Computer technology is changing rapidly, with more and more power available in ever smaller and cheaper packages, and the ways in which computers are used are also changing. As computing expands beyond the mainframeoriented computer room into the office and onto desktops, changes have inevitably occurred in the structure of information systems. The charter of the information center and even of the technology itself has changed from data calculation to the management and distribution of information for use throughout an organization. Computer buying decisions now rest more firmly with users, whose demands have led to many of the recent developments in the market. In addition, smaller organizations in need of cost-effective answers to growing computing needs are demanding increased power at affordable prices.

The proliferation of personal computers has created a need to connect the PCs to each other and to departmental and organizational hosts. In response, superminicomputer vendors have addressed the twin issues of standardization (both formal and de facto) and connectivity among diverse machines. The implementation of various protocols such as X.25, IBM's SNA, TCP/IP, and SDLC, and others is one of the methods used to achieve open communications. Additionally, adherence to local area network (LAN) standards based on the IEEE models, such as Xerox' Ethernet and AT&T's STARLAN NET-WORK, is growing. Communications continue to improve. Nearly all systems in the supermini category are suitable for use as standalone systems, up to the level of an organizational host, and as gateways or servers in distributed environments, providing connectivity between mainframes and remote or local PCs.

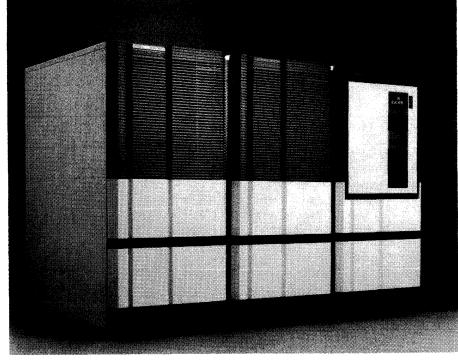
Superminis continue to grow in importance and gain market share as users add more departmental systems. Activity in this market segment remains high, with new introductions and upgrades of existing systems. This report examines the market, new supermini technologies, and vendor marketing strategies. Also included are detailed comparison columns covering 125 systems from 32 vendors.

The supermicro/mini/supermini segment continues to defy the creation of neatly separated classifications, with decreases in the size and special environment requirements of mainframes confusing the high end and 32-bit microprocessor-based machines confusing everything else. This difficulty notwithstanding, we have provided a look at the developments in the superminicomputer market, vendor strategies in the market, and an examination of current trends. In addition, information on 125 systems from 32 vendors is presented in easy-to-understand comparison column form to assist in the selection of a system suited to your needs.

#### SUPERMINI CHARACTERISTICS

A superminicomputer is generally characterized by the following features:

- A word length of at least 32 bits.
- A data path at least 32 bits wide between the CPU and main memory.



The 9840 is the top of the Pyramid Series 9000 family. The Series 9000 is a five system, object codecompatible family of computers based on Reduced Instruction Set Computing (RISC) technology.

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- Main memory capacity between 4 megabytes (MB) and 128MB.
  - Disk storage capacity between 2 gigabytes (GB) and 100GB.
  - Support for 16 to 512 users.
  - Prices for base configurations beginning around \$500,000, with fully configured, high-end systems priced as high as \$1,000,000.

We still consider the 32-bit word the lowest common denominator differentiating superminis and traditional minis, although some superminis use 48- or 64-bit word lengths (Elxsi's System 6400 is an example of a 64-bit machine). However, while word size does distinguish superminis from 8- and 16-bit machines, it does not clarify the differences between superminis and the 32-bit microprocessor-based systems which range from barely more than a micro to near supercomputer performance. For example, CSI, an Austin, TX firm, builds the HS4000, an Intel 80386-based machine that uses 64 microprocessors, supports up to 1,000 users, and reports performance of over 250 million instructions per second (MIPS). Since word length cannot be used as a definitive feature, other factors are now considered more important in classifying these systems, primarily their "family history" (that is, the architectures from which present models are derived), their functionality and applicability, and which systems are considered competition. Prices and memory and disk capacity are other important considerations. Superminis generally support more memory and disk capacity and tend to cost significantly more than 32-bit supermicros.

#### **ADVANTAGES**

The advantages of using superminicomputers derive from their architectural characteristics, processing power, and high degree of configurability. They also offer cost-effective alternatives to centralized mainframes, encouraging their use as departmental systems.

Superminis possess architectural features that provide many advantages over minicomputers, including addressability (the 32-bit address provides access to up to 4.29 billion storage locations), increased precision in scientific and technical computations, more powerful instruction sets, and increased performance overall. These features result in increased overall performance, and other powerboosting features such as storage interleaving and cache memory further improve performance.

Although the once omnipresent MIPS rating is now largely out of favor, both among vendors and users, nothing else has emerged as a universally accepted performance standard. Nonetheless, those vendors that did provide MIPS ratings for our survey indicated a range from 0.5 MIPS to as high as 200 MIPS. This processing power makes the high-end superminis well suited to computation-intensive, CPU-bound applications. With the increasing number of users interested in specialized applications such as simulation, artificial intelligence, and CAD/CAM/CAE, raw power is a major advantage of these systems.

Superminis' disk and memory capacities provide sufficient storage for applications involving very large data bases. Applications such as computer-integrated manufacturing (CIM) and inventory control demand this level of memory and storage. (For additional information about superminicomputers in CIM applications, see *Datapro Manufacturing Automation Series.*)

The power and flexibility of superminis also allow them to integrate a variety of functions that have traditionally been divided among separate minicomputer systems. Both technical and commercial applications and support functions can be handled by a single supermini system, providing a cost-effective method of consolidating diverse organizational activities.

#### THE MARKET

IDC's figures for 1986 show that unit shipments in the medium-scale market as a whole fell 21 percent. However, an increase in the number of high-performance, high-priced superminis shipped in 1986 helped to offset the disappointing shipment figures. The value of shipments increased slightly worldwide on the strength of these higher priced systems at the high end of the market. This somewhat disappointing performance in a market that was widely thought to be on a fast track upward can be attributed to the rapid rise of multiuser supermicrocomputers, many based on the new 80386 chip.

Despite slower growth, competition in the supermini segment continues unabated as vendors target new markets and broaden the scope of their marketing programs. Across the industry, vendors that have long marketed systems specifically for technical applications are now offering their machines to more general markets. Sequent Computer Systems, Inc. and Pyramid Technologies have reputations as technical systems vendors and responded to last year's "Target Market" portion of our survey accordingly. In responding to this year's survey, the companies indicated targets including banking and finance, MIS, government and telecommunications, in addition to the more traditional CAD/CAM and engineering/scientific application areas. Though growth in technical markets is steady, it is not rapid and it is not expanding. At the same time, the rise of distributed/departmental processing has expanded the role of low-end superminis in commercial environments, while increasing power and configurability have made high-end systems attractive even as organizational hosts, especially to smaller companies. The technically oriented vendors cannot afford to ignore the new revenue opportunities represented by these changes.

High-end systems continue to produce much of the activity in the supermini arena. A number of vendors have announced new or enhanced systems which push performance levels to new extremes. Among the vendors announcing new machines or significant upgrades of existing equipment in the last year are Harris, Prime Computer, Data General, Digital Equipment, and IBM, along with a host of smaller vendors.

IBM's announcement of the 9370 in October 1986 was perhaps the biggest news in the medium-range market for some time. With this announcement, IBM finally answered the question of when, and how, it would provide medium-scale compatibility with its System/370 mainframe architecture. At the high end of IBM's line, the 9377 Model 90 outperforms the company's former top-end medium-range system, the 4381. The so-called VAX-killer has a lot of work to do, however, with Digital Equipment shipping its own high-end machines, the 8974 and 8978 VAXcluster systems, early in 1988. Data General announced the Eclipse MV/15000 series with three models positioned opposite Digital's VAX 8300, 8500, and 8550 and IBM's 9377. Prime announced the 6350 and 6550 systems offering VLSI and dual processor architectures that the vendor claims boost performance up to 270 times over its 9955 II, the high-end machine announced only last year. Harris has continued to expand the H-series with the announcement of six new systems, including the 32-bit HCX family, which extend the high end of the series.

If leaps in raw performance are the hallmark of the highend supermini systems, better price/performance is the driving force at the low end. The need for power is no longer restricted to the *Fortune* 1000, and as smaller companies' computing activities have grown, their computing budgets have not always followed suit. In order to reach these firms, supermini vendors have been forced to offer increasing performance at stable or decreasing costs.

A parallel issue for smaller organizations is systems expandability. Many supermini vendors market modular systems which can be expanded in the field, through addon units. Users can purchase more power as it is needed, making the expansion process easier and cheaper and protecting investments in hardware, software, and training.

There is no shortage of power in this market and, as competition continues to intensify and users' demands spur ongoing R & D efforts, both the high and low ends of the market will continue to be very active. Further, with IBM now a valid contender in the departmental computing arena, we should see an increase in the use of mid-range systems as departmental processors.

#### Trends

Architectural innovations, a move towards standards, and improvements in connectivity are among the continuing trends seen in the medium-scale systems market. Also, user demands and competitive pressures from third-party maintenance companies and from other vendors (many of whom now service competing vendors' products) are beginning to have a positive effect on customer service levels. All of these developments are closely linked to the increasing use of microprocessors in system design and the use of industry-standard interfaces and even operating systems, which provide the vendors with shorter, and therefore cheaper, development cycles.

The use of multiple standard microprocessor-based architectures to achieve performance increases at very low costs is noticeable, especially among the newer, and smaller, companies in the market. Some major vendors offer multiple microprocessor-based configurations in addition to their proprietary systems, and some systems employ a mix of industry-standard and proprietary chips.

Reduced Instruction Set Computing (RISC)-based systems have also grown in number. Vendors offering RISCbased superminis include Hewlett-Packard, with its much talked about 3000 Series 900. (HP has yet to ship these systems, but user response to the firm's 9000 Series RISC machine is reported to be positive.) Pyramid Technologies continues to offer strong secondary competition for Digital's high-end systems with its RISC-based machines that offer up to three times the performance of comparable Digital VAX systems at approximately half the price. MIPS Computer Systems is an OEM supplier of a compatible family of RISC-based system building blocks. These systems offer industry-standard communications, I/O architectures, programming languages, and data formats.

One problem that has been associated with the RISC architecture is the result of comparatively slower I/O speeds. Any benefits derived from improved CPU performance are quickly negated if data cannot be transferred with sufficient speed. RISC-based systems vendors are expanding on strictly theoretical RISC implementations to overcome some of the technology's inherent limitations. For example, Pyramid has added more complex instructions to the basic 32-bit instruction set to improve handling of I/O functions.

Parallel processing continues to prove itself as an interesting and useful supermini technology. The number of companies offering parallel architectures, based on both conventional processors and standard microprocessors, continues to grow. Among the firms in this area are International Parallel Machines, Elxsi, Flexible Computer Corporation, Sequent Computer Systems, and Concurrent Computer.

This architecture provides substantially increased processing speed by allowing multiple processors to execute various parts of a program simultaneously. Software must be properly configured in order to run in parallel, however, and unless the vendor provides assistance in the conversion of existing software, the process may require a large investment of the user's time and personnel resources. Further information on parallel processing can be found in Report 70C-000CH-101, "Parallel Processing—Advancing Technologies."

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#### All About Supermini Systems



MIPS Computer Systems' MIPS M/500 is a development platform designed to fit easily into networks of computer systems running Unix. MIPS markets its systems to computer manufacturers and system integrators.

While growth rates in the fault tolerant market have slowed in the last couple of years, that technology continues to attract attention, especially in the areas of on-line transaction processing (OLTP), certain office automation applications, and industrial process control. These applications all demand very high reliability with a minimum of downtime.

Fault tolerance is a form of multiprocessing wherein a single program is run simultaneously by separate processors, or two processors are coupled, one running the program, and the other standing by to take over in case of a failure of the primary processor. Typically, fault tolerant computers are used in cases where the loss of data or of monitoring activities would prove catastrophic. Tandem and Stratus continue to lead this market, with Stratus' agreement to provide fault tolerant systems to IBM boosting its reputation considerably. Other vendors include Sequent, Geac, Concurrent, and Sequoia.

Use of Unix grows... slowly. The imminent explosion in the use of the Unix operating system that has been alternately predicted and dismissed in recent years has yet to occur. While government RFP requirements for Unix have led most vendors to provide some form of Unix capability or compatibility on their machines, only 5 percent of those responding to Datapro's 1987 survey of minicomputer and supermicro users plan to add the Unix system in 1987. For mainframe users, the figure was 3 percent. These results represent only a very slight increase over last year (2 percent for minis and supermicros and 1 percent for mainframes). Obviously, users are generally satisfied with proprietary operating systems and want to protect existing investments in software written to proprietary systems.

The growing number of microprocessor-based superminis may affect the number of Unix-based systems installed in the future, but the main determinant in this area is and will continue to be the amount of applications software available. Until true standards appear, enticing software developers to provide packages for the system, Unix will continue as the "other system," useful in certain specific application areas, but not overly attractive to the medium-range market as a whole. One trend to watch here is the growing interest in a single, unified operating environment combining Unix with Pick. Conversation with representatives of various vendors have even indicated that systems combining features of Unix, Pick, and DOS are under development in labs around the industry.

Customer service is improving throughout the market, driven both by customer demand and increasing competition in the service sector. Third-party maintenance firms are aggressively pursuing customers, providing users with an alternative to manufacturers' maintenance programs. Improved connectivity has resulted in the increasing implementation of multivendor solutions, and users are looking for maintenance programs that offer support for a variety of vendors' equipment.

System and component reliability go hand in hand with service, and improvements in this area were also noticeable over last year, with a number of the major vendors offering extended warranty periods on both systems and peripherals.

One final trend that deserves notice is that of system and peripheral capacity. In the past, many high-powered superminis have suffered from a lack of storage capacity, both in memory and on disk. Vendors have begun to address this problem, increasing memory and storage capacity while the price per megabyte for disk drives continues to drop.

#### THE COMPARISON COLUMNS

The key functional characteristics of 125 commercially available superminis from 32 manufacturers are presented in the accompanying comparison columns. The staff at Datapro Research greatly appreciates the vendors' cooperation in providing information for the preparation of these columns. A detailed vendor list appears after the comparison column explanations. All of the comparison column entries are explained in the following paragraphs.

The absence of a company or a product from the comparison charts indicates: the company failed to respond to our repeated requests for information; the product is no longer actively being marketed; or the company is no longer in business.

Note: A dash (—) for an entry indicates that the information has not been obtained from the vendor.

#### WORD LENGTH

Traditionally, one of the most distinguishing characteristics of a computer has been its word length, that is, the number of bits that can be stored in or retrieved from main storage during a single cycle. All of the superminis currently on the market have at least a 32-bit word length, still the most frequently used criterion for distinguishing between the superminis and their smaller minicomputer relatives. However, with the advent of the 32-bit supermicrocomputers, this characteristic has lost much of its significance.

#### **DISK STORAGE CAPACITY**

This entry indicates the minimum and maximum on-line storage capacities offered by the system, expressed as millions of bytes (MB) or billions of bytes (GB). The figures indicate the capacity of a single disk drive or the total capacity of two or more drives that can be connected to the system. (Some of the maximums provided by the vendors are theoretical limits unlikely to be attained in an actual working environment.)

#### **MEMORY RANGE**

We list the minimum and maximum amount of main storage available for each computer, expressed in millions of bytes (MB).

#### NUMBER OF WORKSTATIONS SUPPORTED

A very important consideration for many potential computer users is the number of workstations the system can support. Workstations, in this case, can mean most types of devices that can input and/or receive data from the computer.

#### **PRICE RANGE**

Ideally, these figures represent the top and bottom of the price range for system hardware, from the minimum processor complex to a fully configured system. The figures actually presented in the columns can vary according to vendor response. In cases in which only one figure is quoted (e.g., "From \$100,000"), the price is usually that of the minimum processor complex only.

#### TARGET MARKET

This entry indicates the industries toward which the system is geared. We asked for specific submarkets, including computer-aided design, manufacturing and engineering (CAD, CAM and CAE, respectively), banking and finance, and transaction processing.

#### CENTRAL PROCESSOR

**CPU manufacturer and model.** This information is included largely because many superminis are now built around multiple microprocessors from Intel and Motorola. We also indicate proprietary chip model numbers, if available.

**CPU cycle time, nanoseconds.** Cycle time is defined as the time that elapses between the CPU's call for data from a storage device and the delivery of that data by the I/O section of the processor.

MIPS. The MIPS rating indicates how many millions of instructions the computer can execute per second. The MIPS measurement has some validity as a measure of relative performance among members of the same product family, particularly in the same application environments. In some cases, the MIPS rating is given as a factor of a specific machine's performance. (e.g. "... with the PDP-11/780 rated at 1.0").

Hardware floating point. This facility is included in the standard instruction repertoires of most currently available superminis. A hardware floating point removes from the CPU the burden of performing floating-point arithmetic. The entries under this heading usually indicate that the system's hardware floating point is single-precision (SP), double-precision (DP), triple-precision (TP), quadruple-precision (QP), or a combination of the above.

Virtual memory. Virtual memory simplifies programming by providing a large addressable space on a high-speed disk storage unit that appears to the user as real main storage. The number of addressable bytes of virtual memory is provided in this entry.

**Cache memory.** Cache is a high-speed storage unit that can significantly increase the performance of a computer by serving as a fast-access buffer between main storage and the CPU or the I/O subsystem. The entry indicates the capacity in bytes of the cache memory unit, if applicable to the system.

**Battery backup.** This facility permits an orderly shutdown of the system in the event of an electrical failure or other sudden interruption. The entry indicates whether battery backup is standard, optional, or not applicable to a system.

**Realtime clock or timer.** A realtime clock enables the program to determine the time of day, while an interval timer usually indicates the amount of time that has elapsed since the occurrence of some significant event. In many cases, the timer can trigger an interrupt signal when a predetermined interval of time has elapsed. The entry

indicates whether the clock or timer is standard, optional, or not applicable to the system.

#### MAIN STORAGE

**Cycle/access time, nanoseconds.** The *cycle time* is a minimum time interval that must elapse between the starts of two successive accesses to any one storage location. One cannot assume that the computer with the fastest cycle time will be the best overall performer in a particular application. Other parameters that have an important effect on a computer's performance include the flexibility and power of its instruction repertoire, the number of storage cycles it requires to execute each instruction, and its I /O capabilities. *Access time* is the actual elapsed time between the CPU's request for data and the time when that data is received (read) from memory.

Storage protection. This is a feature that prevents unauthorized writing to or reading from certain areas of main storage. The protection can be accomplished through hardware, software, or a combination of both. The entry indicates whether storage protection is standard, optional, or not applicable to the system, and what type of protection scheme is used.

**Increment size, bytes.** The size of the add-on units used to increase the system's main memory is listed.

#### **INPUT/OUTPUT CONTROL**

**Type of bus.** This entry indicates whether the system uses an industry standard Multibus or VMEbus, or names the proprietary bus, if applicable.

Number of I/O channels. We list the maximum combination of high-speed and low-speed channels that can be used to connect peripheral controllers to the CPU.

Aggregate bandwidth. Sometimes referred to as the "I/O bandwidth," the aggregate bandwidth is a measure of the computer's ability to transfer data to and from peripheral devices or other external sources through all available I/O channels, buses, and ports. The transfer rate is indicated in thousands or millions of bytes per second (KB/sec or MB/sec).

#### COMMUNICATIONS

Maximum number of lines. Here is listed the number of data communications lines that can be handled by a particular system. The types of lines are specified in the next two entries.

**Synchronous.** These lines transmit bits or characters (composed of 5 to 8 bits) of data in blocks at a relatively constant rate regulated by synchronizing characters at the beginning of each block. The entries indicate whether synchronous lines are standard, optional, or not applicable to the system. Where possible, the maximum data rate, or speed, of each line in bits per second (bps) is noted.

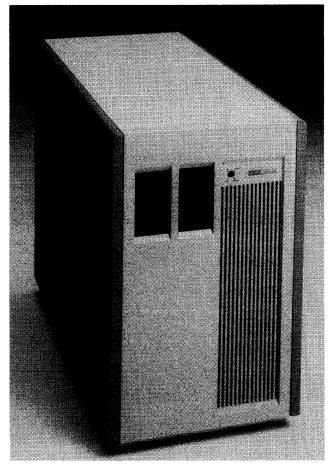
Asynchronous. Asynchronous lines transmit characters individually at irregular rates. A start bit precedes each character, and a stop bit follows it. The entry tells whether asynchronous lines are standard, optional, or not applicable, and also notes the line speed in bps.

**Protocols supported.** This entry indicates which intersystem communications conventions, if any, are supported through the availability of appropriate hardware and software facilities.

LAN supported. We list the local area network(s) that can be used to link the system to other computer systems within a limited area, such as an office building. Examples are the IEEE standards 802.3 (Ethernet) and 802.5 (Token-ring). The name of a proprietary LAN, if any, is also given.

**RJE terminals supported.** This entry indicates which of the popular remote job entry terminals, if any, the system can be equipped to emulate. Programs that emulate the functions of the IBM 2780, 3780 and 3770, and Hasp terminals are available for most current superminis.

**IBM 3270 emulation.** We note whether the system can be equipped to emulate the functions of the widely used IBM >>



The Power 6/32SX is a 5 MIPS supermini from Computer Consoles, Inc. that supports up to 96 users and can be upgraded in the field to provide 8 MIPS performance. The Power 6 family supports a full range of industry standard communications protocols.

➤ 3270 display terminals and whether emulation is accomplished through IBM's BSC protocol or System Network Architecture (SNA).

#### PERIPHERAL EQUIPMENT

These entries provide details on the standard peripheral devices available for use with each computer system.

**Disks supported.** The types of disk media available for use on the system are listed. Most responses indicate a mixture of fixed and removable disk drives. This entry also supplies the storage capacities of the disk devices that are compatible with the system.

**Cartridge tape drives.** This entry indicates the availability of I/O devices that accommodate low-cost magnetic tape cartridges. Also listed are the recording densities in bits per inch (bpi) and speed in inches per second (ips).

Streaming tape drives. These devices permit data to be transferred to a tape without the tape's stopping between data blocks. This entry indicates the speed of the tape in ips and, where applicable, the presence of a start/stop mode that permits the streaming tape drive to emulate conventional tape subsystems.

**Reel-to-reel tape drives.** Listed here are the recording density in bpi and the speed in ips of tape drives that accommodate industry-standard magnetic tape.

Line printers. These devices operate at speeds of 100 to 2000 or more lines per minute (lpm) and are used most frequently in large configurations.

Serial printers. These printers generally range in speeds from about 30 to 600 or more characters per second (cps), employ various matrix and daisywheel technologies to print a character at a time, and are frequently able to print bidirectionally. This entry indicates the speeds of the serial printers available for the system.

Letter-quality printers. These low-speed serial printers (generally 30 to 55 cps) are used in office automation applications to produce correspondence-quality documents. This entry provides the speeds of the letter-quality printers available for the system.

Nonimpact printers. Printers in this category include laser, liquid crystal shutter (LCS), thermal transfer, ion deposition, and ink jet printers. We have indicated the type supported and the speed in lpm or pages per minute (ppm).

Other peripherals supported. Any additional peripheral devices available for each system are listed under this entry. Typical entries include optical character readers, scanners, and plotters and other graphics devices.

#### SOFTWARE

Prospective supermini buyers should carefully note whether the software they will require is included in the cost of the system or offered at extra cost. Detailed information on many supermini software packages can be found in the Volume 3 of *Datapro 70*.

**Operating system name.** We have indicated the name of the proprietary operating system as well as the name of any Unix derivative available as a primary or, more commonly, secondary operating system. (An operating system name that ends in "x" or "ix" generally indicates a Unixbased system.)

**Operating system type.** Typical entries describing the available operating systems include "batch," which means that the system processes one or more jobs sequentially and requires all data to be supplied before initiation; "realtime," which means that the system responds to external demands on a priority basis; "multiuser" which means that the system allows multiple users to access the system and share all its resources at the same time; or "multitasking", which indicates that more than one task or program can be run on the system simultaneously. The operating systems for many of the current superminis are capable of supporting two, three, or all four modes of operation simultaneously.

**Data base management system (DBMS).** The availability of an effective DBMS can greatly simplify applications programming tasks and increase the overall value of a data processing system. This entry provides the names and types of the principal DBMS available for the computer.

Assembler. With an assembler, programmers can write their own programs in a simplified format that uses mnemonic operation codes and symbolic operand addresses. The assembler program then converts these symbolic instructions into their machine-language equivalents, producing computer programs ready for loading and execution. Entries here indicate the availability of an assembler, a macro assembler, or both.

**Compilers.** These software tools shift part of the program preparation task from the user to the computer itself by converting programs written in a simplified, procedure-oriented language into machine-language object programs. Entries in this section of the columns include widely used high-level programming languages like Cobol, RPG, Fortran, Basic, C, APL, PL/1, and Pascal; more specialized languages, like Lisp, which is used for artificial intelligence applications; or proprietary languages available from a vendor for use on a particular system.

**Principal applications available.** This entry indicates the principal types of software packages available for the computer's target market. Principal applications for the engineering/scientific market would include CAD/CAE and solids modeling. Principal applications for the commercial market would include transaction processing, office automation, and general business packages. In some cases, the vendors have supplied the names of specific application packages for their target industries.

Other applications available. This entry lists those software products that are not principal market applications for the system; rather, they are secondary packages available for use in the target market and collateral markets. For example, a vendor in the commercial market might list an office automation package as the principal industry application and a general accounting package—useful but not primary for the target market—as the other package.

#### PRICING AND AVAILABILITY

Typical system configuration and price. Intended to provide an accurate guide to the cost of the system, this entry includes a processor/peripheral configuration that would typically be used in the vendor's stated target business environment.

Although we requested full configurations and applicable prices, some vendors did not comply. Some provided only processor configurations and prices; others neglected altogether to provide hardware and pricing data. Where components and pricing for processor complexes only were supplied, we have left the information as is; potential buyers should thus be aware that the actual cost of a full system configuration could be many times that of the base processor price provided in the comparison column. When vendors supplied no information, we developed our own sample configurations in many cases. Although we believe each configuration to be realistic and accurate, the reader must realize that, depending upon the configuration and pricing rules imposed by the vendor, the actual price of a workable system could vary from that listed. If you wish to buy two or more computers, it is worth noting that most of the manufacturers offer discounts from their list prices on orders for more than one computer.

Monthly maintenance of typical configuration. In this entry we have provided the amount to be paid to the vendor per month for service and repair of the typical configuration, under the maintenance contract.

**Date of first delivery.** The date when the first production model of each computer was delivered (or is scheduled to be delivered) to a customer is indicated.

Number installed to date. This entry shows how many systems of each type had been delivered to customers as of first quarter 1987.

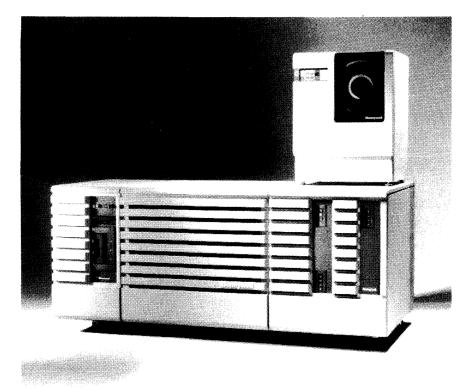
#### COMMENTS

This final entry on the comparison columns is used to explain or amplify the preceding entries and to provide other pertinent information about each system's hardware, software, pricing, applications, or characteristics.

#### SUPERMINI MANUFACTURERS

Listed below, for your convenience in obtaining additional information, are the full names, addresses, and telephone numbers of the 32 vendors whose products are listed in the specification charts that follow.

AT&T Information Systems, 1 Speedwell Avenue, Morristown, NJ 07690. Telephone (201) 898-2000.



Honeywell-Bull's DPS 6 PLUS is a new family of superminicomputers employing modular microprocessor architecture. This architecture allows processing power to be expanded incrementally, without disrupting daily business operations. The DPS 6 PLUS is compatible with Honeywell's older DPS 6 product line.

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Barrister Information Systems, One Technology Center, 45 Oak Street, Buffalo, NY 14203. Telephone (716) 845-5010.

**BTI Computer Systems**, 870 West Maude Avenue, Sunnyvale, CA 94086. Telephone (408) 733-1122.

Celerity Computing, 9692 Via Excelencia, San Diego, CA 92126. Telephone (619) 271-9940.

Computer Consoles, Inc. (CCI), 9801 Muirlands Blvd., Irvine, CA 92718. Telephone (714) 458-7282.

**Computer Designed System Inc.**, 10911 Olson Memorial Highway, Minneapolis, MN. Telephone (612) 545-2855.

Concurrent Computer Corporation (formerly Perkin-Elmer Corporation, Data Systems Group), 197 Hance Avenue, Tinton Falls, NJ 07724. Telephone (201) 758-7000.

Control Data Corporation, 8100 34th Avenue South, Minneapolis, MN 55440. Telephone (612) 853-5130.

Counterpoint Computers, 2127 Ringwood Avenue, San Jose, CA 95131. Telephone (408) 434-0190.

Data General Corporation, 4400 Computer Drive, Westboro, MA 01580. Telephone (617) 366-8911.

Digital Equipment Corporation (DEC), 146 Main Street, Maynard, MA 01754-2571. Telephone (617) 897-5111.

Elxsi, 2334 Lundy Place, San Jose, CA 95131. Telephone (408) 942-0900.

Encore Computer Corporation, 257 Cedar Hill Street, Marlborough, MA 01752. Telephone (617) 460-0500.

Flexible Computer Corporation, 1801 Royal Lane, Building 8, Dallas, TX 75229. Telephone (214) 869-1234.

Gould Inc., Computer Systems Division, 6901 W. Sunrise Blvd., Fort Lauderdale, FL, 33313-4499. Telephone (305) 587-2900.

Harris Corporation, Computer Systems Division, 2101 West Cypress Creek Road, Fort Lauderdale, FL 33309. Telephone (305) 974-1700. Hewlett-Packard Company, 1820 Embarcadero Road, Palo Alto, CA 94303. Contact local sales office.

Honeywell Bull, Inc., 300 Concord Road, Billerica, MA 01821. Telephone (617) 895-6000.

International Business Machines Corporation (IBM), Old Orchard Road, Armonk, NY 10504. Contact your local IBM representative.

International Parallel Machines, Inc., 700 Pleasant Street, New Bedford, MA 02740. Telephone (617) 990-2977.

**MAI Basic Four, Inc.**, 14101 Myford Road, Tustin, CA 92680. Telephone (714) 731-5100.

McDonnell Douglas Computer Systems Company (formerly Microdata Corporation), 17481 Redhill Avenue, P.O. Box 19501, Irvine, CA 92713. Telephone (714) 250-1000.

MIPS Computer Systems, 930 Arques Avenue, Sunnyvale, CA 94086. Telephone (408) 720-1700.

NCR Corporation, 1700 South Patterson Boulevard, Dayton, OH 45479. Telephone (513) 445-4158.

Prime Computer, Inc., Prime Park, Natick, MA 01760. Telephone (617) 655-8000.

**Pyramid Technology Corporation**, 1295 Charleston Road, P.O. Box 7295, Mountain View, CA 94039-7295. Telephone (415) 965-7200.

Ridge Computers, 2451 Mission College Blvd., Santa Clara, CA 95054. Telephone (408) 986-8500.

Sequent Computer Systems, Inc., 15450 SW Koll Parkway, Beaverton, OR 97006. Telephone (503) 626-5700.

Stratus Computer, Inc., 55 Fairbanks Boulevard, Marlboro, MA 01752. Telephone (617) 460-2000.

Tandem Computers, Inc., 19333 Vallco Parkway, Cupertino, CA 95014. Telephone (408) 725-6000.

Unisys Corporation, P.O. Box 500, Bluebell, PA 19424. Telephone (215) 542-4011.

Wang Laboratories, Inc., One Industrial Avenue, Lowell, MA 01851. Telephone (617) 459-5000. □

MANUFACTURER & MODEL	AT&T 3B5	AT&T 3B15	AT&T 3B20	Barrister Information Systems Corporation Model 3200 32 bits
			32 bits	32 bits
WORD LENGTH	32 bits	32 bits		1
DISK STORAGE CAPACITY	40MB-2.2GB	40MB-2.2GB	256MB-8.8GB	160MB-3.2GB
MEMORY RANGE	2MB-16MB	2MB-16MB	2MB-16MB (per CPU)	4MB-8MB
NO. WORKSTATIONS SUPPORTED	128 (32-48 active)	128 (60 active)	256 (100-150 active)	16
PRICE RANGE, \$	From 34,500	From 54,500 (3B15-101)	From 139,000	From 46,750
TARGET MARKET(S)	General business	General business	Custom applications	Legal Office Automation and Management
CENTRAL PROCESSOR CPU Manufacturer and Model	WE 32000	WE 32000	WE 32000	Bar. Bits Slice & MC68020 62
CPU Cycle Time, nanoseconds		-	-	
MIPS	0.8-1.0	1.40	1.0-1.8	3.4
Hardware Floating Point	SP, DP	SP, DP	SP, DP	68881
Virtual Memory (addressable bytes)	Up to 4GB	Up to 4GB	Up to 4GB	-
Cache Memory, bytes	8KB	16KB	16KB	4KB
Battery Backup		Standard	Standard	Standard
Realtime Clock	<u> </u>		_	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	245	245	400	400
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes	1MB, 2MB	2MB	2MB	4096KB
INCREMENT SIZE, Dytes	TAID, ZIAID	LIVID	21410	TUBURD
	1		1	1
Type of Bus		1.0	-	
No. of I/O Channels	16	16	4	28
Aggregate Bandwidth, bytes/sec.	· ·	<u> </u>	1MB-4MB	2.5MB/sec
COMMUNICATIONS		1	1	1
Max. Number of Lines	<u> </u> —	<sup>1</sup>	I	8
Synchronous	Optional, 56K bps	Optional, 56K bps	Optional, 56K bps	Optional, 9.6K bps
Asynchronous	Optional, 19.2K bps	Optional, 19.2K bps	Optional, 9600 bps	Optional, 9.6K bps
Protocols Supported	BSC, SNA, TTY, RJE	BSC, SNA, TTY, RJE	X.25, HDLC, RJE, DDCMP, Hyperchannel	<u> </u>
LAN Supported	Ethernet, 3BNet, ISN	Ethernet, 3BNet, ISN	Ethernet, 3BNet, ISN	Barrister/Net
RJE Terminals Supported	HASP	HASP	HASP	Optional
IBM 3270 Emulation	Yes	Yes	Yes	Optional
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed: 134MB, 279MB	Fixed: 134MB, 279MB	Winch: 279MB, 550MB	Fixed: 80MB-2400MB
	F/R: 40MB	F/R: 40MB	Rem: 256MB	
Streaming Tape Drives	S/S, 25/75 ips	S/S, 75 ips	S/S, 75 ips	90 ips, S/S
Cartridge Tape Drives				_
Reel-to-reel Tape Drives	25/75 ips, 1600/6250 bps	75 ips, 1600/6250 bps	75-100 ips/1600/6250 bpi	None
Line Printers		600 lpm	600/1000 lpm	430-730 lpm
Serial Printers	600 lpm			
	120/200 cps	120/200 cps		25-270 cps
Letter Quality Printers	-	-	—	25-80 cps
Non-Impact Printers			—	Laser 10-24 ppm
Other Peripherals Supported	Plotters	Plotters	-	OCR
SOFTWARE				
Proprietary Operating System Name	UNIX System V Rel 3.1	UNIX System V Rel 3.1	UNIX System V Rel 3.1	MBX
Operating System Type	RT. multitask, multiuser	RT, multitask, multiuser	RT, multitask, multiuser	RT, multiprocessing
	R1, mutitask, mutiuser	R1, mututask, mutuuser	n i, mutitask, mutituser	
Unix Derivative				Yes
Database Management System	dBase II, Ingres, Unify	dBase II, Ingres, Unify	Ingres	Barrister RDBMS, BIMS
Assembler				Macro
Compilers	C, Basic, Pascal, RM/Cobol	C, Basic, Pascal, RM/Cobol	C, Basic, Pascal, Cobol	Trial, C
Principal Application Available	General business	General business	General business	Legal
Other Applications Available	OA, communications,	OA, communications,	Third party	WP, Law acct'g, fin. mod
	mgt control	mgt control		info mngt, elctr mail
PRICING & AVAILABILITY				
Typical System Configuration and Price	Contact vendor	CPU, 4MB mem, 3 async cntrl, 24 term, 1600 bpi tape, 279MB & 134MB disk 200 cps prats UNIX V	CPU, 6MB mem, 5 async cntrl, 48 term, 1600 bpi tape/cntrl, 2 675MB disk 1000 lpm prrtr, console	4MB mem, 300MB disk, 55MB tape dr, system console, disk & tape contr — \$46,750
		200 cps prntrs, UNIX V \$158,209	1000 lpm prntr, console, UNIX V — \$326,605	cntr — \$46,750
Monthly Maintenance of Typical	Contact vendor	Contact vendor	Contact vendor	\$500
Configuration	-		-	
Date of First Delivery	October 1985	December 1985	December 1985	1-
Number Installed to Date COMMENTS		-		-

MANUFACTURER & MODEL	Barrister Information Systems Corporation Model 3300 32 bits	BTI Computer Systems BTI-8000	Celerity Computing C1260	Computer Consoles Power6/32EX	
WORD LENGTH	32 bits	32 bits	32 bits	32 bits	
DISK STORAGE CAPACITY	160MB-3.2GB	67MB-9GB	337MB/44GB	278MB-13.3GB (fmtd.)	
MEMORY RANGE	4MB-64MB	2MB-24MB	4MB/24MB	8MB-32MB	
NO. WORKSTATIONS SUPPORTED	16	8-512	256	64	
PRICE RANGE, \$	From 124,350	100,000 - 750,000	110,000-150,000	145,000	
	Legal Office Automation and Management	Gen. Bus., Trans., MIS, Hospital lab, T.V.	Sci/Eng, CAD/CAM/CAE, Image Animation	Gen. Bus., Sci/Eng, CAD/CAM/CAE, Off. Auto.	
CENTRAL PROCESSOR					
CPU Manufacturer and Model	Prop, & up to 4 MC68020	TTL	Proprietary - RISC	CCI POWER 6/32EX	
CPU Cycle Time, nanoseconds	40	67	100	100	
MIPS	5-20	1.5-4.8	20	5	
Hardware Floating Point	68881	DP	SP, DP	SP, DP	
Virtual Memory (addressable bytes)			4GB/Process	4GB	
Cache Memory, bytes	4KB	<u> </u>	320KB	40KB	
Battery Backup	Standard	Standard	Optional	None	
Realtime Clock	Standard	Standard	Standard	None	
MAIN STORAGE					1
Cycle/Access Time, nanoseconds	400	1	N/A	400/100 (dpnd # bds.)	
Storage Protection	Standard	Standard	Standard	Standard	1
Increment Size, bytes	4096KB	2MB	4MB	4MB	1
INPUT/OUTPUT CONTROL	1	-	1 -		1
Type of Bus		Proprietary	Multibus	VERSABus	1
	29			1	1
No. of I/O Channels	28	Up to 32	2		1
Aggregate Bandwidth, bytes/sec.	2.5MB/sec	60MB/sec	Up to 16MB/sec	13.3MB/sec	1
COMMUNICATIONS		1	1	1	1
Max. Number of Lines	8	512	128	384	
Synchronous	Optional, 9.6K bps	! <u> </u>	Optional, 64K bps	Optional, 9600 baud	1
Asynchronous	Optional, 9.6K bps	Standard	Standard, 34.4K bps	Optional, 19.2K bps	
		Standard	HDLC, X.25, MAP, BSC,	SDLC, HDLC, X.25, BSC,	1
Protocols Supported	-				
			TCP/IP, SNA, TTY	TCP/IP, SNA, TTY	1
LAN Supported	Barrister/Net	I	IEEE 802.3	IEEE 802.3 (Ethernet)	
RJE Terminals Supported	Optional	2780/3780	2780/3780, HASP	2780/3780, 3770	1
IBM 3270 Emulation	Optional	None	SNA, BSC	SNA, BSC	
PERIPHERAL EQUIPMENT	1.				1
Disks Supported	Fixed: 80MB-2400MB	Fixed: 67MB, 279MB Removable: 67MB, 254MB	140, 337, 474, 689MB Removable: 300, 337	Fixed: 278MB & 416MB	
Otoreauire Zene Driver		herriovable. O/Ivib, 254ivib		1000/0250 hat 100 to 1	
Streaming Tape Drives	90 ips, S/S		1600/25 ips	1600/6250 bpi, 100 ips	
Cartridge Tape Drives	-	1/4", 6400 bpi	60MB	N/A	4
Reel-to-reel Tape Drives	None	1600 bpi - 45 ips	1600/6250, 125 ips	N/A	
Line Printers	430-730 lpm	300, 600, 900 lpm	300/600 lpm	300, 600 lpm	1
Serial Printers	25-270 cps		120 cps	400 cps	
Letter Quality Printers	25-80 cps		30 cps	55 cps	1
Non-Impact Printers	Laser 10-24 ppm		Laser	N/A	1
		_		19/0	1
Other Peripherals Supported	OCR	_	High-resolution graph-		
005714/4 05			ics displays		1
SOFTWARE			1		1
Proprietary Operating System Name	MBX	Virtual Resource Mgr	UNIX	CCI System V	
Operating System Type	RT, multiprocessing	Batch, RT, mitsk, mituse	Multiuser	Multitasking & multiuser	
Unix Derivative	Yes	No	Berkeley 4.3	Yes	
Database Management System	Barrister RDBMS, BIMS	MARS II- Relational DBMS	Informix & Ingres Rela.	UNIFY, BRS/SEARCH	
Assembler		Relocatable	Celerity MACRO Assembl.	Von	1
	Macro			Posia Possal Fatter	1
Compilers	Trial, C	Basic, Pascal, Fortran,	Pascal, C, Fortran,	Basic, Pascal, Fortran,	1
		Cobol, COMP (4GL for use	Lisp	Cobol, C	1
	1	with MARSII DBMS)	1	1	1
Principal Application Available	Legal	ASAPII-4GL Acctg;QuickII	Ansys, Patran (MCAE)	Off. AutoOffice Power	1
		4GL Distribution			1
Other Applications Available	WP, Law acct'g, fin. mod	Newstech (TV char. gen.)	Over 100 software pkgs	1	1
ipprovide it and the	info mngt, elctr mail	Rcoms (Real Estate),	are avail.		1
	and migt, elet mail		ure avail.		1
		TRIAM, Modulus (both Lab	l		1
	1	Management)	1	1	1
PRICING & AVAILABILITY		1		l	1
Typical System Configuration and Price	4MB mem, 800MB disk,	CPU, 279MB fixed disk	C1260 Dyadic CPU, 4MB	5MIPS CPU w/Floating Pt	1
	400MB tape dr, system	254MB remov. disk, 24	memory, 337MB disk,	Accel,8MB mem, 340MB	1
	console, disk & tape	ports-\$98,950	serial lines, printer	disk w/contrl, 1 1600bpi	1
	· · ·	porto 400,000			1
	cntr — \$124,350		port, realtime clock,	tape drv & contrl, 1	1
			Unix-\$110,000	async I/O contrl w/32	
			l	RS-232 ports, 22 I/O ex-	100
		1	1	pansion slots, UNIX Sys.	10. J
	1	1	1	V license for 32 users-	
		1	}	\$181,350	
Monthly Maintenance of Turial	\$745	61 220	\$905		100
Monthly Maintenance of Typical	\$745	\$1,320	\$905	\$1,203	1 1
Configuration	1-	1			
Date of First Delivery	-	I	January 1986	New	1
Number Installed to Date	1—	65+	100+		1
COMMENTS		1	l	Easy upward migration	Ł
	1	1	]	path, field upgradable	1
				i pari, noia apgrauable	1
					1
					1

