cartridge read/write interchange compatibility. This capability allows customers to exchange data between large IBM and Digital systems via tape cartridges.

The TA90 is sold as a master subsystem with optional slave (add on) drives. A master TA90 consists of a controller and tape transport. A slave drive consists of only a tape transport with connections to the master subsystem. A master controls three slaves. Each master and slave drive can be configured with one or two cartridge loaders. The TA90 master drive without cartridge loaders costs \$122,000, and, when sold with cartridge loaders, \$131,000. The TA90 slave costs \$42,000 when it does not contain cartridge loaders and \$51,000 when it has cartridge loaders.

An Optical Jukebox

Digital's RV64 Optical Library System improves upon storage architecture for on-line applications and archival information with write-once-read-many (WORM) optical storage. This high-performance WORM optical jukebox unit allows up to 128G bytes of permanent data, images, and documents to be addressed without operator intervention.

The RV64 consists of four RV60 optical drives and 64 optical cartridges. Each of these 12-inch cartridges holds 2G bytes of information. The RV64's robotic mechanism shuttles cartridges in and out of any one of the system's four optical drives. Cartridges are loaded into the drive and spun up to speed in 15 seconds. Once the cartridge is loaded, the RV64 can access requested files within 212 milliseconds.

The RV64 comes with Digital's Jukebox Control Software (JCS). This software provides mechanical control of the jukebox robot, supplies diagnostics, and gives a foundation on which custom applications are built. Each RV60 is sold as a master or slave drive. The master includes the controller and drive. The slave attaches to the controller in the master. The master supports only one slave.

The RV64 costs \$222,500 with a one-year, on-site warranty option or \$205,652 with a one-year, return-to-factory warranty option. Each RV60 master drive costs \$32,500 with the one-year, on-site warranty option and \$29,356 with a one-year, return-to-factory warranty. Each optical cartridge for the RV64 costs \$408.

New PC Workstations

The DECstation 200/300 Series of business/office professional workstations are Tandy Corporation-oriented, industry-standard PCs that supply industry-standard 80286 and 80386 microprocessor-based personal computing and DECnet networking. The PCs provide full IBM PC compatibility and allow networking through Ethernet, DECnet, and PC integration packages. The integral VGA graphics offer high speed and clarity on the monitor display. Through DECwindows, users can run and display multiple PC sessions and terminal emulation simultaneously.

The DECStation 200/300 Series personal computers can be provided in standard, ready-to-use configurations or custom-tailored with a variety of options. The basic system includes a 3.5-inch diskette drive, a ▷

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- ▷ VGA graphics adapter, a SCSI peripheral interface, and a fixed disk drive. Co-processor, memory, and storage device options are available as well as other system options and companion printers compatible with the DECstation 200/300 Series. The MS-DOS 3.3 or OS/2 operating system can be configured on the system.

The DECstation 200/300 Series is currently composed of the DECstation 210, DECstation 316, and DECstation 320.

The DECstation 210 features the 16-bit Intel 80286. It houses one 3.5-inch 1.44M-byte diskette drive, one 5.25-inch diskette drive, and two additional front-panel 5.25-inch devices. The additional 5.25-inch devices can be diskette drives, fixed disk drives, or cartridge tape drives.

The DECstation 316 offers 80386 processing and full 32-bit capabilities. The DECstation 316 includes 1M byte of memory and one 3.5-inch 1.44M-byte diskette drive as standard. Expansion options provide up to 16M bytes of memory. Options also allow two internal storage devices to be configured on the workstation. These devices can be diskette drives, fixed drives, or cartridge tape drives.

The DECstation 320 offers all the features and functions of the DECstation 316, with 35 percent more computing power. It comes standard with a 2M-byte memory that can be expanded to 32M bytes.

New Application Development Systems

The DECtp 3000 and DECtp 6000 are complete systems dedicated to transaction processing application development. The DECtp 3000 handles 30 software developers. It consists of the MicroVAX 3400 with the VMS operating system, DECintact transaction processing monitor, Cobol language, and VAXset computer-aided-software engineering (CASE) tools. It can also contain the VMS-based ACMS transaction processing monitor with TDMS forms management, Rdb relational database management system, Cobol, and VAXset. The DECtp 6000 handles 60 developers and consists of the VAX 6310 with the VMS operating system, DECintact, Cobol, and VAXset. As an option, ACMS with TDMS, Rdb, Cobol, and VAXset can be used instead of DECintact with Cobol and VAXset.