Particle Length 1         2 bits         32 bits	MANUFACTURER & MODEL	Computer Consoles Power6/32MP	Computer Consoles Power6/32S	Computer Consoles Power 6/32SX	Computer Consoles Power6/32X
Disk STORAGE CAPACITY REMOV RAACE, 5 REMOVE RAACE, 5 R	YORD LENCTH	20 hite	22 hita	22 hita	22 hito
MEMORY PARAGE NOW WORKTATIONS SUPPORTSD DAVIS VERSAULT         16MB 32MB         4MB 15MB         4MB -16MB         4MB -16MB         18MB -32MB					
NO. WORKSTATIONS SUPPORTED FRECE RANGE, 9         180         64         96         128           CARGET MARKETS)         257.000         Can, Bas, Bol/Eng, Can, Bas, Bol/Eng, Can, Bas, Bol/Eng, Can, Bas, Bol/Eng, Can, Can/CAM/CAE, Off. Auto. CAD/CAM/CAE, Off. Au					
Price RANCE : 6 TAGET MARKET (S)         23.700 Gen. But. : 50/For, CAD/CAM/CAE, Off. Auto. CAD/CAM/CAE, Off. Auto. CA	MEMORY RANGE	16MB-32MB			
TARGET TRANKET (S)         Can, Exu, Sel/Eng., CAD/CAM/CAE, (G, Auto, CAD/CAM/CAE,	NO. WORKSTATIONS SUPPORTED	180	64	96	128
TARGET MARKET[5]         Can. Bau., Sel/Eng., CAD/CAM/CAE, CH, Auto, CAD/CAM/CAE,	PRICE RANGE, \$	257,000	89,950	109,950	173,000
Charlest         Cody (CAM) (CAE, OR. Auto.         CAD/CAM/(CAE, OR. Auto. <thcad (cae,="" auto.<="" cam="" or.="" td="" th<=""><td></td><td></td><td></td><td></td><td></td></thcad>					
CPU Manufacture and Model CPU Cycle Time, manoaeconds MIPS Cache Memory, bytes Battery Backup         CCI Power 6/32.8X 100         C					
CPU Cycle Time, nanoseconds Hardware Floring Point Cash Memory, Norea Battery Bockup     100     100     100     100       Hardware Floring Point Cash Memory, Norea Battery Bockup     15     8     0     8     0       State Memory, Norea Maximum     56/00     300     56/00     56/00     56/00       State Memory, Norea Maximum     None     None     None     None     None       MAIN STORAGE Cycle/Access Time, Tamoseconds Opciend, 132, XB     400/100 (dpn # bds) Similari     400/100 (dpn # b	CENTRAL PROCESSOR				
CPU Cycle Time, nanoseconds Hardware Floring Point Cash Memory, Norea Battery Bockup     100     100     100     100       Hardware Floring Point Cash Memory, Norea Battery Bockup     15     8     0     8     0       State Memory, Norea Maximum     56/00     300     56/00     56/00     56/00       State Memory, Norea Maximum     None     None     None     None     None       MAIN STORAGE Cycle/Access Time, Tamoseconds Opciend, 132, XB     400/100 (dpn # bds) Similari     400/100 (dpn # b	CPU Manufacturer and Model	CCI Power 6/32MP	CCI Power6/32S	CCI Power 6/32 SX	CCI POWER 6/32X
MinEs     15     5     8     8     8     8       Hardware Floating Point Virtual Memory (addressable bytes) Catch Mamory, bytes     SP, DP     SP, DP     SP, DP     4GB     4GB     4GB       Virtual Memory (addressable bytes) Catch Mamory, bytes     SS, DP     SS, DP     SP, DP     4GB     4GB     506.0       Reatime Clock Multi NSTORAGE     None     None     None     None     None       Virtual Memory (addressable bytes) Storage Point clock Multi NSTORAGE     400/100 (dpd + bds) Standard     Standard     400/100 (dpd - p + bds) Standard	CPU Cycle Time, nanoseconds	100	100	100	100
Hardware Floating Point Virtual Menory, bytes BKR 2 Cache Manory, bytes BKR 2 Cac					
Virtual Memory (addessable bytes)         40B         4GB         4GB         4GB         4GB         4GB           Date of Landmark Constant         55KB         Mone         None         No					
Cache Memory, bytes         SKB         40KB         SKB         40KB         SKB         40KB         SKB         50KB         None					
Battery Backup         None					
Realting         None         None         None         None         None           Cycle/Access         Time, nanoseconds         400/100 (dpn d b bd)         Standard         400/100 (dpn d b bd)         500/100 (dpn d b bd)         Standard         300/100 (dpn d b bd)         500/100 (dpn d b	Cache Memory, bytes	56KB	40KB	56KB	56KB
Realting         None         None         None         None         None           Cycle/Access         Time, nanoseconds         400/100 (dpn d b bd)         Standard         400/100 (dpn d b bd)         500/100 (dpn d b bd)         Standard         300/100 (dpn d b bd)         500/100 (dpn d b	Battery Backup	None	None	None	None
MAIN STORAGE         Mark		-		None	None
Cycle/Access Time, nanoseconds Storage Protection Increment Size, byres400/100 (dgnd # bdg) Standard400/100 (dgnd # bdg) Standard500/100 (d		None	10110	None	None
Sionger Protection Incorrent Size, Fytes NRUT/OUTPUT CONTROL Type of Bus     Standard 4MB     Standard 4MB     Standard 4MB     Standard 4MB       NUT/OUTPUT CONTROL Type of Bus     VERSABus     VersaBUS     VersaBUS     VERSABus       No. of I/O Channels No. of I/O Channels     1 3.0MB/sec     1 3.3 MB/sec     1 3.3 MB/sec       13.3 MB/sec     1 3.3 MB/sec     1 3.3 MB/sec     1 3.3 MB/sec       Max, Number of Lines Synchronous     384     Optional, 9600 baud Optional, 19.2K bps     0ptional, 19.2K bps       Stock_IDLC, X25, BSC, TCP/IP, SNA, TTY     EEE 802.3 (Ethernet)     Stock_IDLC, X25, BSC, TCP/IP, SNA, TTY     EEE 802.3 (Ethernet)       IBM 3270 Emulation Protecols Supported     Fixed: 278MB & 416MB     Fixed: 337MB     337MB fixed     Fixed: 278MB & 416MB       Strandard discover     Stock_IDLC, X25, BSC, TCP/IP, SNA, TTY     EEE 802.3 (Ethernet)     1000 (p32 (p3 ps/r)     SNA, BSC       Strandard discover     Strandard discover     Strandard discover     SNA, BSC     SNA, BSC     SNA, BSC       Strandard discover     Strandard discover     SNA, BSC     SNA, BSC     SNA, BSC     SNA, BSC       Strandard discover     Strandard discover     SNA, BSC     SNA, BSC     SNA, BSC     SNA, BSC       Strandard discover     Fixed: 278MB & 416MB     Fixed: 278MB & 416MB     Fixed: 278MB & 416MB     Fixed: 278MB & 416MB					1.00.1100
Increment Increment NUT/OUTPUT/OUTPUC OF Bus No. of I/O Channels 14MB4MB4MB4MB4MB4MB4MB4MB4MBType of Bus Aggregate Bandwidth, bytes/sec. COMMUNICATIONS Monthonus Communications Aggregate Bandwidth, bytes/sec. COMMUNICATIONS Monthonus Aggregate Bandwidth, bytes/sec.VersaBUS 1VersaBUS 2VersaBUS 2VersaBUS 1VersaBUS 2 <td></td> <td></td> <td></td> <td></td> <td></td>					
NRUT/QUITPUT CONTROL Type of Bus No. of I/Q Channels No. of I/Q Channels Agregate Bufwidth, bytes/sec. COMMUNCATIONS Max. Number of Lines Synchronos Agregate Bufwidth, bytes/sec. ToC//P, SNA, TTY EEE 802.3 (Ethernet) 2780/3780, 3770 SNA, BSC TCP//P, SNA, TTY EEE 802.3 (Ethernet) 2780/3780, 3770 SNA, BSC SNA, BS	Storage Protection	Standard	Standard	Standard	Standard
NRUT/QUITPUT CONTROL Type of Bus No. of I/Q Channels No. of I/Q Channels Agregate Bufwidth, bytes/sec. COMMUNCATIONS Max. Number of Lines Synchronos Agregate Bufwidth, bytes/sec. ToC//P, SNA, TTY EEE 802.3 (Ethernet) 2780/3780, 3770 SNA, BSC TCP//P, SNA, TTY EEE 802.3 (Ethernet) 2780/3780, 3770 SNA, BSC SNA, BS	Increment Size, bytes	4MB	4MB	4MB	4MB
Type of Bus         VERSABus	INPUT/OUTPUT CONTROL	1	1	1	1
No. of UO Chennels     1       Aggregate Bandwidth, bytes/sec.     13.3MB/sec       COMMUNCATIONS     13.3MB/sec       Max, Number O Lines     384       Synchronous     394       Ayrichronous     394       Synchronous     395       Synchronous     395       Synchronous     394       Ayrichronous     394       Synchronous     394       Ayrichronous     394       Synchronous     3950, 192, 192, 192       Supported     192, 192, 255       Ruf Terminals Supported     192, 193, 3700       Streaming Tape Drives     1600/6250 bpi, 100/jps       Carridge Tape Drives     1600/6250 bpi, 100/jps       Carridge Tape Drives     1600/6250 bpi, 100/jps       Carridge Tape Drives     1600 /6250 bpi, 100/jps       Carridge Tape Drives     1600 /6250 bpi, 100/jps       Corber Aripheratics     300 cps       Soprating System Name     205 cps       Operating System Name     CCI System V       Moltitasking & Multituser     Var       Vira     15 MPS CPU w/2 Rosting       Soprating System Name     Corbig Aritics       Operating System Name     Optics       Operating System Name     Optics       Optics     25 spa       N/A     1		VERSABUS	VersaBUS	VersaBUS	VERSABUS
Aggregate Bandwidth, bytes/sec. COMMUNCATIONS13.3MB/sec13.3MB/sec13.3MB/sec13.3MB/secMax, Number of Lines Synchronous Asynchronous Asynchronous Coptional, 19.2K bps Synchronous Asynchronous Coptional, 19.2K bps Stock-INLC, X.25, BSC, TCP/IP, SNA, TTY58 async, 48 sync Optional, 19.2K bps SDLC, HUC, X.25, BSC, TCP/IP, SNA, TTY96 async, 48 sync Optional, 19.2K bps SDLC, HUC, X.25, BSC, TCP/IP, SNA, TTY96 async, 48 sync Optional, 19.2K bps SDLC, HUC, X.25, BSC, TCP/IP, SNA, TTY96 async, 48 sync Optional, 19.2K bps SDLC, HUC, X.25, BSC, TCP/IP, SNA, TTY96 async, 48 sync Optional, 19.2K bps SDLC, HUC, X.25, BSC, TCP/IP, SNA, TTY96 async, 48 sync Optional, 9600 baud Optional, 19.2K bps SDLC, HUC, X.25, BSC, TCP/IP, SNA, TTY98 async, 48 sync TCP/IP, SNA, TTY98 async, 48 sync TCP/IP, SNA, TTY96 async, 48 sync TCP/IP, SNA, TTY96 async, 48 sync TCP/IP, SNA, TTY96 async, 48 sync TCP/IP, SNA, TTY92 async, 192 AsyncLAM SupportedTCP/IP, SNA, TTYIEEE 0023 (Ethornet) IEEE 0023 (Ethornet)100 bpl, 100 ips, 21 async100 bpl, 100 ips, 21 asyncStar Top DrivesN/AN/AN/A1600 bpl, 100 ips, 21 async1600 bpl, 100 ips, 21 async1600 bpl, 100 ips, 21 asyncSor TorkesN/AN/AN/AN/AN/AN/AN/ASor TorkesSportedSportedCCI System VMultitasking & multituser YesVesSportedSor TorkesDasic, Pascal, Fortran, CobolCSI System VMultitasking & multituser YesVesSpace, Fortran, Cobol, CCCI Sy	<i>,</i> ,	1	1	1	1
COMMUNCATIONS     384     95 async, 48 sync     96 async, 48 sync     95 async, 48 sync     395 async, 48 sync     304       Synchronous     Optional, 9600 baud     Optional, 192K bps     SDLC, HDLC, X.25, BSC, TCP/IP, SNA, TTY     EEE 802.3 (Ethernet)     2780/3780, 3770     SNA, BSC     SDLC, HDLC, X.25, BSC, TCP/IP, SNA, TTY     EEE 802.3 (Ethernet)     2780/3780, 3770     SNA, BSC     SNA, ASC     SNA, ASC     SNA, BSC     SNA, BSC     SNA, SSC     SNA, SSC </td <td></td> <td>lie erne</td> <td></td> <td></td> <td></td>		lie erne			
Max. Number of Lines     384     96 async, 48 sync, 48 sync, 48 sync, 48 sync, 40 syn		I 3.3MB/sec	13.3 MB/Sec	13.3IVIB/SEC	13.3IVIB/SOC
Synchronous Asynchronous         Optional, 19:20, bead Asynchronous, 19:20, bead Optional, 19:20, bead TCP/IP, SNA, TTY         Optional, 19:20, bead Optional, 10:20, bead Optional, 19:20, bead Optional, 19:20, bead Optiona			1	ł	1
Synchronous Asynchronous         Optional, 19:20, bead Asynchronous, 19:20, bead Optional, 19:20, bead TCP/IP, SNA, TTY         Optional, 19:20, bead Optional, 10:20, bead Optional, 19:20, bead Optional, 19:20, bead Optiona	Max. Number of Lines	384	96 async, 48 sync	96 async, 48 sync	384
Asynchronous     Optional, 19.2k bps     Optional, 19.2k bps     Optional, 19.2k bps     Optional, 19.2k bps       Protocols Supported     SUC, HUC, X25, BSC, TCP/IP, SNA, TTY     SUC, HUC, X25, BSC, TRO/IP, SNA, TTY     SUC, HUC, X25, BSC, TRO	Synchronous				Optional 9600 baud
Protocols Supported     SDLC, HDLC, X.25, BSC, TCP/IP, SNA, TTY     SDLC, HDLC, X.25, BSC, TCP/IP, SNA, TSY     SDLC, HDLC, X.25, SDC, TCP/IP, SNA, TSY     SDLC, HDLC, X.25, SDC, TCP/IP, SNA,	•				
LAN Supported LAN Supported IBM 3270 Enrinales Supported IBM 2276 Jar80 , 3770 Disks Supported IDM 2276 Jar80 , 416MB Uniform 300, 600 lpm 300, 600 lpm 400 cps 50 cps V/A N/A N/A N/A N/A N/A N/A N/A N					
LAN Supported RLF erminisk Supported Streaming Tape Drives Carridge Tape Drives N/A N/A N/A N/A N/A N/A N/A N/A	Protocols Supported				
RUE Terminals Supported       2780/3780, 3770       2780/3780, 3770       2780/3780, 3770       2780/3780, 3770       SNA, BSC       SNA,		TCP/IP, SNA, TTY	TCP/IP,SNA,TTY	TCP/IP, SNA, TTY	TCP/IP, SNA, TTY
RUE Terminals Supported       2780/3780, 3770       2780/3780, 3770       2780/3780, 3770       2780/3780, 3770       SNA, BSC       SNA,	LAN Supported	IEEE 802.3 (Ethernet)	IEEE 802.3 (Ethernet)	IEEE 802.3 (Ethernet)	IEEE 802.3 (Ethernet)
IBM 3270 Emulation PERIHERAL LEQUIPMENT Disks Supported     SNA, BSC     SN					2780/3780. 3770
PERIPHERAL EQUIPMENT     Fixed: 278MB & 416MB     Fixed: 278MB & 416MB     Fixed: 278MB & 416MB       Disks Supported     1600/6250 bpi, 100ips     700 ps, 25ips s/s     1600 bpi, 100 ips, 25ips s/s     1600 bpi, 100 ips       Streaming Tape Drives     N/A     N/A     1600 cps     1600 cps     1600 cps       Line Printers     300, 600 lpm       Streaming Timters     50 cps     55 cps     55 cps     35 cps     300, 600 lpm       Non-Impact Printers     N/A     N/A     N/A     N/A       Northrep Repherals Supported     N/A     N/A     N/A     N/A       SOFTWARE     CCI System V     Multitasking & multiuser     Yes     CCI System V     Multitasking & multiuser       Operating System Type     UNIFY, BRS/SEARCH     Yes     Sic, Pascal, Fortran     Cobol     CI System V     Multitasking & multiuser       Typical Application Available     Off. Auto., OfficePower     Off. auto Officepower     Off. Auto OfficePower     Off. Auto OfficePower       Principal Application Available     15 MIPS CPU w/2 fbating     MB disk w/contril, arr.     Sprint M/S Sistem     Sprint M/S Sistem       Principal Application Available     15 MIPS CPU w/2 fbating     MB disk w/contril, arr.     Sprint Accel, 16MB mem, 1       1 Stop					
Disks SupportedFixed: 278MB & 416MBFixed: 337MB337MB fixedFixed: 278MB & 416MBStreaming Tape Drives1600/6250 bpi, 100 ips1600 /pi, 20 ips, 20 ips1600 bpi, 100 ips, 20 ips1600 /pi, 20 ips, N/ACarridge Tape DrivesN/AN/A1600 /pi, 100 ips, 20 ips1600 /pi, 20 ips, N/A1600 /pi, 20 ips, N/AReet-to-reet Tape DrivesN/AN/AN/AN/ASerial Printers300, 600 lpm300, 600 lpm300, 600 lpmSon, for ther Peripherals Supported55 cps55 cps55 cpsNon-Impact PrintersCCI System VCCI System VOperating System TypeVistCCI System VCCI System VOperating System TypeVistCCI System VCCI System VUNIC PrivativeUNIFY, BRS/SEARCHUNIFY, BRJSEAROff. Auto., OfficePowerOff. auto Office PowerOff. Auto OfficePowerOff. Auto OfficePowerOther Application Available15 MIPS CPU w/2 floating Point Accel, 16MB mem, 2 51MB disk w/contrir, att. 1 2500bil 128 of the drive & control I async 1/0 contril w/ 237 BS-232 ports, 221 1/0 expans. slots, UNIX 1/0 contril w/32 RS-232 ports, 221 1/0 expans. slots, UNIX System V license or 32 users- 3221,005S874S854S1227Monthy Maintenance of Typical Configurati		SNA, BOC	SNA, DOC	511A, 200	0117, 000
Streaming Tape Drives Carridge Tape Drives Carridge Tape Drives Rel-to-cent Tape Drives MA1600 bpi, 100 ips, 25ips s/s 0iC-24 format, 90 ips N/AUnform: 340MB & 515MB 0iC-24 format, 90 ips N/ASerial Printers Serial Printers Letter Quality Printers Non-Impact Printers Other Peripherals Supported1600 bpi, 100 ips, 25ips s/s 300, 600 lpm 400 cps1600 bpi, 100 ips, 20ips N/A1600 bpi, 100 ips, 20ips N/A100 cps 300, 600 lpm 300, 600 lpm 300, 600 lpm 400 cpsSOFTWARE Proprietary Operating System Type Unit Derivative Diracial Application AvailableCCI System V Multitasking & multiuser Yes Sace, J. Fortran, CobolCCI System V Multitasking & multiuser Yes Yes Sace, J. Fortran, CobolCCI System V Multitasking & multiuser YesCCI System V Multitasking & multiuser Yes Yes Sace, J. Fortran, Cobol, CCCI System V Multitasking & multiuser YesCCI System V Multitasking & multiuser Yes Yes Sace, J. Fortran, Cobol, CCCI System V Multitasking & multiuser YesCCI System V Multitasking & multiuser YesPrincipial Application AvailableOff. Auto., OfficePowerOff. auto OfficePowerOff. Auto OfficePowerOther Application AvailableIf MIPS CPU w/2 floating Point Accel., 16MB mem, 2 15 ISMB disk w/contrit, 1 t 3250pt lape drive & control, 1 async 1/0 contrit w/32 RS-232 ports, 22 1/0 point, MuX 22 RS-232 ports, 22 1/0 <td></td> <td></td> <td>5: 11 00714D</td> <td>00710 6</td> <td>Fine de OZOMER &amp; ALCHER</td>			5: 11 00714D	00710 6	Fine de OZOMER & ALCHER
Streaming Tape Drives Carridge Tape Drives N/A1600/6250 bpi, 100 ips, 200, 600 lpm1600 bpi, 100 ips, 200, 24 format, 90 ips, N/A1600 bpi, 100 ips, N/A1600/6250 bpi, 100 ips, N/AReel-to-real Tape Drives Later Quality Printers300, 600 lpm300, 600 lpm300, 600 lpm300, 600 lpmStrail Printers Non-Impact Printers On-Impact Printers55 cps55 cps55 cps55 cpsSOFTWARE Proprietary Operating System Name Obic Printive Date DatesCCI System V Multitasking & multiuser YesCCI System V Multitasking & multiuser Yes <t< td=""><td>Disks Supported</td><td>Fixed: 278MB &amp; 416MB</td><td>Fixed: 337MB</td><td>337MB TIXED</td><td></td></t<>	Disks Supported	Fixed: 278MB & 416MB	Fixed: 337MB	337MB TIXED	
CarridgeTage Drives       N/A       N/A       C2-24 format, 90 ips       N/A         Line Printers       300, 600 lpm       300, 600 lpm       300, 600 lpm       300, 600 lpm         John Printers       400 ops       55 ops       N/A       300, 600 lpm       300, 600 lpm         John Printers       400 ops       55 ops       N/A       300, 600 lpm       300, 600 lpm       300, 600 lpm         John Printers       400 ops       55 ops       N/A       N/A       N/A       N/A         SOFTWARE       Proprietary Operating System Type       N/A       N/A       N/A       N/A       N/A         Software       Printers       Basic, Pascal, Fortran, Cobol, C       CCI System V       Multitasking & multiuser       Yes       Multitasking & multiuser       Yes         Unit V, BRS/SEARCH       Yes       Basic, Pascal, Fortran, Cobol, C       Off. Auto OfficePower       I SMIPS CPU w/Floating       Foir Accel., 18MB mem, 1       51/D expans. slots, 1       sync I/O control       S MIPS CPU w/Floating       Foir Accel., 18MB mem, 1       51/D expans. slots, 1       sync I/O control       S SIPS 200       sync I/O control					
Reel-Correl Tape Drives Line Printers       N/A       N/A       N/A       N/A         Line Printers       300, 600 lpm       400 cps       55 cps       100, 600 lpm       400 cps       55 cps       55 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100 cps       100, 600 lpm       400 cps       100 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100 cps <td>Streaming Tape Drives</td> <td>1600/6250 bpi, 100ips</td> <td>1600 bpi,100 ips,25ips s/s</td> <td>1600 bpi, 100 ips</td> <td>1600/6250 bpi, 100 ips</td>	Streaming Tape Drives	1600/6250 bpi, 100ips	1600 bpi,100 ips,25ips s/s	1600 bpi, 100 ips	1600/6250 bpi, 100 ips
Reel-Correl Tape Drives Line Printers       N/A       N/A       N/A       N/A         Line Printers       300, 600 lpm       400 cps       55 cps       100, 600 lpm       400 cps       55 cps       55 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100 cps       100, 600 lpm       400 cps       100 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100, 600 lpm       400 cps       100 cps <td>Cartridge Tape Drives</td> <td>N/A</td> <td>QIC-24 format.90 ips</td> <td>QIC-24 format, 90 ips</td> <td>N/A</td>	Cartridge Tape Drives	N/A	QIC-24 format.90 ips	QIC-24 format, 90 ips	N/A
Line Printers300, 600 lpm300, 600 lpm300, 600 lpm300, 600 lpm300, 600 lpm400 cpsSerial Printers400 cps55 cpsN/A400 cps55 cpsN/A400 cpsNon-Impact Printers55 cpsN/AN/AN/AN/AM/A400 cpsSOFTWAREProprietary Operating System TypeViter Veripherals SupportedN/AN/AN/AMultitasking & multiuserSofTWARECCI System VMultitasking & multiuserVesCCI System VMultitasking & multiuserVesDatabase Management SystemUNIFY, BRS/SEARCHUNIFY, BRS/SEARCHUNIFY, BRS/SEARCHVesBasic, Pascal, Fortran, Cobol, CCobi, CCobi, CCobi, CCobi, CCobi, CCobi, COff. Auto OfficePowerOff. auto OfficePowerOff. auto OfficePowerOff. auto OfficePowerOff. Auto OfficePowerOff. Auto OfficePowerI CPU, 8MB mem, 380MB disk w/contri, cart. tape drive & controllerS MIPS CPU w/Floating Point Accel., 16MB mem, 2 15 MIB disk w/contri, cart. tape drive & controllerI CPU, 8MB mem, 380MB disk w/contri, cart. tape drive & controllerS MIPS CPU w/Floating Point Accel., 16MB mem, 2 15 Stop disks w/contri, cart. tape drive & controllerS MIPS CPU w/Floating Point Accel., 16MB mem, 2 15 Stop disks w/contri, cart. tape drive & controllerS MIPS CPU w/Floating Point Accel., 16MB mem, 2 10 controlS MIPS CPU w/Floating Point Accel., 16MB mem, 2 2 10.00S MIPS CPU w/Floating Point Accel., 16MB mem, 2 1 2 sprs. 2 2 10.00S MIPS CPU w/Floating 2 1 anuary 1987S MIPS CP				· · ·	
Serial Printers Letter Quality Printers Letter Quality Printers Non-Impact Printers Other Peripherais Supported400 cps400 cps400 cpsSof TWARE Operating System Name Operating System Type Unix Derivative Database Management System CompilersCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes Database Management System CompilersCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes Database Management System CompilersCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes Basic, Pascal, Fortran CobolCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes UNIFY, BRS/SEARCH Yes Database Management SystemCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes Basic, Pascal, Fortran CobolCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes UNIFY, BRS/SEARCH Yes Database Management SystemCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes Basic, Pascal, Fortran, Cobol, CCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes Dift Accl, 16MB mem, 15 1/					
Letter Quality Printers Non-Impact Printers Other Peripherals Supported55 cps N/A55 cps N/A55 cps N/A55 cps N/A55 cps N/ASOFTWARE Proprietary Operating System Name Operating System Type UnitY Derivative Database Management System CompilersCCI System V Multitasking & multiuser YesCCI System V Multitasking & multiuser Y					
Non-Impact Printers Other Peripherals SupportedN/AN/AN/ASOFTWARE Proprietary Operating System Type Unix Derivative Database Management System Assembler CompilersCCI System V Multitasking & multiuser Yes UNIFY, BRS/SEARCH Yes Basic, Pascal, Fortran, CobolN/AN/ACCI System V Multitasking & Multiuser Yes UNIFY, BRS/SEARCH Yes Basic, Pascal, Fortran, CobolCCI System V Multitasking & Multiuser Yes Basic, Pascal, Fortran, Cobol, CCCI System V Multitasking & Multiuser Yes Basic, Pascal, Fortran, Cobol, CUNIFY, BRS/SEARCH Yes Basic, Pascal, Fortran, Cobol, CUNIFY, BRS/SEARCH Yes SEARCH Yes<	Serial Printers	400 cps			
Other Peripherals Supported	Letter Quality Printers	55 cps	55 cps	55 cps	55 cps
Other Peripherals Supported	Non-Impact Printers	N/A	N/A	N/A	N/A
SOFTWARE       Proprietary Operating System Name       CCI System V       Multitasking & multiuser       Ves       CCI System V       Multitasking & multiuser       Yes       Multitasking & multiuser       Yes       Ves       Ves <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler       CCI System V Multitasking & multiuser Yes       CCI System V State       CCI System V State <th< td=""><td>Other respiredas Supported</td><td></td><td>1</td><td>1</td><td></td></th<>	Other respiredas Supported		1	1	
Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler       CCI System V Multitasking & multiuser Yes       CCI System V State       CCI System V State <th< td=""><td>COETIA/A DE</td><td></td><td></td><td></td><td></td></th<>	COETIA/A DE				
Operating System Type Unix Derivative Database Management System Assembler     Multitasking & multiuser Yes     Multitask					
Unix Derivative       Yes       Yes       Yes       Yes       Yes       Yes       Yes         Database Management System       Assembler       UNIFY, BRS/SEARCH       UNIFY, BRS/SEARCH       UNIFY, BRS/SEARCH       UNIFY, BRS/SEARCH       Yes         Compilers       Basic, Pascal, Fortran       Cobol       Cobol, C       Basic, Pascal, Fortran, Cobol, C       Cobol, C       Off. Auto OfficePower       I CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       2 S15M disk w/contrl, 5 I/O       5 I/O expans. slots, 1 async       1 O/O control       1 async I/O control <td></td> <td></td> <td></td> <td></td> <td></td>					
Unix Derivative       Yes       Yes       Yes       Yes       Yes         Database Management System       Assembler       UNIFY, BRS/SEARCH       UNIFY, BRS/SEARCH       UNIFY, BRS/SEARCH       UNIFY, BRS/SEARCH       UNIFY, BRS/SEARCH       Yes       Basic, Pascal, Fortran, Cobol, C       Cobol, C       Principal Application Available       Off. Auto., OfficePower       Off. auto OfficePower       I CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       8 MIPS CPU w/Floating       Point Accel., 16MB mem, 1       1 CPU, 8MB mem, 380MB       1 CPU, 8MB mem, 380MB       1 CPU, 8MB mem, 380MB       1 CPU, 8MB mem, 380MB <td>Operating System Type</td> <td>Multitasking &amp; multiuser</td> <td>Multitasking &amp; multiuser</td> <td>Multitasking &amp; Multiuser</td> <td>Multitasking &amp; multiuser</td>	Operating System Type	Multitasking & multiuser	Multitasking & multiuser	Multitasking & Multiuser	Multitasking & multiuser
Database Management System AssemblerUNIFY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesCompilersDatabase Management System CobolDatabase Management System CobolDMIEY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesUNIFY, BRS/SEARCH YesPrincipal Application AvailableOff. Auto., OfficePowerOff. auto OfficepowerOff. Auto - Office PowerOff. Auto OfficePowerOther Applications Available15 MIPS CPU w/2 floating Point Accel., 16MB mem, 2 515MB disks w/contrl, as:n. 2 515MB disks w/contrl, 1 6250 bpi tape drive & control, 1 async I/O contrl w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users— \$325,9001 CPU, 8MB mem, 380 MB disk w/contrl, cart. tape drive & control async I/O contrl w/32 RS-232 ports, 22 I/O to saync I/O contrl w/32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V lic. for 32 users.—\$106,9001 CPU, 8MB mem, 380MB disk w/contrl, cart. tape drive & control async I/O contrl w/32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V lic. for 32 users.—\$106,9001 CPU, 8MB mem, 380MB disk system V license— slote of First Delivery January 19878 MIPS CPU w/Floating Point Accl, 16MB mem, 1 async I/O contrl w/ 32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V slote of First Delivery Number Installed to Date COMMENTS8 MIPS CPU w/Floating Point Accl, 16MB mem, 1 async I/O contrl w/ anuary 19878 MIPS CPU w/Floating Point Accl, 16MB mem, 1 async I/O contrl w/ async I/O contrl w/ 32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V lic. for 32 users— \$325,9	Unix Derivative		Yes	Yes	Yes
Assembler CompilersYes Basic, Pascal, Fortran CobolYes Basic, Pascal, Fortran, Cobol, CYes Basic, Pascal, Fortran, Cobol, CYes Difter DifterSascal, Fortran, Cobol, CYes Difter DifterSascal, Fortran, Cobol, CYes Difter DifterSascal, Fortran, Cobol, CYes Difter DifterSascal, Fortran, Cobol, CYes Difter DifterSascal, Fortran, Cobol, C <th< td=""><td></td><td></td><td></td><td></td><td></td></th<>					
CompilersBasic, Pascal, Fortran, CobolBasic, Pascal, Fortran, Cobol, CBasic, Pascal, Fortran, Cobol,					
Principal Application AvailableCobolCobol, CCobol, CCobol, CCobol, COther Applications AvailableOff. Auto., OfficePowerOff. auto OfficepowerOff. Auto - Office PowerOff. Auto OfficePowerPRICING & AVAILABILITY Typical System Configuration and Price15 MIPS CPU w/2 floating Point Accel., 16MB mem, 2 515MB disks w/contrir, 2 7 0 control 3 2 users\$106,9001 CPU, 8MB mem, 380 disk w/contrir, cart. 1 6250b disk w/contrir, cart. 1 6250b disk w/contrir, disk w/c					
Principal Application Available       Off. Auto., OfficePower       Off. auto Officepower       Off. Auto - Office Power       Off. Auto OfficePower         Other Applications Available        N/A          PRICING & AVAILABILITY Typical System Configuration and Price       15 MIPS CPU w/2 floating Point Accel., 16MB mem, 2 515MB disks w/contrir, 1 6250bpi tape drive & control, 1 async I/O contru w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,900       5MIPS CPU, 8MB mem, 380 MB disk w/contrl, cart. tape drive & control w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,900       8 MIPS CPU w/Floating Point Accel, 16MB mem, 1 515MB disks w/contrl, tape drive & control w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,900       8 MIPS CPU w/Floating Point Accel, 16MB mem, 1 515MB disk w/contrl, tape drive & control w/32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V lic. for 32 users\$106,900       8 MIPS CPU w/Floating Point Accel, 16MB mem, 1 515MB disk w/contrl, tape drive & control w/32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V lic. for 32 users \$221,050       8 MIPS CPU w/Floating Point Accl, 16MB mem, 1 515MB disk w/contrl, tape drive & control w/32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V license for 32 users \$221,050         Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS       \$1753       \$874 - - Easy upward migration	Compliers				
Other Applications AvailableN/APRICING & AVAILABILITY Typical System Configuration and Price15 MIPS CPU w/2 floating Point Accel., 16MB mem, 2 515MB disks w/contrir 1 6250bpi tape drive & control, 1 async I/O cont w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,9005MIPS CPU, 8MB mem, 380 MB disk w/contri, cart. tape drive & control, 1 async I/O cont w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,9001 CPU, 8MB mem, 380 MB disk w/contri, cart. tape drive & control, 1 async I/O cont w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,9008 MIPS CPU w/Floating Point Accel., 16MB mem, 1 5 I/O expans. slots, 1 async I/O contril w/32 RS-232 ports, UNIX System V license \$126,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 1 async I/O contril w/32 RS-232 ports, 22 I/O expans. slots, UNIX Sys V lic. for 32 users \$325,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 1 async I/O contril w/2 w/32 RS-232 ports, UNIX Sys V lic. for 32 users \$126,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 1 async I/O control w/ w/32 RS-232 ports, UNIX Sys V lic. for 32 users \$126,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 21 /O expans. slots, UNIX Sys V lic. for 32 users \$126,900Monthly Maintenance of Typical Configuration Number Installed to Date COMMIENTSFebruary 1987 N/A\$874 		Cobol	Cobol, C	Cobol, C	Cobol, C
Other Applications AvailableN/APRICING & AVAILABILITY Typical System Configuration and Price15 MIPS CPU w/2 floating Point Accel., 16MB mem, 2 515MB disks w/contrir 1 6250bpi tape drive & control, 1 async I/O cont w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,9005MIPS CPU, 8MB mem, 380 MB disk w/contri, cart. tape drive & control, expansion slots, 1 async ports, UNIX Sys V lic. for 32 users \$325,9001 CPU, 8MB mem, 380MB disk w/contri, cart. tape drive & control, expansion slots, 1 async usync I/O control w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users \$325,9005 MIPS CPU w/Floating Point Accel., 16MB mem, 1 5 I/O expans. slots, 1 async I/O control w/32 RS-232 ports, UNIX Sys V lic. for 32 users \$126,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 1 async I/O control w/ w/32 RS-232 ports, UNIX Sys V lic. for 32 users \$126,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 1 async I/O control w/ w/32 RS-232 ports, UNIX Sys V lic. for 32 users \$126,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 1 async I/O control w/ w/32 RS-232 ports, UNIX Sys V lic. for 32 users \$126,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 5 I/O expans. slots, 2 I/O expans. slots, UNIX Sys V lic. for 32 users \$126,900Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTSFebruary 1987\$874 January 1987 January 1987Monthly Maintenance of Typical Comment of the state of Date COMMENTSFebruary 1987Samer	Principal Application Available	Off. Auto., OfficePower	Off. auto Officepower	Off. Auto - Office Power	Off. Auto OfficePower
PRICING & AVAILABILITY Typical System Configuration and Price15 MIPS CPU w/2 floating Point Accel., 16MB mem, 2 515MB disks w/contrir, 1 6250bpi tape drive & control, 1 async I/O control w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users— \$325,9005MIPS CPU, 8MB mem, 380 MB disk w/contrir, cart. tape drive & control, 1 async Dot w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users— \$325,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 51/O expans. slots, 1 async I/O control w/32 RS-232 ports, 22 I/O expans. slots, UNIX V license for 32 users— \$325,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 51/O expans. slots, 1 async I/O control w/32 RS-232 ports, 22 I/O w/32 RS-232 ports, 22 I/O w/32 RS-232 ports, 22 I/O w/32 RS-232 ports, 22 I/O expan. slots, UNIX Sys V lic. for 32 users— \$325,9008 MIPS CPU w/Floating Point Accl, 16MB mem, 1 51/D expans. slots, 1 async I/O control w/32 RS-232 ports, 22 I/O w/32 RS-232 ports, 22 I/O expan. slots, UNIX Sys V license for 32 users— \$126,900Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS\$1,753\$874\$954\$1327 — January 1987- January 1987- January 1987- January 1987- January 1987					
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Configuration					
Date of First Delivery     February 1987     January 1987     January 1987     1987       Number Installed to Date     N/A     —     —       COMMENTS     Easy upward migration		\$1,753	\$874	\$954	\$1327
Date of First Delivery     February 1987     January 1987     January 1987     1987       Number Installed to Date     N/A     —     —       COMMENTS     Easy upward migration	Configuration	1—			I—
Number Installed to Date     N/A     —       COMMENTS     Easy upward migration		February 1987	January 1987	January 1987	1987
COMMENTS Easy upward migration				1	<b>—</b>
			1		Easy unward migration
path, heid upgradable		1	1	1	
			1		path, field upgradable

MANUFACTURER & MODEL	Computer Designed Systems Adviser 2200	Concurrent Computer Corporation 3203	Concurrent Computer Corporation 3205	Concurrent Compute Corporation 3230
WORD LENGTH	22 hit 64 hits and and	22 hite	22 hite	22 hite
	32 bit, 64 bits optional	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	58MB min; 22.8GB	51MB-170MB	51MB-1.2GB	51MB-144GB
MEMORY RANGE	2MB-200MB	2-4MB	2-4MB	4-16MB
NO. WORKSTATIONS SUPPORTED	840 maximum	16	16	128
PRICE RANGE, S	39,600 - 2,400,000	27,500-36,000	19,500-28,000	82,250
TARGET MARKET(S)	Gen Bus, Trans, MIS,	General-purpose commer-	General-purpose commer-	General-purpose commer
	Sci/Eng, CAD/CAM/CAE	cial, scientific	cial, scientific	cial, scientific
CENTRAL PROCESSOR	Colly Eng, CAB, CAM, CAE			
	000 0064 010			
CPU Manufacturer and Model	CDS 2264-012	<u> </u> —		1—
CPU Cycle Time, nanoseconds	45 (25 ns 64 bit)		<u> </u>	
MIPS		0.397	0.397	0.98
Hardware Floating Point	SP, DP, TP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	Up to 12GB per process.	16MB	16MB	16MB
Cache Memory, bytes	Up to 2MB per process.	None	None	1K
Battery Backup	Std. (High duration opt)	None	Optional	Standard
Realtime Clock	Standard (Dual opt.)	Standard	Standard	Standard
	Standard (Duar opt.)	Standard	Standard	Standard
MAIN STORAGE		1		
Cycle/Access Time, nanoseconds	55/85	400	400	500
Storage Protection	Standard, redundant	Standard	Standard	Standard
Increment Size, bytes	Variable	2MB	2MB	1M, 2MB, 4MB, 8MB
INPUT/OUTPUT CONTROL		1	1	
Type of Bus	ADVISER bus (prop.)	-	I	
No. of I/O Channels	Variable	1	1	8
		-	1 EMP/se	-
Aggregate Bandwidth, bytes/sec.	Over 64MB per channel	1.5MB/sec	1.5MB/sec	8MB/sec
COMMUNICATIONS		[		1
Max. Number of Lines	840	16	24	128
Synchronous	Standard, over 72MB/sec.	Standard, 19.2K bps	Standard, 19.2K bps	Optional, 2M bps
Asynchronous	19.2K bps std., 56K opt.	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
Protocols Supported	SDLC, HDLC, X.25, LU6.2,	ADCCP, SDLC, HDLC, SNA,	ADCCP, SDLC, HDLC, SNA,	ADCCP, SDLC, HDLC, SH
	TCP/IP, SNA	X.25, X.29	X.25, X.29	X.25, X.29
LAN Comparised		-	-	
LAN Supported	802.3, .5, Adviser XNA	Ethernet	Ethernet	Ethernet
RJE Terminals Supported	2780/3780	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	SNA	Yes	Yes	Yes
PERIPHERAL EQUIPMENT		1	1	[
Disks Supported	Fixed: from 58MB	Fixed & removable:	Fixed & removable:	Fixed & removable:
	Removable: from 300MB	51MB-85MB	51MB-676MB	51MB-850MB
Streaming Tape Drives	Optional - various	90 ips	90 ips	90 ips
Cartridge Tape Drives	Optional - various	Does not apply	Does not apply	Does not apply
Reel-to-reel Tape Drives	Optional - various	Does not apply	800/1600/6250 bpi	800/1600/6250 bpi
Line Printers	300-2800 cpm	300/600/1200 lpm	300/600/1200 lpm	300/600/1200 lpm
Serial Printers	100-550 cps	180 cps	180 cps	180 cps
Letter Quality Printers	35-75 cps	55 cps	55 cps	55 cps
Non-Impact Printers	Laser	I_ ·	<sup>-</sup>	_ ·
Other Peripherals Supported	All RS-232 devices	Does not apply	Card reader	Card reader
	· ··· ···		1	
SOFTWARE				
Proprietary Operating System Name		00/22. Xalaa	00 (22) Xalaa	06 (22, X-1-2
	AVOS, UNIX Optional	OS/32; Xelos	OS/32; Xelos	OS/32; Xelos
Operating System Type	RT, Multitasking & User	Realtime; multitasking	Realtime; multitasking	Realtime; multitasking
Unix Derivative	Sys V, optional	·		I—
Database Management System	Adviser Relational	Reliance Plus	Reliance Plus	Reliance Plus
Assembler	N/A	Cal, Cal Macro	Cal, Cal Macro	Cal, Cal Macro
Compilers	Basic, Pascal, C, Cobol,	Cobol, Fortran, Basic,	Cobol, Fortran, Basic,	Cobol, Fortran, Basic,
· · · · · •	PL/1, ADA, ABOL	Pascal, RPG II, C, ADA	Pascal, RPG II, C, ADA	Pascal, RPG II, C, ADA
Principal Application Augilable	General husinger	Conoral numbers	Conorol numero	Conorol and
Principal Application Available	General business,	General-purpose commer-	General-purpose commer-	General-purpose commer
<b></b>	engineering	cial	cial	cial
Other Applications Available	OA, various third-party	Numerous third-party	Numerous third-party	Numerous third-party
		applications	applications	applications
		1		1
		1	1	
PRICING & AVAILABILITY		1	1	1
Typical System Configuration and Price	CPU, Memory, floating	CPU; 2MB memory; loader;	CPU; 2MB memory; loader;	CPU; 4MB memory; MPC
	point, network, licenses	8-line communications	8-line communications	battery backup; console
	—from \$125,000	controller; one 82MB	controller; floating	Video Display Unit-
	1011 0 120,000	-		
	1	disk; streaming car-	point; one 182MB disk;	\$82,250
		tridge tape; console	streaming cartridge	
	1	\$27,500	tape; console Video	1
		1	Display Unit—\$30,800	
				1
Monthly Maintenance of Typical	Contact Vendor	\$202	\$295	\$360
Monthly Maintenance of Typical Configuration	Contact Vendor —	<b>—</b>		\$360
	Contact Vendor — 1987	\$202  February 1985		\$360  1981
Configuration Date of First Delivery		<b>—</b>	\$295	-
Configuration Date of First Delivery Number Installed to Date	 1987 	February 1985	\$295   	 1981 
Configuration Date of First Delivery	 1987  Multiple CPU configura-	 February 1985  Vendor says system	\$295 	 1981  Can be used in fault-
Configuration Date of First Delivery Number Installed to Date	 1987  Multiple CPU configura- tion, including	February 1985 Wendor says system designed for multiuser	\$295 	 1981  Can be used in fault- tolerant dual-processor
Configuration Date of First Delivery Number Installed to Date	 1987  Multiple CPU configura-	 February 1985  Vendor says system	\$295 	 1981  Can be used in fault-

MANUFACTURER & MODEL	Concurrent Computer Corporation 3230XP	Concurrent Computer Corporation 3230MPS	Concurrent Computer Corporation 3250XP	Concurrent Computer Corporation 3260MPS
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	51MB-288GB	51MB-288GB	51MB-288GB	51MB-576GB
MEMORY RANGE	2MB-16MB	2MB-16MB	2MB-16MB	2MB-16MB
NO. WORKSTATIONS SUPPORTED	128	128	256	256
PRICE RANGE, \$	93,500-156,000	140,000-439,000	143,750-185,000	200,000-300,000
TARGET MARKET(S)	General-purpose commer- cial, scientific	General-purpose commer-	General-purpose commer- cial, scientific	General-purpose commer- cial, scientific
CENTRAL PROCESSOR	cial, scientific	cial, scientific	ciai, scientific	ciar, scientinc
CPU Manufacturer and Model	1-		]—	
CPU Cycle Time, nanoseconds				
MIPS	0.97	1.9-5.0	1.332	2.2-9.2
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	16MB	16MB	16MB	16MB
Cache Memory, bytes	4K	4K	8K	12K base, 4/APU
Battery Backup	Standard	Standard	Standard	Standard
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	500	500	500	500
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes	1M, 2M, 4M, 8M	1M, 2M, 4M, 8M	1M, 2M, 4M, 8M	1M, 2M, 4M, 8M
INPUT/OUTPUT CONTROL			-	
Type of Bus		1		
No. of I/O Channels	16	16	8-32	16-32
Aggregate Bandwidth, bytes/sec.	20MB/sec	20MB/sec	10-40MB/sec	20-40MB/sec
COMMUNICATIONS				
Max. Number of Lines	128	128	256	256
Synchronous	Optional, 2M bps	Optional, 2M bps	Optional, 2M bps	Optional, 2M bps
Asynchronous	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
Protocols Supported		ADCCP, SDLC, HDLC, SNA,	ADCCP, SDLC, HDLC, SNA,	ADCCP, SDLC, HDLC, SNA,
Protocols Supponed	ADCCP, SDLC, HDLC, SNA,			
	X.25, X.29	X.25, X.29	X.25, X.29	X.25, X.29
LAN Supported	Ethernet	Ethernet	Ethernet	Ethernet
RJE Terminals Supported	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	Yes	Yes	Yes	Yes
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed & removable:	Fixed & removable:	Fixed & removable:	Fixed & removable:
	51MB-825MB	51MB-825MB	51MB-825MB	51MB-825MB
Streaming Tape Drives	90 ips	90 ips	90 ips	90 ips
Cartridge Tape Drives	Does not apply	Does not apply	Does not apply	Does not apply
Reel-to-reel Tape Drives	800/1600/6250 bpi	800/1600/6250 bpi	800/1600/6250 bpi	800/1600/6250 bpi
Line Printers	300/600/1200 lpm	300/600/1200 lpm	300/600/1200 lpm	300/600/1200 lpm
Serial Printers	180 cps	180 cps	180 cps	180 cps
Letter Quality Printers	55 cps	55 cps	55 cps	55 cps
Non-Impact Printers		I_ ·	·	
Other Peripherals Supported	Card reader	Card reader	Card reader	Card reader
			1	
SOFTWARE		1	1	
Proprietary Operating System Name	OS/32; Xelos	OS/32; Xelos	OS/32; Xelos	OS/32; Xelos
Operating System Type	Realtime; multitasking	Realtime; multitasking	Realtime; multitasking	Realtime; multitasking
Unix Derivative				
Database Management System	Reliance Plus	Reliance Plus	Reliance Plus	Reliance Plus
Assembler	Cal, Cal Macro	Cal, Cal Macro	Cal, Cal Macro	Cal, Cal Macro
Compilers	Cobol, Fortran, Basic,	Cobol, Fortran, Basic,	Cobol, Fortran, Basic,	Cobol, Fortran, Basic,
Compliers			Pascal, RPG II, C, ADA	
	Pascal, RPG II, C, ADA	Pascal, RPG II, C, ADA	ascal, nr'u II, C, ADA	Pascal, RPG II, C, ADA
Principal Application Available	General numbers	General purses comme	Ganaral numero comme	General pro-
Principal Application Available	General-purpose commer-	General-purpose commer-	General-purpose commer-	General-purpose commer-
Other Application A 11/1		cial		cial
Other Applications Available	Numerous third-party	Numerous third-party	Numerous third-party	Numerous third-party
	applications	applications	applications	applications
			1	
		1		
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU; 2MB memory; loader;	CPU; 2MB memory;	CPU; 1MB memory; loader;	CPU; Auxiliary Proces-
	8-line communications	Auxiliary Processing	writable control store;	sing Unit (APU); 2MB
	controller; battery	Unit (APU); floating-	2-line communications	memory; floating point
	backup; 80MB disk;	point processor;	controller; battery	processor; writable con-
	console Video Display	writable control store;	backup; console Video	trol store; loader;
	Unit-\$116,000	loader; console Video	Display Unit\$143,750	2-line communications
		Display Unit; 8-line		controller; console
		comm. controller; 80MB		Video Display Unit
		disk-\$163,500		\$200,000
Monthly Maintenance of Typical	\$585	\$1,193	\$763	\$1,240
Configuration				
Date of First Delivery	July 1985	 July 1985	1983	1983
Number installed to Date	July 1900	July 1900	1303	1303
COMMENTS	Can be used in fault-	Supports up to 5 APUs;	Can be used in fault-	Supports up to 9 APUs.
			I TOIOFOOT dual proposeor	Can also be used in
	tolerant dual-processor	can also be used in	tolerant dual-processor	
	tolerant dual-processor configuration	fault-tolerant dual- processor configuration	configuration	fault-tolerant dual- processor configuration

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MANUFACTURER & MODEL	Concurrent Computer Corporation 3280MPS	Concurrent Computer Corporation XF/400	Concurrent Computer Corporation XF/600	Concurrent Comput Corporation XF/610
				· · · · · · · · · · · · · · · · · · ·
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	51MB-576GB	51MB-170MB	51MB-2.4MB	51MB-2.4MB
MEMORY RANGE	8M-128M	2MB-4MB	4MB-16MB	4MB-16MB
NO. WORKSTATIONS SUPPORTED	512	16	64	64
PRICE RANGE, \$	287,100-1,061,400	24,195-35,305	35,500-37,500	49,500-51,500
TARGET MARKET(S)	General-purpose commer- cial, scientific	General-purpose commer- cial, scientific	General-purpose commer- cial, scientific	General-purpose comme cial, scientific
CENTRAL PROCESSOR	ciai, scientinc	cial, scientific	cial, scientific	cial, scientific
CPU Manufacturer and Model	<b></b>	<b> </b>		
CPU Cycle Time, nanoseconds		<u> _</u>	]	<u> </u>
MIPS	6.4-33.8	0.387	0.98	.98
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	16MB	16MB	16MB	16MB
Cache Memory, bytes	16K	None	None	
				None
Battery Backup	Standard	Optional	Optional	Optional
Realtime Clock	Standard	Optional	Optional	Optional
MAIN STORAGE			I	
Cycle/Access Time, nanoseconds	500	400	500	500
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes INPUT/OUTPUT CONTROL	8M, 16M	2MB	1MB, 2MB, 4MB, 8MB	1MB, 2MB, 4MB, 8MB
Type of Bus	1		I	
No. of I/O Channels	16-32	1	8	8
		1		-
Aggregate Bandwidth, bytes/sec.	20-40MB/sec	1.5MB/sec	8MB/sec	8MB/sec.
COMMUNICATIONS	-	10		
Max. Number of Lines	512	16	64	64
Synchronous	Standard, 19.2K bps	Does not apply	Does not apply	Does not apply
Asynchronous	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
Protocols Supported	ADCCP, SDLC, HDLC, SNA, X.25, X.29	SNA, BSC, X.25	SNA, BSC, X.25	SNA, BSC, X.25
LAN Supported	Ethernet	Ethernet	Ethernet	Ethernet
RJE Terminals Supported	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	Yes	Yes	Yes	Yes
PERIPHERAL EQUIPMENT	1.00			1.03
Disks Supported	Fixed & removable:	Fixed: 51MB-85MB	Fixed & removable:	Fixed & removable:
Diska Supported	51MB-825MB	HINGO: 5 HWID-85IVIB	51MB-850MB	51MB-850MB
Streaming Tana Drives				
Streaming Tape Drives	90 ips	90 ips	90 ips	90 ips
Cartridge Tape Drives	Does not apply	Does not apply	Does not apply	Does not apply
Reel-to-reel Tape Drives	800/1600/6250 bpi	None	800/1600/6250 bpi	800/1600/6250 bpi
Line Printers	300/600/1200 lpm	300/600/1200 lpm	300/600/1200 lpm	300/600/1200 lpm
Serial Printers	180 cps	180 cps	180 cps	180 cps
Letter Quality Printers	55 cps	55 cps	55 cps	55 cps
Non-Impact Printers	1-	I— <sup>1</sup>	I— <sup>1</sup>	-
Other Peripherals Supported	Card reader			-
SOFTWARE		1		
Proprietary Operating System Name	OS (22) Valac	Voles derived free LINUY	Valas derived for LINUX	Valas domination ( 1915
	OS/32; Xelos	Xelos, derived frm UNIX	Xelos, derived frm UNIX	Xelos, derived frm UNIX
Operating System Type	Realtime; multitasking	Timesharing, multitasking	Timesharing, multitasking	Timesharing, multitaskin
Unix Derivative	<u> </u>		<u> </u>	
Database Management System	Reliance Plus	Unify	Unify	Unify
Assembler	Cal, Cal Macro	Assembler Language	Assembler Language	Assembler Language
Compilers	Cobol, Fortran, Basic,	Cobol, C, Fortran,	Cobol, C, Fortran,	Cobol, C, Fortran,
	Pascal, RPG II, C, ADA	Unibol, RM/Cobol	Unibol, RM/Cobol	Unibol, RM/Cobol
Principal Application Available	Simulation/scientific	General business,	General business,	General business,
	computing	technical	technical	technical
Other Applications Available	Numerous third-party	Numerous third-party	Numerous third-party	Numerous third-party
•••	applications	applications	applications	applications
PRICING & AVAILABILITY			l	
Typical System Configuration and Price	CPU; 8MB memory; 80MB	CPU; 2MB memory; loader;	CPU; 4MB memory; loader;	CPU; 4MB memory; load
	disk; 8-line comm.	8-line comm cntrl; 51MB	8-line comm cntrl; 298MB	8-line comm cntrl; 298N
	controller; Auxiliary	disk; str tape; console;	disk; str tape; console;	disk; str tape; console;
	Processing Unit (APU);	Xelos\$57,820	16 ports; Xelos —	32 ports; Xelos-\$17,8
	writable control store;		\$57,820	
	loader; console Video	]		1
	Display Unit; floating-		I	1
	point processor-			
	\$477,500	1		
Monthly Maintenance of Typical		\$170	\$345	\$303
	\$1,970	10170	\$345	\$393
Configuration	November 1995	Sentember 1995	Sontombor 1995	Santomber 1005
Date of First Delivery	November 1985	September 1985	September 1985	September 1985
Number Installed to Date		I—	1-	1
COMMENTS	Supports up to 5 APUs;	1		
			1	1
	can also be used in			
	fault-tolerant dual- processor configuration			

MANUFACTURER & MODEL	Concurrent Computer Corporation 3212	Control Data Corporation Cyber 180 Models 810A & 830A	Counterpoint Computers System 19K	Data General Corporation Eclipse MV/2000
WORD LENGTH	32 bits	64 bits	32 bits	32 bits
	51MB-7.2GB	402MB-1.6GB/drive	100MB-4.3GB	38MB-320MB
	4-16MB	8MB-64MB	2MB-40MB	2MB-5MB
	64	101 000 175 000	6-96	24
PRICE RANGE, \$ TARGET MARKET(S)	42,000-44,000 General-purpose commer- cial, scientific	121,000-175,000 Gen Bus, Trns Proc, Sci- entific	14,850-100,000 Gen. Bus., Trans, MIS, Scientific	From 17,500 OA, Mfg, Sci/Eng
CENTRAL PROCESSOR		entine	Scientific	
CPU Manufacturer and Model CPU Cycle Time, nanoseconds		Proprietary 	Motorola 68020 —	DG MV/2000
MIPS	.98	0.8-1.2	2 per proc., 8 CPUs max.	<u> _</u>
Hardware Floating Point	SP, DP	SP, DP	SP	SP, DP
Virtual Memory (addressable bytes)	16MB	I—	1GB Per Process	4GB
Cache Memory, bytes	1K	None	None	None
Battery Backup	Optional	<b>—</b>	Optional	Standard
Realtime Clock	Standard	<u> </u>	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	500	400	270	160
Storage Protection	Standard	Standard	Optional	Standard
Increment Size, bytes	1M, 2MB, 4MB, 8MB		1MB	2MB
INPUT/OUTPUT CONTROL		1	Multilue Dear COD IDD	DOLL
Type of Bus		- 16	Multibus, Prop, SCB, IPB	DCH
No. of I/O Channels Aggregate Bandwidth, bytes/sec.	8 SMP /see	8-16	N/A 45MB/sec	16 1.4MB/sec
	8MB/sec	-	45IVIB/Sec	1.4IVIB/Sec
COMMUNICATIONS Max. Number of Lines	64	32	96	14
Max. Number of Lines Synchronous	64 Optional, 2M bps	32 Optional, 128K bps	1 std. & 18 opt.	Standard, 56K bps
Asynchronous		Optional, 38.4K bps	6 std. & 90 opt.	Standard
Protocols Supported	Standard, 19.2K bps ADCCP, SDLC, HDLC, SNA,	HDLC, X.25, others	SDLC, X.25, BSC, TCP/IP,	X.25, SDLC, SNA, XNS,
	X.25, X.29		TTY	Xodiac
LAN Supported	Ethernet	IEEE 803.2, CDCNet	IEEE 802.3	IEEE 802.3
RJE Terminals Supported	2780/3780, HASP	2780/3780, HASP	3770	2780/3780, HASP
IBM 3270 Emulation	Yes	BSC	SNA	SNA
PERIPHERAL EQUIPMENT				1
Disks Supported	Fixed & removable: 51MB-850MB	Fixed: 402MB-1.6GB	600MB Int., 4.3GB Ext.	
Streaming Tape Drives	90 ips	1600/6250 bpi, 25/75 ips	60MB	30 ips, 6400 bpi
Cartridge Tape Drives	Does not apply	1600/6250bps, 100-200 ips	1600/3200 bpi & 6250 ips	60 ips, 6400 bpi
Reel-to-reel Tape Drives	800/1600/6250 bpi	-	<b> </b>	50/75 ips,800/ 1600/6250
Line Printers	300/600/1200 lpm	300/600/1200/1600/2000	Centronics compatible	230-1200 lpm
Serial Printers	180 cps		—	
Letter Quality Printers	55 cps		—	20/35/40 cps
Non-Impact Printers		Laser, 70 ppm	-	Laser, 8-12 ppm
Other Peripherals Supported	Card reader		-	
SOFTWARE				1
Proprietary Operating System Name	OS/32; Xelos	NOS		AOS/VS,AOS/DVS,AOS/ RT
Operating System Type	Realtime; multitasking	RT, multitask, multiuser	Multitasking & multiuser	Multitask, multiuser
Unix Derivative	meanine, mannasking	NOS/VE	C-XIX based on UNIX V	MV/UX, DG/UX
Database Management System	Reliance Plus	DMS-170	Informix, Unify	DG/DBMS, DG/SQL
Assembler	Cal, Cal Macro	No, Cybil	Yes	
Compilers	Cobol, Fortran, Basic,	Basic, Pascal, C, Cobol,	Basic, Pascal, Fortran	Cobol, Fortran, C, PL/1,
	Pascal, RPG II, C, ADA	Fortran, Lisp, Prolog,	Cobol, Lisp, C	Pascal, DG/L, APL, RPGI
Principal Application Available	General-purpose commer	APL, Algol Sci/Epg	OEM & VAR sales only	OA
	General-purpose commer- cial	Sci/Eng.		
Other Applications Available	Numerous third-party applications	OA, Bus mngt, finance, WP, education	Q-Off, Off. auto. s'ware Locus PC Interface	Mfg, Sci/Eng
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU; 4MB memory; MPC;	CPU, 8MB mem, 10 PPUs,	1 processor.	CPU, 2MB mem, 70MB disk,
- year eyetetti eeningaration and i noe	selector channel; disk	8 I/O channels, console,	2MB, 100MB disk, dskette	4 ser ports, prntr, 4
	subsystem; one 182MB	804MB disk, 2 tape units,	Ethernet — \$14,850	workstations, OS lic.—
	disk; console Video	cntrl, line prntr, NOS-	64 User sys w/4 proc, 16	\$25,635
	Display Unit; OS/32	\$202,851	MB RAM, 700MB disk,cart.	
	right of copy—\$58,190		tape, Ethernet—\$107,200	
Monthly Maintenance of Typical	\$330	\$1,334	\$1,000	
Configuration	—			
Date of First Delivery	1981	August 1986	August 1985	January 1987
Number Installed to Date			750	
COMMENTS	Can be used in fault-		Multiproc. sys. offering	
	tolerant-dual processor	1	expandability. 1-10 proc	
	configuration		support for 6-96 users on 1 chassis. Field	

WORD LENGTH         32 bits	MANUFACTURER & MODEL	Data General Corporation Eclipse MV/7800	Data General Corporation Eclipse MV/15000	Data General Corporation Eclipse MV/20000	Digital Equipmen Corporation (DEC VAX 8250
Disk STORAGE CAPACITY         70MB 9-4GB         582/06         Up to 27GB         205MB 3-6GB           WID CE DANGT, SNS SUPPOTED         248-144M         448-24M         448-24M <td></td> <td></td> <td></td> <td></td> <td></td>					
MEMORY RANCE BOX WORKSTTONS SUPPORT         ZMB. 14MB         446:32MB         46:32MB			32 Bits	32 bits	32 bits
NO. WORKSTATIONS SUPPORTED From 27,260 (AMGE MARKETS)         432         Up to 1,008         18-64           From 27,260 (AMGE MARKETS)         From 27,200 (A, Mg, ScyEng         Co. My/300 (A, Mg, ScyEng         Co. My/300 (A, Mg, ScyEng         From 27,200 (A, Mg, ScyEng         From 27,200 (A	DISK STORAGE CAPACITY	70MB-9.4GB	592MB-16.5GB	Up to 27GB	205MB-3.6GB
No. WORKSTATIONS SUPPORTED         43.2         Up to 1.006         15.64           From 27.260         From 37.260         From 37.200         F	MEMORY RANGE	2MB-14MB	4MB-32MB	4MB-64MB	4MB-32MB
PRICE RANGE: 5         From 57.200         From 57.200         From 57.200         From 57.200         From 57.000				1	
TARGET MARKET (8)         O.A., Mig., Sol/Eng         O.A., Mig., Sol/Eng         Can., Mig., Sol/Eng <thcan., eng<="" mig.,="" sol="" th="">         Can., Mig., Sol/Eng</thcan.,>					
ENTRAL PROCESSOR         DG MV/7800         D					
CPU Munificature and Model CPU Quelt Time, nanoseconds         Do MV/7800         DG MV/7800         DG MV/72000         Proprietary 200           MIPS Carbo Mamory, bytes         Do P         DP         Sindard         Sinda					
CPU Cycle Time, nanoseconds MirS		DG MV/7800	DG MV/15000	DC MV/20000	Proprietory
MRES         1			DG WW/15000		
Hardware Realing Point Virtum Memory, bytes         SP, DP         SP, SP, DP         SP, SP, DP         SP,			1—	1— 1	
Virtual Memory fieldnesselbe tyres)         4GB         5andard         5andard         5andard         5andard         5andard         5andard         5andard         5andard         5andard         4MB         Coll         MC         Coll         MC         Coll         MC         Coll         MC         Coll         MC         Coll         MC         AMB         AM		11	I—		
Cache Memory, bytes         None         16KB         20KB         8KB           Battery Backup         Standard         St					SP, DP
Battery Baskup         Standard	Virtual Memory (addressable bytes)	4GB	4GB	4GB	4GB
Battery Baskup         Standard	Cache Memory, bytes	None	16KB	20KB	8KB
Reating Clock MAN STORAGE 2006 Cycle/Access Time, nanoseconds 320 86 96 600 Strandard Standard Stand		Standard			
MAIN STORAGE Creations from an encoded storage Protection formerent Size, tytes Standard Standard Standard Standard ECC Concentration formerent Size, tytes 2MB					
Cycle/Access Time, nanoseconds         320         85         85         600           Storage Protection Increment Size, Lytes         Standard         Standard         Standard         2MB		Stanuaru	Standard	Standard	Standard
Storage Protection Increment Size, bytes NPUT/QUTPUT CONTROL Type of Bus         Standard 2MB         Standard 2MB         Standard 2MB         ECC 2MB           NPUT/QUTPUT CONTROL Type of Bus         DCH, BMC         DCH, BMC         DCH, BMC         VASB         Unibus           No. of I/D Channels         16         16         16         2         2           No. of I/D Channels         14.2MB/sec/CPU         13.3MB/sec         2         2           Max. Number of Lines         Standard         Standard, 56K bps         Standard         Standard         Standard           Asynchronous         Standard         Standard, 56K bps         Standard         Standard         Standard           Asynchronous         Standard         Standard         Standard         Standard         Standard           Protocols Supported         IEEE 802.3         IEEE 802.4         Standard         Standard         Standard         Standard         Standard         Standard         Standard         Standard					
Increment Size, bytes         ZMB         ZZB         ZZB <thzdb< th="">         ZZB         <thzdb< th=""></thzdb<></thzdb<>			85		
Increment Size, bytes NUTY(JUTY)CONTROL Type of Bus No. of I/O Channels 16 Aggregate Bandwicht, bytes/sec. COMMUNICAT of Lines 4.2MB/sec/CPU 13.3MB/sec 230:100 Standard Standard Standard Standard Standard Standard Standard Standard X.25, SDLC, SNA, XNS, Xodiac LAN Supported IEEE 802.3 IEEE 802.3 IE		Standard	Standard	Standard	ECC
NRUT (2017PUT CÓNTROL Type of Bus No. of I/O Channels No. of I/O Channels No. of I/O Channels No. of I/O Channels Agregate Bandwidt, byte/sec. COMMUNCATIONS Max, Number of Lines Synchronous Synchronous Synchronous Standard, 56K bps Standard, 58K b	Increment Size, bytes	2MB	2MB	2MB	
Type of Bus         DCH, BMC         DCH, BMC         DCH, BMC         DCH, BMC         I6         VAXBI, Unbus           Aggregate Bandwidth, bytes/sec.         14.2MB/sec/CPU         14.2MB/sec/CPU         14.2MB/sec/CPU         13.3MB/sec           Max. Number of Lines         4         432         321.008         Standard, 56K bps         Standard, 56K bps <td></td> <td></td> <td></td> <td></td> <td></td>					
No. of U/O Channels     16		DCH BMC	DCH BMC		VAYBI Unibur
Aggregate Bandwidth, bytes/sec.     14.2MB/sec/CPU     14.2MB/sec/CPU     14.2MB/sec/CPU     13.3MB/sec       Max, Number of Lines     4     432     32-1008     Standard.     Standard.       Synchronous     Standard, 56K bps     Standard.     Standard.     Standard.     Standard.       Agyrophronous     Standard.     Standard.     Standard.     Standard.     Standard.       Agyrophronous     Standard.     Standard.     Standard.     Standard.     Standard.       Protocols Supported     LEE 802.3     Standard.     Standar					
COMMUNCATIONS       4       432       32-1,008       Standard, 56K bps       Standard, 56					
Max. Number of Lines     4     432     32-1008     Standard.       Synchronous     Standard, 56K bps     Standard.     Standard.       Asynchronous     X25, SDLC, SNA, XNS, Xodiac     X.25, SDLC, SNA, XNS, Xodiac     X.26, SDLC, SNA, XNS, XAS, BSC     SNA     S		14.2MB/sec/CPU	14.2MB/sec/CPU	14.2MB/sec/CPU	13.3MB/sec
Synchronous Asynchronous         Standard Standard         Standard         Standard <t< td=""><td>COMMUNICATIONS</td><td></td><td></td><td>1</td><td>1</td></t<>	COMMUNICATIONS			1	1
Synchronous Asynchronous         Standard Standard         Standard         Standard <t< td=""><td>Max. Number of Lines</td><td>4</td><td>432</td><td>32-1.008</td><td></td></t<>	Max. Number of Lines	4	432	32-1.008	
Asynchronous     Standard     S		Standard, 56K bre			Standard
Protocols Supported       X.25, SDLC, SNA, XNS, Xodiac       X.25, SDLC, SNA, XNS, Xodiac       X.26, SDLC, SDL, XA, XNS, XNA, XNS, Xodiac       X.26, SDLC, SDL, XA, XNS, XNA, XNS, Xodiac       X.26, SDLC, SDLC, XDL, XNS, XOL, XDL, XDL, XDL, XDL, XDL, XDL, XDL, XD	•				
Xodiac         Xodiac         Xodiac         Xodiac         Xodiac           LAN Supported         Kit EE 802.3         EEE 802.3         EEE 802.3         EEE 802.3         EEE 802.3         EEE 802.3         EEE 802.3         CPC/PIP_SNA           BM 3270 Emminutes Supported         EEE 802.3         2780/3780, HASP         SNA					
LAN Supported         IEEE 802.3         IEE 8	Protocols Supported			1	
LAN Supported         IEEE 802.3         IEE		Xodiac		Xodiac	LU6.2, TCP/IP, SNA
RUE Terminale Supported         2780/3780, HASP         2780/3780, HASP         2780/3780, HASP         2780/3780, HASP         2780/3780, HASP         2780/3780, HASP         SNA         SNA <td< td=""><td>LAN Supported</td><td>IEEE 802.3</td><td>IEEE 802.3</td><td>IEEE 802.3</td><td></td></td<>	LAN Supported	IEEE 802.3	IEEE 802.3	IEEE 802.3	
IBM 3270 Emulation PRIPHERAL CALL COUPMENT Disks Supported     SNA     SN					
PERIPHERAL EQUIPMENT     Fixed: 50MB-592MB     Fixed: 50MB-592MB     Fixed: 50MB-592MB     Fixed: 456MB       Disks Supported     Size and spin spin spin spin spin spin spin spin					
Disks Supported     Fixed: 50MB			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		UNA, BOU
Rem.:         192MB, 277MB         Rem.:         192MB, 277MB         Rem.:         20MB, 20A         20A         20A				<b>.</b> . <b>.</b>	
Streaming Tape Drives Carridge Tape Drives Reel-to-reel Tape Drives Biol, 6400 bpi         30 ips, 6400 bpi (50);55, 6400 bpi (50);55, 6400 bpi)         30 ips, 6400 bpi (50);55, 6400 bpi)         75/25 ips, 1600/6250           Line Printers         230-1200 ipm         230-1200 ipm         230-1200 ipm         125 ips, 1600/6250           Strail Printers         230-1200 ipm         230-1200 ipm         230-1200 ipm         230-1200 ipm           Non-Impact Printers         Laser, 8-12 ppm         Laser, 8-12 ppm         Laser, 8-12 ppm         Laser, 8-12 ppm           Non-Impact Printers         Laser, 8-12 ppm         Laser, 8-12 ppm         Laser, 8-12 ppm         Laser, 8-12 ppm           Other Paripherals Supported	Disks Supported				
Carridge Tape Drives       60 ips. 6400 bpi       60 ips. 6400 bpi       60 ips. 6400 bpi       60 ips. 6400 bpi       125 ips. 1600/6250         Beel-to-reel Tape Drives       50/75 ips.800/1600/6250       230-1200 lpm       230-1200 lpm       230-1200 lpm       230-1200 lpm       240 ops         Latter Quality Printers       20/35/40 cps       20/35/40 cps       230-1200 lpm       240 ops       240 ops         SOFTWARE					Rem.: 205MB
Carridge Tape Drives       60 ips. 6400 bpi       60 ips. 6400 bpi       60 ips. 6400 bpi       50/75 ips. 800/1600/6250       230-1200 lpm       125 ips. 1600/6250 bi       125 ips. 1600/6150 bi       12	Streaming Tape Drives	30 ips, 6400 bpi	30 ips, 6400 bpi	30 ips, 6400 bpi	75/25 ips, 1600/6250
Reel-to-reel Tape Drives Line Printers         50/75 ips.800/1600/6250         50/75 ips.800/1600/6250         50/75 ips.800/1600/6250         230-1200 lpm         600 lpm           Serial Printers         20/35/40 cps         20/35/40 cps         20/35/40 cps         20/35/40 cps         20/35/40 cps         30 cps           Non-Impact Printers         Laser, 8-12 ppm	Cartridge Tape Drives	60 ips 6400 bpi			
Line Printers       230-1200 lpm       230-1200 lpm       600 lpm         Letter Quality Printers       20/35/40 cps       20/35/40 cps       20/35/40 cps       30 cps         Non-Impact Printers       20/35/40 cps       20/35/40 cps       20/35/40 cps       30 cps         Non-Impact Printers       Laser, 8-12 ppm       Laser, 8-12 ppm       Laser, 8-12 ppm       Laser, 8-12 ppm         Other Peripherals Supported       —       —       —       —       Pointers       20/35/40 cps       30 cps         SOFTWARE       Proprietary Operating System Name       OpS/VS, AOS/DVS, AOS/RT       AOS/VS, AOS/DVS,		E0/75 inc 900/ 1600/6250			125 ing 1600 (6250 ba
Serial Printers					
Letter Quality Printers Non-Impact Printers Non-Impact Printers       20/35/40 cps       20/35/40 cps       20/35/40 cps       30 cps         Software       Laser, 8-12 ppm       —       …       # <td></td> <td>230-1200 lpm</td> <td>230-1200 lpm</td> <td>230-1200 lpm</td> <td></td>		230-1200 lpm	230-1200 lpm	230-1200 lpm	
Non-Impact Printers Other Peripherals Supported       Laser, 8-12 ppm —       Laser, 8-12 ppm —       Laser, 8-12 ppm —       Laser, 8-12 ppm —       Laser, 8-12 ppm Plotters, voice synth- esis module         SOFTWARE Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler Compilers       AOS/VS, AOS/DVS, AOS/RT Multitask, multiuser MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT MULTASk       AOS/VS, AOS/DVS, AOS/RT Multitask, multiuser MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT Multitask, multiuser MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT Multitask, multiuser MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT MULTASk       AOS/VS, AOS/DVS, AOS/RT Multitask, multiuser MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT Multitask, multiuser MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT MV/UX, DG/UX       AOS/VS, AOS/DVS, AOS/RT Mascine as a construction ASSIC Pascine as a construction Portacion Available       AOA       CPU, 4MB mem, 16MB disk, 4 ser ports, ports, OS lic. — S28,400       Model 8 CPU, 8MB mem, 2 SOS/VS lic. — \$173,360       Model 1 CPU, 24MB mem, 5 33GE disk, 2 prntr, 6 456MB disk, 75 ips tap 5 30,220       CPU, 8MB mem				—	240 cps
Other Peripherals Supported	Letter Quality Printers	20/35/40 cps	20/35/40 cps	20/35/40 cps	30 cps
Other Peripherals Supported	Non-Impact Printers	Laser, 8-12 ppm	Laser, 8-12 ppm	Laser, 8-12 ppm	Laser, 8-12 ppm
SOFTWARE Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler Compilers     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser MV/UX, DG/UX DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     AOS/VS, AOS/DVS,AOS/RT Macro DG/DBMS, DG/SQL Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     Basic, Pascal, Fortran, C, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, A Sci/Eng       PRICING & AVAILABILITY Typical System Configuration and Price     CPU, 4MB mem, 16MB disk, 4 ser ports, pmtr, 4I/O ports, OS lic. — \$28,400     Model 8 CPU, 8MB mem, 2 S92MB dsk, pmtr, 16wkst AOS/VS lic. — \$173,360     Model 1 CPU, 24MB mem, 5.33GB disk, 2 pmtr, 64 term, cntrl, OS lic. \$3730,220     CPU, 8MB mem, disk c 456MB disk, 75 ips tar 600 lpm pmtr, commo 1 yr, warr., VAX VMS DECnet lic. 16 term. \$1986       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date     — —					
Proprietary Operating System Name Operating System Type       AOS/VS, AOS/DVS,AOS/RT Multitask, multiuser       AOS/VS, AOS/DVS,AOS/RT MV/UX, DG/UX       AOS/VS, AOS/DVS,AOS/RT MV/UX, DG/UX       AOS/VS, AOS/DVS,AOS/RT MV/UX, DG/UX       MV/UX, DG/UX       Utilitiask, multiuser       Multitask, multiuser       Multitask, multiuser       Multitask, multiuser       Multitask, multiuser       MV/UX, DG/UX       UX       DG/DBMS, DG/SQL					
Operating System Type Unix Derivative Database Management System Assembler     Multitask, multiuser MV/UX, DG/UX     Multitask, multiuser MV/UX, DG/UX     Multitask, multiuser MV/UX, DG/UX     Batch, multiuser MV/UX, DG/UX       Database Management System Assembler     Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     DG/DBMS, DG/SQL     DG/DBMS, DG/SQL     Batch, multiuser MV/UX, DG/UX       Principal Application Available     OA     OA     OA     OA       Other Applications Available     Mfg, Sci/Eng     Mfg, Sci/Eng     Mfg, Sci/Eng     Mfg, Sci/Eng       PRICING & AVAILABILITY Typical System Configuration and Price     CPU, 4MB mem, 16MB disk, 4 ser ports, print, 4I/0 ports, OS lic. — \$28,400     Model 8 CPU, 8MB mem, 2 592MB dsk, printr, 16wkst AOS/VS lic. — \$173,360     Model 1 CPU, 24MB mem, 5,33GB disk, 2 printr, 64 term, entri, OS lic. — \$730,220     CPU, 8MB mem, disk c 456MB disk, 75 ips tag 600 lpm printr, comm c 1 yr. warr., VAX VMS DECnet lic., 16 term. — \$163,785       Monthly Maintenance of Typical Contact vendor     — —     — —     — —     — —     — —       Monthly Maintenance of Typical Contact vendor     — —     — —     — —     — —     — —     — —       Date     — —     —     — —     — —     — —     — —     March 1987					
Unix Derivative       MV/UX, DG/UX       MAcro         Compliers       Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII       OA       OA       OA       Sci/Eng       MAA, Lisp, Coral 66, A         Other Applications Available       Mfg, Sci/Eng       Mfg, Sci/Eng       Mfg, Sci/Eng       Mfg, Sci/Eng       OA, third party       Sci/Eng       Sci/Eng       CPU, 8MB mem, 2       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng					
Unix Derivative       MV/UX, DG/UX       MAcro         Compliers       Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII       OA       OA       OA       Sci/Eng       MAA, Lisp, Coral 66, A         Other Applications Available       Mfg, Sci/Eng       Mfg, Sci/Eng       Mfg, Sci/Eng       Mfg, Sci/Eng       OA, third party       Sci/Eng       Sci/Eng       CPU, 8MB mem, 2       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng       Sci/Eng	Operating System Type	Multitask, multiuser	Multitask, multiuser	Multitask, multiuser	Batch, multiuser
Database Management System Assembler     DG/DBMS, DG/SQL     DG/DBMS, DG/SQL     DG/DBMS, DG/SQL     VAX DBMS, VAX/Rdb, Macro       Compilers     Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     DG/D BMS, DG/SQL     Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     DG/DBMS, DG/SQL     VAX DBMS, VAX/Rdb, Macro       Principal Application Available     OA     OA     OA     OA     OA       Other Applications Available     Mfg, Sci/Eng     Mfg, Sci/Eng     Mfg, Sci/Eng     Mfg, Sci/Eng     OA, third party       PRICING & AVAILABILITY Typical System Configuration and Price     CPU, 4MB mem, 16MB disk, 4 ser ports, OS lic. — \$28,400     Model 8 CPU, 8MB mem, 2 592MB dsk, printr, 16wkst AOS/VS lic. — \$173,360     Model 1 CPU, 24MB mem, 5.33GB disk, 2 printr, 64 term, cntrl, OS lic. \$730,220     CPU, 8MB mem, disk c 456MB disk, 75 ips tap 600 lpm pmtr, commo 0 1 yr. warr., VAX VMS DECnet lic., 16 term. — \$163,785       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date     —     —     —     —       Monthle Maintenance of Typical Configuration     —     —     —     —     —       Mach 1987     —     —     —     —     —     —		1 ·			
Assembler     —     —     Macro       Compilers     —     Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     —     Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     Cobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGII     Macro       Principal Application Available     OA     OA     OA     OA     OA       Other Applications Available     Mfg, Sci/Eng     Mfg, Sci/Eng     Mfg, Sci/Eng     Mfg, Sci/Eng     OA, third party       PRICING & AVAILABILITY Typical System Configuration and Price     CPU, 4MB mem, 16MB disk, 4 ser ports, pritr, 4I/O ports, OS lic. —     Model 8 CPU, 8MB mem, 2 592MB dsk, pritr, 16wkst AOS/VS lic. — \$173,360     Model 1 CPU, 24MB mem, 5.33GB disk, 2 pritr, 64 term, cntrl, OS lic. — \$730,220     CPU, 8MB mem, disk c 456MB disk, 735 5       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date     —     —     —     —       Monthly Maintenance of Typical Configuration     —     —     —     —     Contact vendor       —     —     —     —     —     —     Macro 1987       Number Installed to Date     —     —     —     —     Macro 1987					
CompilersCobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGIICobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGIICobol, Fortran, C, PL/1, Pascal, DG/L, APL, RPGIIBasic, Pascal, Fortran, C, Cobol, RPGII, PL/1, ADA, Lips, Coral 66, A Sci/EngOther Application AvailableMfg, Sci/EngMfg, Sci/EngMfg, Sci/EngOAOAOASci/EngPRICING & AVAILABILITY Typical System Configuration and PriceCPU, 4MB mem, 16MB disk, 4 ser ports, DS lic. —Model 8 CPU, 8MB mem, 2 592MB dsk, prntr, 16wst AOS/VS lic. — \$173,360Model 1 CPU, 24MB mem, 5.33GB disk, 2 prntr, 64 term, cntrl, OS lic. — \$730,220CPU, 8MB mem, disk c 456MB disk, 75 ips tag 600 lpm print, comm c 1 yr. warr., VAX VMS DECnet lic., 16 term. — \$163,785Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date————Contact vendor — — — 1986—Contact vendor — — — — — — ————Contact vendor — — — — — — — —March 1987 March 1987	A second data and the seco		SUDDING, DUJOUL		1
Principal Application AvailablePascal, DG/L, APL, RPGII OAPascal, DG/L, APL, RPGII OAPascal, DG/L, APL, RPGII OAC, Cobol, RPGI, PL/1, ADA, Lisp, Coral 66, A Sci/EngOther Applications AvailableMfg, Sci/EngMfg, Sci/EngMfg, Sci/EngOAOASci/EngPRICING & AVAILABILITY Typical System Configuration and PriceCPU, 4MB mem, 16MB disk, 4 ser ports, prntr, 4I/O ports, OS lic. — \$28,400Model 8 CPU, 8MB mem, 2 592MB dsk, prntr, 16wkst AOS/VS lic. — \$173,360Model 1 CPU, 24MB mem, 5,33GB disk, 2 prntr, 64 term, cntrl, OS lic.— \$730,220CPU, 8MB mem, disk c 4 ser, ports, prntr, 4I/O ports, OS lic. — \$183,785CPU, 100 mem, 4 ser, ports, 05 lic. — \$183,785CPU, 100 mem, 5,33GB disk, 2 prntr, 64 term, cntrl, OS lic.— \$730,220CPU, 8MB mem, 4 ser, ports, 05 lic. — \$183,785CPU, 24MB mem, 5,33GB disk, 2 prntr, 64 term, cntrl, OS lic.— \$730,220CPU, 8MB mem, 4 ser, ports, 05 lic.— \$183,785CPU, 8MB mem, 2 5,33GB disk, 2 prntr, 64 term, cntrl, OS lic.— \$163,785CPU, 8MB mem, 4 ser, ports, 05 lic.— \$183,785CPU, 8MB mem, 5,33GB disk, 2 prntr, 64 term, cntrl, OS lic.— \$163,785CPU, 8MB mem, 4 ser, ports, 05 lic.— \$163,785Contact vendor - - 1986Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date—————Monthly Installed to Date1986 -19861986 -1986March 1987					
Principal Application Available       OA       OA       OA       ADA, Lisp, Coral 66, A Sci/Eng         Other Applications Available       Mfg, Sci/Eng       Mfg, Sci/Eng       Mfg, Sci/Eng       OA       OA         PRICING & AVAILABILITY       Typical System Configuration and Price       CPU, 4MB mem, 16MB disk, 4 ser ports, prntr, 4I/O ports, OS lic. —       Model 8 CPU, 8MB mem, 2       Model 1 CPU, 24MB mem, 5.33GB disk, 2 prntr, 64 term, cntrl, OS lic. —       CPU, 8MB mem, disk c         Monthly Maintenance of Typical Configuration       —       —       —       —       —         Date of First Delivery Number Installed to Date       —       —       —       —       —         Number Installed to Date       —       —       —       —       —       —	Compliers				
Principal Application Available       OA       OA       Sci/Eng         Other Applications Available       Mfg, Sci/Eng       Mfg, Sci/Eng       Mfg, Sci/Eng       OA, third party         PRICING & AVAILABILITY       Typical System Configuration and Price       CPU, 4MB mem, 16MB disk, 4 ser ports, prntr, 4I/O ports, OS lic       Model 8 CPU, 8MB mem, 2       Model 1 CPU, 24MB mem, 2       CPU, 8MB mem, disk c         Monthly Maintenance of Typical          Configuration        Contact vendor         Date of First Delivery       1986       1986       1986       1986       March 1987		Pascal, DG/L, APL, RPGI	Pascal, DG/L, APL, RPGI	Pascal, DG/L, APL, RPGI	
Other Applications Available       Mfg, Sci/Eng       Mfg, Sci/Eng       Mfg, Sci/Eng       OA, third party         PRICING & AVAILABILITY Typical System Configuration and Price       CPU, 4MB mem, 16MB disk, 4 ser ports, prntr, 4I/O ports, OS lic. — \$28,400       Model 8 CPU, 8MB mem, 2 \$92MB dsk, prntr, 16wkst AOS/VS lic. — \$173,360       Model 1 CPU, 24MB mem, 5.33GB disk, 2 prntr, 64 term, cntrl, OS lic.— \$730,220       CPU, 8MB mem, disk c 456MB disk, 75 ips tap 600 lpm prntr, commo 1 yr. warr., VAX VMS DECnet lic., 16 term.— \$163,785         Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date       —       —       —         Monthly Maintenance of Typical Configuration       —       —       —       —         Date of First Delivery Number Installed to Date       1986       1986       1986       March 1987 NA	Principal Application Available	OA	0A	0A	
PRICING & AVAILABILITY     CPU, 4MB mem, 16MB disk, 4 ser ports, prntr, 4I/O ports, OS lic. —     Model 8 CPU, 8MB mem, 2 592MB dsk, prntr, 16wkst AOS/VS lic. — \$173,360     Model 1 CPU, 24MB mem, 5.33GB disk, 2 prntr, 64 term, cntrl, OS lic.—     CPU, 8MB mem, disk c 456MB disk, 75 ips tap 600 lpm prntr, comm c 1 yr. warr., VAX VMS DECnet lic., 16 term. — \$163,785       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date     —     —     —     —     Contact vendor —     —     Start 1987 March 1987 Na				Į	
Typical System Configuration and PriceCPU, 4MB mem, 16MB disk, 4 ser ports, prmtr, 4I/O ports, OS lic. — \$28,400Model 8 CPU, 8MB mem, 2 592MB dsk, prmtr, 16wkst AOS/VS lic. — \$173,360Model 1 CPU, 24MB mem, 5.33GB disk, 2 prmtr, 64 term, cntrl, OS lic.— \$730,220CPU, 8MB mem, disk c 456MB disk, 75 ips tap 600 lpm prmtr, comm of 1 yr. warr., VAX VMS DECnet lic., 16 term. — \$163,785Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date— — — —— — — — — —— 	Other Applications Available	Mfg, Sci/Eng	Mfg, Sci/Eng	Mfg, Sci/Eng	OA, third party
Typical System Configuration and PriceCPU, 4MB mem, 16MB disk, 4 ser ports, prmtr, 4I/O ports, OS lic. — \$28,400Model 8 CPU, 8MB mem, 2 592MB dsk, prmtr, 16wkst AOS/VS lic. — \$173,360Model 1 CPU, 24MB mem, 5.33GB disk, 2 prmtr, 64 term, cntrl, OS lic.— \$730,220CPU, 8MB mem, disk c 456MB disk, 75 ips tap 600 lpm prmtr, comm of 1 yr. warr., VAX VMS DECnet lic., 16 term. — \$163,785Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date— — — —— — — — — —— 					
4 ser ports, prntr, 4I/O ports, OS lic. — \$28,400592MB dsk, prntr, 16wkst AOS/VS lic. — \$173,3605.33GB disk, 2 prntr, 64 term, cntrl, OS lic.— \$730,220456MB disk, 75 ips tar 600 lpm prntr, comm of 1 yr. warr., VAX VMS DECnet lic., 16 term. — \$163,785Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date— — — — —— <br< td=""><td></td><td></td><td></td><td></td><td></td></br<>					
ports, OS lic. —         AOS/VS lic. — \$173,360         64 term, cntrl, OS lic. —         600 tpm prrtr, comm of 1 yr. warr., VAX VMS DECnet lic., 16 term. —           \$28,400         —         —         —         \$163,785           Monthly Maintenance of Typical         —         —         —         —           Configuration         —         —         —         —         Contact vendor           Date of First Delivery         1986         1986         March 1987         MA	rypical system configuration and Price				
\$28,400\$730,2201 yr. warr., VAX VMS DECnet lic., 16 term \$163,785Monthly Maintenance of Typical ConfigurationDate of First Delivery Number Installed to Date19861986March 1987 NA					
\$28,400\$730,2201 yr. warr., VAX VMS DECnet lic., 16 term \$163,785Monthly Maintenance of Typical ConfigurationDate of First Delivery Number Installed to Date19861986March 1987 NA		ports, OS lic. —	AOS/VS lic. — \$173,360	64 term, cntrl, OS lic-	600 lpm prntr, comm ci
Monthly Maintenance of Typical     —     —     —     \$163,785       Configuration     —     —     —			1		
Monthly Maintenance of TypicalS\$163,785ConfigurationContact vendorDate of First Delivery198619861986March 1987Number Installed to DateNA					
Monthly Maintenance of TypicalContact vendorConfigurationDate of First Delivery198619861986March 1987Number Installed to DateNA					
ConfigurationDate of First Delivery198619861986Number Installed to DateNA					
ConfigurationDate of First Delivery198619861986Number Installed to DateNA					
Date of First Delivery     1986     1986     1986     March 1987       Number Installed to Date     —     —     —     NA		1—			Contact vendor
Date of First Delivery     1986     1986     1986     March 1987       Number Installed to Date     —     —     —     NA	Configuration	<u> </u>	I—	I—	I—
Number Installed to Date — — — NA		1986	1986	1986	March 1987