The basic DECtp 3000 starter set costs \$207,704 when configured with DECintact and related software and \$225,625 when it has ACMS and related software. The basic DECtp 6000 starter set costs \$493,817 when it has DECintact and related software and \$519,415 for the version with ACMS and related software.

New Network Servers

The VAX Fileserver 6310 and 6320 Systems are Digital's largest and highest performance workstation servers. Both new workstation servers are complete VAX 6300-based systems which provide centralized system management, data sharing, file backup, and communications gateways for a large group of technical workstations and PCs. Both products replace the VAX Fileserver 6210 and 6220 Systems—the previous high-end workstation servers—and position themselves to handle workstation clusters that cannot be effectively addressed by the MicroVAX-based VAXserver 3300 and 3400 Systems—smaller and less powerful workstation servers.

Both the VAX Fileserver 6310 and 6320 support various combinations of VMS-, ULTRIX-, industry-standard UNIX-, and MS-DOS-oriented workstations simultaneously. Up to four Ethernet networks are used by the VAX Fileserver 6310 or Fileserver 6320 to handle the heavy network I/O. Each network server provides 38.8G bytes of local on-line, direct access disk storage and up to 600G bytes of disk storage via the VAXcluster system coupler. The VAX 6310 forms the base of the VAX Fileserver 6310 and, likewise, the VAX 6320 processor serves as the platform for VAX Fileserver 6320. The VMS File/Application Server software provides centralized resource sharing and file management for VMS-based systems. The VMS/Ultrix Connection software provides shared resource and file services to ULTRIX-based and UNIX workstations with the NFS communications protocol. The VMS Services for MS-DOS software supports industry-standard, MS-DOS-based PC workstations. DECnet software provides full network support. DECnet System Services software allows transparent networking between workstations and the workstation



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- ▷ server. Digital's Network Management Control Center/Ethernet Integrity Monitor software provides network administration and control functions for the workstation network.

Both the VAX Fileserver 6310 and 6320 are available in several packages. Entry prices for the VAX Fileserver 6310 range from \$141,900 to \$178,500. Entry prices for the VAX Fileserver 6320 range from \$243,200 to \$287,500. A VAX Fileserver 6310 can be field upgraded to a VAX Fileserver 6320.

System Integration Efforts and the Commitment to Applications

Digital now provides customers of major accounts access to required end-user, production-oriented applications. Digital accomplishes this task by emphatically building and maintaining cooperative marketing agreements and other liaison programs with third parties that write production-oriented applications for Digital's mainstream and emerging markets. These alliances give its customers direct access to end-user, production-oriented applications from independent software vendors (ISVs) and value-added resellers (VARs). Digital uses the liaison networking to directly market applications to customers or help customers establish contact with the appropriate data system suppliers.

As part of its commitment to deliver more applications into its existing and emerging markets, Digital released a new third-party software developer program. The program is the company's most far-reaching effort yet to attract third parties to the VAX architecture. The program will provide the developer with the required hardware equipment, languages, application development tools, and training and support once the business plan has been approved by Digital. Furthermore, the program gives third-party developers insight into Digital's strategies, directions, and future plans. Any size developers, from start-up companies to large, well-established organizations, have access to the program.

Leasing Programs

Digital now provides leasing programs for low-end, midrange, and high-end VAX systems. The programs package low rates with a variety of purchase option plans. At the end of the leasing period, customers can purchase the system at a reduced rate.

Three purchase plans are available under the lease. Plan A allows customers to purchase the system for its fair-market value at the end of the lease. Customers can purchase the system at 10 percent of the system's original cost with Plan B. Plan C allows the system to be purchased for \$1 at the end of the leasing period.

The amount due monthly depends on the plan. A lease plan with a higher monthly payment usually results in a lower purchase cost. Payments can be tailored to meet budget constraints and seasonal cash flows. For instance, one form of tailoring allows payments to be delayed for several months when the system is installed. This allows customers to reach full system implementation levels prior to cash outflow. Another form of tailoring permits a system to be ordered and installed in a budget period when no funds are available and have payments commence during a budget period when funds are available. □