MANUFACTURER & MODEL	Digital Equipment Corporation (DEC) VAX 8350	Digital Equipment Corporation (DEC) VAX 8530	Digital Equipment Corporation (DEC) VAX 8550	Digital Equipment Corporation (DEC) VAX 8600
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	205MB-1.8GB	205MB-5.4GB	205MB-5.4GB	205MB-25.5GB
MEMORY RANGE	4MB-32MB	32MB-80MB	32MB-80MB	4MB-68MB
NO. WORKSTATIONS SUPPORTED	24-96	32-200	72-370	512
	From 88,000	From 292,000	From 411,000	From 350,000
TARGET MARKET(S)	Gen. bus., Sci/Eng	Gen. bus., Sci/Eng	Gen. bus., Sci/Eng	Gen. bus., Sci/Eng
CENTRAL PROCESSOR			Providence and	
CPU Manufacturer and Model	Proprietary	Proprietary	Proprietary	Proprietary
CPU Cycle Time, nanoseconds	200	135-1260	495	80
MIPS	2.2-2.3	4.2	6	4.4
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	4GB	4GB	4GB	4GB
Cache Memory, bytes	8KB	64KB	16KB	16KB
Battery Backup	Optional	Standard	Standard	Standard
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE	o tantaa a			
	600	13	13	560
Cycle/Access Time, nanoseconds		ECC	ECC	Standard
Storage Protection	ECC			
Increment Size, bytes	4MB	4MB	4MB	4MB
INPUT/OUTPUT CONTROL				
Type of Bus	VAXBI, Unibus	VAXBI, Unibus	VAXBI, Unibus	Unibus, Massbus
No. of I/O Channels	2	2	3	11
Aggregate Bandwidth, bytes/sec.	13.3MB/sec	13.3MB/sec	16MB/sec	1MB-2MB/sec
COMMUNICATIONS	1	1		
Max. Number of Lines			32	24
Synchronous	Standard	Standard	Standard	Standard
Asynchronous	Standard	Standard	Standard	Standard
Protocols Supported	SDLC, HDLC, X.25, BSC,			
	LU6.2, TCP/IP, SNA	LU6.2, TCP/IP, SNA	LU6.2, TCP/IP	LU6.2, TCP/IP
LAN Supported	IEEE 802.3, DECnet	IEEE 802.3, DECnet	IEEE 802.3, DECnet	IEEE 802.3, DECnet
RJE Terminals Supported	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 Emulation	SNA, BSC	SNA, BSC	SNA, BSC	SNA, BSC
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed: 456MB	Fixed: 456MB	Fixed: 456MB	Fixed: 121MB, 456MB
	Rem.: 205MB	Rem.: 205MB	Rem.: 205MB	Rem.: 205MB
Streaming Tape Drives	75/25 ips, 1600/6250 bpi			
Cartridge Tape Drives				I—
Reel-to-reel Tape Drives	125 ips, 1600/6250 bpi			
Line Printers	600 lpm	600 lpm	600 lpm	215-1200 lpm
Serial Printers	240 cps	240 cps	240 cps	50-240 cps
Letter Quality Printers	30 cps	30 cps	30 cps	25-55 cps
Non-Impact Printers	Laser, 8-12 ppm	Laser, 12 ppm	Laser, 12 ppm	Laser, 8-12 ppm
Other Peripherals Supported	Plotters, voice synth-	Plotters, voice synth-	Plotters, voice synth-	Plotters, voice synth-
Other Peripherals Supported	esis module	esis module	esis module	esis module
SOFTWARE				esis module
Proprietary Operating System Name	VAX/VMS	VAX/VMS	VAX/VMS	VAX/VMS
Operating System Type	Batch, multiuser	Batch, multiuser	Batch, multiuser	Batch, multiuser
Unix Derivative	Ultrix-32	Ultrix-32	Ultrix-32	Ultrix-32
Database Management System		VAX DBMS, VAX/Rdb/VMS		
Assembler	Macro	Macro	Macro	Macro
Compilers	Basic, Pascal, Fortran,	Basic, Pascal, Fortran,	Basic, Pascal, Fortran,	Basic, Pascal, Fortran,
	C, Cobol, RPGII, PL/1,	C, Cobol, RPGII, PL/1,	C, Cobol, RPGII, PL/1	C, Cobol, RPGII, PL/1,
	ADA, Lisp, Coral 66, APL	ADA, Lisp, Coral 66, APL	ADA, Lisp, APL, Coral 66	ADA, Lisp, Coral 66,
Principal Application Available	Sci/Eng	Sci/Eng	Gen. bus, Sci/Eng	Gen bus, Eng/sci.
Other Applications Available	OA, third party	OA, third party	OA, third party	OA, third party
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU, 12MB mem, disk cntr	CPU, 16MB mem, disk cntr	CPU, 48MB mem, f.p.,	CPU, 4MB mem, disk/tape
	456MB disk, 75 ips tape,	456MB disk (3), 75 ips	VAXBI channel, disk cntr	cntrlr, VAX/VMS lic. &
	comm cntr,1 yr. warr.,	tape, comm cntr, 1 yr.	term., 1 yr warr,	warr., Ultrix-32 lic. &
	VAX VMS & DECnet lic.,	war., VAX VMS & DECnet	All-in-1, VAX/VMS, DECnet	warr. — \$350,000
	term. — \$159,000	lic., 40 term., 600lpm prntr — \$483,050	lic. — \$521,000	
Monthly Maintenance of Typical	Contact vendor	Contact vendor	Contact vendor	\$1,301
Configuration			-	<u> </u>
Date of First Delivery	March 1987	March 1987	August 1986	April 1985
Number installed to Date	NA	NA	NA	NA
COMMENTS				

MANUFACTURER & MODEL	Digital Equipment Corporation (DEC) VAX 8650	Digital Equipment Corporation (DEC) VAX 8700	Digital Equipment Corporation (DEC) VAX 8800	Digital Equipment Corporation (DEC) VAX 8974
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	205MB-25.5GB	205MB-7.2GB	205MB-7.2GB	2.5GB
MEMORY RANGE	16MB-68MB	32MB-128MB	32MB-128MB	128MB-512MB
NO. WORKSTATIONS SUPPORTED	512	72-320	72-320	288-1,280
PRICE RANGE, \$	From 400,000	From 479,000	From 672,000	From 2,570,000
TARGET MARKET(S)	Gen. bus., Sci/Eng	Gen. bus., Sci/Eng	Gen. bus., Sci/Eng	Gen. bus., Sci/Eng
CENTRAL PROCESSOR				
CPU Manufacturer and Model	Proprietary	Proprietary	Proprietary	Proprietary (4 CPU)
CPU Cycle Time, nanoseconds	80	45		NA
MIPS			45	
	6.3	6.0	9.5 - 12.7	26
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	4GB	4GB	4GB	4GB
Cache Memory, bytes	16KB	64KB	64KB per CPU	64KB per CPU
Battery Backup	Standard	Standard	Standard	Standard
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE		ł		
Cycle/Access Time, nanoseconds	384	495	135-1206	495
Storage Protection	ECC	ECC	ECC	ECC
Increment Size, bytes	4MB	4MB	4MB	4MB
NPUT/OUTPUT CONTROL	1	1	L	
Type of Bus	Unibus, Massbus	Unibus, Massbus	VAXBI/Unibus	VAXBI, Unibus
No. of I/O Channels	12	6	6	24
Aggregate Bandwidth, bytes/sec.	1MB-2MB/sec	13.3MB/sec	30MB/sec	24 212.8MB/sec
COMMUNICATIONS		10.0000/300		2.000/300
Max. Number of Lines	24	24	24	1
Synchronous		1		Strendard 10 OK has
	Standard, 19.2K bps	Standard, 19.2K bps	Standard 19.2K bps	Standard, 19.2K bps
Asynchronous	Standard	Standard		Standard
Protocols Supported	SDLC, HDLC, X.25, BSC,			
	LU6.2, TCP/IP	LU6.2, TCP/IP, DDCMP	LU6.2, TCP/IP, DDCMP	LU6.2, TCP/IP, DDCMP
LAN Supported	IEEE 802.3, DECnet	IEEE 802.3, DECnet	IEEE 802.3, DECnet	IEEE 802.3, DECnet
RJE Terminals Supported	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 Emulation	SNA, BSC	SNA, BSC	SNA, BSC	SNA, BSC
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed: 121MB, 456MB	Fixed: 456MB	Fixed: 456MB	Fixed: 456MB
	Rem.: 205MB	Rem.: 205MB	Rem.: 205MB	Rem.: 205MB
Streaming Tape Drives	75/25 ips, 1600/6250 bpi	25/75/100 ips	25/75/100 ips	S/S — 25/75/100 ips
Cartridge Tape Drives		<u> </u>		
Reel-to-reel Tape Drives	125 ips, 1600/6250 bpi			
Line Printers	600 lpm	600 lpm	600 lpm	600 ipm
Serial Printers	240 cps	240 cps	240 cps	240 cps
Letter Quality Printers	30 cps	30 cps	30 cps	30 cps
Non-Impact Printers	Laser, 8-12 ppm	Laser, 8-12 ppm	Laser, 8-12 ppm	Laser, 8-12 ppm
Other Peripherals Supported	Plotters, voice synth-	Plotters, voice synth-	Plotters, voice synth-	Plotters, voice synth-
SOFTWARE	esis module	esis module	esis module	esis module
Proprietary Operating System Name	VAX/VMS	VAX/VMS	VANDAR	VAXIVAR
			VAX/VMS	VAX/VMS
Operating System Type	Batch, multiuser	Batch, multiuser	Batch, multiuser	Batch, multiuser
Unix Derivative	Ultrix-32	Ultrix-32	Ultrix-32	Ultrix-32
Database Management System		1	VAX/DBMS, VAX/Rdb/VMS	
Assembler	Macro	Macro	Macro	Macro
Compilers	Basic, Pascal, Fortran,	Basic, Pascal, Fortran,	Basic, Pascal, Fortran,	Basic, Pascal, Fortran,
	C, Cobol, RPGII, PL/1,			
	ADA, Lisp, Coral 66,			
Principal Application Available	Gen bus, Eng/sci.	Gen bus, Eng/sci.	Gen bus, Eng/sci.	Gen bus, Eng/sci.
Other Applications Available	OA, third party	OA, third-party	OA, third party	OA, third-party
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU, 16MB mem, disk/tape	CPU, 32MB mem, f.p.,	Dual CPU, 48MB mem, f.p.	4 CPUs, 128MB mem, f.p
	cntrlr, VAX/VMS lic. &	disk cntr, VAX/VMS lic.	456MB disk, VAX/VMS lic.	disk cntrl, VAX/VMS lic.
	warr., Ultrix-32 lic. &	& warr., Ultrix-32 lic.	& warr., Ultrix-32 lic.	& warr., h'ware warranty
	warr. — \$400,000	& warr., VAXBI channel,	& warr., 2 VAXBI channel	4 VAXBi chnis, tape dr.,
	Main: \$400,000	Ethernet interface, warr	Ethernet interface, warr	Ethernet interface, warr
		anty, VAX/VMS & DECnet	anty, VAX/VMS & DECnet	anty, VAX/VMS & DECnet
		lic, battery bk up -	lic, VAX/VIVIS & DECRET	lic, VAX/VINS & DECRET
		\$479,000		
	1		2-600 lpm prnter, laser, 60 term \$936,705	2.5GB disk, \$2,810,000
Monthly Maintenance of Typical	\$1,301		NA	NA
Configuration		I	<u> </u>	
Date of First Delivery	Q1 '86	Q4 '86	02 '86	1987
Number Installed to Date	NA	NA	NA	NA
COMMENTS				

Protocols SupportedSDLC, HDLC, X.25, BSC, LUG.2, TCP/IP, DDCMPX.25, BSC, TCP/IP, TTYX.25, TCP/IPX.25, TCP/IPLAN SupportedIEEE 802.3, DECnetIEEE 802.3IEEE 802.3IEEE 802.3RJE Terminals Supported2780/37802780/3780, HASP2780/3780, HASPSNABM 3270 EmulationSNA, BSCNoneSNASNAPERIPHERAL EQUIPMENTDisks SupportedFixed: 456MBFixed: 474MB-690MBUp to 63 devices, 170MB, 650MB ea.Fixed: 515MBStreaming Tape DrivesS/S - 25/75/100 ipsCartridge Tape DrivesS/S - 25/75/100 ipsReel-to-reel Tape Drives125 ips, 1600/6250 bpi1600/6250 tri-densitySerial Printers600 lpm300-1000 lpmInd. StandardInd. StandardInd. StandardLetter Quality Printers30 cpsVarietyInd. StandardInd. StandardInd. StandardOther Peripherals SupportedPlotters, voice synthSOFTWARESoftWAREVAX/VMSEMSBatch, RT, mtask, muserYes, Sys V, 4.2 BSDMultitasking & multiuserYes, Sys V, 42 BSDVAX/DBMS, VAX/Rdb/VMSIngresInformix, Oracle - rel.Informix, Oracle - rel.AssemblerMacroYes, SysYes	MANUFACTURER & MODEL	Digital Equipment Corporation (DEC) VAX 8978	Elxsi, Ltd. System 6400	Encore Computer Multimax 120	Encore Compute Multimax 320
Disk st TORAGE CAPACITY         5GB         474MB-750GB         300MB/50.4GB         300MB/50.4GB           ND. WORKSTATIONS SUPPORTED         256MB-16GB         9MB-26B         9MB-128MB         4MB-128MB         4	WORD LENGTH	32 bits	64bits	32 Bits	32 bits
MEMORY NAPCE NOR WORKSTON         25848-168 576-5.50         United is Normal works in the interval stransformation is not known interval is not known is not					
NO. WORKSTATIONS SUPPORTED         57-25.260         Unimal via Nivk Protocol         30-500         30-500           TARGE TMARKET(S)         From 4,732.000         Gar. Bas, Sarking         130.000-700.000         Gar. Bas, Bank, Trans.           CPU Manufacturer and Model         Proprietary (B CPU)         Exis (420 CPU         NS.3002, NS32322         30-50           MPS         Soriega. CAU/CAN,         MS.3002, NS32322         30-50         40         40           CPU Manufacturer and Model         Proprietary (B CPU)         Exis (420 CPU         83.302         47.0         47.0           MPS         Soriega P CP         Gard B         468         467.0         47.0         47.0           Crash Memory, bytes         Standard         Standard         Standard         58.0         64.00         8.000-8         50.00         8.000-8         400.00         49.0         49.0         49.0         40.0					
PRICE RANGE, 6     From 4,732,200     389,300-3,000,000     130,000-700,000       Construction     Gen. bar., Soffing     Soffing     Gen. bar., Soffing       CPU FURCESSON     Proprisend     Soffing     Soffing       CPU Synthesis     Proprisend     Soffing     Soffing       CPU Cycle Time, nanoseconds     No     Soffing     Soffing       MBS     Soffing     Soffing     Soffing       CPU Cycle Time, nanoseconds     No     Soffing     Soffing       MBS     Soffing     Soffing     Soffing       Color Mamory, Nitrashib brane)     Soffing     Soffing     Soffing       Details ackup     Standard     Standard     Standard       Standard     Standard     Standard     Standard </td <td></td> <td></td> <td></td> <td></td> <td></td>					
TARGET MARKET(5)     Gen. bau., Sol/Eng     Bus., Sol/Eng, CAD/CAM, Procession     Gen Bus., Bark, Trans., MS, Sol/Eng, CAD/CAM, MS, Sol/Eng, CAD/CAM, MA, Sol/CAM, Sol/CAM, MA, Sol/CAM, CAS, Sol/CAM, MA, Sol/CAM, MA, Sol/CAM, CAS, Sol/CAM, MA, Sol/CAM, MA, Sol/CAM, MA, Sol/CAM, MA, Sol/CAM, MA, Sol/CAM, MA, Sol/CAM, M				130 000-700 000	
CHTAL PROCESSOR         Proprietary (B CPU)         Framulation, CH         Mills, Sey(Fig., CAD/CA         Mills, Sey(Fig., CAD/CA           CPU Munfarturer and Model CPU Munfarturer and Model CPU Munfarturer and Model CPU Munfarturer and Model Cache Mamory, bytes         Proprietary (B CPU)         East 6420 CPU         NS32032, NS32332         Dath NS32332, Color 440           Additional Color Sector Munfarturer and Model Cache Mamory, bytes         SP, DP         Fail come, w/IEE side 443         453         440           Standard Cache Mamory, bytes         Standard Standard         Standard Standard         Standard Standard         Standard Standard         Standard Standard         More Standard         More Standard         Standard Standard         More Standard					
CPU Junderscruer and Model MPS CPU Cycle Time, nanoseconds MPS Cache Menory, bytes Battery Backy National Menory (brief and Standard Cycle) Battery Backy National Menory (brief Battery Backy National Menory, bytes Battery Backy National Menory, bytes Battery Backy Realtwork Clock     Dual NS32032, NS32032, 44 440     Dual NS32032, NS32032, 44 440     Mel NS32032, NS32032, 44 440     440       Cache Menory, bytes Battery Backy Realtwork Clock     Standard     Goptional     None Standard     Standard     Standard     None Standard     None Standard     Mel NS32032, NS32032, 44 440     Mel NS32032, NS32032, NS32032, 44 440     Mel NS32032, NS32032, NS32032, MS32032, MS320, MS3200, MS3200, MS3200, MS3200, MS3200, MS3200, MS3200, MS3200, MS3200, MS3		Gen. bus., Sci/Eng			
CPU Cycle Time, nanosaconds Hardware Flosting Point Virsus Mamory, Mickessable bytwell     NA     50     80     45       Hardware Flosting Point Virsus Mamory, Mickessable bytwell     53     50     72     647     57     57     57       Hardware Flosting Point Virsus Mamory, Mickessable bytwell     53     50     72     647     57		Proprietary (8 CPUs)	Elxsi 6420 CPU	NS32032, NS32332	Dual NS32332
bit Pictor         bit Signame		1 1 1 1			
First-Rev Floating Point         SP, DP         Full Comp. w/IEEE acids         SP, DP         SP, DP           Cache Memory, hytes         4GB         4GB         4GB         32X-120K         64KB           Extery Backup         Standard         Standard         Standard         Standard         Standard           Internett Stap         Standard         Standard         Standard         Standard         Standard           Note         Standard         Standard         Standard         Standard         Standard           Note         Forge Protection         ECC         Standard, Standard         Note         MoS ECC           Informent Stap, bytes         VAXB, Unibus         VMEbus, Subbus (prop.)         Narobus         Nonobus         100           No. of I/O Bannatia         Standard, 19.2K bps         Standard, 19.2K bps         Standard, 19.2K bps         Standard, 19.2K bps           Max. Nuber of Lines         -         1000 async         Standard, 19.2K bps         Standard, 19.2K bps         Standard, 19.2K bps           Max. Nuber of Lines         -         1000 async         Standard, 19.2K bps         Standard <td></td> <td></td> <td></td> <td></td> <td></td>					
Virtual Memory isideresable bytes!         4GB         <					
Cache Memory, bytes         Sakadard Standard         GAKB Standard         32X-1230K         64KB Standard           Reatting Routing Name Clock         Standard         MOS ECC         MOS ECC         MOS ECC         MOS ECC         Standard, 12 X bps         Nanobus         1.3         1.3         Standard, 12 X bps         Standard, 12 X bps         Standard, 19 X bps         Standard         Standard         Sta					
Battery Backup         Standard         Optional         None         None           Rastime Cock         Standard					
Reating Clock AUN STORAGE         Standard 495         Standard Crycle/Access Time, nanoseconds ECC         Standard 495         Standard Crycle/Access Time, nanoseconds ECC         Most ECC No Strage Protocols 8, 16M8         Standard Crycle/Access Time, nanoseconds 8, 16M8         Standard B         Standard B <thstandard B         Standard B</thstandard 			-		
MAIN STORAGE					
Cycle/Access Time, nanoseconds         495         —         MOS ECC         Bit Mode         Monobus         1         Dist Standard         Standard         Standard         Standard         Mos ECC         MOS ECC         Standard		Standard	Standard	Standard	Siandard
Storage Protection Increment Size, bytes NPUT/QUTPUT CONTROL Type of Bus         ECC (MSE)         Standard, solidistate RAM (MB)         MOS ECC (MSE)         Mosous (MSE)         Manobus (MSE)         Manobus (MSE)         Manobus (MSE)         Manobus (MSE)         MOS ECC (MSE)         MASS (MSE)           Max Muther of Lines (MS 270 Fundament (MS 270 Fundament)         Standard         MSE			1		
Increment Size, bytes     4MB     10MB     8, 16MB     8, 16MB     8, 16MB       Type of Bus     VAXBI, Unibus     VMEbus, Subbis (prop.)     Nanobus     1-3       Aggregate Bandwicht, bytes/sec.     425, 6MB/sec     64MB/sec     100       OMMUNCATIONS     -     100     1-3     1-9       Max. human of Lines     -     -     1000     1-3     1-9       Aggregate Bandwicht, bytes/sec.     5andard.     12X bps     Standard.     142, 64M bps     7000 hps       Agwordpronous     Standard     12X bps     Standard.     192, bps     2780/3780, HASP     2780/3780, HASP     2780/3780, HASP       RET Terminals Supported     EEE 802.3, DECnet     2780/3780, HASP     2780/3780, HASP     2780/3780, HASP     2780/3780, HASP       Remoto: 205MB     Farent: 205MB     Farent: 205MB     Farent: 474MB-690MB     Up to 63 devices. 170MB, 5NA     576.4515MB       Carridgo Tape Drives     752.5 inpl(500/6250 tpi     -     -     -     -     -       Deal-torient Tape Drives     2200, 120 bpi     -     -     -     -     -       Sort MARE     Protocol Supported     Base, Pascal, Fortran, C     -     -     -     -     -       David Protocol Drives     2750, ps. 1600/6250 bpi     -     -			]		-
Ne UT (20 FURC). Type of Bus No. of I/O Channels No. of I/O Channels Agregate Bandwith, bytes/sec COMMUNCATIONS Max. Number of Lines Synchronous Synchro					
Type of Bus No. of I/O Chamels Aggregate Bandwidth, bytes/sec.VAXBI, Unibus 48 425.6MB/secVMEbus, Subbus (prop.) 1-3Nanobus 1-3 <td></td> <td>4MB</td> <td>16MB</td> <td>8, 16MB</td> <td> 8, 16MB</td>		4MB	16MB	8, 16MB	8, 16MB
No. of JO Channels     48     Up to 4     1-9     60 MB/sec     100 MB/sec       Aggregate Bandwidth, bytes/sec.     Standard, 19.2k bps     Standard, 19.2k bps     51 MB/sec     100 async     Unlimited via ethernet     Optional, 9600 bps       Synchronous     Standard, 19.2k bps     Standard, 19.2k bps     Standard, 19.2k bps     38.4 kbps x 16/server     X.25, R5C, TCP/IP	INPUT/OUTPUT CONTROL			1	
No. of JO Channels     48     Up to 4     1-9     60 MB/sec     100 MB/sec       Aggregate Bandwidth, bytes/sec.     Standard, 19.2k bps     Standard, 19.2k bps     51 MB/sec     100 async     Unlimited via ethernet     Optional, 9600 bps       Synchronous     Standard, 19.2k bps     Standard, 19.2k bps     Standard, 19.2k bps     38.4 kbps x 16/server     X.25, R5C, TCP/IP	Type of Bus	VAXBI, Unibus	VMEbus, Subbus (prop.)	Nanobus	Nanobus
Aggregise Bandwidth, bytver/sec.     425.6MB/sec     94MB/sec     60 MB/sec     100MB/sec       Max. Number of Lines     —     1000 async     Unlinited via ethernet     Unlinited via ethernet       Max. Number of Lines     —     1000 async     Unlinited via ethernet     Unlinited via ethernet       Synchronous     Standard, 19.2K bps     Standard, 64K bps     38.4K bps x 16/server     X.25, TCP/IP       LAN Supported     EEE 802.3     ECE     80.2.7, DCP/IP, DDCMP     EEE 802.3     EEE 802.3     EEE 802.3       LAN Supported     IEEE 802.3, DCPMP     IEEE 802.3     2780/3780     HASP     2780/3780, HASP     2780/3780, HASP       Sinka Supported     Fixed: 456MB     Renv: 300MB     Renv: 300MB     IEE 50MM esn.     75 ps, 125 ips, 1600/6250 pi       Sortridge Tape Drives     S/S — 25/75/100 ips     —     125 ips, 1600/6250 pi     1600/6250 tri-density       Sortridge Tape Drives     30 cps     Variety     Ind. Standard     Ind. Standard       Non-Impact Printers     30 cps     Variety     Ind. Standard     Ind. Standard       SortrWARE     Proprietal Supported     EMS     Standard     Ind. Standard       SortrWARE     Copiol PRGI, PKI, PKI, PKI, Cooi, PRGI, PKI, PKI, PKI, Cooi, PRGI, PKI, PKI, PKI, Cooi, PKGI, PKI, PKI, PKI, Cooi, PKI, PKI,		1		1	
COMMUNICATIONS     Analysis     Analysis <td< td=""><td></td><td>1</td><td></td><td></td><td></td></td<>		1			
Max, Number of Lines      1000 async     Unlimited via ethernet     Unlimited via ethernet       Synchronous     Standard     19.2K bps     Standard, 64K ups     38.4K bps x 16/server       Asynchronous     Standard     Standard, 19.2K bps     38.4K bps x 16/server     38.4K bps x 16/server       Asynchronous     Standard, 19.2K bps     Standard, 19.2K bps     38.4K bps x 16/server     38.4K bps x 16/server       LAN Supported     IEEE 802.3     DECT     Z780/3780.     HASP     2780/3780.     HASP       BM 3270 Emulation     SNA     Standard, 19.2K bps     Z780/3780.     HASP     Z780/3780.     HASP       Disks Supported     Fixed: 456MB     Fixed: 474MB-690MB     Brow: 300MB     75 /ps, 125 ips, f6250 bpi     Fixed: 515MB       Streaming Tape Drives     125 ips, 1600/6250 bri     1600/6250 tri-density     To         Cartidge Tape Drives     125 ips, 1600/6250 bri     100/6250 tri-density     Ind. Standard     Ind. Standard     Ind. Standard       Latter Cluality Printers     230 c ps     Variety     Ind. Standard     Ind. Standard     Ind. Standard       Other Peripherals Supported     Batch, multiuser     Yariety     Ind. Standard     Ind. Standard     Ind. Standard       Other Application Available     OA, third party     Yariety     Ind. Sta			1		
Synchronous Asynchronous     Standard, 19.2k bps     Standard, 19.2k bps     Standard, 19.2k bps     Optional, 9600 bps       Asynchronous Protocols Supported     Standard, 19.2k bps     Standard, 19.2k b		I	1000 async	Unlimited via ethernet	Unlimited via Ethernet
Asynchronous     Standard     Ind. Standard		Standard 19 2K bos			
Protocols Supported     SDLC, HULC, X.25, BSC, LAN Supported     X.25, BSC, TCP/IP     X.25, TCP/IP     X.25, TCP/IP     X.25, TCP/IP     X.25, TCP/IP       LAN Supported     REE emoils Supported     IEEE 802.3, DEChett     Z780/3780, HASP     Z780/3780, HASP       REM Terminals Supported     Fixed: 456MB     Fixed:					
LUS 2, TCP/jP, DOCMPFER 002.3FEE 802.3FEE 80.3FEE 80.3FEE 8					
LAN Supported LET Erminals SupportedIEEE 802.3 1800/3780 (ASP 1800/3780, HASPIEEE 802.3 2780/3780, HASP 1800/3780, HASP 1800/378	Frotocois Supported		A.20, BOU, IUF/IF, IIY	17.20, ICF/IF	A.20, TOP/IP
RUE Terminals Supported       2780/3780, HASP       2780/3780, HASP       2780/3780, HASP       2780/3780, HASP         RUM 3270 Emulation       SNA, BSC       None       SNA       SNA         Disks Supported       Fixed: 456MB : Remov: 205MB       Fixed: 474MB-690MB       Up to 63 devices, 170MB, Fixed: 515MB       Fixed: 515MB         Streaming Tape Drives       S/S - 25/75/100 ips       -       -       -       -         Enel-to-cell Tap Drives       15 ips, 1500/6250 bpl       Fixed: 515MB       -       -       -         Serial Printers       240 cps       -       -       -       -       -       -         Soft Printers       30 cp 3       Variety       Ind. Standard       Ind. Sta	LAN Comparis d		UFFF 002 2	UFFE 802 2	IEEE 002 2
IBM 3270 Emulation PRIPHERAL EQUIPMENT Disks Supported     SNA     SNA     SNA       Disks Supported     Fixed: 456MB     Fixed: 474MB-690MB     Up to 63 devices, 170MB, Fixed: 515MB     Fixed: 515MB       Streaming Tape Drives     S/S - 25/75/100 ips           Carridge Tape Drives     S/S - 25/75/100 ips           Disk Supported     Sig - 25/75/100 ips           Real-creat Tape Drives     125 ips, 1600/6250 tpi     1600/6250 tri-density     Ind. Standard     Ind. Standard     Ind. Standard       Latter Quality Printers     30 cps     Variety     Ind. Standard     Ind. Standard     Ind. Standard       Other Peripherals Supported     Potters, voice synth- esis module           SOFTWARE     Yes, Sys V, 4.2 BSD     VAX/VMS     EMS     UMAX     UMAX       Operating System Type     Unitrk:32     VAX/VMS     Basic, Pascal, Fortran, Basic, Pascal, Fortran, C     Cobol, ADA, Lisp, C     Cobol, ADA, Lisp, C       Compilers     Cobol, ADA, Lisp, C     Cobol, ADA, Lisp, C     Cobol, ADA, Lisp, C     Cobol, ADA, Lisp, C       Other Application Available     OA, third party      Basic, Pascal, Fortran, C     Cobol, ADA, Lisp, C       Other Application Available </td <td></td> <td></td> <td></td> <td>1</td> <td></td>				1	
Disks Supported     Fixed: 456MB     Fixed: 451MB     Fixed: 451MB <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Disks Supported Streaming Tape Drives Carridge Tape Drives End Carridge Tape Drives Carridge Tape Drives End Printers Lane Printers Carridge Tape Drives End Printers Later Quality Printers Onlampert Printers Operating System Name Operating System Complex Carobia Ref Stream Carobia Stream Name Operating System Complex Database Management System Complex Other Application AvailableFixed: 456MB Stream Name Complex Stream Name DAL StandardFixed: 474MB-690MB Bemov: 300MB Bemov: 300MB Bemov: 300MB Bemov: 300MB Bemov: 300MB Bemov: 300MB Bemov: 300MB Distribution PrintersFixed: 456MB Stream Name Distribution VAX/VMS Batch, multiuser VAX/DBMS, VAX/Rdb/VMS Informix, Cracle - rel, Macro Basic, Pascal, Fortran, C C cobol, ADA, Lisp, Carol 66, Gen bus, Eng/sci.Fixed: 474MB-690MB Bemov: 300MB Bemov: 300MB 		SNA, BSC	None	SNA	SNA
Non- medi-to-real Tape Drives         Remov: 205MB         Remov: 205MB         Remov: 300MB         550MB or 800MB 6a. 75 ips, 125 ips, 1620 jps, 1600/6250 pi 125 ips, 1600/6250 pi 300-1000 lpm         75/25 ips, 125 ips, 1600/6250 pi 1600/6250 tri-density         75/25 ips, 125 ips, 120 ips, 120 ips, 1200/6250 pi 1600/6250 tri-density         75/25 ips, 125 ips, 1200/6250 pi 1600/6250 tri-density         75/25 ips, 125 ips, 1200/6250 pi 1600/6250 tri-density         75/25 ips, 120 ips, 1200/6250 pi 1600/6250 tri-density         76/25 ips, 1200/6250 pi 1600/6250 tri-density         76/25 ips, 1200/6250 pi 1600/6250 tri-density         76/25 ips, 1200/6250 tri-density         76/25 i	PERIPHERAL EQUIPMENT			1	
Remov: 205MBRemov: 205MBRemov: 300MB550MB or 800MB ea. T 5/25 ips, 125 ips, 1600/6250 bpi T sps, 125 ips,	Disks Supported	Fixed: 456MB	Fixed: 474MB-690MB		Fixed: 515MB
Streaming Tape Drives Cartridge Tape Drives Rel-to-rel Tape Drives       S/S - 25/75/100 ips -        75 ips, 125 ips, 1620/6250 bpi 78/25 ips, 1600/6250 bpi 1600/6250 bpi <t< td=""><td></td><td>Remov.: 205MB</td><td>Remov: 300MB</td><td>550MB or 800MB ea.</td><td></td></t<>		Remov.: 205MB	Remov: 300MB	550MB or 800MB ea.	
Carridge Tage Drives	Streaming Tape Drives		I	75 ips, 125 ips/6250 bpi	75/25 ips, 1600/6250
Reel-Greet Tape Drives       125 (ps, 1600/6250 bpi       1600/6250 tri-density       —       —         Line Printers       600 (pm       300-1000 (pm       Ind. Standard					I
Line Printers Serial Printers Later Quality Printers Later Quality Printers Later Quality Printers Other Peipherals Supported600 jm 240 cps 240 cps Qase V Variety1001000 lpm Ind. StandardInd. Standard Ind. StandardInd. Standard Ind. StandardNon-Impact Printers Other Peipherals Supported240 cps 30 cps VarietyInd. StandardInd. StandardSOFTWARE Proprietary Operating System Name Operating System Type Unix Derivative Database Management System CompilersVAX/VMS VAX/DBMS, VAX/Rdb/VMS Macro Caperating System Type Ultrix-32EMS Batch, multiser Ultrix-32UMAX UMAXUMAX Multitasking & multiser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C, Cobol, ADA, Lisp, Coral 66, Gen bus, Eng/sci.UMAX Basic, Pascal, Fortran, Cobol, ADA, Lisp, C Cobol, ADA, Lis		125 ips, 1600/6250 bpi	1600/6250 tri-density	1	1-
Serial Princes Letter Quality Printers Non-Impact Printers Other Peripherals Supported240 ops 30 ops Variety VarietyInd. Standard Ind.				Ind. Standard	Ind. Standard
Letter Quality Printers Non-Impact Printers Non-Impact Printers30 cps Laser, 8-12 ppm Laser, 8-12 ppm Plotters, voice synth- esis moduleVariety VarietyInd. Standard Ind. StandardInd. Standard Ind. StandardSOFTWARE Proprietary Operating System Name Operating System Type Unix Darivative Database Management System CompilersVAX/VMS Batch, multiuser VAX/RDS, VAX/Rdb/VMS Macro Basic, Pascal, Fortran, C, Cobol, RPGI, PL,1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.EMS Batch, RT, mtask, muser Ves, Sys V, 4 2 BSD Informix, Oracle - rel.UMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel.Principal Application AvailableOA, third partyElectrical CAD, Ingres, InformixUNIX StandardUNIX StandardOther Application AvailableOA, third partyCPU; 8MB main memory; disk drive; tape drive; ine printer; comm lines\$150,000-\$250,000Contact vendorMonthly Maintenance of Typical Configuration Date of First Delivery Number Installed to DateNA\$375N/AN/AMonthly Maintenance of Typical DateNAS375N/AN/A-December 1985 BisNAOver 10065December 1985December 1985					
Non-Impact Printers Other Peripherals SupportedLaser, 8-12 ppm Plotiters, voice synth- esis moduleVariety —Ind. Standard Ind. StandardInd. Standard Ind. StandardSOFTWARE Proprietary Operating System Name Operating System Type Unix Database Management System AssemblerVAX/VMS Batch, multiuser Utrix-32EMS Batch, RT, mtask, muser Yes, Sys V, 4 BSD Informix, Oracle - rel. —UMAX Multitasking & multiuser Yes, Sys V, 4 2 BSD Informix, Oracle - rel. —UMAX Multitasking & multiuser Yes, Sys V, 4 2 BSD Informix, Oracle - rel. —UMAX Multitasking & multiuser Yes, Sys V, 4 2 BSD Informix, Oracle - rel. —Compilers Other Application AvailableOA, third partyPrincipal Application AvailableUNIX Standard UNIX StandardUNIX Standard UNIX StandardPRICING & AVAILABILITY Typical System Configuration and Price Bosic, Oracle Side disk, cntrl, VAX/VMS lic. & warr., hivare warret isk cntrl, VAX/VMS lic. & warr., hivare warret ranty, VAX/VMS lic. & warret, hier printer; comm lines terminal— \$450,000N/A MN/A —Monthly Maintenance of Typical Date of First Delivery Number Instelled to DateNA NA\$375 — 1984N/A — December 1985N/A — — December 1985			Variety		
Other Peripherals Supported     Plotters, voice synthesis module     Ind. Standard     Ind. Standard       SOFTWARE     Proprietary Operating System Name Operating System Type     VAX/VMS     EMS     UMAX       Database Management System     Batch, multiuser     Batch, RT, mtask, muser     VAX/DBMS, VAX/Rdb/VMS     UMAX       Assembler     VAX/DBMS, VAX/Rdb/VMS     EMS     UMAX     Multitasking & multiuser       Compilers     VAX/DBMS, VAX/Rdb/VMS     EMS     UMAX     Multitasking & multiuser       Software     VAX/DBMS, VAX/Rdb/VMS     EMS     UMAX     Multitasking & multiuser       Compilers     Macro     Yes, Sys V, 4 BSD     Informix, Oracle - rel.     —       Basic, Pascal, Fortran, C, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.     Electrical CAD, Ingres, Informix     UNIX Standard     UNIX Standard       Other Application Available     OA, third party     OA, third party     _     _     UNIX Standard     UNIX Standard       PRICING & AVAILABILITY     Typical System Configuration and Price     8 CPUs, 256MB mem, f.p. disk ontri, VAX/VMS lic. & warr, n' ware warranty 8 VAXBI chnis, 2 tape drive; iine printer; comm lines     \$150,000-\$250,000     Contact vendor       Monthly Maintenance of Typical Configuration Date of First Delivery Number Instaled to Date     NA     \$375     N/A     N/A     _     _       Ver 100     First					
SOFTWARE     esis module     esis module     unix berivative     unix berivativ			Vallery		
SOFTWARE       YAX/VMS         Proprietary Operating System Name       VAX/VMS         Operating System Type       Batch, multiuser         Unix Derivative       Utrix-32         Database Management System       VAX/VMS         Basic, Pascal, Fortran,       Basic, Pascal, Fortran,         Compilers       Macro         Principal Application Available       Gen bus, Eng/sci.         Other Application Available       OA, third party         PRICING & AVAILABILITY       S CPUs, 256MB mem, f.p. disk drive; tape drive; ine printer; comm lines terminal— \$450,000         PRICING & AVAILABILITY       8 CPUs, 256MB mem, f.p. disk drive; tape drive; ine printer; comm lines terminal— \$450,000         Monthly Maintenance of Typical Configuration and Price       NA         Monthly Maintenance of Typical Configuration attable       NA         Other Application Available       NA	Other Peripherals Supported		1—	Ind. Standard	Ind. Standard
Proprietary Operating System Name Operating System Type Unix Derivative Database Management SystemVAX/VMS Batch, multiuser VAX/DBMS, VAX/Rdb/VMS Macro Database Management SystemVAX/DBMS, VAX/Rdb/VMS Macro Basic, Pascal, Fortran, C, Cobol, APGII, PL/1, ADA, Lisp, Caral 66, Gen bus, Eng/sci.EMS Batch, RT, mtask, muser Yes, Sys V, 4 BSD Ingres Yes, Sys V, 4 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. — Basic, Pascal, Fortran, C Cobol, ADA, LispUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. — Basic, Pascal, Fortran, C Cobol, ADA, LispUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. — — Dasic, Pascal, Fortran, C Cobol, ADA, LispUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. — — Dasic, Pascal, Fortran, C Cobol, ADA, LispUMAX Multitasking & multiuser Yes, Sys V, 4.2 BSD InformixUNIX Multitasking & multiuser Multitasking & mul		esis module	1	1	
Operating System Type Unix Derivative Database Management System Assembler CompilersBatch, multiuser Ultrix-32Batch, RT, mtask, muser Yes, Sys V, 4 BSD Ingres Yes, Sys V, 4 BSD Yes, Sys V, 4 SSD Informix, Oracle - rel. Basic, Pascal, Fortran, Basic, Pascal, Fortran, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.Batch, RT, mtask, muser Yes, Sys V, 4 BSD Yes, Sys V, 4 SSD Basic, Pascal, Fortran, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.Multitasking & multiuser Yes, Sys V, 4 2 BSD Haron Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CMultitasking & multiuser Yes, Sys V, 4 2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CMultitasking & multiuser Yes, Sys V, 4 2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. InformixMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. InformixMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. InformixMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. UNIX StandardMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. InformixMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. UNIX StandardMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Oracle - rel. UNIX StandardMultitasking & multiuser Yes, Sys V, 4.2 BSD Informix, Or				1	
Unix Derivative Database Management System Assembler CompilersUltrix-32 VAX/DBMS, VAX/Rdb/VMS Macro Basic, Pascal, Fortran, C, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.Yes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Basic, Pascal, Fortran, C Cobol, ADA, LispYes, Sys V, 4.2 BSD Informix, Oracle - rel. Informix, Oracle - rel. UNIX StandardYes, Sys V, 4.2 BSD INIX StandardYes, Sys V, 4.2 BSD INIX Standard					
Database Management System AssemblerVAX/DBMS, VAX/Rdb/VMS Macro CompilersIngres Macro YesInformix, Oracle - rel. - Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CInformix, Oracle - rel. - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - Cobol, ADA, LispInformix, Oracle - rel. - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformixUNIX StandardUNIX StandardUNIX StandardPRICING & AVAILABILITY Typical System Configuration and Price 8 VAXBI chals, 2 tape dr Ethernet interface, warr anty, VAX/VMS & DECnet Iso VAXBI chals, - SGB disk, - 1987N/AN/AN/AN/AMonthly Maintenance of Typical Date of Fi					
Database Management System AssemblerVAX/DBMS, VAX/Rdb/VMS Macro CompilersIngres Macro YesInformix, Oracle - rel. - Basic, Pascal, Fortran, C Cobol, ADA, Lisp, CInformix, Oracle - rel. - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - - - Basic, Pascal, Fortran, C Cobol, ADA, LispInformix, Oracle - rel. - - - - - - - - - - - - - -Informix, Oracle - rel. - - - - - - - - - - - - - - - - -Informix, Oracle - rel. - 	Unix Derivative	Ultrix-32	Yes, Sys V, 4 BSD		
Assembler Compilers     Macro Basic, Pascal, Fortran, C, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.     Yes Basic, Pascal, Fortran, C, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.     ————————————————————————————————————		VAX/DBMS, VAX/Rdb/VMS	Ingres	Informix, Oracle - rel.	Informix, Oracle - rel.
CompilersBasic, Pascal, Fortran, C, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.Basic, Pascal, Fortran, C, Cobol, ADA, Lisp, CBasic, Pascal, Fortran, Cobol, ADA, Lisp, CBasic, Pascal, Fortran, Cobol, ADA, Lisp, CBasic, Pascal, Fortran, Cobol, ADA, LispBasic, Pascal, Fortran, Cobol, ADA, LispCobol, ADA, LispOther Applications AvailableOA, third partyOA, third partyCPU; 8MB main memory; disk crtrl, VAX/VMS lic. & warr., h'ware warranty a tware, warranty, VAX/VMS & DEchet lic, VAXcluster cnctions 5GB disk, — \$5,240,000CPU; 8MB main memory; disk drive; tape drive; line printer; comm lines terminal— \$450,000\$150,000-\$250,000Contact vendorMonthly Maintenance of Typical Date of First Delivery 					1—
Principal Application AvailableC, Cobol, RPGII, PL/1, ADA, Lisp, Coral 66, Gen bus, Eng/sci.Cobol, ADA, Lisp, CCobol, ADA, LispCobol, ADA, LispUNIX StandardUNIX Standard <th< td=""><td></td><td></td><td></td><td>Basic, Pascal.Fortran. C</td><td>Basic, Pascal, Fortran, C</td></th<>				Basic, Pascal.Fortran. C	Basic, Pascal, Fortran, C
Principal Application AvailableADA, Lisp, Coral 66, Gen bus, Eng/sci. OA, third partyElectrical CAD, Ingres, InformixUNIX StandardUNIX StandardPRICING & AVAILABILITY Typical System Configuration and Price8 CPUs, 256MB mem, f.p. disk cntrl, VAX/VMS lic. & warr., h'ware warranty 8 VAXBI chnis, 2 tape dr Ethernet interface, warr anty, VAX/VMS & DECnet lic, VAXcluster cnctions 5GB disk, — \$5,240,000CPU; 8MB main memory; disk drive; tape drive; line printer; comm lines terminal— \$450,000\$150,000-\$250,000Contact vendorMonthly Maintenance of Typical Date of First Delivery Number Installed to DateNA\$375 1984 Over 100N/A Ecember 1985 65N/A December 1985 65N/A	· · · · · · · · · · · · · · · · · · ·				
Principal Application AvailableGen bus, Eng/sci. OA, third partyElectrical CAD, Ingres, InformixUNIX StandardUNIX StandardOther Applications AvailableOA, third partyInformixUNIX StandardUNIX StandardUNIX StandardPRICING & AVAILABILITY Typical System Configuration and Price8 CPUs, 256MB mem, f.p. disk cntrl, VAX/VMS lic. & warr., h'ware warranty 8 VAXBI chnls, 2 tape drive; lic printer; comm lines terminal— \$450,000\$150,000-\$250,000Contact vendorMonthly Maintenance of Typical Configuration Date of First Delivery Number Installed to DateNA\$375 1984 Over 100N/AN/A December 1985 65N/A					,,
Other Applications AvailableOA, third partyInformix UNIX StandardUNIX StandardPRICING & AVAILABILITY Typical System Configuration and Price8 CPUs, 256MB mem, f.p. disk cntrl, VAX/VMS lic. & warr., h'ware warranty 8 VAXBI chnls, 2 tape dr Ethernet interface, warr anty, VAX/VMS & DECnett lic, VAXcluster cnctions 5GB disk, — \$5,240,000CPU; 8MB main memory; disk drive; tape drive; line printer; comm lines terminal— \$450,000\$150,000-\$250,000Contact vendorMonthly Maintenance of Typical Date of First Delivery Number Installed to DateNA\$375 1984 Over 100N/A  1984 Over 100N/A  December 1985 65N/A	Principal Application Available		Electrical CAD Ingres	UNIX Standard	LINIX Standard
Other Applications AvailableOA, third party—UNIX StandardUNIX StandardPRICING & AVAILABILITY Typical System Configuration and Price8 CPUs, 256MB mem, f.p. disk cntrl, VAX/VMS lic. & warr., h'ware warraty 8 VAXBI chnis, 2 tape drive; lie printer; comm lines terminal— \$450,000\$150,000-\$250,000Contact vendorMonthly Maintenance of Typical Configuration Date of First Delivery Number Installed to DateNA\$375 1987N/AN/AMonthly Maintenance of Typical NANA\$375 1984 0ver 100NAN/ADecember 1985 65December 1985 65	сплыраг Аррисацон Ауапаріе	Gen bus, Eng/sci.			
PRICING & AVAILABILITY Typical System Configuration and Price     8 CPUs, 256MB mem, f.p. disk cntrl, VAX/VMS lic. & warr., h'ware warranty 8 VAXBI chnls, 2 tape dr Ethernet interface, warr anty, VAX/VMS & DECnet lic, VAX/UMS & DECNET JB84 Over 100     N/A     N/A	Other Applications Available	OA, third party		UNIX Standard	UNIX Standard
Typical System Configuration and Price8 CPUs, 256MB mem, f.p. disk cntrl, VAX/VMS lic. & warr., h'ware warranty 8 VAXBI chnls, 2 tape dr Ethernet interface, warr anty, VAX/VMS & DECnet lic, VAXcluster cnctions 5GB disk, — \$5,240,000CPU; 8MB main memory; disk drive; tape drive; line printer; comm lines terminal— \$450,000\$150,000-\$250,000Contact vendorMonthly Maintenance of Typical Configuration Date of First Delivery Number Installed to DateNA\$375 H 1987N/AN/A H December 1985 65N/AN/A	•• • • • • • •	. p			
disk crtrl, VAX/VMS lic.       disk crtrl, VAX/VMS lic.         & warr., h'ware warranty       8 VAXBI chnls, 2 tape dr         Ethernet interface, warr       anty, VAX/VMS & DECnet         lic, VAX/UMS & DECnet       lice printer; comm lines         terminal—       \$450,000         Monthly Maintenance of Typical       NA         Configuration       -         Date of First Delivery       1987         Number Installed to Date       NA					
& warr., h'ware warranty 8 VAXBI chnis, 2 tape dr Ethernet interface, warr anty, VAX/VMS & DECnet lic, VAX/UMS & DEC	Typical System Configuration and Price			\$150,000-\$250,000	Contact vendor
8 VAXBI chnls, 2 tape dr Ethernet interface, warr anty, VAX/VMS & DECnet lic, VAXcluster cnctions SGB disk, — \$5,240,000       terminal— \$450,000       Image: Constraint of the second					
Ethernet interface, warr anty, VAX/VMS & DECnet lic, VAXcluster cnctions 5GB disk, — \$5,240,000N/AN/AMonthly Maintenance of Typical ConfigurationNA\$375N/AN/ADate of First Delivery Number Installed to Date19871984December 1985December 1985Over 100656565					
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lic, VAXcluster cnctions 5GB disk, — \$5,240,000N/AN/AMonthly Maintenance of Typical ConfigurationNA\$375N/AN/ADate of First Delivery Number Installed to Date19871984December 1985December 1985Over 10065656565		Ethernet interface, warr	1		
lic, VAXcluster cnctions 5GB disk, \$5,240,000N/AN/AMonthly Maintenance of Typical ConfigurationNA\$375N/AN/ADate of First Delivery Number Installed to Date19871984December 1985December 1985Over 10065656565		anty, VAX/VMS & DECnet			1
5GB disk, — \$5,240,000N/AN/AMonthly Maintenance of Typical ConfigurationNA\$375N/ADate of First Delivery Number Installed to Date19871984December 1985Over 100656565			1	1	1
Configuration————Date of First Delivery19871984December 1985December 1985Number Installed to DateNAOver 1006565		IIC, VAACIUSIEI CIICIIOIIS	1		
Date of First Delivery19871984December 1985December 1985Number Installed to DateNAOver 1006565					N/A
Date of First Delivery19871984December 1985December 1985Number Installed to DateNAOver 1006565	Monthly Maintenance of Typical	5GB disk, — \$5,240,000	\$375	N/A	1.0,7.5
Number Installed to Date NA Over 100 65 65		5GB disk, — \$5,240,000	\$375 —	N/A 	
	Configuration	5GB disk, — \$5,240,000 NA —		<u> -</u>	-
	Configuration Date of First Delivery	5GB disk, — \$5,240,000 NA — 1987	 1984	December 1985	 December 1985
	Configuration Date of First Delivery Number Installed to Date	5GB disk, — \$5,240,000 NA — 1987	 1984 Over 100	December 1985	 December 1985
	Configuration Date of First Delivery Number Installed to Date	5GB disk, — \$5,240,000 NA — 1987	 1984 Over 100	December 1985	 December 1985
	Configuration Date of First Delivery Number Installed to Date	5GB disk, — \$5,240,000 NA — 1987	 1984 Over 100	December 1985	 December 1985

MANUFACTURER & MODEL	Flexible Computer Corp. Flex/32 Series 600	Flexible Computer Corp. Flex/32 Series 1200	Flexible Computer Corp. Flex/32 Series 2000	Flexible Computer Corp. Flex/32 Series 3000
	22 hite	22 hita	22 hita	22 hite
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	80MB-20GB	80MB-20GBB	80MB-20GB	80MB-20GBB
MEMORY RANGE	2MB-24MB	2MB-56MB	4MB-64MB	6MB-136MB
NO. WORKSTATIONS SUPPORTED	80	160	200	400
PRICE RANGE, \$	68,000-150,000	68,000-250,000	150,000-450,000	200,000-900,000
TARGET MARKET(S)	RT, Eng/Sci, AL, Aero- space, simulation	RT, Eng/Sci, AI, Aero- space, simulation	RT, Eng/Sci, Al, Aero- space, simulation	RT, Eng/Sci, Al, Aero- space, simulation
CENTRAL PROCESSOR				space, similation
CPU Manufacturer and Model	Flexible Corp, Ser. 600	Flexible Corp, Ser.1200	Flexible Corp., Ser.2000	Flexible Corp., Ser.3000
CPU Cycle Time, nanoseconds	75	50	50	50
MIPS	10 (2.5 per CPU)	20 (2.5 per CPU)	25 (2.5 per CPU)	50 (2.5 per CPU)
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	4GB	4GB	4GB	4GB
Cache Memory, bytes	N/A	N/A	N/A	N/A
Battery Backup	Optional	Optional	Optional	Optional
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	75	75	75	75
	-			
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes INPUT/OUTPUT CONTROL	1M, 2M, 4M, 8M	1M, 2M, 4M, 8M	1M, 2M, 4M, 8M	1M, 2M, 4M, 8M
Type of Bus	1	1	I	l
	4	8	10	20
No. of I/O Channels	4	0	10	
Aggregate Bandwidth, bytes/sec.	1-	1-		l —
COMMUNICATIONS	1	l	1	1
Max. Number of Lines	80	160	200	300
Synchronous	Optional, 300K bps	Optional, 300K bps	Optional, 300K bps	Optional, 300K bps
Asynchronous	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
Protocols Supported	SDLC, TCP/IP	SDLC, TCP/IP	SDLC, TCP/IP	SDLC, TCP/IP
		E.t. amout	Ethomat	F.L.
LAN Supported	Ethernet	Ethernet	Ethernet	Ethernet
RJE Terminals Supported	Optional	Optional	Opt.	Optional
IBM 3270 Emulation	Optional	Optional	Optional	Optional
PERIPHERAL EQUIPMENT				
Disks Supported	Win.: 80MB, 337MB, 474MB	Win.: 80MB, 337MB, 474MB	Win.: 80MB, 337MB, 474MB	Win,: 80MB, 337MB, 474MB
Streaming Tape Drives	Optional	Optional	Optional	Optional
Cartridge Tape Drives	67MB	67MB	67MB	67MB
Reel-to-reel Tape Drives	800-6250 bpi, 45-75 ips	800-6250 bpi, 45-75 ips	800-6250 bpi, 45-75 ips	800-6250 bpi, 45-75 ips
Line Printers	300, 600 lpm	300, 600 lpm	300, 600 lpm	300, 600 lpm
Serial Printers	· ·			
	600 lpm	600 ipm	600 lpm	600 lpm
Letter Quality Printers	N/A	N/A	N/A	N/A
Non-Impact Printers	1	1—		—
Other Peripherals Supported	Laser printers, voice	Graphics displays, opt.	Graphics displays, opt.	Graphics displays, opt.
	synthesis, graphics dev.	disk storage	disk storage	disk storage
SOFTWARE		-	_	
Proprietary Operating System Name	UNIX Sys V: MMOS	UNIX Sys V: MMOS	UNIX Sys V: MMOS	UNIX Sys V: MMOS
Operating System Type	Multitasking; RT	Multitasking; RT.	Multitasking; RT	Multitasking; RT
Unix Derivative	Multitasking, htt	Wulltasking, MT.		Yes
		Ontinent	Yes	
Database Management System	Opt.	Optional	Opt.	Optional, Unify
Assembler	Yes	Yes	Yes	Yes
Compilers	Ada, C, Fortran 77,	Ada, C, Fortran 77,	Ada, C, Fortran 77,	Ada, C, Fortran 77,
	Concurrent Fortran,	Fortran, Pascal	Fortran, Pascal	Fortran, Pascal
	Pascal	l	1	1
Principal Application Available	Concurrent software	Concurrent software	Concurrent software	Concurrent software
	development tools	development tools	development tools	development tools
Other Applications Available	Expert systems, SPAR	Expert systems, SPAR	Expert systems, SPAR	Expert systems, SPAR
other Applications Available	LAPER Systems, SPAN	APOL SYSLOUS, SPAR	LAPOL SYSTEMS, SPAN	LAPEL SYSLEMS, SFAM
PRICING & AVAILABILITY				
Typical System Configuration and Price	2 CPUs: 2MB main mem;	4 CPUs: 4.5MB main mem;	6 CPUs: 6.5MB main mem;	10CPUs: 11MB main mem;
	80MB disk; 67MB cartr;	180MB disk; dual flop.	180MB disk, dual flop.	360MB disk; 50 ips tape;
	8 user connections—	8 user connections-	8 user connections-	8 user connections
	\$75,000	\$120,000	\$170,000	\$200,000
Monthly Maintenance of Typical	\$750	\$1,020	\$1,445	\$2,253
Configuration	<u> </u>			I—
Date of First Delivery	November 1985	November 1985	January 1985	January 1985
Number Installed to Date	3	3	30 CPUs; 5 systems	7CPUs; 5 system Parall-
COMMENTS	-	-	Parallel proc. sys; all	
	Parallel proc. sys; can	Parallel proc. sys; can		el proc. sys; all Flex/
	be rack-mounted in em-	be rack-mounted in em-	Flex/32s use multiple	32 use multiple bus
		handalah an strate.	hun anala 0 - Land 1	
	bedded applications or desk-high cabinetry	bedded applications or desk-high cabinetry	bus arch & shared/local memory scheme	arch & shared/local mem

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WORD LENGTH DISK STORAGE CAPACITY MEMORY RANGE NO. WORKSTATIONS SUPPORTED PRICE RANGE, \$ FARGET MARKET(S)	32 bits 80MB-20GBB			
DISK STORAGE CAPACITY MEMORY RANGE NO. WORKSTATIONS SUPPORTED PRICE RANGE, <b>\$</b>		32 bits	32 bits	32 bits
MEMORY RANGE NO. WORKSTATIONS SUPPORTED PRICE RANGE, \$		80MB-50GB	80MB-50GB	80MB-50GB
NO. WORKSTATIONS SUPPORTED PRICE RANGE, \$	30MB-200MB	2MB-16MB	4MB-16MB	2MB-16MB
PRICE RANGE, \$			256	
	800	128		128
FARGET MARKET(S)	900,000-1,800,000	40,000-200,000	200,000-500,000	40,000-200,000
	RT, Eng/Sci, AI, Aero- space, simulation	Scient,Enrg,Aerospace & Def,Simula,Pro Cont	Scient,Enrg,Aerospace & Def,Simula,Pro Cont	Scient, Enrg, Aerospace & Def, Simula, Pro Cont
CENTRAL PROCESSOR				
CPU Manufacturer and Model	Flexible Series 6000	Gould	Gould	Gould
CPU Cycle Time, nanoseconds	50	150	75	150
MIPS	100 (2.5 per CPU)	Megawhets	Megawhets	Megawhets
Hardware Floating Point	SP, DP	Single & double precs	Single & double precs	Single & double precs
Virtual Memory (addressable bytes)	4GB	16MB	16MB	16MB
	N/A	32KB	32KB-64KB	32KB
Cache Memory, bytes				
Battery Backup	Optional	Optional	Optional	Optional
Realtime Clock	Standard	Standard		Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	75	300	300	300
Storage Protection	Standard	Optional	Optional	Optional
Increment Size, bytes	1M, 2M, 4M, 8M	1, 2, 4MB	1, 2, 4MB	1, 2, 4MB
NPUT/OUTPUT CONTROL				
Type of Bus		Proprietary & SelBUS	Proprietary & SelBUS	Proprietary & SelBUS
	10			
No. of I/O Channels	40	16	16	16
Aggregate Bandwidth, bytes/sec.		26.6MB/sec	26.6MB/sec	26.6MB/sec
COMMUNICATIONS		1		]
Max. Number of Lines	600	256	256	256
Synchronous	Optional, 300K bps	Optional, 9,600-56,000	Optional, 9,600-56,000	I
Asynchronous	Standard, 19.2K bps	Optional, 50-38, 400	Optional, 50-38, 400	Optional, 50-38, 400
Protocols Supported	SDLC, TCP/IP	HDLC,X.25,MAP,DDN,Hyper	HDLC, X.25, MAP, DDN, BSC,	HDLC,X.25,MAP,DDN,Hyper
		channel, Pronet-80	Hyperchannel, Pronet-80	channel, Pronet-80
LAN Comparised	Ethornot			
LAN Supported	Ethernet	IEEE 802.3	IEEE 802.3	IEEE 802.3
RJE Terminals Supported	Opt.	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	Optional	SNA, BSC	SNA, BSC	SNA, BSC
PERIPHERAL EQUIPMENT		1		
Disks Supported	Win.: 80MB, 337MB, 474MB		Fixed: 337MB to 858MB Removable: 80MB or 300MB	Fixed: 337MB to 858MB Removable: 80MB or 300MB
Streaming Tape Drives	Optional	100 ips, 1600/6250 bpi	100 ips, 1600/6250 bpi	100 ips, 1600/6250 bpi
Cartridge Tape Drives	67MB cartridge	N/A	N/A	N/A
Reel-to-reel Tape Drives	800-6250 bpi, 45-75 ips		800/1600/6250 bpi, 125 ips	
Line Printers		300 to 1000 lbm	300 to 1000 lbm	300 to 1000 lbm
	300, 600 lpm			
Serial Printers	600 lpm	To 380 cps	To 380 cps	To 380 cps
Letter Quality Printers	N/A	l.		I
Non-Impact Printers		Laser	Laser	Laser
Other Peripherals Supported	Graphics displays,	1		
	disk storage	1		
SOFTWARE		1		
Proprietary Operating System Name	UNIX Sys V: MMOS	MPX-32	MPX-32	
Operating System Type	Multitasking; RT.	Batch.real.multitas&user	Batch,real,multitas&user	
Unix Derivative	Yes	No	No	Yes, UTX/32
Database Management System	Optional, Unify	RelBse/32,CodaBs/32	RelBse/32,CodaBs/32	Unify, Ingres, EMPRESS/32
			Macro	Macro
Assembler	Yes	Macro		
Compilers	Ada, C, Fortran 77,	Pascal,C,Fortran,Cobol,	Pascal,C,Fortran,Cobol,	Basic,Pascal,C,Fortran,
	Fortran, Pascal	ADA	ADA	Cobol, ADA, Lisp
Principal Application Available	Concurrent software	Third party/OEM	Third party/OEM	
	development tools	ł		
Other Applications Available	Expert systems, SPAR	Third party/OEM	Third party/OEM	
PRICING & AVAILABILITY		1		
Typical System Configuration and Price	30 CPUs; 35MB main mem—	Not applicable due to	Contact vendor	Not applicable due to
	\$875,00	extremely flexible con-		extremely flexible con-
		figuration capability		figuration capability
Monthly Maintenance of Typical	\$7,438	N/A	Contact vendor	Contact vendor
Configuration				
Date of First Delivery	January 1985	June 1983	March 1984	November 1984
	January 1985			
Number Installed to Date		650	490	340
COMMENTS	Parallei proc. sys; ail	1		1
	Flex/32s use multiple	1		
	bus arch & shared/local			
	memory scheme			1

SelCONNECTION	Gould Inc. Gould PowerNode 90XX	Harris Corporation H-800	Harris Corporatio H900
32 bits	32 bits	48 bits	48 bits
80MB-50GB	80MB-50GB	80MB-22.7GB	80MB-22.7GB
2MB-14MB	4MB-16MB	768KB-12MB	1.5MB-12MB
1280	256	128	192
60,000	200,000-500,000	139,000-170,000	240,000-260,000
Scient,Enrg,Aerospace & Def,Simula,Pro Cont	Aerosp & Def,Simulation proc.cntrl.energy mgmt	Scientific,Engineering	Scientific, Engineering
Gould	Gould	Harris Coro H900	Harris Corp, H900
			75
			4.8
	Inegawhets		
			Singl,trip,doubl,precs
			192MB
32KB	32KB-64KB	6KB	6KB
Optional	Optional	None	Optional
	Standard	Ontional	Optional
o tandara		optional	opiloidi .
	200	005	0.05
			335
			Standard
1, 2, 4, 8MB	1, 2, 4MB	1.5MB	1.5M
	J		1
I	Proprietary & SelBUS	Proprietary	Proprietary
16-128			18
ZUDIVID/Sec	20.01VID/58C	13.UNID/SEC	19.0MB/sec
256-2048	256	224	96
Optional, 9,600-56,000	I—	19.2K bps; optional, 56K	19.2K bps; opt. 56K bp
	50-38, 400		19.2K bps; opt. 56K bp
			HDLC,X.25,BSC,TCP/IP
		Paker and	<b>F</b> .1
			Ethernet
2780/3780, HASP	2780/3780, HASP	2780/3780,HASP,U1004	2780/3780,HASP,U100
SNA, BSC	SNA, BSC	Yes	BSC
1	1		1
Fixed: 337MR to 959MR	Fixed: 337MB to 859MB	Fixed & rem · SOMAR +A	Fixed: 80MB to 690MB
			Removable: 80MB to 30
			1600 bpi, 25/100 ips
			6400 bpi, 30 or 70 ips
800/1600/6250 bpi, 125 ips	800/1600/6250 bpi, 125 ips	800-6250bpi, 45-125ips	800-6250bpi,45-125ips
300 to 1000 lbm	300 to 1000 lbm	300,600,900,1200 lpm	300,600,900,1200 lpm
To 380 cos	To 380 cps	200, 240 cps	200, 240 cps
			55 cps, 80 cps
Lanor	Lagor		Laser
Laser	Lasei		
		Card readers	Graphics term, plotters
MPX-32	l —-	VOS	VOS,RT-VOS,UNIX
Batch,real,multitas&user	Multitasking & user	Batch, RT, multitask&use	Batch,real,multitask&use
			Yes, Vue (Vos Unix)
1	I		Oracle, Info, Total
	Macro		Macro
Bassal C Fastran Cabal			
			Basic,Pascal,C,Fortran,
ADA	Cobol,ADA,Lisp	Cobol, RPGII, Ada,C	Cobol, RPGII, ADA
Third next (OFM		Engineering - designed	Engineering 0.0 to the
			Engineering & Scientific
Third party/OEM	<b> </b>		Numerous
Not applicable due to	Not applicable due to	Contact vendor	Contact vendor
extremely flexible con-	extremely flexible con-		1
	Def, Simula, Pro Cont Gould 150 Megawhets Single & double precs 16MB 32KB Optional Standard 	Def, Simula, Pro Contproc.cntrl,energy mgmtGouldGould15075MegawhetsMegawhetsSingle & double precs-16MB32KB32KB-64KBOptionalOptionalStandard300OptionalOptional16.12816266MB/sec26.6MB/sec256-2048Optional, 50-38, 400HDLC,X.25,MAP,DDN,HyperProprietary & SelBUS16-12816266MB/sec256256-204850-38, 400Optional, 50-38, 400HDLC,X.25,MAP,BSC,TCP/Pronet-80,BSC,SNA,TTYIEEE 802.32780/3780, HASP2780/3780, HASPSNA, BSCSNA, BSCFixed: 337MB to 858MBRemovable: 80MB or 300MBR00/1600/6250 bpi, 125 ips300 to 1000 lbmTo 380 cpsLaserMPX-32-Batch,real,multitas&userMacroPascal,C,Fortran,Cobol,ADAThird party/OEM	Def, Simula, Pro Contproc.cntrl,energy mgmtGouldGouldHarris Corp, H90015075180Megawhets1.8Single & double precs—16MB16MB32KB32KB-64KBOptionalOptionalStandardStandardOptionalOptional1, 2, 4, 8MB1, 2, 4MB16.12816256-2048256Optional, 9,600-56,00050-38, 400Optional, 9,600-56,00050-38, 400Optional, 50-38, 40019.2K bps; optional, 56KHDLC,X.25,MAP,DDN,HyperIEEE 802.32780/3780, HASP2780/3780, HASPZ780/3780, HASPSNA, BSCFixed: 337MB to 858MBFixed: 337MB to 858MBRemovable: 80MB or 300MBFixed: 337MB to 858MBRemovable: 80MB or 300MB500 to 1000 lbmTo 380 cps———MIPX-32—MIPX-

#### All About Supermini Systems

MANUFACTURER & MODEL	Harris Corporation H-1000	Harris Corporation H-1100	Harris Corporation H-1200	Harris Corporation H1500
VORD LENGTH	48 bits	48-96 bits	48 bits	48-96 bits
	80MB-22.7GB	80MB-22.7 GB	48 bits 80MB-25GB	80MB-22GB
MEMORY RANGE				
	1.5MB-12MB	1.5MB-12MB	1.5MB-12MB	6.0MB-24MB
IO. WORKSTATIONS SUPPORTED PRICE RANGE, \$	192	224	224 294,000-400,000	320 555,000-595,000
ARGET MARKET(S)	250,000-291,000 Scientific/Engineering	280,000-300,000 Scientific, Engineering	Scientific, Engineering	Scientific, Engineering
ENTRAL PROCESSOR CPU Manufacturer and Model	Harris Corp, H900	Harris Corp, H1100	Harris Corp, H900	Harris Dual Processor
CPU Cycle Time, nanoseconds	75	75	75	75
MIPS	4.8	15	4.8	5MIPS ea, 10 MIPS total
Hardware Floating Point	SP, DP	Single,trip,doubl,quad	SP, DP, TP, QP	Single, trip, doubl, guad
Virtual Memory (addressable bytes)	48MB	192MB	192MB	384MB
Cache Memory, bytes	бКВ	288KB	288KB	512KB
Battery Backup	None	Optional	Optional	Optional
Realtime Clock	Optional	Optional	Optional	Standard
AIN STORAGE	optional	optional		Clandard
Cycle/Access Time, nanoseconds	335	150	150	150
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes	1.5MB	1.5MB	1.5MB	1.5MB
NPUT/OUTPUT CONTROL				1
Type of Bus	Proprietary	Proprietary	Proprietary	Proprietary
No. of I/O Channels	31	18,9	31	50
Aggregate Bandwidth, bytes/sec.	19.0MB/sec	19.0MB/sec, 80MB/sec	19.OMB/sec	38MB/sec
COMMUNICATIONS			1	
Max. Number of Lines	224	96	224	320
Synchronous	19.2K bps std./56K opt.	19.2K bps; opt. 56K bps	19.2K bps; optional 56K	19.2K bps, opt. 56K bps
Asynchronous	19.2K bps std./56K opt.	19.2K bps; opt. 56K bps	19.2K bps; optional 56K	19.2K bps, opt. 56K bps
Protocols Supported	HDLC,X.25,BSC,TCP/IP	HDLC,X.25,BSC,TCP/IP	HDLC, X.25, BSC, TCP/IP,	HDLC,X.25,BSC,TCP/IP
••			NTR	
LAN Supported	Ethernet	Ethernet	Ethernet	Ethernet
RJE Terminals Supported	2780/3780,HASP,U1004	2780/3780,HASP,U1004	2780/3780, HASP, U1004	2780/3780,HASP,U100
IBM 3270 Emulation	Yes	BSC	Yes	BSC
ERIPHERAL EQUIPMENT	-		1	
Disks Supported	Fixed & rem.: 80MB to	Fixed: 80MB to 690MB	Fixed & rem.: 80MB to	Fixed: 80MB to 690MB
	675MB	remov.: 80MB to 300MB	675MB	remov.: 80MB or 300ME
Streaming Tape Drives	1600 bpi, 25 ips	1600 bpi, 25/100 ips	1600 bpi, 25/100 ips	1600 bpi,25/100 ips
Cartridge Tape Drives	6400 bpi, 30 ips	6400 bpi, 30 to 70 ips	6400 bpi, 30 ips	6400 bpi, 30 to 70 ips
Reel-to-reel Tape Drives	800-6250bpi, 45-125ips	800-6250 bpi, 45-125 ips	800-6250 bpi, 25-125 ips	800-6250 bpi,45-125 ip
Line Printers	300,600,900,1200 lpm	300, 600, 900, 1200 lpm	300/600/1200 lpm	300,600,900,1200 lpm
Serial Printers	200, 240 cps	200, 240 cps	80/280 cps	200, 240 cps
Letter Quality Printers	55 cps, 80 cps	55 cps, 80 cps	55/80 cps	55 cps, 80 cps
Non-Impact Printers	Laser	Laser		Laser
Other Peripherals Supported	Card readers	Graphics term, plotters	Card readers	Graphics term, plotters
OFTWARE				
Proprietary Operating System Name	VOS	VOS,RT-VOS,UNIX	VOS	VOS,RT-VOS,UNIX
Operating System Type	Batch, RT, multitask&use	Batch,real,multitask&use	Batch, RT, multitask&use	Batch,real,multitask&use
Unix Derivative	Yes, Vue (Vos Unix)	Yes, Vue (Vos Unix)	Yes, Vue (Vos Unix)	Yes, Vue (Vos Unix)
Database Management System	Oracle, Info, Total	Oracle, Info, Total	Oracle, Info, Total	Oracle, Info, Total
Assembler	Macro	Macro	Macro	Macro
Compilers	Basic, Pascal, Fortran,	Basic,Pascal,C,Fortran,	Basic, Pascal, Fortran,	Basic,Pascal,C,Fortran,
	Cobol, RPGII, Ada,C	Cobol,RPGII,ADA	Cobol, RPGII, Ada,C	Cobol,RPGII,ADA
Principal Application Available	Engineering administ-	Engineering & Scientific	Engineering, scientific	Engineering, Scientific
	ration		1	Realtime
Other Applications Available	- ·	Numerous	-	Numerous
RICING & AVAILABILITY				
Typical System Configuration and Price	Contact vendor	Contact vendor	CPU, 1.5MB mem, CNP,	Contact vendor
,,,,,,,,,			console, O.S.—\$294,000	
Monthly Maintenance of Typical			\$1,300	
Configuration			φ1,300	
Date of First Delivery	 huby 1984	 Q3 1987	Q4 1985	03 1987
Number installed to Date	July 1984			
COMMENTS			1	
Contract of Contra				1
	1			

### All About Supermini Systems

MANUFACTURER & MODEL	Harris Corporation H1600	Harrris Corporation HCX-5	Harrris Corporation HCX-7	Harrris Corporatio HCX-9
WORD LENGTH	48-96 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY				
	80MB-22GB	2.2GB	17.6GB	17.6GB
MEMORY RANGE	7.5MB-36MB	4MB-32MB	4MB-128MB	4MB-128MB
NO. WORKSTATIONS SUPPORTED	416	32	235	256
PRICE RANGE, \$	795,000-855,000	160,000-365,000	250,000-800,000	240,000-800,000
TARGET MARKET(S)	Scientific, Engineering Simulation	OA, Sci/Eng., Network	OA, Sci/Eng., Network processing	Sci/Eng, Software dev. Network processing
CENTRAL PROCESSOR	Simulation	processing	processing	Network processing
CPU Manufacturer and Model	Harris Triple Processor	Proprietary	Proprietary	Proprietary
CPU Cycle Time, nanoseconds			100	
	75 each processor	100		100
MIPS	15 expandable to 60	5	7.5	8
Hardware Floating Point	Single,trip,doubl,precs	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	576MB	4GB	4GB	4GB
Cache Memory, bytes	768KB	50KB	66KB	66KB
Battery Backup	Optional	Standard	Standard	Standard
Realtime Clock	Standard	Standard	Standard	Standard
	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	150	400	400	400
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes	1.5M	4MB	4MB	4MB
INPUT/OUTPUT CONTROL			····=	
Type of Bus	Bropriotan	VME	Varaabus	VME
	Proprietary	VME	Versabus	
No. of I/O Channels	69MB/sec	4	25	40
Aggregate Bandwidth, bytes/sec.	57MB/sec	40MB/sec	40MB/sec	40MB/sec/bus (2 VME)
COMMUNICATIONS				
Max. Number of Lines	416	32	235	256
Synchronous	19.2K bps; opt. 56K bps	9600 bps	9600 bps	9600 bps
Asynchronous				
•	19.2K bps; opt. 56K bps	3800 bps	3800 bps	3800 bps
Protocols Supported	HDLC,X.25,BSC,TCP/IP	X.25, TCP/IP, NFS	X.25, TCP/IP, NFS	X.25, TCP/IP, NFS
LAN Supported	Ethernet	Ethernet, Blast, VCS	Ethernet, Blast, VCS	Ethernet, Blast, VCS
RJE Terminals Supported	2780/3780,HASP,U1004	2780/3780	2780/3780	2780/3780
IBM 3270 Emulation	BSC	Yes	Yes	Yes
PERIPHERAL EQUIPMENT	000	rea	163	103
	5	Find 100/007 (474/0000	First 100 (227 (17 110)	First 100/007/171100
Disks Supported	Fixed: 80MB to 690MB,	Fixed: 160/337/474/690MB		Fixed: 160/337/474/69
	remov.: 80MB or 300MB	Removable: 80MB, 300MB	Removable: 80MB, 300MB	Removable: 80MB, 300
Streaming Tape Drives	1600 bpi,25/100 ips	100 ips	100 ips	100 ips
Cartridge Tape Drives	6400 bpi,30 or 70 ips			l
Reel-to-reel Tape Drives	800-6250 bpi,45-125 ips	1600/6250 bps, 100 ips	1600/6250 bps, 100 ips	1600/6250 bps, 100 ip
Line Printers		300-600 lpm	300-600 lpm	300-600 lpm
	300,600,900,1200 lpm			
Serial Printers	200, 240 cps	80-240 cps	80-240 cps	80-240 cps
Letter Quality Printers	55 cps, 80 cps	55/80 cps	55/80 cps	55/80 cps
Non-Impact Printers	Laser	Laser	Laser	Laser
Other Peripherals Supported	Graphics term, plotters	Graphics term., plotters	Graphics term., plotters	Graphics term., plotters
SOFTWARE				
Proprietary Operating System Name	VOS,RT-VOS,UNIX	HCX/UX	HCX/UX	HCX/UX
Operating System Type	Batch, real, multitask&use	Multiprogramming	Multiprogramming	Multiprogramming
Unix Derivative	Yes, Vue (Vos Unix)	Yes	Yes	Yes
Database Management System	Oracle, Info, Total	Oracle, Unify	Oracle, Unify	Oracle, Unify
Assembler	Macro	AS	AS	AS
Compilers				
oonpileis	Basic,Pascal,C,Fortran, Cobol,RPGII,ADA	C, Fortran, Pascal, Ada, Basic, Cobol	C, Fortran, Pascal, Ada, Basic, Cobol	C, Fortran, Pascal, Ada, Basic, Cobol
		Basic, CODOI	Dasic, CODOI	Dasic, CODOI
Principal Application Available	Engineering, Scientific	OA, Sci/Eng, Network	Sci/Eng, software devel-	Sci/Eng, software devel
	Realtime	processing	opment	opment, network proc.
Other Applications Available	Numerous	Harris/CAD	Harris/CAD	Harris/CAD
PRICING & AVAILABILITY				
Typical System Configuration and Price	Contact vendor	CPU, 4MB, 690MB disk,	CPU, 8MB mem, 474MB disk	
		1600 bpi tape, 8 ports,	tape unit, 27 ports,	tape unit, 28 ports,
	1	8slot VME bkplane	27 slot Versabus bkplane	21 slot VME backplane,
		\$168,900	cabinets-\$309,000	I/O cabinet-\$307,300
Monthly Maintenance of Typical		\$807	\$1,200	\$1,056
Configuration	1—	1		
Date of First Delivery	Q3 1987	July 1987	June 1985	May 1987
Number Installed to Date				
COMMENTS	1			

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MANUFACTURER & MODEL	Hewlett-Packard Company HP 3000 Series 930	Hewlett-Packard Company HP 3000 Series 950	Honeywell Bull DPS 6/85	Honeywell Bull DPS 6/95
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	404MB-13.7GB	404MB-13.7GB	3.3GB max.	3.3GB max.
MEMORY RANGE	16MB-24MB	Up to 64MB	2MB-4MB	2MB-4MB
NO. WORKSTATIONS SUPPORTED	400		64	160
PRICE RANGE, \$	From 225,000	From 300,000	From 106,900	From 105,000
TARGET MARKET(S)	Gen bus, dist processing	Gen bus, dist processing	General Business	General Business
CENTRAL PROCESSOR				
CPU Manufacturer and Model	Proprietary	Proprietary	DPS 6/85	DPS 6/85
CPU Cycle Time, nanoseconds	125	<u> </u>	300	300
MIPS	4.5	6.7	<b>—</b>	<b></b>
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	256 trillion bytes	256 trillion bytes	I—	
Cache Memory, bytes	128KB	I	8KB	8KB
Battery Backup	Standard	Standard	Optional	Optional
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	I	<b> </b>	300	300
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes	8MB		2M	2M
NPUT/OUTPUT CONTROL			1	
Type of Bus	СТВ	-	Megabus (Proprietary)	Megabus (Proprietary)
No. of I/O Channels	3		24	24
	-		16MB/sec.	
Aggregate Bandwidth, bytes/sec.	20MB/sec	1	TOWID/Sec.	16MB/sec.
	40	ļ	64	160
Max. Number of Lines	48	-	64	160 Ontinget 10 2K has
Synchronous		<u> </u> —	Optional	Optional, 19.2K bps
Asynchronous	Standard		Standard	Standard, 9600 bps
Protocols Supported	1	HP Advancenet, X.25, SNA	SDLC, HDLC, SNA, DSA,	SDLC, HDLC, SNA, DSA
		(Through HP 3000 FEP)	BSC, TTY	BSC, TTY
LAN Supported	IEEE 802	IEEE 802.3	Ethernet	Ethernet
RJE Terminals Supported	Through HP 3000 FEP	Through HP 3000 FEP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	Through HP 3000 FEP	Through HP 3000 FEP	Yes	Yes
PERIPHERAL EQUIPMENT		[		
Disks Supported	Fixed: 404MB	<u> </u> —	Fixed: 132MB/413MB	Fixed: 132MB/413MB
	Rem.: 404MB		Removable: 67MB/256MB	Removable: 67MB/256M
Streaming Tape Drives	75 ips		55 ips	55 ips
Cartridge Tape Drives	<b> </b> — <sup>-</sup>		55 ips	55 ips
Reel-to-reel Tape Drives	75-100 ips, 800-6250 bpi		800/1600/6250 bpi	800/1600/6250 bpi
Line Printers	600/900 lpm	[	300-1200 lpm	300-1200 lpm
Serial Printers	200 cps		100/400 cps	100/400 cps
Letter Quality Printers	1— ·	<u> </u>	35/55 cps	35/55 cps
Non-Impact Printers	Laser, 12/45 ppm		Laser, 300-19.2K bps	Laser, 300-19.2K bps
Other Peripherals Supported			650KB diskette	650KB diskette
SOFTWARE				
Proprietary Operating System Name	MPE XL	MPE XL	GCOS Mod 400	GCOS Mod 400
Operating System Type	Multiprogramming	Multiprogramming	Realtime	Realtime
Unix Derivative		I_ · · · · · · · · · · · · · · · · · · ·	UCOS	UCOS
Database Management System	HP Allbase/XL	HP Allbase/XL	DM6, Oracle	DM6, Oracle
Assembler	None	None	Assembler	Assembler
Compilers	Cobol II, Fortran, SPL,	Cobol II, Fortran, SPL,	Cobol, Fortran, Basic, C	Cobol, Fortran, Basic, C
piloro	Pascal, Basic, RPG	Pascal, Basic, RPG	Pascal, RPG II, Ada	Pascal, RPG II, Ada
Principal Application Available	Mfg, OA, whisi, retail,	Mfg, OA, whisi, retail,	Office Automation	Office Automation
	fin, legal, ins.	fin, legal, ins.		
Other Applications Available			Third party	Third party
ourer Apprications Available	Third party	Third party	Third party	Third party
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU, 16MB mem, 2 I/O	Contact vendor	CPU, 2MB main mem.,	CPU, 2MB main mem.,
	chnls, 404MB disk, tape,		413MB disk & cbnt, 650KB	413MB disk & cont, prr
	12 term, 900 lpm prntr,	1	dskte, 4 WS ports	port, 4 WS ports,
	plotter, 3 l.q. prntrs,	l	\$106,900	console—\$129,900
	\$335,346			
Monthly Maintenance of Typical	\$475	Contact vendor	\$654	\$767
Configuration		—		<u> </u>
Date of First Delivery	August 1987 (anncd date)	Q3 87	1985	1983
Number Installed to Date	1—	None	NA	NA
COMMENTS	RISC-based	RISC-based		

VORD LENGTH DISK STORAGE CAPACITY MEMORY RANGE IO. WORKSTATIONS SUPPORTED PRICE RANGE, \$ "ARGET MARKET(S) ENTRAL PROCESSOR CPU Manufacturer and Model CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection Increment Size, bytes	32 bits 132MB-6.6GB 4MB-64MB 160 57,000-350,000 Gen. Bus, Dept'l comp., trans. proc., sci. Honeywell prop. 200  SP, DP  16KB Optional Standard 	32 bits 40MB-3.3GB 4MB-8MB 64 From 62,000 General business Honeywell proprietary 300 	32 bits 40MB-6.6GB 4MB-16MB 160 From 86,000 General business DPS 6/95-1, DPS 6/95-2 300  SP, DP  16KB	32 bits 40MB-6.6GB 4MB-16MB 160 98,000-138,000 General business DPS 6/98-1, DPS 6/98 300 
AEMORY RANGE NO. WORKSTATIONS SUPPORTED RICE RANGE, \$ CARGET MARKET(S) CENTRAL PROCESSOR CPU Manufacturer and Model CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	132MB-6.6GB 4MB-64MB 160 57,000-350,000 Gen. Bus, Dept'l comp., trans. proc., sci. Honeywell prop. 200  SP, DP  16KB Optional Standard 	40MB-3.3GB 4MB-8MB 64 From 62,000 General business Honeywell proprietary 300 	40MB-6.6GB 4MB-16MB 160 From 86,000 General business DPS 6/95-1, DPS 6/95-2 300  SP, DP 	40MB-6.6GB 4MB-16MB 160 98,000-138,000 General business DPS 6/98-1, DPS 6/98 300
IO. WORKSTATIONS SUPPORTED PRICE RANGE, \$ 'ARGET MARKET(S) ENTRAL PROCESSOR CPU Manufacturer and Model CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	4MB-64MB 160 57,000-350,000 Gen. Bus, Dept'l comp., trans. proc., sci. Honeywell prop. 200  SP, DP  16KB Optional Standard 	4MB-8MB 64 From 62,000 General business Honeywell proprietary 300  SP, DP N/A 8KB Optional	4MB-16MB 160 From 86,000 General business DPS 6/95-1, DPS 6/95-2 300 — SP, DP —	4MB-16MB 160 98,000-138,000 General business DPS 6/98-1, DPS 6/98 300
IO. WORKSTATIONS SUPPORTED PRICE RANGE, \$ 'ARGET MARKET(S) ENTRAL PROCESSOR CPU Manufacturer and Model CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	160 57,000-350,000 Gen. Bus, Dept'l comp., trans. proc., sci. Honeywell prop. 200 — SP, DP — 16KB Optional Standard —	64 From 62,000 General business Honeywell proprietary 300  SP, DP N/A 8KB Optional	160 From 86,000 General business DPS 6/95-1, DPS 6/95-2 300  SP, DP 	160 98,000-138,000 General business DPS 6/98-1, DPS 6/98 300
RICE RANGE, \$         ARGET MARKET(S)         ENTRAL PROCESSOR         CPU Manufacturer and Model         CPU Cycle Time, nanoseconds         MIPS         Hardware Floating Point         Virtual Memory (addressable bytes)         Cache Memory, bytes         Battery Backup         Realtime Clock         MAIN STORAGE         Cycle/Access Time, nanoseconds         Storage Protection	57,000-350,000 Gen. Bus, Dept'l comp., trans. proc., sci. Honeywell prop. 200  SP, DP  16KB Optional Standard	From 62,000 General business Honeywell proprietary 300 — SP, DP N/A 8KB Optional	From 86,000 General business DPS 6/95-1, DPS 6/95-2 300 — SP, DP —	98,000-138,000 General business DPS 6/98-1, DPS 6/98 300
ARGET MARKET(S) CENTRAL PROCESSOR CPU Manufacturer and Model CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	Gen. Bus, Dept'l comp., trans. proc., sci. Honeywell prop. 200  SP, DP  16KB Optional Standard 	General business Honeywell proprietary 300 — SP, DP N/A 8KB Optional	General business DPS 6/95-1, DPS 6/95-2 300 — SP, DP —	General business DPS 6/98-1, DPS 6/98 300 —
ENTRAL PROCESSOR CPU Manufacturer and Model CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	trans. proc., sci. Honeywell prop. 200 SP, DP  16KB Optional Standard 	Honeywell proprietary 300  SP, DP N/A 8KB Optional	DPS 6/95-1, DPS 6/95-2 300  SP, DP 	DPS 6/98-1, DPS 6/98 300 —
CPU Manufacturer and Model CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	Honeywell prop. 200  SP, DP  16KB Optional Standard 	300 SP, DP N/A 8KB Optional	300 	300
CPU Cycle Time, nanoseconds MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	200  SP, DP  16KB Optional Standard 	300 SP, DP N/A 8KB Optional	300 	300
MIPS Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	 SP, DP  16KB Optional Standard 	 SP, DP N/A 8KB Optional	 SP, DP 	300
Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock AAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	 16KB Optional Standard 	N/A 8KB Optional		
Hardware Floating Point Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock AAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	 16KB Optional Standard 	N/A 8KB Optional		SP, DP
Virtual Memory (addressable bytes) Cache Memory, bytes Battery Backup Realtime Clock JAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	16KB Optional Standard	N/A 8KB Optional		01,01
Cache Memory, bytes Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	Optional Standard 	8KB Optional	16KB	1
Battery Backup Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	Optional Standard 	Optional	LIOKE	010
Realtime Clock MAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection	Standard			8KB
IAIN STORAGE Cycle/Access Time, nanoseconds Storage Protection			Optional	Optional
Cycle/Access Time, nanoseconds Storage Protection		Standard	Standard	Standard
Cycle/Access Time, nanoseconds Storage Protection	-			
Storage Protection	1	300	500	500
	Standard	Standard	Standard	Standard
Increment Size, Dytes	3			
IDUTIOUTDUT CONTROL	4, 8, or 12MB	4MB	4, 8, or 16MB	4MB
NPUT/OUTPUT CONTROL			1	
Type of Bus	Megabus (Proprietary)	Megabus (proprietary)	Megabus	Megabus
No. of I/O Channels	76-184	24		24
Aggregate Bandwidth, bytes/sec.	13.3MB/sec	16MB/sec	13.3MB/sec	16MB/sec
COMMUNICATIONS				
	100		100	400
Max. Number of Lines	160	64	160	160
Synchronous	Opt., 800 bps-100K bps	Optional	Standard	Optional
Asynchronous	Std., 50 bps-19.2K bps	Standard	Optional	Standard
Protocols Supported	SDLC, HDLC, BSC, SNA,	SDLC, HDLC, BSC, SNA,	SDLC, HDLC, BSC, SNA,	SDLC, HDLC, BSC, SNA
	TTY	TTY	TTY	TTY
LAN Supported			1	
LAN Supported	Ethernet	Ethernet	Ethernet	Ethernet
RJE Terminals Supported	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	SNA, BSC	SNA, BSC	SNA, BSC	SNA, BSC
ERIPHERAL EQUIPMENT				1
Disks Supported	Fixed: 132, 295, 413MB	Fixed: 132/413MB	Fixed: 132, 295, 413MB	Fixed: 132, 295, 413M
·	Rem.: 67, 80, 256MB	Rem.: 67/80/256MB	Rem.: 67, 80, 256MB	Rem.: 67, 80, 256MB
Streaming Tape Drives	55 ips	55 ips		_
Cartridge Tape Drives	1/4", 64MB, 55 ips	55 ips	14", 64MB, 55 ips	¼″, 64MB, 55 ips
Reel-to-reel Tape Drives				
	1600 bpi, 25/75 ips	800/1600/6250 bpi	1600 bpi, 25/75 ips	1600 bpi, 25/75 ips
Line Printers	300-1200 lpm	300/600/900/1200 lpm	300-1200 lpm	300-1200 lpm
Serial Printers	100/400 cps	100/400 cps	100/400 cps	100/400 cps
Letter Quality Printers	50-80 cps	35/55 cps	35/55 cps	35/55 cps
Non-Impact Printers	Laser, 300 bps-19.2K bps	Laser, 300-19,200 lpm	Laser, 300 bps-19.2K bps	Laser, 300 bps-19.2K b
Other Peripherals Supported	650KB diskette	650KB diskette, moderns	650KB diskette, card readers	650KB diskette, card readers
OFTWARE			(Cudors	
Proprietary Operating System Name	HVS 6 PLUS	GCOS 6 MOD 400	GCOS 6 MOD 400	GCOS 6 MOD 400
Operating System Type	Realtime	BT	Realtime	
				Realtime
Unix Derivative	UCOS	Yes, UCOSNo	UCOS	UCOS
Database Management System	DM6, Onebase, Oracle	DM6, Oracle	DM6, Oracle	DM6, Oracle
Assembler	Assembler	Assembler	Assembler	Assembler
Compilers	Cobol, Fortran, Basic, C	Cobol, Fortran, Basic, C	Cobol, Fortran, Basic, C	Cobol, Fortran, Basic, C
•	Pascal, Ada, RPG II	Pascal, Ada, RPGII	Pascal, Ada, RPG II	Pascal, Ada, RPG II
Principal Application Available	Office Automation	Mfg, OA, dist, pharm,	OA, Acc., Mfg, Dstr.,	OA, Acc., Mfg, Dstr.,
<b></b>		accounting, health care	Pharm., Health Care	Pharm., Health Care
Other Applications Available	DP, mfg, bldg mngmt	DP, mfg, bldg mngmt	DP, mfg, bldg mngmt	DP, mfg, bldg mngmt
	(third party)	(third party)	(third party)	(third party)
RICING & AVAILABILITY		1	1	
Typical System Configuration and Price	2 CPUs, 8MB mem, 264MB	CPU, 4MB mem, dsk'te,	95-1 CPU, 4MB mem, 132MB	98-1 CPU, 2MB mem 1
,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	disk & cbnt, comm cntrlr	dsk cntrl, 4 ports, 64MB	disk & cbnt, comm cntrlr	disk & cbnt, comm cntr
	•			
	4 RS-422-A ports, HVS 6	tape, CRT, — \$87,385	4 WS ports, 64MB cart.	4 WS ports, 64MB car
	Plus O.S.—\$83,500	1	tape, CRT\$116,295	tape, CRT\$128,295
			Dual 95-2 CPU\$150,043	Dual 98-2 CPU\$161,
Monthly Maintenance of Typical	\$4,800	\$6,230 (annual)	\$7,360/\$8,780 (annual)	\$7,710/\$9,080 (annual)
Configuration		-	1-	<b> </b> —
Date of First Delivery	September 1986	April 1986	April 1986	April 1986
Number Installed to Date	N/A	N/A	NA	N/A
COMMENTS	1.7.1	1	1	
		1	1	1
	1	l	1	
	1			1

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#### All About Supermini Systems

MANUFACTURER & MODEL	International Business Machines Corporation 4381 Model Group 11	International Business Machines Corporation 4381 Model Group 12	International Business Machines Corporation 4381 Model Group 13	International Busin Machines Corporat 4381 Model Group
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	1290GB	1290GB	2903GB	5160GB
MEMORY RANGE	4MB-16MB	8MB-32MB	8MB-32MB	16MB-32MB
NO. WORKSTATIONS SUPPORTED	1024	1935	1024	1024
PRICE RANGE, \$	From 185,000	From 330,000	From 440,000	From 440,000
TARGET MARKET(S)	Gen Bus, Bank, Sci/Eng,	Gen Bus, Bank, Sci/Eng,	Gen Bus, Bank, Sci/Eng,	Gen Bus, Bank, Sci/Eng
CENTRAL PROCESSOR	Trans proc, MIS,	Trans proc, MIS,	Trans proc, MIS,	Trans proc, MIS,
CPU Manufacturer and Model	Proprietary	Proprietary	Proprietary	Proprietary
CPU Cycle Time, nanoseconds	68	68	56	56
MIPS	0.44-0.60	1 .	1.21-1.35	1.65-2.45
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	16MB	16MB	16MB	16MB
Cache Memory, bytes	4K per CPU	32K per CPU	64K per CPU	128K per CPU
Battery Backup	i— 1		<b>—</b>	—
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE	-			
Cycle/Access Time, nanoseconds		l	_	1
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes				
INPUT/OUTPUT CONTROL				
	Proprietar	Proprietary	Proprietary	Proprietary
Type of Bus	Proprietary		12	18
No. of I/O Channels	12	12		
Aggregate Bandwidth, bytes/sec.	22	30	24	48
COMMUNICATIONS				
Max. Number of Lines	256	256	256	256
Synchronous	Std., 19.2K-230.4K bps	Std., 19.2K-230.4K bps	Std., 19.2K-230.4K bps	Std., 19.2K-230.4K bps
Asynchronous	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
Protocols Supported	SDLC, HDLC, X.25, MAP,	SDLC, HDLC, X.25, MAP,	SDLC, HDLC, X.25, MAP,	SDLC, HDLC, X.25, MA
	BSC, LU6.2, SNA, DIA/DNA	BSC, LU6.2, SNA, DIA/DNA	BSC, LU6.2, SNA, DIA/DNA	BSC, LU6.2, SNA, DIA/
LAN Supported	IEEE 802.5, TokenRing	IEEE 802.5, TokenRing	IEEE 802.5, TokenRing	IEEE 802.5, TokenRing
RJE Terminals Supported	2780/3780, 3770, HASP	2780/3780, 3770, HASP	2780/3780, 3770, HASP	2780/3780, 3770, HAS
IBM 3270 Emulation				
PERIPHERAL EQUIPMENT	1	1		
Disks Supported	Fixed: 317.5MB-5.04GB	Fixed: 317.5MB-5.04GB	Fixed: 317.5MB-5.04GB	Fixed: 317.5MB-5.04GB
Streaming Tape Drives	S/S 79 ips	S/S 79 ips	S/S 79 ips	S/S 79 ips
Cartridge Tape Drives	75-200 ips	75-200 ips	75-200 ips	75-200 ips
Reel-to-reel Tape Drives	Up to 125 ips, 6250 bpi	Up to 125 ips, 6250 bpi	Up to 125 ips, 6250 bpi	Up to 125 ips, 6250 bp
Line Printers	1200-3600 lpm	1200-3600 lpm	1200-3600 lpm	1200-3600 lpm
Serial Printers	80-340 cps	80-340 cps	80-340 cps	80-340 cps
Letter Quality Printers	I—	<u> </u>	-	-
Non-Impact Printers	Laser, 12/20 ppm	Laser, 12/20 ppm	Laser, 12/20 ppm	Laser, 12/20 ppm
Other Peripherals Supported	Doc. readers/handlers	Doc. readers/handlers	Doc. readers/handlers	Doc. readers/handlers
SOFTWARE				
		Con Comments	San Commont	San Comment
Proprietary Operating System Name	See Comments	See Comments	See Comments	See Comments
Operating System Type	<u> </u>	<u> </u>		-
Unix Derivative	IX/370	IX/370	IX/370	IX/370
Database Management System	DL/1, SQL/DS, IMS/VS,DB2	DL/1, SQL/DS, IMS/VS,DB2	DL/1, SQL/DS, IMS/VS,DB2	SQL/DS, IMS/VS,DB2
Assembler			<b>—</b> '	—
Compilers	Basic, Pascal/VS, Cobol,	Basic, Pascal/VS, Cobol,	Basic, Pascal/VS, Cobol,	Basic, Pascal/VS, Cobol
	RPGII, PL/1, APL	RPGII, PL/1, APL	RPGII, PL/1, APL	RPGII, PL/1, APL
Principal Application Available	Cmmrcl, Sci/Eng	Cmmrcl, Sci/Eng	Cmmrci, Sci/Eng	Cmmrcl, Sci/Eng
Other Applications Available	OA, third party	OA, third party	OA, third party	OA, third party
••				
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU, 4MB mem, console,	CPU, 8MB mem, console,	CPU, 16MB mem, console,	CPU, 25MB mem, conso
	635MB disk & cntrl, 2	2.52GB disk & cntrl, 4	7.5GB disk & cntrl, 6	10GB disk & cntrl, 8
	tape units, 1200 lpm ptr	tape units, 2 1200 lpm	tape units, 2 2000 lpm	tape units, 2 2200 lpm
	comm cntrl, 32 terminals	prntr, 32 terminals,	prntr, 64 terminals,	prntr, 20 ppm laser prnt
	\$433,467	comm cntrl-\$523,967	comm cntrl\$852,507	comm cntrl, 80 term-
			,	\$1,484,385
Monthly Maintenance of Typical	\$1,835.50	\$1,485.50	\$1,914.60	\$4,557.60
Configuration	May 1986	April 86	April 86	April 96
	May 1986	April 86	April 86	April 86
Date of First Delivery	I —	1		-
Number Installed to Date				
Number Installed to Date	Runs DOS/VSE, MVS/SP,	Runs DOS/VSE, MVS/370	Runs DOS/VSE, MVS/370	
	VM/SP, MVS/XA, VM/XA,	VM/SP, MVS/XA, VM/XA,	VM/SP, MVS/XA, VM/XA,	MVS/XA, VM/XA, TPF
Number Installed to Date		VM/SP, MVS/XA, VM/XA,		Runs MVS/370, VM/SP MVS/XA, VM/XA, TPF SRTOS

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MANUFACTURER & MODEL	International Business Machines Corporation 4381 Model Group 21	International Business Machines Corporation 4381 Model Group 22	International Business Machines Corporation 4381 Model Group 23	International Business Machines Corporation 4381 Model Group 2
WORD LENGTH		•	•	
	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	1935GB	1935GB	3226GB	Up to 6400GB
MEMORY RANGE	8MB-16MB	16MB-32MB	16MB-64MB	16MB-64MB
NO. WORKSTATIONS SUPPORTED	2048	2048	2048	2048
PRICE RANGE, \$	From 225,000	From 350,000	From 530,000	From 890,000
TARGET MARKET(S)	Gen Bus, Bank, Sci/Eng,	Gen Bus, Bank, Sci/Eng,	Gen Bus, Bank, Sci/Eng,	Gen Bus, Bank, Sci/Eng,
CENTRAL PROCESSOR	Trans proc, MIS,	Trans proc, MIS,	Trans proc, MIS,	Trans proc, MIS,
CPU Manufacturer and Model	Proprietary	Proprietary	Proprietary	Proprietary
CPU Cycle Time, nanoseconds	68	68	52	52
MIPS		<b> </b>	i	
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP. DP
Virtual Memory (addressable bytes)	16MB	16MB	16MB	16MB
Cache Memory, bytes	8K per CPU	32K per CPU	64K per CPU	64K per CPU
	OK PEI CFU	SZK per CFO	04K per CFO	64K per CFO
Battery Backup				
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds			I—	—
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes			l	
INPUT/OUTPUT CONTROL	1		1	1
Type of Bus	Proprietary	Proprietary	Proprietary	Proprietan
				Proprietary
No. of I/O Channels	12	12	12	18
Aggregate Bandwidth, bytes/sec.	24	24	32	64
COMMUNICATIONS	1		1	1
Max. Number of Lines	256	256	256	256
Synchronous	Std., 19.2K-230.4K bps	Std., 19.2K-230.4K bps	Std., 19.2K-230.4K bps	Std., 19.2K-230.4K bps
Asynchronous	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
Protocols Supported	SDLC, HDLC, X.25, MAP,			
Protocols Supported		SDLC, HDLC, X.25, MAP,	SDLC, HDLC, X.25, MAP,	SDLC, HDLC, X.25, MAP,
		BSC, LU6.2, SNA, DIA/DNA	BSC, LU6.2, SNA, DIA/DNA	BSC, LU6.2, SNA, DIA/DN
LAN Supported	IEEE 802.5, TokenRing	IEEE 802.5, TokenRing	IEEE 802.5, TokenRing	IEEE 802.5, TokenRing
RJE Terminals Supported	2780/3780, 3770, HASP	2780/3780, 3770, HASP	2780/3780, 3770, HASP	2780/3780, 3770, HASP
IBM 3270 Emulation				
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed: 317.5MB-5.04GB	Fixed: 317.5MB-5.04GB	Fixed: 317.5MB-5.04GB	Fixed: 317.5MB-5.04GB
Streaming Tape Drives	S/S 79 ips	S/S 79 ips	S/S 70 inc	S (S 70 inc
			S/S 79 ips	S/S 79 ips
Cartridge Tape Drives	75-200 ips	75-200 ips	75-200 ips	75-200 ips
Reel-to-reel Tape Drives	Up to 125 ips, 6250 bpi	Up to 125 ips, 6250 bpi	Up to 125 ips, 6250 bpi	Up to 125 ips, 6250 bpi
Line Printers	1200-3600 lpm	1200-3600 lpm	1200-3600 lpm	1200-3600 lpm
Serial Printers	80-340 cps	80-340 cps	80-340 cps	80-340 cps
Letter Quality Printers				
Non-Impact Printers	Laser, 12/20 ppm	Laser, 12/20 ppm	Laser, 12/20 ppm	Laser, 12/20 ppm
Other Peripherals Supported	Doc. readers/handlers	Doc. readers/handlers	Doc. readers/handlers	Doc. readers/handlers
SOFTWARE				
Proprietary Operating System Name	See Comments	See Comments	See Comments	See Comments
	See Comments	See Comments	See Comments	See Comments
Operating System Type				
Unix Derivative	IX/370	IX/370	IX/370	IX/370
Database Management System	SQL/DS, IMS/VS, DB2	SQL/DS, IMS/VS, DB2	SQL/DS, IMS/VS, DB2	SQL/DS, IMS/VS, DB2
Assembler	-	I—	I— <sup>1</sup>	·
Compilers	Basic, Pascal/VS, Cobol,	Basic, Pascal/VS, Cobol,	Basic, Pascal/VS, Cobol,	Basic, Pascal/VS, Cobol,
	RPGII, PL/1, APL	RPGII, PL/1, APL	RPGII, PL/1, APL	RPGII, PL/1, APL
Principal Application Available	Cmmrcl, Sci/Eng	Cmmrcl, Sci/Eng	Cmmrcl, Sci/Eng	Cmmrcl, Sci/Eng
Other Applications Available				
Calor Applications Available	OA, third party	OA, third party	OA, third party	OA, third party
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU, 16MB mem, console,	CPU, 16MB mem, console,	CPU, 48MB mem, console,	CPU, 64MB mem, col con
, ,	635MB disk & cntrl, 2	2 635MB disk & cntrl, 2	7.5GB disk & cntrl, 4	10GB disk & cntrl, 8
		tape units, 2200 lpm		
	tape units, 2200 lpm		tape units, 1200 lpm	tape units, 2 1200 lpm
	prntr, comm cntrl, 32	prntr, comm cntrl, 32	prntr, comm cntrl, 48	prntr, 20 ppm laser prnt
	term—\$513,467	term\$543,967	term-\$1,042,507	comm cntrl, 80 term —
				\$1,819,385
Monthly Maintenance of Tyrical	¢1 947 50	¢1 595 50	¢1 014 60	¢4 503 60
Monthly Maintenance of Typical	\$1,847.50	\$1,585.50	\$1,914.60	\$4,593.60
Configuration	1007	1007	1007	
Date of First Delivery	1987	1987	1987	1987
Number Installed to Date				
	Runs MVS/SP, VM/SP, RMF,	Runs MVS/SP, VM/SP, RMF,	Runs MVS/SP, VM/SP, RMF,	Runs MVS/SP, VM/SP, R
COMMENTS				
COMMENTS	VM/XA, VSE/SP, VSE/AF,	VM/XA, VSE/SP, VSE/AF,	VM/XA, VSE/SP, VSE/AF,	VME/SP, IX/370, VM/XA
COMMENTS	VM/XA, VSE/SP, VSE/AF,			VME/SP, IX/370, VM/XA
COMMENTS		VM/XA, VSE/SP, VSE/AF, TPF2, OS/VSI, IX/370,	TPF2, OS/VSI, IX/370,	VME/SP, 1X/370, VM/XA

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Norther Landmit         23 bits         32 bits	MANUFACTURER & MODEL	International Business Machines Corporation System/88 Model 4575-20B	International Business Machines Corporation System/88 Model 4575-60	International Business Machines Corporation System/88 Models 4575-50	International Business Machines Corporation System/88 Models 4575 81-84
Disk STORAGE CAPACITY     448:1208     448:6-448     Up to 7.88     Up to 7.88     Disk Store       PHOSE BANCE, S     Gubble SAME (daplexed)     12408 76     Gubble SAME (daplexed)     Disk Store       PHOSE BANCE, S     Gubble SAME (daplexed)     Prom 132,900     Prom 73,400     Prom 73,400       PHOSE BANCE, S     Do This transaction     Prom 132,900     Prom 73,400     Prom 73,400       Cell YManuffertore and Model     Prom 732,900     Prom 73,400     Prom 73,400       Cell YManuffertore and Model     MC 68020 (daplexed)     MC 68020 (d. daplexed)     Prom 73,400       MPS     Prom 73,400     Prom 73,400     Prom 73,400     Prom 73,400       Calab Manory, Value Transaction     Prom 73,400     Prom 73,400     Prom 73,400       Photos Transaction     Prom 73,400     Prom 73,400     Prom 73,400       Calab Manory, Value Transaction     Prom 74     Prom 74     Prom 74       Photos Transaction     Standard     Standard     Standard     Standard       Standard     Standard     Standard     Standard     Standard     Standard       Standard     Standard     Standard     Standard     Standard     Standard       Standard     Standard     Standard     Standard     Standard     Standard     Standard     Standard		32 hite	32 hite	32 hits	32 hits
MEMORY PANGE DR. WORKSTIONS SUPPORT         120.708 (Juppexed) 128 (Juppexed) 1					
NO. WORSTATIONS SUPPORTED         128         256         256         256           CARGE TMARKETS)         Prom 13.200         On-the transaction processing         Prom 13.200         On-the transaction processing           CRUE FURAL PROCESSOR         December transaction processing         MC 68020 (d., duplexed)         MC 68020 (d., duplexed)         MC 68020 (d., duplexed)           CPU Mainterure and Model         MC 68020 (d., duplexed)         MC 68020 (d., duplexed)         MC 68020 (d., duplexed)           CPU Mainterure and Model         —         DP         —         DP           Carlo Manory, types         —         DP         —         DP           Standard         Standard         Standard         Standard         Standard           Standard         Standard         Standard         Standard         Standard           Standard         Standard         Standard         Standard         Standard           Norty FORTAGE         2.12         Standard         Standard         Standard         Standard           ANN FORTAGE         Propristary					
PRICE RANCE, S         From 17,200         From 132,300         From 73,400         —         —           CHURAL PROCESSION         Drive transaction processing         On-live transaction processing         On-live transaction processing         On-live transaction processing         On-live transaction processing           CHU Wardscruter and Model CHU Cycle Time, nanoseconds         MC 68020 (duplexed)         MC					
TAGET MARKETS     On-line transaction processing     NC 69020 (14, diplexed)     MC					256
Decising         processing         procesing         procesing<		, ·			
CHUTHAL PROCESSOR     MC 68020 (duplexed)     MC 68020 (duplexed)     MC 68020 (duplexed)       CHU Marufacture and Model     MC 68020 (duplexed)     MC 68020 (duplexed)     MC 68020 (duplexed)       CHU Marufacture and Model     —     —     —     DP       MC 68020 (duplexed)     —     —     —     DP       Virtual Mamory (ddressable bytes)     —     —     —     —       Cache Manory, Notes     Standard     Standard     Standard     Standard       Standard     Standard     Standard     Standard     Standard       Monter Manory (ddressable bytes)     —     —     —     —       Cycle Access Time, natoseconds     125     125     —     —       Standard     Standard     Standard     Standard     Montard       No. of I/O Channels     April SNB     200     40     40       Appretorious     Proprietary     40     40     40       Appretorious     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps <td>TARGET MARKET(S)</td> <td>On-line transaction</td> <td>On-line transaction</td> <td>On-line transaction</td> <td>On-line transaction</td>	TARGET MARKET(S)	On-line transaction	On-line transaction	On-line transaction	On-line transaction
CPU Manufacturer and Model MPG CPU Cycle Time, manoseconds MPG Cache Menory, bytes Battery Backup Reature Cack     MC 68020 (duplexed) — — — — — — — — — — — — — — — — — — —		processing	processing	processing	processing
CPU Cycle Time, nanoseconds	CENTRAL PROCESSOR	-			-
CPU Cycle Time, nanoseconds	CPU Manufacturer and Model	MC 68020 (duplexed)	MC 68020 (duplexed)	MC 68020 (4, duplexed)	MC 68020 (1-4, duplexed)
MBS     —     …<			,		
Hardware Floating Point         —         DP         —         Model         Model           Carler Minnow, hytes         Sandard					l
Virtual Memory fieldessable bytes)         —         —         —         Memory fieldessable bytes)         5           Battery Battery Battery         Standard         <					
Cache Memory, bytes			DF	1610	
Bartory Backup Reatives Cock Reatives Cock Reati				TOINID	TOIVID
Reatment     Standard     Standard     Standard     Standard     Standard       Cyclej Access Time, nanoseconds     125     125     —     —     —       Stordage Protection     2M5, 4M6     2M5, 4M6     2M5, 4M6     4/9 (1906)       Stordage Protection     2M5, 4M6     2M5, 4M6     2M5, 4M6     4/9 (1906)       No. of I/O Channels     200     40     40     40       Agregate Bandwidth, bytes/sec.     —     —     1908/sec     256       ComMUNICATIONS     3     3     3     3     3       Axa. Number O Lines     Standard, 19 2K bps				-	
MAIN STORAGE     125     Standard     Standa					
Cycle/Access Time, nanoseconds         125         125         —         —         —           Stordard         Standard         Standard <td></td> <td>Standard</td> <td>Standard</td> <td>Standard</td> <td>Standard</td>		Standard	Standard	Standard	Standard
Sionger Protection         Stindard Increment Size, bytes Neutry OUTPUT CONTROL Type of Bus Neutry OUTPUT CONTROL Neutry OUTPUT CONTROL Neut	VIAIN STORAGE				
Storager Protection Increment Size, tytes NNUT/OUTPUT CONTROL Type of Base NNUT/OUTPUT CONTROL Type of Base Not JO Channels Not JO Channels Standard, 19 2K bps Standard, 19 2K bps Sta	Cycle/Access Time, nanoseconds	125	125	I—	
Increment Size, bytes (AMB) 2MB, 4MB 2MB, 4MB 4/8/16MB 4/8/16MB Type of Bus (Poprietary Proprietary 40 Aggregate Bandwith, pressec. OwnMMLCTOTONTOL CONTROL Aggregate Bandwith, pressec. DownMMLCTOTONS 2 Synchronous (192K bps Standard, 192K bps Standard, 1				Standard	Standard
NNUT/CUTFUT CÓNTRUL. Type of Bus No. of I/Q Channels No. of I/Q Channels Agregate Bandwidt, bytes/sec. COMMUNACATIONS Max. Number of Lines Synchronous Sy					
Type of Bus         Proprietary		, , , , , , , , , , , , , , , , ,	,		.,_,,.,
No. of U/O Channels     20     40     40       Aggregate Bandwith, byte/sec.     3     3     3       COMMUNCATIONS     3     3     3       Max, Number O Lines     2     2     256       Synchronous     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Standard, 19.2K bps		Proprietan	Proprietan	Proprietary	Proprietan
Aggregine Bandwidth, bytes/sec.     —     —     16MB/sec     16MB/sec       Max, Number of Lines     2     2     32     226       Synchronous     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Asynchronous     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Asynchronous     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Asynchronous     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Asynchronous     Standard, 19.2K bps     Standard, 19.2K bps     Standard, 19.2K bps       Absopported     X.29     X.28     Standard, 19.2K bps       Absopported     Zoro(J780, 3770, HASP     Z780/3780, 3770, HASP       Streaming Tape Drives     S/S. 25-100 ips     S/S. 25-100 ips     25.100 ips, 1600/3200bpi       —     —     —     —     —       Streaming Tape Drives     S/S. 25-100 ips     25.100 ips, 1600/3200bpi     =       Beitor Foreiva     40-160 cps     40-160 cps     40-160 cps       Non-Impact Printers     40-160 cps     40-160 cps     40-160 cps       Non-Impact Printers     G50 lpm     G50 lpm     G50 lpm       Oparteine System Name     —     —     —     —       Oracle     —     —					
COMMUNCATIONS         3         3         3         2         26           Synchronous         Standard, 19.2K bps         Standard, 19.2K bps <t< td=""><td></td><td>20</td><td>40</td><td></td><td></td></t<>		20	40		
Max, Number of Lines     2     2     32     9.2     266       Synchronous     Standard, 19.2K bps		-		IONB/Sec	IONIB/SEC
Synchronous         Standard, 19.2K bps		1.	1 -		
Asynchronous     Standard, 19.2 K bps     <					
Protocols Supported     X29     Z80/3780, 3770, HASP     X280/3780, 3770, HASP     SNA, BSC     SNA, BSC <td< td=""><td>Synchronous</td><td>Standard, 19.2K bps</td><td>Standard, 19.2K bps</td><td>Standard, 19.2K bps</td><td>Standard, 19.2K bps</td></td<>	Synchronous	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
X.29     X.29     X.29     X.29     X.29     X.20       RUE Terminals Supported     Totalisman     <	Asynchronous	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps	Standard, 19.2K bps
X.29     X.29     X.29     X.29     X.29     X.20       RUE Terminals Supported     Totalisman     <	Protocols Supported		SDLC, X.25, BSC, SNA,	SDLC, X.25, BSC, SNA.	SDLC. X.25. BSC. SNA.
LAN Supported RLF Terminels Supported IBM 3270 Emulation PERIHFERAL COLUMENT Disks Supported Streaming Tape Drives Carridge Tape Drives					
RJE Terminals Supported       2780/3780, 3770, HASP       SNA, BSC	LAN Supported	A.20	720		
IBM 3270 Emulation PRIPHERAL CUMPNENT     SNA, BSC     SNA, BSC <t< td=""><td></td><td>2790/2790 2770 4460</td><td>2790/2790 2770 HASP</td><td>2780/2780 2770 HASP</td><td>2790/2790 2770 HACP</td></t<>		2790/2790 2770 4460	2790/2790 2770 HASP	2780/2780 2770 HASP	2790/2790 2770 HACP
PERIPHERAL EQUIPMENT Disks Supported Rem.: 143MB-448MB Rem.: 143MB-448MB Rem.: 142MB-6.7GB REM. REM. REM. REM. REM. REM. REM. REM.					
Disks SupportedRem.: 143MB-448MBRem.: 143MB-448MBRem.: 143MB-448MBRem.: 142MB-6.7GBRem.: 142MB-6.7GBStreaming Tape Drives Reet-oreal Tape Drives Line PrintersS/S, 25-100 ips25-100 ips, 1600/3200bpi      25-100 ips, 1600/3200bpi   		SNA, BSC	SNA, BSC	SNA, BSC	SNA, BSC
Streaming Tape Drives     S/S, 25-100 ips     S/S, 25-100 ips     25-100 ips, 1600/3200bpi       Carridge Tape Drives     650 ipm     650 ipm       Beel-to-real Tape Drives     650 ipm     650 ipm       Strial Printers     40-160 cps     650 ipm       SofTWARE					
Carridge Tape Drives Real-to-real Tape Drives Beel-to-real Tape Drives Line Printers SofTwARE Propriating System Name Other Peripherals Supported Toperating System Name Operating System Name Operating System Name Operating System Name Operating System Name Oracle Distribution System Name Oracle Compilers Compilers Compilers Compilers Oracle Distribution Compilers	Disks Supported	Rem.: 143MB-448MB	Rem.: 143MB-448MB	Rem.: 142MB-6./GB	Rem.: 142MB-6.7GB
Cartidge Tape Drives Rel-to-reel Tape Drives Beel-to-reel Tape Drives Chine Printers SofTWARE Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler Compilers Oracle Assembler Compilers Oracle Assembler Compilers Oracle Assembler Compilers Oracle Database Management System Compilers Oracle Assembler Compilers Oracle Database Management System Assembler Compilers Oracle Database Management System Compilers Oracle Database Management System Compilers Database First Delivery Number Installed to Date Database Management System Components are Most components are Most components are Most components are Most components are Database Management System Compilers Database Management System Compiler					
Reel-torreel Tape Drives		S/S, 25-100 ips	S/S, 25-100 ips	25-100 ips, 1600/3200bpi	25-100 ips, 1600/3200bpi
Line Printers       650 lpm       650 lpm       650 lpm       40-160 cps       -	Cartridge Tape Drives		I	-	
Line Printers       650 lpm       650 lpm       650 lpm       40-160 cps       -	Reel-to-reel Tape Drives				
Serial Printers       40-160 cps       40-160 cps       40-160 cps       40-160 cps         Letter Quality Printers       —       —       —       —       —         Other Peripherals Supported       —       —       —       —       —         SOFTWARE       Proprietary Operating System Name       VOS       VOS       VOS       RT, multitask, multiuser       —       Does and		650 inm	650 lpm	650 lpm	650 lpm
Letter Quality Printers					
Non-Impact Printers Other Peripherals Supported       —       …       …       …       …       …       …       …       …       …       …       <		40 100 Cp3	40 100 cps		40 100 003
Other Peripherals Supported           SOFTWARE Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler Compilers     VOS RT, multitask, multiuser Oracle     VOS RT, multitask, multiuser Oracle     VOS RT, multitask, multiuser Oracle     RT, multitask, multiuser Oracle     Oracle     Dasic, Pascal, Fortran, Cobol, PL/1     Oracle     Dasic, Pascal, Fortran, Cobol, PL/1     Oracle     Dasic, Pascal, Fortran, Cobol, PL/1     On-line transaction proc     Dasic Algoritic transaction proc     Dasic Algoritic transaction proc     Dasic Algoritic transaction proc				_	
SOFTWARE       YOS       YOS       RT, multitask, multiuser       VOS         Operating System Type       Oracle       Tr, multitask, multiuser       Oracle       Tr, multitask, multiuser         Database Management System       Oracle       Database Management System       Database, Pascal, Fortran, Cobol, PL/1       Oracle       Oracle       Tr, multitask, multiuser         Principal Application Available       On-line transaction proc       DASD entri, 1 41MBM disk, tape, 2 comm entri, 4       Ine adapt., ine prutr, tableto prutr, tabl		<u> </u>			_
Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler       VOS RT, multitask, multiuser       RT, multitask, mult	Other Peripherals Supported	—			-
Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler       VOS RT, multitask, multiuser       RT, multitask, mult					
Operating System Type Unix Derivative Database Management System Assembler       RT, multitask, multiuser — Oracle       RT, multitask, multiuser — Date of First Delivery Number Installed to Date       RT, multitask, multius					
Unix Derivative Database Management System Assembler Compilers       Oracle					
Database Management System Assembler       Oracle       Dasic, Pascal, Fortran, Cobol, PL/1       Cobol, PL/1       Basic, Pascal, Fortran, Cobol, PL/1       Cobol, PL/1       On-line transaction proc       DASD chtrl, 2 448MB disk, tape, 2 comm chtrl, 4 148MB disk, tape, 2 comm chtrl, 4 line adapt., print/adapt       DASD chtrl, 2 448MB disk, tape, 2 comm chtrl, 4 line adapt., line printr, tabletop printr, 10 ter	Operating System Type	RT, multitask, multiuser	RT, multitask, multiuser	RT, multitask, multiuser	RT, multitask, multiuser
Database Management System Assembler       Oracle       Dasic, Pascal, Fortran, Cobol, PL/1       Cobol, PL/1       Basic, Pascal, Fortran, Cobol, PL/1       Cobol, PL/1       On-line transaction proc       DASD chtrl, 2 448MB disk, tape, 2 comm chtrl, 4 148MB disk, tape, 2 comm chtrl, 4 line adapt., print/adapt       DASD chtrl, 2 448MB disk, tape, 2 comm chtrl, 4 line adapt., line printr, tabletop printr, 10 ter	Unix Derivative	1		—	I—
Assembler Compilers		Oracle	Oracle	Oracle	Oracle
CompilersBasic, Pascal, Fortran, Cobol, PL/1Basic, Pascal, Fortran, Cobol, PL/1 <td></td> <td> </td> <td></td> <td>I—</td> <td> </td>				I—	
Principal Application AvailableCobol, PL/1Cobol, PL/		Basic Pascal Fortran	Basic, Pascal, Fortran	Basic, Pascal, Fortran	Basic, Pascal, Fortran
Principal Application Available       On-line transaction proc       On-line	eonpiloi o				
Other Applications Available           PRICING & AVAILABILITY Typical System Configuration and Price     2 CPUs, 4MB dup mem, 2 DASD entrl, 2 148MB disk, tape, 2 comm entrl, 3 line adapt., prntr/adapt 6 wkst—\$232,850     2 CPUs, 8MB dup mem, 2 DASD entrl, 4 148MB disk, tape, 2 comm entrl, 8 line adapt., prntr/adapt 12 PCs—\$574,110     42 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 52,429       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS     \$1,506         Most components are					
Other Applications Available           PRICING & AVAILABILITY Typical System Configuration and Price     2 CPUs, 4MB dup mem, 2 DASD entrl, 2 148MB disk, tape, 2 comm entrl, 3 line adapt., prntr/adapt 6 wkst—\$232,850     2 CPUs, 8MB dup mem, 2 DASD entrl, 4 148MB disk, tape, 2 comm entrl, 8 line adapt., prntr/adapt 12 PCs—\$574,110     42 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 2 CPUs, 16MB dup mem, 2 DASD entrl, 2 448MB disk, tape, 2 comm entrl, 4 line adapt., line prntr, tabletop prntr, 10 term 52,429       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS     \$1,506         Most components are	Deinging Amplication April 1				
PRICING & AVAILABILITY Typical System Configuration and Price2 CPUs, 4MB dup mem, 2 DASD cntrl, 2 148MB disk, tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,8502 CPUs, 8MB dup mem, 2 DASD cntrl, 4 148MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$423,405Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS\$1,506 February 1986 February 1986 February 1986 February 1986 February 1986 February 1986 February 1987 Most components are\$1,693 Most components are\$2,429 Most components are	Findpal Application Available	Un-line transaction proc	On-line transaction proc	On-line transaction proc	On-line transaction proc
PRICING & AVAILABILITY Typical System Configuration and Price2 CPUs, 4MB dup mem, 2 DASD cntrl, 2 148MB disk, tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,8502 CPUs, 8MB dup mem, 2 DASD cntrl, 4 148MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$423,405Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS\$1,506 February 1986 February 1986 February 1986 February 1986 February 1986 February 1986 February 1987 February 1987 Most components are\$1,693 Most components are\$2,429 Most components are					
Typical System Configuration and Price2 CPUs, 4MB dup mem, 2 DASD cntrl, 2 148MB disk, tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,8502 CPUs, 8MB dup mem, 2 DASD cntrl, 4 148MB disk, tape, 2 comm cntrl, 8 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 Lape, 2 comm cntrl, 4 line adapt. line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 Lape, 2 comm cntrl, 4 line adapt. line adapt. line adapt., line prntr, tabletop prntr, 10 term —\$554,605 <td>Other Applications Available</td> <td> </td> <td><u> </u></td> <td>1-</td> <td></td>	Other Applications Available		<u> </u>	1-	
Typical System Configuration and Price2 CPUs, 4MB dup mem, 2 DASD cntrl, 2 148MB disk, tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,8502 CPUs, 8MB dup mem, 2 DASD cntrl, 4 148MB disk, tape, 2 comm cntrl, 8 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 Lape, 2 comm cntrl, 4 line adapt. line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 Lape, 2 comm cntrl, 4 line adapt. line adapt. line adapt., line prntr, tabletop prntr, 10 term —\$554,605 <td></td> <td></td> <td>1</td> <td></td> <td> </td>			1		
Typical System Configuration and Price2 CPUs, 4MB dup mem, 2 DASD cntrl, 2 148MB disk, tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,8502 CPUs, 8MB dup mem, 2 DASD cntrl, 4 148MB disk, tape, 2 comm cntrl, 8 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 Lape, 2 comm cntrl, 4 line adapt. line adapt., line prntr, tabletop prntr, 10 term —\$554,6052 CPUs, 16MB dup mem, 2 Lape, 2 comm cntrl, 4 line adapt. line adapt. line adapt., line prntr, tabletop prntr, 10 term —\$554,605 <td></td> <td></td> <td>1</td> <td></td> <td></td>			1		
Typical System Configuration and Price2 CPUs, 4MB dup mem, 2 DASD cntrl, 2 148MB disk, tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,8502 CPUs, 8MB dup mem, 2 DASD cntrl, 4 148MB disk, tape, 2 comm cntrl, 8 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/adapt 12 PCs—\$574,11042 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., prntr/ tabletop prntr, 10 term -\$554,6052 CPUs, 16MB dup mem, 2 DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term -\$423,405Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS\$1,506— February 1986\$1,693\$2,429 - - February 1986Most components areMost components areMost components are\$1,693\$2,429 - - - Most components are					
Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date\$1,506—\$1,693\$2,429Monthly Maintenance of Typical Configuration Number Installed to Date\$1,506—\$1,693\$2,429Most components areMost components areMost components areMost components are\$1,69302 '87	PRICING & AVAILABILITY				
DASD cntrl, 2 148MB disk, tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,850DASD cntrl, 4 148MB disk, tape, 2 comm cntrl, 8 line adapt., prntr/adapt 12 PCs—\$574,110DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605DASD cntrl, 2 448MB disk, tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$2,423,405Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS\$1,506—\$1,693\$2,429Most components are Most components are——\$1,693——Most components areMost components areMost components areMost components are	Typical System Configuration and Price	2 CPUs, 4MB dup mem, 2	2 CPUs, 8MB dup mem, 2	42 CPUs, 16MB dup mem, 2	2 CPUs, 16MB dup mem, 2
tape, 2 comm cntrl, 3 line adapt., prntr/adapt 6 wkst—\$232,850tape, 2 comm cntrl, 8 line adapt., prntr/adapt 12 PCs—\$574,110tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$554,605tape, 2 comm cntrl, 4 line adapt., line prntr, tabletop prntr, 10 term —\$2,423,405Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS\$1,506—\$1,693\$2,429Most components are—————Most components areMost components areMost components areMost components areMost components are			DASD cntrl. 4 148MB disk.	DASD cntrl. 2 448MB disk.	DASD cntrl. 2 448MB disk.
Ine adapt., prntr/adapt 6 wkst—\$232,850Ine adapt., prntr/adapt 12 PCs—\$574,110Ine adapt., line prntr, tabletop prntr, 10 term —\$554,605Ine adapt., line prntr, tabletop prntr, 10 term —\$232,405Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS\$1,506 — February 1986— February 1986\$1,693 — February 1986\$2,429 — Gerbuary 1986Most components areMost components areMost components areMost components are					
6     wkst—\$232,850     12 PCs—\$574,110     tabletop pmtr, 10 term —\$554,605     tabletop pmtr, 10 term —\$554,605       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date COMMENTS     \$1,506     —     \$1,693     \$2,429       Most components are     Most components are     February 1986     February 1987     Q2 '87					
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Monthly Maintenance of Typical Configuration\$1,506—\$1,693\$2,429Date of First Delivery Number Installed to DateFebruary 1986February 1986February 1987Q2 '87COMMENTSMost components areMost components areMost components areMost components areMost components are		U WKSI	12 103-00/4,110		
Configuration       —       —       —       —       —         Date of First Delivery       February 1986       February 1986       February 1987       Q2 '87         Number Installed to Date       —       —       Most components are       Most components are       Most components are       Most components are			1		→423,405
Configuration       —       —       —       —       —         Date of First Delivery       February 1986       February 1986       February 1987       Q2 '87         Number Installed to Date       —       —       Most components are       Most components are       Most components are       Most components are				1	1
Configuration       —       —       —       —       —         Date of First Delivery       February 1986       February 1986       February 1987       Q2 '87         Number Installed to Date       —       —       Most components are       Most components are       Most components are       Most components are					
Configuration       —       —       —       —       —         Date of First Delivery       February 1986       February 1986       February 1987       Q2 '87         Number Installed to Date       —       —       Most components are       Most components are       Most components are       Most components are					
Date of First Delivery     February 1986     February 1986     February 1986     February 1987     Q2 '87       Number Installed to Date       Most components are     Most components are     Most components are     Most components are					
Number Installed to Date		\$1,506	_	\$1,693	\$2,429
Number Installed to Date	Configuration	\$1,506 —		\$1,693 —	
COMMENTS Most components are Most components are Most components are Most components are	Configuration		— — February 1986	<u> </u>	
	Configuration Date of First Delivery		  February 1986 	<u> </u>	
	Configuration Date of First Delivery Number Installed to Date	 February 1986 		February 1987	 Q2 '87 
	Configuration Date of First Delivery Number Installed to Date	 February 1986  Most components are	Most components are	— February 1987 — Most components are	 Q2 '87  Most components are
	Configuration Date of First Delivery Number Installed to Date	 February 1986  Most components are	Most components are	— February 1987 — Most components are	 Q2 '87  Most components are

32 bits         32 bits <t< th=""><th>MANUFACTURER &amp; MODEL</th><th>International Business Machines Corp. (IBM) 9370 Info. System 9373 Model 20</th><th>International Business Machines Corp. (IBM) 9370 Info. System 9375 Model 40</th><th>International Business Machines Corp. (IBM) 9370 Info. System 9375 Model 60</th><th>International Busine Machines Corp. (IE 9370 Info. Syste 9375 Model 90</th></t<>	MANUFACTURER & MODEL	International Business Machines Corp. (IBM) 9370 Info. System 9373 Model 20	International Business Machines Corp. (IBM) 9370 Info. System 9375 Model 40	International Business Machines Corp. (IBM) 9370 Info. System 9375 Model 60	International Busine Machines Corp. (IE 9370 Info. Syste 9375 Model 90
Disk & TORAGE CAPACITY     368/04-64/502     368/04-64/502     368/04-64/502       WMONY RANCE TAILONS SUPPORTED     AMS 16MB (doplexed)     362/04-702     368/04-64/502       NO. WORKTATIONS SUPPORTED     Gen bus, bay, fin, runna     Gen, fin, fin, fin, runna     Gen, fin, fin, fin, fin, fin, fin, fin, fi					
MEMORY PANCE Proc. 50, 200 Proc. only ALL STORE 10000 Expenses Proc. MS, Sel/Eng         BME 10MB Explored Proc. MS, Sel/Eng         BME 10MB Explored Proc. MS, Sel/Eng         BME 10MB Explored Proc. MS, Sel/Eng           PRICE PANCE 5 ALL STORE 7 ALL S					
No. WORKSTATIONS SUPPORTED         64         192         192         384           From 31.000 (Proc only)         Gam bas, bank/fin, trans         From 31.000 (Proc only)         From 31.000 (Proc only					
PRICE RANGE, 5         From 31.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 33.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans proc. MS, Sal/Eng         From 190.000 (Proc only) Gen bus, bank/fin, trans gen bus,					
TARGET MARKET(3)     Gen bus, bank/fin, trani     Find     F		<b>1</b>			
Cell THAL PROCESSOR         proc., MIS, Sa/Eng         proprietary         Standard         Standard     <					
CENTRAL PROCESSOR     Proprietary     Proprietary     Proprietary     Proprietary       CPU Mundecture and Model     Proprietary     Proprietary     Proprietary       CPU Mundecture and Model     SP. DP     SP. DP     SP. DP       Standard     Standard     Standard     Standard	TARGET MARKET(5)				
CPU Undifference     Proprietary     Proprietary <th< td=""><td>CENTRAL PROCESSOR</td><td>proc, who, oci/ rig</td><td>proc, mio, oci/ring</td><td>proc, mio, con ring</td><td>proc, wild, doi/Eng</td></th<>	CENTRAL PROCESSOR	proc, who, oci/ rig	proc, mio, oci/ring	proc, mio, con ring	proc, wild, doi/Eng
CPU Cycle Time, nanoseconds Hardware Floating Point Virtual Memory Modessauble Syntal Battury Backup Strutal Memory Modessauble Syntal Battury Backup Strutal Memory Modessauble Syntal Battury Backup Protections Standard		Proprietary	Proprietary	Proprietary	Proprietary
MRES     -     -     -     -     -     -       Hardware Floating Point Virtual Memory (addressable bytes)     16.7GB     18.7GB     18.7GB     18.7GB       Autornov (addressable bytes)     18.7GB     18.7GB     18.7GB     18.7GB       Reatime Diock     Standard     Standard     Standard     Standard       Storage Protection     Standard     Standard     Standard     Standard       No. of 10.0 Channels     1     Standard     Standard     Standard       Aggragate Bandwith, bytes/enc.     5.5MB/sec     2.2Ms/acc     Variable     Variable       Variable     Variable     Variable     Variable     Variable     Variable       MR. Number of Lines     Standard     Standard     Standard     Variable       Max. Number of Lines     Standard     Standard     Variable     Variable       Max. Number of Lines     Standard     Standard     Standard <td></td> <td></td> <td></td> <td></td> <td></td>					
Virtual Memory jaddressable bytes]         15.7GB         15.7GB         16.7GB         16.7GB         16.7GB           Battery Backup         None         None         None         16.7GB         16.7GB           Battery Backup         Standard         Standard         Standard         Standard         Standard           Storage Protection         Standard         Standard         Standard         Standard         Standard           Type of Jos         Proprietary         Proprietary         Proprietary         Standard         Standard           Aggregate Bandwith, bytes/sec.         5.5MF/sec         22ME/sec         22ME/sec         32MB/sec         Standard, 19.2K bps           Synchronous         Synchronous         Standard, 19.2K bps		I	_		<u> </u>
Virtual Memory (addressable bytes)         16.7GB         16.7GB         16.7GB         16.7GB           Battery Backup         None         None         Standard         Standard         Standard           Standard         Standard         Standard         Standard         Standard         Standard           Standard         Standard         Standard         Standard         Standard         Standard           The off // 0.5         Standard         Standard         Standard         Standard         Standard           Agregate Bandwith, bytes/sec.         Standard, 19.2K bps	Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Battery Backup         —         =		16.7GB	16.7GB	16.7GB	16.7GB
Realting Clock ANN STORAGE         Standard         Standard         Standard         Standard           Cyclol Access Time, nanoseconds Storage Protection Interment Size, bytes         - <td< td=""><td>Cache Memory, bytes</td><td>None</td><td>None</td><td>16KB</td><td>16KB</td></td<>	Cache Memory, bytes	None	None	16KB	16KB
MAIN STORAGE Cycle/Access Trans, nancesconds Storage Protection Increment Size, Syree Proprietary Proprietary Proprietary Proprietary Aggingue Bandwidth, bytes/sec. S5MB/sec 22DB/sec 25DC/sBC, 23, 802.5 25DC/sBC, 23, 802.5 25DC/sBC, 23, 802.5 25DC/sBC, 23, 802.5 25DC/sBC, 23, 802.5 25DC/sBC, 23, 802.5 25DC/sBC, 22/12 pm 18 sec 74, 23DO phint 25DC/sBC, 22/12 pm 18 sec 74D, 23DC phint 74 10 doD	Battery Backup				<b>—</b>
Cycle/Access Time, nanoseconds         —         =         =         = <td< td=""><td>Realtime Clock</td><td>Standard</td><td>Standard</td><td>Standard</td><td>Standard</td></td<>	Realtime Clock	Standard	Standard	Standard	Standard
Storage Protection Increment Size, bytes NPUT/QUTPUT CONTROL Type of Bias         Standard         T					
Increment Size, bytes         —         …			<u> </u>	]	—
NRUT (JU CTRUT CÓNTROL Type of Bus No. of I/J Channels Agregate Bandwidth, bytes/sec. COMMUNCATIONS Max. Number Instein Synchronous Synchr	Storage Protection	Standard	Standard	Standard	Standard
Type of Bus         Proprietary		1		I—	
No. of J/O Channels       1       4       4       6         Aggregate Bandwidth, bytes/sec.       5.5MB/sec       22MB/sec       39Mb/sec       39Mb/sec         COMMUNICATIONS       Standard, 19.2K bps       Standard, 19.2K bps       Optional, 75 bps-64K bps       Spichronous       <	•			l	L .
Aggregine Bandwidth, bytes/sec.     5.5MB/sec     22MB/sec     22MB/sec     39MB/sec       Max. Number of Lines     Variable     Studer, 19.2K pps     Optional, 75 bps-64K tps     SDLC, HDLC, X25, BSC, LDLG, LDL, X25, BSC, LDLG, X26, RSC, ASC, ASC, BSC, SDLC, HDLC, X25, BSC, LDLG, X26, RSC, ASC, BSC, SDLC, HDLC, X25, BSC, LDLG, X26, RSC, ASC, ASC, BSC, SDLC, HDLC, X25, BSC, LDLG, X26, RSC, ASC, ASC, BSC, SDLC, HDLC, X25, BSC, LDLG, X26, RSC, ASC, BSC, SDC, HDL, X26, RSC, HDC, X26, RSC, ASC, HDC, X26, RSC, HDC		Proprietary	1		
COMMUNICATIONS     Variable     Variable <td< td=""><td></td><td>1</td><td>1.</td><td></td><td>-</td></td<>		1	1.		-
Max. Number of Lines Synchronous         Variable Synchronous         Variable Standard, 19.2K bps Optional, 75 bps-64K bps Optional, 75 bps-64K bps Optional, 75 bps-64K bps Optional, 75 bps-64K bps SUC, HDLC, X25, BSC. LU6.2, TCP/P, SNA         Variable Synchronous         Variable Synchronous <thvar< td=""><td></td><td>5.5MB/sec</td><td>22MB/sec</td><td>22MB/sec</td><td>39MB/sec</td></thvar<>		5.5MB/sec	22MB/sec	22MB/sec	39MB/sec
Synchronous Asynchronous         Standard, 19.2K bps Standard, 19.2K bps Stock, HDLC, X.25, BSC, LLAN Supported         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLAN Supported         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLC, HDLC, X.25, BSC, LLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SDLG, TCP/IP, SNA LEEE 802.3, 802.5         Standard, 19.2K bps SNA, BSC         Standard					
Asynchronous Protocols Supported     Optional, 75 bps-64k bps SUC, HOLC, X25, BSC, LUB 2, TCP/IP, SNA     Optional, 75 bps-64k bps SUC, HOLC, X25, BSC, LUB 2, TCP/IP, SNA     Optional, 75 bps-64k bps SUC, HOLC, X25, BSC, LUB 2, TCP/IP, SNA     Optional, 75 bps-64k bps SUC, HOLC, X25, BSC, LUB 2, TCP/IP, SNA     Optional, 75 bps-64k bps SUC, HOLC, X25, BSC, LUB 2, TCP/IP, SNA     Optional, 75 bps-64k bps SUC, HOLC, X25, BSC, LUB 2, TCP/IP, SNA     SUC, HOLC, X25, BSC, LUB 2, TCP/IP, SNA     SUC, HOLC, X25, BSC, SUC, HOLC, X25, BSC, SUC, HOLC, X25, BSC, SNA, BSC     LEE 802.3, 802.5     LEE 802.3, 802.5     SUC, HOLC, X25, BSC, SNA, BSC     SNA, BSC <t< td=""><td></td><td>1</td><td></td><td></td><td></td></t<>		1			
Protocols Supported         SDLC, HDLC, X25, BSC, LAN Supported         SDLC, HDLC, X25, BSC, LG, TCP/IP, SNA LEE 802.3, 802.5         SDLC, HDLC, X25, BSC, LG, TCP/IP, SNA LEE 802.3, 802.5         SDLC, HDLC, X25, BSC, LGB, TCP, SNA LEE 802.3, 802.5         SDLC, FDLC, X25, SPC, TP 100 [ps, 1600 0pin 40.340 cps 40.340 cps					
Luk 2, TCP/IP, SNA LUS 2, TCP/IP					
LAN Supported         IEEE 802.3, 802.5         <	Protocols Supported				
RUE Terminals Supported     2780/3780, 3770, HASP     2780/3780, 3770, HASP     2780/3780, 3770, HASP     SNA, BSC	LAN Summerted				
IBM 3270 Emulation PRIPHERAL COLUMPNENT Disks Supported     SNA, BSC     SNA, BSC     SNA, BSC     SNA, BSC     SNA, BSC     SNA, BSC       Streaming Tape Drives Carridge Tape Drives     25:100 ips, 1600 bpi Tap ips     50:125 ips, 1600/6250bpi 40:4000 lpm     25:100 ips, 1600 bpi Tap ips     25:100 ips, 1600 dpm     25:100 ips, 1600 dpm     40:340 cps     40/340 cps     40/340 cps     40/340 cps     40/340 cps     40/340 cps     40/360 cps <td></td> <td></td> <td></td> <td></td> <td></td>					
PERIPHERAL EQUIPMENT Disks SupportedFixed: 368MB-824MBFixed: 368MB-5040MBFixed: 368MB-5040MBFixed: 368MB-5040MBDisks Supported25-100 ips, 1600 bpi 79 ips 50-125 ips, 1600/6250bpi25-100 ips, 1600 bpi 79 ips 50-125 ips, 1600/6250bpiSerial Printers40-340 cps 40-340 cps40-340 cps 40-340 cps40-340 cps 40-340 cps40-340 cps 40-340 cpsNon-Impact PrintersLaser/LED, 22/12 ppm Laser/LED, 22/12 ppmLaser/LED, 22/12 ppm Laser/LED, 22/12 ppmLaser/LED, 22/12 ppm Laser/LED, 22/12 ppm Laser/LED, 22/12 ppmSOFTWARE Propriatry Operating System Name Operating System Type Unix DerivativeYM/SP, VSE/SP RT, multitask, multiuser IX/370YM/SP, VSE/SP RT, multitask, multiuser IX/370 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Disks SupportedFixed: 368MB-824MBFixed: 368MB-5040MBFixed: 368MB-5040MBFixed: 368MB-5040MBStreaming Tape Drives Carridge Tape Drives25:100 ips, 1600 bpi 79 ips25:100 ips, 1600 bpi 79 ipsRed-to-reel Tape Drives Line Printers40:340 cps40:400 lpm40:340 cps40:340 cps40:340 cps40/80 cps40/80 cps40/80 cps40/80 cps40/80 cps40/80 cpsA0/80 cps40/80 cps40/80 cps40/80 cps40/80 cpsSOFTWARE Proprietary Operating System Name Other Peripherais SupportedVM/SP, VSE/SP RT, multrask, multiuser IX/370VM/SP, VSE/SP RT, multrask, multiuser IX/370VM/SP, VSE/SP RT, multrask, multiuser IX/370VM/SP, VSE/SP RT, multrask, multiuser IX/370Principal Application AvailableOA, third partyOA, third partyOA, third partyOA, third partyOA, third partyPricING & AVAILABILITY Typical System Configuration and PriceCPU, 8MB mem, tape, 8131.230S208S908\$978CPU, 16MB mem, tape, 3824MB disk, 2 tape cnt wkst cntrl, 32 wkst, 16 PCs, 2000 ipn pmtr — \$366.290S978CPU, 16MB mem, tape, \$366.290Monthly Maintenance of Typical Configuration\$442\$908\$978\$2,818Configuration Date of First Delivery Number instalied to Date\$442\$908\$978\$2,818Configuration Date of First DeliveryS442\$908\$978\$2,818 </td <td></td> <td>SINA, DOL</td> <td>SNA, DOL</td> <td>JIAA, DOL</td> <td>SINA, DOL</td>		SINA, DOL	SNA, DOL	JIAA, DOL	SINA, DOL
Streaming Tape Drives Carridge Tape Drives Rel-to-rel Tape Drives Line Printers25-100 ips, 1600 bpi 79 ips 50-125 ips, 1600/6250bpi 410-4000 lpm 40-340 cps25-100 ips, 1600 bpi 79 ips 50-125 ips, 1600/6250bpi 410-4000 lpm 40-340 cps 40-340 cps 40/60 cps 40/60 cps 40/60 cps 40/60 cps 40/60 cps25-100 ips, 1600 bpi 79 ips 50-125 ips, 1600/6250bpi 40-4000 lpm 40-340 cps 40-340 cps 40-340 cps 40-340 cps 40/60 cps 40/6		Fixed: 368MP-824MP	Fixed: 368MR-5040MR	Fixed: 368MB-5040MB	Fixed: 368MB-5040MP
Carridge Tape Drives Rel-to-rel Tape Drives Line Printers79 ips 50-125 ips, 1600/6250bpi79 ips 50-125 ips, 1600/6250bpi70 ips 40-4000 ipm 40-340 cps70 ips 50-125 ips, 1600/6250bpi70 ips 40/60 cps70 ips 50-125 ips, 1600/6250bpi70 ips 50-125 ips, 1600/6250bpi </td <td></td> <td>AND CONTRACT</td> <td></td> <td></td> <td>I NEG. COUND-SOHOWD</td>		AND CONTRACT			I NEG. COUND-SOHOWD
Carridge Tape Drives Rel-to-rel Tape Drives Line Printers79 ips 50-125 ips, 1600/6250bpi79 ips 50-125 ips, 1600/6250bpi70 ips 50-125 ips, 1600/6250bpi70 ips 40-4000 ipm 40-340 cps70 ips 50-125 ips, 1600/6250bpi70 ips 40-4000 ipm70 ips 50-125 ips, 1600/6250bpi70 ips 40-4000 ipm70 ips 40-4000 ipm70 ips 40-4000 ipm70 ips 40-4000 ipm70 ips 40/80 cps70 ips 40/80 cps70 ips 40/80 cps70 ips 40/80 cps70 ips 40/80 cps70 ips 50-125 ips, 1600/6250bpi70 ips 40/80 cps70 ips 50-125 ips, 1600/6250bpi70 ips 40/80 cps70 ips 40/80 cps70 ips 40/80 cpsSOFTWARE Operating System Name Operating System Name Operating System Name CompilersVM/SP, VSE/SP RT, multitask, multiuser IX/370VM/SP, VSE/SP RT, multitask, multiuser IX/		25-100 ips, 1600 bpi			
Line Printers410-4000 lpm410-4000 lpm410-4000 lpmLetter Quality Printers40.340 cps40.340 cps40.340 cpsMon-Impact Printers40/60 cps40.60 cps40.400 pmNon-Impact PrintersLaser/LED, 22/12 ppmLaser/LED, 22/12 ppmLaser/LED, 22/12 ppmSOFTWARE		79 ips			79 ips
Line Printers410-4000 lpm410-4000 lpm410-4000 lpmLetter Quality Printers40.340 cps40.340 cps40.340 cpsMon-Impact Printers40/60 cps40.60 cps40.400 pmNon-Impact PrintersLaser/LED, 22/12 ppmLaser/LED, 22/12 ppmLaser/LED, 22/12 ppmSOFTWARE	Reel-to-reel Tape Drives		50-125 ips, 1600/6250bpi	50-125 ips, 1600/6250bpi	50-125 ips, 1600/6250
Letter Quality Printers Non-impact Printers Other Peripherals Supported40/60 cps Laser/LED, 22/12 ppm40/60 c	Line Printers	410-4000 lpm			410-4000 lpm
Non-Impact Printers Other Peripherals Supported       Laser/LED, 22/12 ppm       Laser/LED, 22/12 ppm       Laser/LED, 22/12 ppm       Laser/LED, 22/12 ppm         SOFTWARE Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler       VM/SP, VSE/SP RT, multitask, multiuser IX/370       VM/SP, VSE/SP RT, multitask, multiuser IX/370       VM/SP, VSE/SP RT, multitask, multiuser IX/370       VM/SP, VSE/SP RT, multitask, multiuser IX/370       VM/SP, VSE/SP Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       VM/SP, VSE/SP RT, multitask, multiuser IX/370       VM/SP, VSE/SP Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       VM/SP, VSE/SP Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       CPU, 16MB mem, tape, 3 828MB disk, 2 tape crt wkst cntrl, 24 wkst, 16 PCs, 2000 lpm prmtr — \$131,230       CPU, 16MB mem, tape, 3 328MB disk, 2 tape crt wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prmtr — \$368,290       CPU, 16MB mem, tape, 3 828MB disk, 2 tape crt wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prmtr — \$368,290       CPU, 16MB mem, tape, 3 828MB disk, 2 tape crt wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prmtr — \$368,290       CPU, 16MB mem, tape, 3 828MB disk, 2 tape crt wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prmtr — \$368,290       SP78 Z 181       \$2,818 Z 181	Serial Printers	40-340 cps	40-340 cps	40-340 cps	40-340 cps
Other Peripherals Supported	Letter Quality Printers				
SOFTWARE Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler Compilers       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, tech       VM/SP, VSE/SP RT, multitask, multiuser IX/370         PRICING & AVAILABILITY Typical System Configuration and		Laser/LED, 22/12 ppm	Laser/LED, 22/12 ppm	Laser/LED, 22/12 ppm	Laser/LED, 22/12 ppm
Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler Compilers       VM/SP, VSE/SP RT, multitask, multiuser IX/370       VM/SP, VSE/SP       VM/SP, VSE/SP       VM/SP, VSE/SP       VM/SP, VSE/SP       RT, multitask, multiuser IX/370       IX/370       DB2, SQL/DS, IMS/VS-DB       DB2, SQ	Other Peripherals Supported			-	
Proprietary Operating System Name Operating System Type Unix Derivative Database Management System Assembler       VM/SP, VSE/SP RT, multitask, multiuser IX/370       VM/SP, VSE/SP       RT, multitask, multiuser IX/370       IX/370       DB2, SQL/DS, IMS/VS-DB	SOFTWARE				
Operating System Type Unix Derivative Database Management System     RT, multitask, multiuser IX/370     RT, multitask, m		VM/SP, VSE/SP	VM/SP, VSE/SP	VM/SP, VSE/SP	VM/SP, VSE/SP
Unix Derivative Database Management System Assembler       IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB Gen bus, Sci/Eng, tech       IX/370 DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB Gen bus, Sci/Eng, tech       IX/370 DB2, SQL/DS, IMS/VS-DB DB2, SQL/DS, IMS/VS-DB Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB Gen bus, Sci/Eng, tech       IX/370 DB2, SQL/DS, IMS/VS-DB DB2, SQL/DS, IMS/VS-DB DB2, SQL/DS, IMS/VS-DB Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB DB2, SQL/DS, IMS/VS-DB Cobol, PL/1, RPGII, Lisp APL2       IX/370 DB2, SQL/DS, IMS/VS-DB Cobol, PL/1, RPGII, Lisp APL2       Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2       Gen bus, Sci/Eng, tech       OA, third party       CPU, 16MB mem, tape, 3 828MB disk, 2 tape ctri wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290       CPU, 16MB mem, tape, 3 8978       Sec 3000 lpm prntr — \$3963,820       Sec 300 lpm prntr — \$3963,820       Sec 300 lpm prntr — \$3963,820 <t< td=""><td></td><td></td><td></td><td></td><td>RT, multitask, multiuser</td></t<>					RT, multitask, multiuser
Database Management System Assembler     DB2, SQL/DS, IMS/VS-DB Compilers     DB2, SQL/DS, IMS/VS-DB Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2     Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2     CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctri wkst cntrl, 32 wkst, 16 PCs, 2000 Ipm prntr — \$3868,290     CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctri wkst cntrl, 32 wkst, 16 PCs, 2000 Ipm prntr — \$396,290     CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctri wkst cntrl, 96 displa ta, 3 2 PCs, 3600 Ipm prnt, 20 ppm laser — \$963,820       Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date     \$442 - - -     \$908 - - -     \$978 - -					
Assembler Compilers     —     Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2     —     —     Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2     —     Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2     Cobol, PL/1, RPGII, Lisp APL2     Cobol, PL/1, RPGII, Lisp APL2     Cobol, PL/1, RPGII, Lisp APL2     CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctri wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$388,290     CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctri wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290     CPU, 16MB mem, tape, 3 82,400 lpm prntr — \$396,290     CPU, 16MB mem, tape, 3 82,400 lpm prntr — \$396,290     Second protector     CPU, 16MB mem, tape, 3 82,200 lpm prntr — \$396,290     Second protector     CPU, 16MB mem, tape, 3 82,200 lpm prntr — \$396,290     Second protector     Second protector     Second protector     Second protector     Second protector     Second protector     Second pr					DB2, SQL/DS, IMS/VS-
CompilersBasic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp APL2Basic, Pascal, Fortran, Cobol, PL/1, RPGII, Lisp				<u> </u>	-
Principal Application AvailableCobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, techCobol, PL/1, RPGII, Lisp APL2 Gen bus, Sci/Eng, te		Basic, Pascal, Fortran,	Basic, Pascal, Fortran,		Basic, Pascal, Fortran,
Principal Application AvailableAPL2 Gen bus, Sci/Eng, techAPL2 Gen bus, Sci/Eng, tec					Cobol, PL/1, RPGII, Lisp
Other Applications AvailableOA, third partyOA, third partyOA, third partyOA, third partyOA, third partyPRICING & AVAILABILITY Typical System Configuration and PriceCPU, 8MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 24 wkst's, 410 lpm prntr — \$131,230CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 22 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 828MB disk, 2 tape cntr					
PRICING & AVAILABILITY Typical System Configuration and PriceCPU, 8MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 24 wkst's, 410 lpm prntr — \$131,230CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 96 display tat, 32 PCs, 3600 lpm prnt, 20 ppm laser — \$963,820Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date\$442 4\$908 4\$978 4\$2,818 4 4	Principal Application Available	Gen bus, Sci/Eng, tech	Gen bus, Sci/Eng, tech	Gen bus, Sci/Eng, tech	Gen bus, Sci/Eng, tech
PRICING & AVAILABILITY Typical System Configuration and PriceCPU, 8MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 24 wkst's, 410 lpm prntr — \$131,230CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape ctr wkst cntrl, 96 display tat, 32 PCs, 3600 lpm prnt, 20 ppm laser — \$963,820Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date\$442 4\$908 4\$978 4\$2,818 4 4	Other Applications Available	OA third party	OA third parts	OA third parts	OA third parts
Typical System Configuration and PriceCPU, 8MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 24 wkst's, 410 pm prntr — \$131,230CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 prnt, 20 ppm laser — \$963,820Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date\$442 A A A A\$908 A 	Curst Applications Available	CA, time party			CA, unit party
Typical System Configuration and PriceCPU, 8MB mem, tape, 828MB disk, 2 tape cntrl wkst cntrl, 24 wkst's, 410 pm prntr — \$131,230CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290CPU, 16MB mem, tape, 3 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290CPU, 16MB mem, tape, 3 824MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 prnt, 20 ppm laser — \$963,820Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date\$442 A A A A\$908 A 					
828MB disk, 2 tape cntrl wkst cntrl, 24 wkst's, 410 lpm prntr — \$131,2303 828MB disk, 2 tape cntrl wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,2903 824MB disk, 2 tape ctr wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,2905.04GB disk, 2 tape ctr 4 wkst cntrl, 96 display sta, 32 PCs, 3600 lpm prnt, 20 ppm laser — \$963,820Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date\$442 - - -\$908 - - - - - - - - - - - - - -\$978 - - - - - - - - - - - - - - -\$03 '87 - <b< td=""><td></td><td></td><td></td><td></td><td></td></b<>					
wkst cntrl, 24 wkst's, 410 lpm prntr — \$131,230         wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$368,290         wkst cntrl, 32 wkst, 16 PCs, 2000 lpm prntr — \$396,290         4 wkst cntrl, 96 displa sta, 32 PCs, 3600 lpm prnt, 20 ppm laser — \$963,820           Monthly Maintenance of Typical Configuration Date of First Delivery Number Installed to Date         \$442 	Typical System Configuration and Price	CPU, 8MB mem, tape,	CPU, 16MB mem, tape,		CPU, 16MB mem, tape,
410 lpm prntr —       PCs, 2000 lpm prntr —       PCs, 2000 lpm prntr —       sta, 32 PCs, 3600 lpm prntr —         \$131,230       \$368,290       \$396,290       \$396,290       prnt, 20 ppm laser —         Monthly Maintenance of Typical       \$442       \$908       \$978       \$2,818         Configuration					5.04GB disk, 2 tape ctr
\$131,230         \$368,290         \$396,290         pmt, 20 ppm laser — \$963,820           Monthly Maintenance of Typical Configuration         \$442         \$908         \$978         \$2,818           Date of First Delivery         Q3 '87         Q4 '87         Q3 '87         Q4 '87         Q4 '87           Number Installed to Date         —         —         —         —         —         —					4 wkst cntrl, 96 display
Monthly Maintenance of Typical\$442\$908\$978\$2,818ConfigurationDate of First DeliveryQ3 '87Q4 '87Q3 '87Q4 '87Number Installed to Date					sta, 32 PCs, 3600 lpm
Monthly Maintenance of Typical\$442\$908\$978\$2,818ConfigurationDate of First DeliveryQ3 '87Q4 '87Q3 '87Q4 '87Number Installed to Date		\$131,230	\$368,290	\$396,290	
ConfigurationDate of First DeliveryQ3 '87Q4 '87Q3 '87Q4 '87Number Installed to Date					\$963,820
ConfigurationDate of First DeliveryQ3 '87Q4 '87Q3 '87Q4 '87Number Installed to Date					
ConfigurationDate of First DeliveryQ3 '87Q4 '87Q3 '87Q4 '87Number Installed to Date	Monthly Maintonance of Turicel	6442	\$009	¢079	\$2.919
Date of First Delivery     Q3 '87     Q4 '87     Q3 '87     Q4 '87       Number Installed to Date     —     —     —     —		<b>P44</b> 2	12308 2308	9210	\$2,818
Number Installed to Date — — — — — — —		02 :97	04 '97	02 '97	04 '97
		103.81	U4 8/	143 8/	U4 8/
		<b>—</b>	-	-	-
	COMMENTS				
		1			

All About	Supermini	Systems
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MANUFACTURER & MODEL	International Parallel Machines, Inc. IP-1	MAI Basic Four MPx 7110 Series	MAI Basic Four MPx 8001 Series	MAI Basic Four MPx 9100 Series
WORD LENGTH	16/32/64 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	150 MB-6GB	169MB/2.27GB	300MB-2.4GB	300MB-3.6GB
MEMORY RANGE	8MB-4GB	2MB-4MB	2MB-4MB	4MB-12MB
NO. WORKSTATIONS SUPPORTED	1			
	8 or more	20	20	68
PRICE RANGE, \$	50,000 to 2,000,000	From 36,000	From 62,000	From 116,000
TARGET MARKET(S)	Scientific & Engineering	General Business	General Business	General Business
CENTRAL PROCESSOR				
CPU Manufacturer and Model	IPM IP-1	Proprietary	Proprietary	Proprietary
CPU Cycle Time, nanoseconds	100	160	160	160
MIPS	10-200			
Hardware Floating Point	DP	SP	SP	SP
		36	Jor	эг
Virtual Memory (addressable bytes)	4GB-128GB			[ <b>—</b>
Cache Memory, bytes	512KB-4MB			
Battery Backup	Optional	Standard	Standard	Standard
Realtime Clock	Standard	Standard	Standard	Standard
VIAIN STORAGE				
Cycle/Access Time, nanoseconds	300	480	480	480
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes	8MB		1MB, 2MB, 4MB	
		1MB, 2MB, 4MB	1141D, ZIVID, 41VID	1MB, 2MB, 4MB
NPUT/OUTPUT CONTROL				
Type of Bus	Proprietary & VMEbus	Proprietary	Proprietary	Proprietary
No. of I/O Channels	10-200	8	8	12
Aggregate Bandwidth, bytes/sec.	800MB/sec.	8.3 MB/sec	8.3 MB/sec	8.3MB/sec
COMMUNICATIONS	1	1 '	1	,
Max. Number of Lines	8 per board	20	20	68
Synchronous	300 bps-10 Mbps	Optional up to 9600 bps	Optional up to 9600 bps	Optional up to 9600 bps
Asynchronous	Standard	Standard up to 19,200 bps	Standard up to 19,200 bps	Standard up to 19,200 bps
Protocols Supported	TCP/IP, Ethernet	X.25, BSC	X.25, BSC	X.25, BSC
LAN Supported	IEEE 802.3	MAI MAGNET	MAI MAGNET	MAI MAGNET
RJE Terminals Supported		2780/3780, 2770/3770	2780/3780	2780/3780
IBM 3270 Emulation	Nana			
	None	BSC	BSC	BSC
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed: 60MB-760MB per	169MB, 300MB formatted	Fixed: 300MB	Fixed: 300MB
	drive, up to 128 drives	285MB, formatted	285MB, formatted	285MB, formatted
Streaming Tape Drives	25ips, 50ips, 100ips	1600/6250 bpi @ 100 ips	1600/6250 bpi @ 100 ips	1600/6250 bpi @ 100 ips
Cartridge Tape Drives	None	8000/10000 bpi @ 90/72	8000/10000 bpi @90/72ips	8000/10000 bpi@90/72 ips
Reel-to-reel Tape Drives	800, 1600, 3200,6250 bpi	1600 & 6250 bpi@100 ips	1600 & 6250 bpi @ 100ips	
Line Printers	160, 300, 1200 lpm	150, 300, 600 ipm	150, 300, 600 lpm	
				150 lpm, 300lpm, 600lpm
Serial Printers	120 cps	160 cps	160 cps	160 cps
Letter Quality Printers	45 cps	30 cps, 72 cps	30 cps, 72 cps	30 cps, 72 cps
Non-Impact Printers	Laser			<b> </b> —
Other Peripherals Supported	A/D, D/A, Point. devices		<u> </u>	
	graphics, plotters			
SOFTWARE	<b>3</b> . <b>-F</b>			
Proprietary Operating System Name	IPOS	BOSS/VS	BOSS/VS	BOSS/VS
Operating System Type	Realtime	Multiuser	Multiuser	Multiuser
Unix Derivative	Yes	No	No	No
Database Management System	IPDBMS (Ingres-like)	MAI Origin	MAI Origin	MAI Origin
Assembler	VASM	I—	I—	
Compilers	C, Fortran	Basic, Cobol	Basic, Cobol	Basic, Cobol
Principal Application Available	Sai aimulation -!!/		Man Mille Com Com	NAS- MAININ Come
Principal Application Available	Sci. simulation, signal/	Mfg, Whis, Gov, Cnstr,	Mfg, Whis, Gov, Cnstr	Mfg, Whis, Gov, Cnstr,
Other Applications Accellet	image procesing, CAD	Prop. Mgt, Ret, Health	Prop. Mgt, Ret, Health	Prop. Mgt, Ret, Health
Other Applications Available	Mathematics	-		
RICING & AVAILABILITY				
Typical System Configuration and Price	IP-1-9 w/9 parallel proc	1 CPU; 2MB mem; 169MB	1CPU: 2MB mem: 300MBdisk	1CPU; 4MB mem; 2 300MB
// -/geration and filo	150MB disk, 72MB memory	disk; term; 80/200 lpmp	Term; 80/200 lpm prnt;	disk; 40 term; 600 lpm
	10 I/O ports— N/A	prntr; Boss/VS O.S —	1600 bpi tape; Boss/VS	print; 1600/6250 bpi
		\$40,000	0.S \$72,000	tape; Boss/VS O.S
	1	2CPU; 5MB mem, 169MB	2 CPU; 2MB mem; 300MB	\$215,000
	1	disk; 10 term; 300 lpm	disk; Term; 600 lpm prnt	2 CPU, 4MB mem; 3 300MB
	1	print; 120 tape; Boss VS	1600/6250 bpi tape;	disk; 70 term; 600 lpm
	}	O.S.—\$80,000		print, 1600/6250 bpi
••••••••••••••••••••••••••••••••••••••				tape — \$320,000
Monthly Maintenance of Typical	\$3,000	\$352 - \$590	352/590/1358	\$1,456 - \$2,171
Configuration		I	-	
Date of First Delivery	December 1985	March 1987	October 1987	October 1987
Number Installed to Date	6		I—	
COMMENTS				
	1		1	

MANUFACTURER & MODEL	MAI Basic Four MPx 9500 Series	McDonnell Douglas Series 9200	McDonnell Douglas Series 18	MIPS Computer Systen M/500
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	300MB-4.8GB	130MB-4GB	130MB-4GB	337MB-2GB
MEMORY RANGE	4MB-24MB	1MB-8MB	500MB-5GB	4MB-20MB
				)
NO. WORKSTATIONS SUPPORTED	84-255	208	400	Up to 32 serial ports
PRICE RANGE, \$	205,000-250,000	100,000-400,00	400,000-1,000,000	43,624
TARGET MARKET(S)	General Business	Gen. Bus., Bank, Trans, MIS, State & Local Gov.	Gen. Bus., Bank, Trans, MIS, State & Local Gov.	Gen. Bus., Sci/Eng CAD/CAM/CAE
CENTRAL PROCESSOR				
CPU Manufacturer and Model	Proprietary	Proprietary	Proprietary	MIPS R2000: 8MHz
CPU Cycle Time, nanoseconds	160	135	150	125
MIPS		N/A	N/A	5
Hardware Floating Point	SP	19/2	N/A	
	Jor			SP, DP
Virtual Memory (addressable bytes)		Entire Memory	Entire memory	4GB (2GB/process)
Cache Memory, bytes	64K	None	2MB per disk cntrlr	8KB
Battery Backup	Standard	Standard	Standard	None
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	480	540	300	375
Storage Protection	Standard	Semiconductor	Standard	Standard, ECC
Increment Size, bytes	1MB, 2MB, 4MB	2MB	2MB	4MB
INPUT/OUTPUT CONTROL				
Type of Bus	Proprietary	Proprietary	Proprietary	VMEbus
No. of I/O Channels	16	4 disk cont & 8 disks	5 disk cont & 10 disks	2-3
Aggregate Bandwidth, bytes/sec.	8.3 MB/sec	40MB/sec	100MB/sec	40MB/sec
COMMUNICATIONS		401010/300	TOONID/ Sec	40MB/Sec
		000	400	
Max. Number of Lines	84	208	400	32
Synchronous	Optional up to 9600 bps	19,200, (64KB for X.25)	Optional, 19.2K bps	
Asynchronous	Standard up to 19,200 bps	19,200, standard	Standard, 19.2K bps	Standard, 19.2 bps
Protocols Supported	X.25, BSC	SDLC, X.25, SNA, TTY	SDLC, X.25, SNA, TTY	CP/IP, TTY, Sun NFS
				, , , ,
LAN Supported	MAI MAGNET		IEEE 802.3	IEEE 802.3
RJE Terminals Supported	2780/3780	2780/3780, HASP, 3770	2780/3780, HASP, 3770	1222 002.5
				1
IBM 3270 Emulation	BSC	SNA, BSC	SNA, BSC	
PERIPHERAL EQUIPMENT				
Disks Supported	300 MB, formatted	Fixed: 1GB, 4GB	Fixed: 5GB	Fixed: 337MB
	285MB, formatted			
Streaming Tape Drives	1600/6250 bpi@ 100 ips	25/100 ips	50/100 ips	
Cartridge Tape Drives	8000/10000 bpi@ 90/72ips	N/A	N/A	60MB (1/4")
Reel-to-reel Tape Drives	1600/6250 bpi@ 100ips	N/A		6250 bpi/1600bpi (1/2
Line Printers	150, 300, 600 lpm	150/300/600/1200 lpm	150/300/600/1200 lpm	
Serial Printers	160 cps	40-400 cps	40-400 cps	
				VME perpherals suppted
Letter Quality Printers	30 cps, 72 cps	33 cps	33 cps	—
Non-Impact Printers				-
Other Peripherals Supported	-	CRT Term & Personal cptr	CRT term & PCs	
SOFTWARE				
Proprietary Operating System Name	BOSS/VS	Reality Operating System	Reality Operating System	UMIPS
Operating System Type	Multiuser	RT, multitask, multiuser	RT, multitask, multiuser	
Unix Derivative	Νο	No (Pick)	No (Pick)	Yes, Sys V.3, BSD 4.3
Database Management System	MAI Origin	Real DS, intgrtd w/o.s.	Real DS, intgrtd w/o.s.	\
Assembler		(internal use only)	Internal use only	MIPS
Compilers	Basic, Cobol	Basic, "All" (4G/L)	Basic, "All" (4G/L)	Pascal, Fortran, Cobol,
		"ENGLISH" DB retrieval	"ENGLISH" DB retrieval	PL/1, ADA, C
Principal Application Available	Mfg Mbla Cov Costs	Numerous and alter for	Numerous and all f	Sustem develo
Principal Application Available	Mfg, Whis Gov, Cnstr. Prop. Mgt., Ret., Health	Numerous app. pkgs for Manu., Dist., & Gov.	Numerous app. pkgs for	System development an simulation
Other Applications Available		lindidu., Dist., & GOV.	Manu., Dist., & Gov.	
Other Applications Available	_			Varies- available from
				OEMs
PRICING & AVAILABILITY				
Typical System Configuration and Price	1CPU; 4MB mem; 2 300MB	9230 — \$164,500	18/955 — \$395,000	OEM quantity 10
	disk; 20term; 600 lpm	9250 \$192,650	18/965 \$575,000	\$43,624
	print.; 1600 bpi tape			1
	Boss/VS O.S \$188,000	1		1
	2CPU; 4MB mem; 2 300MB			1
	print.; 30 terms;			1
		1		}
	300 lpm prnt; 800/1600			
	bpi tape — \$272,000	1	1	1
	3CPU, 45trm \$360,000	1	l	l
Monthly Maintenance of Typical	\$1,045/\$1,541/\$2,062	9230 — \$908	18/955 \$1,786	<u> </u>
Configuration		9250 \$1,252	18/956 — \$2,500	\$270
Date of First Delivery	March 1987			
		Q4 1984	May 1987	June 1986
Number Installed to Date		1,700		114
COMMENTS	1	1	Gen. availOctober 1987	MIPS is an OEM supplie
		l	1	of RISC-based system
	1	1	ļ	building blocks, includ-
	1	1		
				ing components, boards, compilers & op. systems

MANUFACTURER & MODEL	MIPS Computer Systems M/800	NCR Corporation 9000 ITX Family	Prime Computer, Inc. 2350	Prime Computer, Inc. 2450
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	337MB-2GB	40MB-20GB	60MB-516MB	60MB-516MB
MEMORY RANGE	4MB-20MB	1MB-4MB	Up to 8MB	4MB-8MB
NO. WORKSTATIONS SUPPORTED	Up to 32 serial ports	216 max.		
PRICE RANGE, \$	51,300	36,000-119,000	19,900 - 29,560	43,000-46,500
FARGET MARKET(S)	Gen. Bus., Sci/Eng	General business	GenBus,Bank,Scientific,	Gen Bus, Bank, Sci/Eng.
CENTRAL PROCESSOR	CAD/CAM/CAE		Engineering,CAD/CAM/CAE	CAD/CAM/CAE
CPU Manufacturer and Model	MIPS R2000: 12.5MHZ	Proprietary	Prime 2350	Prime 2450
CPU Cycle Time, nanoseconds	80		Not published	Not published
MIPS	8	0.37-1.1	.85	1.3
Hardware Floating Point	SP, DP	DP	SP, DP, QP	SP, DP, QP
Virtual Memory (addressable bytes)	4GB, (2GB/process)	128MB	512MB	512MB
Cache Memory, bytes	64KB	None	16K	16KB
Battery Backup	None	None	Optional	Optional
Realtime Clock IAIN STORAGE	Standard	-	None	Standard
Cycle/Access Time, nanoseconds	375	450	180	180
Storage Protection	Standard, ECC	Standard	Standard	Standard
Increment Size, bytes	4MB	1MB	2MB	4MB
NPUT/OUTPUT CONTROL				
Type of Bus	VMEbus	PM bus, Multibusl	Proprietary	Proprietary
No. of I/O Channels	2-3	14	One	1
Aggregate Bandwidth, bytes/sec.	40MB/sec	2MB/sec	5MB/sec	5MB/sec
COMMUNICATIONS			2	2
Max. Number of Lines	32	216-432	24	40
Synchronous		Standard, 9600 bps	64K bytes/sec., Optional	64K bps, optional
Asynchronous	Standard, 19.2 bps	Standard, 19.2K bps	19.2k bytes/sec Optional	19.2K bps
Protocols Supported	CP/IP, TTY, Sun NFS	BSC, X.25, SNA	SDLC,HDLC,X.25,BSC,SNA,	SDLC, HDLC, X.25, BSC,
			TCP/IP,TTY	sna, TCP/IP, TTY
LAN Supported	IEEE 802.3	SNA	IEEE 802.3,Prop Ringnet	IEEE 802.3, Prop Ringnet
RJE Terminals Supported		2780/3780	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation		SNA, BSC	SNA, BSC	SNA, BSC
Disks Supported	Fixed: 689MB	Fixed & remov.: 40/72/	Fixed: 60, 120, 258MB to	60, 120, 258MB
Diana oupportau	TAEG. GOBIND	135/279/415MB	MX stated	120, 120, 200MD
Streaming Tapa Drives	1		100 IPS, 10' Reel	100 ips, 10' reel
Streaming Tape Drives	60MP 14"	S/S, 25/100 ips		
Cartridge Tape Drives	60MB, 14"	15/90 ips	5.25' F.F./60MB	5.25", 60MB
Reel-to-reel Tape Drives	6250 bpi/1600 bpi ½"	1600/GCR, 100 ips	200	200 at 600 last
Line Printers		360-2000 lpm	300 or 600 lpm	300 or 600 lpm
Serial Printers	VME peripherals supported	80-325 cps, 370-720 lpm	 	
Letter Quality Printers		33 cps	55CPS	55 cps
Non-Impact Printers		-	Laser	Laser
Other Peripherals Supported	-		Graphic workstation	Graphic workstation
SOFTWARE				
Proprietary Operating System Name	UMIPS	тх	Primos	Primos
Operating System Type		Multitasking	Multiuser	Multiuser
Unix Derivative	Sys V.3, BSD 4.3	No	No	No
Database Management System		ITX DBMS	Prime,Oracle,Prime Info	Prime Oracle, Prime Info
Assembler	MIPS	Macro		
Compilers	Pascal, Fortran, Cobol,	Cobol, Basic, Pascal	Basic, Pascal, C, Fortran,	Basic, Pascal, Fortran,
Compileia	PL/1, ADA, C		Cobol, RPGLL, PL/1, Lisp	CoboL; PGLL,PL/1,LISP
Densing Application Assolution		Comm rotail for ind		Mide veriety of applie
Principal Application Available	System development and	Comm, retail, fin, ind,	Wide variety of applic.	Wide variety of applic. across eng/scien/commer
Other Applications Assolution	simulation	gov't, ed.	across eng/scien/commer	across eng/scien/commer
Other Applications Available	Varies- available from OEMs	Third party		-
				· · ·
PRICING & AVAILABILITY				
Typical System Configuration and Price	OEM quantity 10—	CPU, 3MB mem, tape, 2	4DSMB mem, 120MBdisk	4MB mem, 120MB disk
	\$51,300	270MB disk, 30 wksta,	60MB cartr tape,disk/	60MB tape, disk/
	1	720 lpm prntr, 0.S	tape cntrl/16 async	tape contrir/16 async
		\$148,995	lines,console;Primos;	lines,console;Primos;
		l I	diagnostic processor —	diagnostic processor —
			\$31,000	\$47,000
Monthly Maintenance of Typical	\$270	_	_	_
Configuration	I—			
Date of First Delivery	June 1986	1986	January 1986	January 1986
Number Installed to Date	114		N/A	N/A
COMMENTS	MIPS is an OEM supplier		,	,
	of RISC-based system			
	building blocks, includ-			
	ing components, boards,	1		
	compilers & op. systems.	1	I	J

MANUFACTURER & MODEL	Prime Computer, Inc. 2455	Prime Computer, Inc. 2755	Prime Computer, Inc. 9755	Prime Computer, Inc. 9955 II
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	496MB-4.6GB	496MB-4.6GB	52 513	496MB-12.3MB
MEMORY RANGE	4MB-16MB	4MB-16MB	8MB-16MB	16MB-32MB
NO. WORKSTATIONS SUPPORTED				
PRICE RANGE, \$	62,800-100,000	90,000-200,000	237,000-261,000	350,000-428,000
TARGET MARKET(S)	GenBus,Bank,Scientific, Engineering,CAD/CAM/CAE	GenBus,Bank,Scientific, Engineering,CAD/CAM/CAE	Gen Bus, Bank, Sci/Eng CAD/CAM/CAE	Gen Bus, Banking, Sci/Eng, CAD/CAM/CAE
CENTRAL PROCESSOR				
CPU Manufacturer and Model	Prime 2455	Prime 2755	Prime 9755	Prime 9955 II
CPU Cycle Time, nanoseconds	Not published	Not published	Not published	Not published
MIPS	1.3	1.6	3.4	5
Hardware Floating Point	SP, DP, QP	SP, DP, QP	SP, DP, TP	SP, DP, QP
Virtual Memory (addressable bytes)	512MB	512MB	512MB	512MB
Cache Memory, bytes	64K	64KB	16K	64KB
Battery Backup	Optional	Optional	Optional	Optional
Realtime Clock	Standard	Standard	None	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	81	81	84	46
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes INPUT/OUTPUT CONTROL	4MB	4MB	2MB	4MB
Type of Bus	Proprietary	Proprieton	Proprietory	Bronriston
No. of I/O Channels	Proprietary One	Proprietary	Proprietary	Proprietary
Aggregate Bandwidth, bytes/sec.	5MB/sec	5MB/sec	9MB/sec	9.5MB/sec
COMMUNICATIONS	2	2		2
Max. Number of Lines	40	128	192	254
Synchronous	64K bytes/sec, optional	Optional, up to 64KB/sec	64KB/sec, optional	64K bps, optional
Asynchronous	19.2k bytes/sec optional	Optional, up to 19.2KB/sec	19.2KB/sec, optional	19.2K bps, optional
Protocols Supported	SDLC,HDLC,X.25,BSC,SNA,	SDLC,HDLC,X.25,BSC,SNA,	SDLC, HDLC, X.25, BSC,	SDLC, HDLC, X.25, BSC.
·····	TCP/IP,TTY	TCP/IP,TTY	SNA, TCP/IP, TTY	SNA, TCP/IP, TTY
LAN Supported	IEEE 802.3, Prop Ringnet	IEEE 802.3, Prop Ringnet	IEEE 802.3, Prop Ringnet	IEEE 802.3, Ringnet
RJE Terminals Supported	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	SNA, BSC	SNA, BSC	SNA, BSC	SNA, BSC
PERIPHERAL EQUIPMENT				
Disks Supported	Fix 60,120,258MB to MX	Fixed: 496MB or 770MB	Fixed: 496/770MB	Fixed: 496MB-770MB
	stated	Rem: 330MB	Rem.: 300MB	Rem: 300MB
Streaming Tape Drives	100 IPS, 10' Reel	100 IPS, 10" Reel	100 ips, 10' reel	100 ips, 10' reel
Cartridge Tape Drives	5.25" F.F./60MB	F.F./60MB	5.25", 60MB	5.25", 60MB
Reel-to-reel Tape Drives		800-6450 bpi, 50 ips	50 ips, 800/1600/6250bps	50 ips, 800/1600/6250bpi
Line Printers	300,600 lpm	200-1000 lpm	200-1000 lpm	200-1000 lpm
Serial Printers	55000			
Letter Quality Printers Non-Impact Printers	55CPS	55CPS	55 cps	55 cps
Other Peripherals Supported	Laser Graphic workstation	Laser Graphic Workstation	Laser Graphic workstation	Laser Graphic workstation
SOFTWARE				
	Dimo	Duine a	Dimen	
Proprietary Operating System Name Operating System Type	Primos	Primos	Primos	Primos
Unix Derivative	Multiuser	Multiuser	Multiuser	Multiuser
Database Management System	No Prime,Oracle,Prime Info	No Prime,Oracle,Prime Info	No Prime Oracle, Prime Info	No Prime Oracle, Prime Info
Assembler			Prime Oracle, Prime Info	Prime Oracle, Prime Info
Compilers	Basic, Pascal, C, Fortran,	Basic, Pascal, C, Fortran,	Basic, Pascal, Fortran,	Basic, Pascal, Fortran
Compiles	Cobol, RPGLL, PL/1, Lisp	Cobol, RPGLL, PL/1, Lisp	Cobol, RPGII, PL/1, LISP	Cobol, RPGII, PL/1, LISP
Principal Application Available	Wide variety of applic.	Wide variety of applic.	Wide variety of eng/sci/	Wide variety of eng/sci/
	across eng/scien/commer	across eng/scien/commer	commercial applications	commercial applications
Other Applications Available		-	-	
PRICING & AVAILABILITY				
Typical System Configuration and Price	4MB mem, 258MB disk,	4MB mem, 120MB disk,	8MB mem, 2-496MB disk,	16MB mem, 496MB disk,
	60MB tape ,disk/	streaming tape, console,	GCR tape dr, disk/tape	GCR tape, disk/tape
	tape contrir/16 async lines sys cons,diagnost	office peripheral cabinet, Primos,	controller, periph. cab. console; Primos;	controller, system console; Primos;
	processor,Primos-	diagnostic processor	diagnostic processor-	peripheral cabinet
	\$75,000	\$110,000	\$258,600	\$392,000
Monthly Maintenance of Typical				
Configuration				
Date of First Delivery	July 1987	February 1987	April 1986	April 1986
Number Installed to Date		Not available	N/A	N/A
COMMENTS				
	1	1	1	1

MANUFACTURER & MODEL	Prime Computer, Inc. 6350	Prime Computer, Inc. 6550	Pyramid Technology Corp Series 9000	Pyramid Technology Corp Series 9805
WORD LENGTH	20 544	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	32 bits	496MB-12.3MB	420MB-32GB	420MB-32GB
	496MB-12.3MB			
MEMORY RANGE	16MB-32MB	Up to 64MB	16MB-128MB	4MB-128MB
NO. WORKSTATIONS SUPPORTED			512	256
PRICE RANGE, \$	549,000-665,000	800,000-925,000	209,000-600,000	129,000-500,000
TARGET MARKET(S)	Gen Bus, Banking, Sci/Eng, CAD/CAM/CAE	Gen Bus, Banking, Sci/Eng, CAD/CAM/CAE	Gen Bus, Bank, MIS, Mfg, Eng, Gov, Trans, Telecom	GenBus, Mfg, Trans, MIS, Eng, Gov, Bank, Telecom
CENTRAL PROCESSOR		Converse, CAD, CAN, CAE		Eng, Gov, Bank, Tolocom
CPU Manufacturer and Model	Prime 6350	Prime 6550	Proprietary RISC	Proprietary, RISC
CPU Cycle Time, nanoseconds	1	Not published	100	100
	Not published			
MIPS	11.7	20.6	7-28 (1-4 processors)	3.5
Hardware Floating Point	SP, DP, QP	SP, DP, QP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	512MB	512MB	4GB	4GB
Cache Memory, bytes	32KB	32KB/CPU	64KB	32KB
Battery Backup	Optional	Optional	None	None
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	34	34	700ns 1st wd,100ns subs	700ns lst wd, 100ns subs
Storage Protection	Standard	Standard	Standard	Standard
				4MB or 16MB
Increment Size, bytes INPUT/OUTPUT CONTROL	8MB	8MB	4MB or 16MB	4WB OF TOWIB
Type of Bus	Proprietary	Proprietary	Multibus, Xtendbus (prop	Multibus, Xtendbus prop.
No. of I/O Channels		2	8	8
	24MP (200	-		40MB (and
Aggregate Bandwidth, bytes/sec.	24MB/sec	48MB/sec	40MB/sec.	40MB/sec
COMMUNICATIONS	2	2		-
Max. Number of Lines	254	254	512	256
Synchronous	64K bps, optional	56-64K bps, optional	Optional	Optional
Asynchronous	19.2K bps, optional	19.2K bps, optional	Standard	Standard
Protocols Supported	SDLC, HDLC, X.25, BSC,	SDLC, HDLC, X.25, BSC,	SDLC, HDLC, X.25, TCP/IP	SDLC, HDLC, X.25, TCP/IP
	SNA, TCP/IP, TTY	SNA, TCP/IP, TTY	SNA, TTY, Hyperchannel	SNA, TTY, BSC, Hyperchnl
LAN Supported	IEEE 802.3, Ringnet	IEEE 802.3, Ringnet	IEEE 802.3	IEEE 802.3
RJE Terminals Supported	2780/3780, HASP	2780/3780, HASP	HASP	HASP
IBM 3270 Emulation	SNA, BSC	SNA, BSC	SNA	SNA
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed: 496MB-770MB	Fixed: 496MB-770MB	Fixed: 470MB & 1GB	Fixed: 415MB, 470MB, 1GB
Disks Supported				
	Rem: 300MB	Rem: 300MB	Removable: 300MB	Removable: 300MB
Streaming Tape Drives	100 ips, 10' reel	100 ips, 10' reel	1600 bpi, 100ips srt/stp	1600 bpi, 100 ips s/s
Cartridge Tape Drives	5.25", 60MB	5.25", 60MB	None	—
Reel-to-reel Tape Drives	50 ips, 800/1600/6250bpi	50 ips, 800/1600/6250bpi	1600/6250 bpi, 100 ips	1600/6250 bpi, 100 ips
Line Printers	200-1000 lpm	200-1000 lpm	600, 1000 lpm	600, 1000 lpm
Serial Printers	I	· ·	I	
Letter Quality Printers	55 cps	55 cps		_
Non-Impact Printers	Laser	Laser		
Other Peripherals Supported	Graphic workstation	Graphic workstation	-	
SOFTWARE				
Proprietary Operating System Name	Primos	Primos	Dual port OSX	Dual port OSX
Operating System Type	Multiuser	Multiuser	Multitasking, multiuser	Multitasking & user
Unix Derivative	No	No	Dual port of UNIX Sys V	Dual port of Sys V
Database Management System	Prime Oracle, Prime Info	Prime Oracle, Prime Info	Oracle, Ingres, Unify	Oracle, Ingres, Unify,
Assembler		1	Standard	Standard
Compilers	Basic, Pascal, Fortran	Basic, Pascal, Fortran	Pascal, Fortran, Cobol,	Pascal, Fortran, Cobol,
Compilera	Cobol, RPGII, PL/1, LISP	Cobol, RPGII, PL/1, LISP	ADA, Lisp, C	ADA, Lisp
	с	С		
Principal Application Available	Wide variety of eng/sci/	Wide variety of eng/sci/	Various	Various
Other Applications Assallable	commercial applications	commercial applications	2000 2-4	2000 2-4
Other Applications Available		<b></b>	3000 3rd pty pack avail	3000 3rd pty appl avail
			through Pyramid's PRISM prog. under Pick & UNIX	through UNIX and Pick operating systems.
				-peroting operation.
PRICING & AVAILABILITY				1
Typical System Configuration and Price	64MB mem, 4-770MB disk,	64MB mem, 4-770MB disk,	16MB memory, 470MB disk,	CPU, 4MB mem, 16 RS232
	2 GCR tape, disk/tape	2-GCR tape dr, console,	1/2" 1600 bpi tape, disk	ports, Ethernet, RP/IP,
	controller, pripheral	periph cabinet, diag.	contri, tape contri, Eth	disk contrl, tape Contrl
	cabinet, console, Primos	processor, Primos;	ernet w/TCP/IP, console,	470MB disk, 1/2" 100 ips
	diagnostic processor	\$875,000	operating sys, C lang.,	1600 6 bpi tape, operat-
	\$875,000		1yr warranty. 9810 to	ing sys, console, C com-
	14070,000	1	9840- \$209,950 to	piler, I yr warranty
			\$514,000	\$139,050
Monthly Maintenance of Typical	—	-		\$1,160
Configuration		1	\$1,820 to \$3,130	
Date of First Delivery	May 87	November 1987	March 1987	July 1987
Number Installed to Date	N/Á	N/A	50	Several Beta Sites
	1		1-4 Symmetric RISC pro-	Product announced in May
COMMENTS				
COMMENTS			cessors object code com	Upgradable to or
COMMENTS				Upgradable to or compatible w/ all
COMMENTS			cessors object code com patible to entire Pyra- mid family, field up-	Upgradable to or compatible w/ all Pyramid Systems.

MANUFACTURER & MODEL	Ridge Computers Ridge 3200	Sequent Computer Systems S81	Stratus Computer, Inc. XA2000	Stratus Computer, I FT250
WORD LENGTH	32 bits	32 bits	32 bits	32 bits
DISK STORAGE CAPACITY	300MB-916GB	264MB-17.3MB	143MB-21GB	143MB-21GB
	4MB-128MB	8MB-240MB	4MB-16MB	4MB-8MB
MEMORY RANGE		8MB-240MB		
NO. WORKSTATIONS SUPPORTED	64		256	128
PRICE RANGE, \$	50,000 and up	164,00-800,00	250,000	250,000
TARGET MARKET(S)	Scientific, Engineering CAD/CAM/CAE	Gen bus, bank/fin, trans proc, MIS, Sci/Eng, CAD	OnLine transaction pro- cessing	OnLine transaction pro-
CENTRAL PROCESSOR		p		
CPU Manufacturer and Model	Ridge 3200 - Prop. RISC	Intel 80386	MC 68020	MC 68020
CPU Cycle Time, nanoseconds	83.3	62.5	62.5	125
MIPS	5	8-108 (2-30 CPUs)	2-8	.7
			Standard	
Hardware Floating Point	SP, DP	SP, DP		NA
Virtual Memory (addressable bytes)	4GB	256MB/proc	128M	16MB
Cache Memory, bytes	16KB	64KB/CPU	64K	None
Battery Backup	None	None	Standard	Standard
Realtime Clock	Standard	Standard	Standard	Standard
MAIN STORAGE				
Cycle/Access Time, nanoseconds	333	200	125	_
				Conneland
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes INPUT/OUTPUT CONTROL	4MB or 16MB	8MB	2M	2M
Type of Bus	Proprietary	Multibus, Sequent Sys	<u> </u>	
No. of I/O Channels	8	Up to 8	1	1
Aggregate Bandwidth, bytes/sec.	14.2MB/sec	1.2MB/sec	16MB/sec	16MB/sec
	14.21010/Sec	1.21410/380		
COMMUNICATIONS		050	050	100
Max. Number of Lines	32, more w/ concentrator	250	256	128
Synchronous	<u> </u>	Optional, 1M bps	Optional, 56K bps	Optional, 56K bps
Asynchronous	19.2/4.8 K baud	Standard	Standard, 9600 bps	Standard, 9600 bps
Protocols Supported	TCP/IP, TTY	X.25, TCP/IP, TTY	SDLC, SNA, BSC, X.25,	SDLC, SNA, BSC, X.25,
	, .		LU6.2, IEEE 802.3	LU6.2, IEEE 802.3
LAN Supported	IEEE 802.3	IEEE 802.3	MAP, Ethernet	MAP, Ethernet
RJE Terminals Supported	ILLE 002.5		2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	1	None	BSC	BSC
PERIPHERAL EQUIPMENT				
Disks Supported	150, 300, 445, 600MB	Fixed: 264/396/540MB	Fixed & removable: 448MB	Fixed & rem: 148MB-44
Streaming Tape Drives	<u> </u>	45/60MB cart	1600/3200 bpi, 100 ips	S/S, 25 ips
Cartridge Tape Drives	1/4"; 60MB	1-	1	I
Reel-to-reel Tape Drives	1/2"; 1600/3200 bpi	100 ips, 1600/6250 bpi	1600/6250 bpi, 100 ips	
Line Printers	Dataproducts		300/600/900 lpm	300/600/900 lpm
Serial Printers	Most	1	None	None
Letter Quality Printers	Most	1	55 cps	55 cps
Non-Impact Printers	LaserWriter	Imagen & Xerox 2700		
Other Peripherals Supported			-	
SOFTWARE				
Proprietary Operating System Name	1	l	Multitasking	vos
Operating System Type	Multitasking/multiuser		vos	Multitasking
Unix Derivative	Yes, RX/V	Dynix	No	No
			Oracle	Oracle
Database Management System	Informix-SQL (Rel. DBMS)	Unify, Oracle, Ingres		1
Assembler	Yes	Macro	Yes	Yes
Compilers	Pascal, Fortran, ADA,	Basic, Pascal, Fortran,	Cobol, Fortran, Basic,	Cobol, Fortran, Basic,
	Lisp, Prolog, C	C	PL/1, C, Pascal	PL/1, C, Pascal
Principal Application Available		_	Mfg proc cntrl, ATM/POS	Mfg proc cntrl, ATM/PC
	1	1	ntwk,cash mgt brkge sys	ntwk, cash management
Other Applications Available	Ansys, Nastran, MARC/	I	Mfg, distribution,	distribution,
Other Applications Available				reservation, message
	MCAD Dracula VTI tools, Spice more		reservation, message switching.	switching.
			l control mig.	
PRICING & AVAILABILITY				
Typical System Configuration and Price	Ridge 3200, 16MB RAM,	2 CPUs, 8MB mem, dual	8MB dup proc mod;40 sit	4MB dup proc mod;20 :
· •	16 R5232, 300MB Disc,	disk cntrl, 264MB disk,	16MB DMA bus;Bat backup	16MB DMA bus; batt bl
	RX/V w/networking,	Ethernet, 16 lines,	2 mem cntrl,2 C200 Comm	2 mem cntrl,2 disk cntrl
	PC-Interface, ten/plus-	Dynix — \$164,000	cntrl,comm panel;tape	2 143MB disk dr., 2 co
	\$69,900		unit & contrl,300Mb dis	cntrl, VOS, TPF, FMS, 8
	403,300	1		
			VOS operating sys \$261,000	one language \$95,000
Monthly Maintenance of Typical	\$700	_	\$514	\$913
Configuration	1	<b></b>	1987	1982
	1-		1307	1302
Data of First Delivery	1-	03 '87	1—	1
Date of First Delivery		None		
Number Installed to Date				111n to 32 VA2000 some
Number Installed to Date	-		Up to 32 XA2000 compu-	10p to 32 AA2000 com
	-		Up to 32 XA2000 compu- ters can be locally	ters can be locally
Number Installed to Date			ters can be locally	ters can be locally
Number Installed to Date				Up to 32 XA2000 comp ters can be locally connected into world- wide network with

32 bits 256MB-64GB 8MB-32MB No set limits From 74,900 On-line transaction processing Tandem EXT 10 100  SP, DP 1GB  Standard Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC Fixed: 64MB-2.1GB	32 bits 256MB-64GB 16MB-64MB No set limits From 250,000 On-line transaction processing Tandern EXT 25 100 — SP, DP 1GB 64KB/proc Standard Standard 116 Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770	32 bits 256MB-64GB + 4MB-128MB No set limits — On-line transaction processing Tandem NS II 100 1.6-12.8 SP, DP 2GB/proc. — Standard Standard 400 Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps
256MB-64GB 8MB-32MB No set limits From 74,900 On-line transaction processing Tandem EXT 10 100  SP, DP 1GB  Standard Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps Standard, 56K bps Standard, 56K bps Standard, 56K bps SLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	256MB-64GB 16MB-64MB No set limits From 250,000 On-line transaction processing Tandem EXT 25 100  SP, DP 1GB 64KB/proc Standard Standard 116 Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	256MB-64GB + 4MB-128MB No set limits 
8MB-32MB No set limits From 74,900 On-line transaction processing Tandem EXT 10 100 — SP, DP 1GB — Standard Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps Standard, 56K bps Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	16MB-64MB No set limits From 250,000 On-line transaction processing Tandem EXT 25 100  SP, DP 1GB 64KB/proc Standard Standard 116 Standard MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	4MB-128MB No set limits — On-line transaction processing Tandem NS II 100 1.6-12.8 SP, DP 2GB/proc. — Standard Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps
No set limits From 74,900 On-line transaction processing Tandem EXT 10 100  SP, DP 1GB  Standard Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	No set limits From 250,000 On-line transaction processing Tandem EXT 25 100  SP, DP 1GB 64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	No set limits — On-line transaction processing Tandem NS II 100 1.6-12.8 SP, DP 2GB/proc. — Standard Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps
From 74,900 On-line transaction processing Tandem EXT 10 100 	From 250,000 On-line transaction processing Tandem EXT 25 100 — SP, DP 1GB 64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	On-line transaction processing     Tandem NS II     100     1.6-12.8     SP, DP     2GB/proc.      Standard     Standard     Standard     400     Standard     400     Standard     4MB     Dynabus     32-256     13MB/sec per proc.     256     Standard, 56K bps     Standard, 50 to 19.6K bps     Standard, 50 to 19.6K bps     Standard, 50 to 19.6K bps     Standard, SNA, ADCCP
On-line transaction processing Tandem EXT 10 100  SP, DP 1GB  Standard Standard 300 Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	On-line transaction processing Tandem EXT 25 100 — SP, DP 1GB 64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	processing Tandem NS II 100 1.6-12.8 SP, DP 2GB/proc. 
processing Tandem EXT 10 100 	processing Tandem EXT 25 100 	processing Tandem NS II 100 1.6-12.8 SP, DP 2GB/proc. 
100 	100 — SP, DP 1GB 64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	100 1.6-12.8 SP, DP 2GB/proc.  Standard Standard 400 Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 56 kps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps
100 	100 — SP, DP 1GB 64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	100 1.6-12.8 SP, DP 2GB/proc.  Standard Standard 400 Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 56 kps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps Standard, 50 to 19.6K bps
1GB Standard Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps SLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	1GB 64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	SP, DP 2GB/proc. — Standard Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
1GB Standard Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps SLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	1GB 64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	2GB/proc. — Standard Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
Standard     Standard     Standard     Standard     JOO     Standard     4MB     Dynabus     32-80     13MB/sec per proc.     144     Standard, 56K bps     Standard, 50 to 19.6K bps     SDLC, HDLC, X.25, MAP,     LU6.2, SNA, ADCCP     IEEE 803.2, Hyperchannel     2780/3780, 3770     SNA, BSC	64KB/proc Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	
Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	Standard Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
Standard 300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	Standard 116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Standard 400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
300 Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	116 Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	400 Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps s Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
Standard 4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	Standard 8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps s Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Standard 4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
4MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	8MB Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	4MB Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	Dynabus 32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Dynabus 32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	32-80 13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	32-256 13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	13MB/sec per proc. 144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	13MB/sec per proc. 256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	144 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	256 Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Standard, 56K bps Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
S Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	S Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	Standard, 50 to 19.6K bps SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	SDLC, HDLC, X.25, MAP, LU6.2, SNA, ADCCP
LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	LU6.2, SNA, ADCCP IEEE 803.2, Hyperchannel	LU6.2, SNA, ADCCP
IEEE 803.2, Hyperchannel 2780/3780, 3770 SNA, BSC	IEEE 803.2, Hyperchannel	
2780/3780, 3770 SNA, BSC		
SNA, BSC	2780/3780, 3770	IEEE 803.2, Hyperchannel
SNA, BSC		2780/3780, 3770
	SNA, BSC	SNA, BSC
Fixed: 64MB-2.1GB		1
	Fixed: 64MB-2.1GB	Fixed: 64MB-2.1GB
Rem.: 240MB	Rem.: 240MB	Rem.: 240MB
75/50 ips, 1200 bpi	75/50 ips, 1200 bpi	75/50 ips, 1200 bpi
45-200 ips, 800-6250 bpi		45-200 ips, 800-6250 bpi
300/600/1000/1200 lpm	300/600/1000/1200 lpm	300/600/1000/1200 lpm
55 cps	55 CPS	55 cps
		-
-	-	
Guardian 90XF	Guardian 90XF	Guardian 90XF
RT, multitask, multiuser	RT, multitask, multiuser	RT, multitask, multiuser
		I
Encompass	Encompass	Encompass
Basic Pascel C Cobel	Basic Pascal C Cobol	Basic Bascal C Cohol
		Basic, Pascal, C, Cobol,
		Fortran, Mumps, TAL,
		Extended Basic
		On-line transaction
processing	processing	processing
	-	-
Contact vendor	Contact vendor	Contact vendor
	RT, multitask, multiuser Encompass Basic, Pascal, C, Cobol, Fortran, Mumps, TAL, Extended Basic On-line transaction	Guardian 90XF       Guardian 90XF         RT, multitask, multiuser       RT, multitask, multiuser             Encompass          Basic, Pascal, C, Cobol,       Basic, Pascal, C, Cobol,         Fortran, Mumps, TAL,       Extended Basic         On-line transaction       On-line transaction         processing

No set limits 585,000-8,56 On-line transs processing Tandem VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc.	A (16MB/CPU) 4MB-32MB 100-240 From 180,000 Gen Bus, bankii proc, gov't, edu Proprietary 100 7.7 Optional 4GB 44KB Standard  100  4/16MB  11MB/sec  11MB/sec  C K bps to 19.6K bps X.25, MAP, ADCCP Hyperchannel 3770 -2.1GB Fixed: 149MB/	1MB-4MB         16         From 22,000         OA, mfg, Sci/         Wang VS 65         200         —         Sp, DP         16MB         16KB         —         400         Standard         4MB         Prop.         6         5MB/sec.         4         Cbps         2K bps         TTY         VT 100         WangNet         2780/3780, I         SNA, BSC         /280MB/	/Eng 35C, X.25,
256MB-64GB Up to 256ME No set limits 585,000-8,50 On-line transe processing Tandern VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. Standard, 80 Standard, 80 Standar	8+       149MB-14.6GE         3 (16MB/CPU)       4MB-32MB         100-240       64,000         64,000       From 180,000         action       Gen Bus, bankii         proc, gov't, edu       Proprietary         100       7.7         Optional       4GB         44KB       Standard         100          4/16MB          11MB/sec          11MB/sec          11MB/sec          4DCCP       CC/IP, NA, TCP/IP, SNA, T         Hyperchannel       3770       2780/3780         -2.1GB       Fixed: 149MB/	3         67MB-2.6GB           1MB-4MB         16           From 22,000         0A, mfg, Sci/           Juc.         Wang VS 65           200            Sp, DP         16MB           16KB            400         Standard           4MB         Prop.           6         5MB/sec.           4            X.25, BSC,         WSN, SNA, E           TTY         VT 100           WangNet         2780/3780, I           SNA, BSC         //280MB/	/Eng 35C, X.25,
16MB/CPU)Up to 256ME No set limits 585,000-8,50 On-line transa processingTandem VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard Standard 32-256 20-80MB/secproc.256/proc. Standard, 50 Schandard, 50 	A (16MB/CPU) 4MB-32MB 100-240 From 180,000 Gen Bus, bankii proc, gov't, edu Proprietary 100 7.7 Optional 4GB 44KB Standard  100  4/16MB  11MB/sec  11MB/sec  C K bps to 19.6K bps X.25, MAP, ADCCP Hyperchannel 3770 -2.1GB Fixed: 149MB/	1MB-4MB         16         From 22,000         OA, mfg, Sci/         Wang VS 65         200         —         Sp, DP         16MB         16KB         —         400         Standard         4MB         Prop.         6         5MB/sec.         4         Cbps         2K bps         TTY         VT 100         WangNet         2780/3780, I         SNA, BSC         /280MB/	/Eng 35C, X.25,
No set limits 585,000-8,56 On-line transs processing Tandem VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256,MAP, 50CCP 19.6K bps .25, MAP, berchannel 70 2780/3780, SNA, BSC	100-24064,000actionGen Bus, bankii proc, gov't, eduProprietary 1007.7Optional 4GB4KB 5tandard510010010010010010011MB/sec11MB/sec0ptional, 307K Standard, 19.2 SDLC, HDLC, X ADCCPYPperchannel 37702780/3780 Yes-2.1GBFixed: 149MB/	16         17         18         From 22,000         OA, mfg, Sci/         Wang VS 65         200         —         Sp, DP         16MB         16KB         —         400         Standard         4MB         Prop.         6         5MB/sec.         4         —         K bps         K. bps         TTY         VT 100         WangNet         2780/3780, I         SNA, BSC         /280MB/	/Eng 35C, X.25,
ion 585,000-8,56 On-line transa processing Tandem VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. Standard, 50 Standard, 50 St	64,000 action From 180,000 Gen Bus, banki proc, gov't, edu Proprietary 100 7.7 Optional 4GB 44KB Standard  100  4/16MB   11MB/sec  SDLC, HDLC, X ADCCP Hyperchannel 3770 -2.1GB Fixed: 149MB/	ing, trans. luc. Wang VS 65 200 — Sp, DP 16MB 16KB — 400 Standard 4MB Prop. 6 5MB/sec. 4 — K bps K bps Standard 4 WSN, SNA, E TTY VT 100 Wang VS 65 200 — Sp, DP 16MB 16KB — 4 400 Standard 4MB Prop. 6 5MB/sec. 4 — (280MB/ Fixed: 67MB-	/Eng 35C, X.25,
ion On-line transa processing Tandem VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. Standard, 50 Standard, 50 St	action Gen Bus, bankii proc, gov't, edi Proprietary 100 7.7 Optional 4GB 44KB Standard — 100 — 4/16MB — 11MB/sec — 11MB/sec — x.25, MAP, ADCCP TCP/IP, SNA, T Ethernet 3770 2780/3780 Yes -2.1GB Fixed: 149MB/	ing, trans. OA, mfg, Sci/ luc. Wang VS 65 200 — Sp, DP 16MB 16KB — — 400 Standard 4MB Prop. 6 5MB/sec. 4 … X bps Xtandard 4MB Prop. 6 5MB/sec. 4 … TTY VT 100 WangNet 2780/3780, I SNA, BSC	/Eng 35C, X.25,
processing Tandem VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. Standard, 80 519.6K bps .25, MAP, DCCP perchannel 70 Standard Standard, 80 Standard, 50 Standard, 5	c Internet Standard, 19-2 K bps Optional, 307K Standard, 19-2 X.25, MAP, ADCCP TCP/IP, SNA, T Hyperchannel 3770 Z780/3780 Yes -2.1GB Fixed: 149MB/	Luc. Wang VS 65 2000  Sp, DP 16MB 16KB  400 Standard 4MB Prop. 6 5MB/sec. 4  K bps (.25, BSC, WSN, SNA, E TTY VT 100 WangNet 2780/3780, I SNA, BSC (280MB/ Fixed: 67MB-	3SC, X.25,
Tandem VLX 83.3 12-48 SP, DP 1GB 64KB Standard Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. Standard, 80 519.6K bps 19.6K bps DCCP DCCP DCCP DCCP DCCP DCCP DCCP DCC	roprietary 100 7.7 Optional 4GB 44KB Standard  100  4/16MB  11MB/sec  11MB/sec  11MB/sec  SDLC, HDLC, X ADCCP TCP/IP, SNA, T Ethernet 3770  2780/3780 Yes  2.1GB Fixed: 149MB/	Wang VS 65           200           —           Sp, DP           16MB           16KB           —           400           Standard           4MB           Prop.           6           5MB/sec.           4           —           2K bps           X:25, BSC,           WSN, SNA, ETTY           VT 100           WangNet           2780/3780, I           SNA, BSC           /280MB/	3SC, X.25,
bps broc. bps broc. bps c25, MAP, berchannel proc. bps c25, MAP, broc. c25, MAP, broc. c25, MAP, broc. c25, MAP, broc. c25, MAP, broc. c2780/3780, c2780/3	to 19.6K bps X.25, MAP, ADCCP TOP: Internet TOP: Internet TOP	200 	3SC, X.25,
12-48 SP, DP 1GB 64KB Standard Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 2780/3780, 2780/3780, SNA, BSC	c 100 to 19.6K bps X.25, MAP, ADCCP Typerchannel 3770 -2. 1GB 7.7 Optional 4GB 44KB Standard  100  4/16MB  Optional, 307K Standard, 19.2 SDLC, HDLC, X CC, HDLC, X TCP/IP, SNA, T Ethernet 2780/3780 Yes Fixed: 149MB/		
SP, DP 1GB 64KB Standard 416 Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. 256/proc. 256/proc. 256/proc. Standard, 80 519.6K bps 256/proc. Standard, 80 Standard, 50 Standard, 50	C Optional 4GB 44KB Standard  100  4/16MB  11MB/sec  C 11MB/sec  C 0ptional, 307K Standard, 19.2 SDLC, HDLC, X ADCCP TCP/IP, SNA, 1 Ethernet 3770 2780/3780 Yes -2.1GB Fixed: 149MB/	16MB         16KB            400         Standard         4MB         Prop.         6         5MB/sec.         4            Kbps         Kbps         Standard         X25, BSC,         WSN, SNA, E         TTY         VT100         WangNet         2780/3780, I         SNA, BSC         /280MB/         Fixed: 67MB-	
SP, DP 1GB 64KB Standard 416 Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. 256/proc. 256/proc. 256/proc. Standard, 80 519.6K bps 256/proc. Standard, 80 Standard, 50 Standard, 50	C Optional 4GB 44KB Standard  100  4/16MB  11MB/sec  C 11MB/sec  C 0ptional, 307K Standard, 19.2 SDLC, HDLC, X ADCCP TCP/IP, SNA, 1 Ethernet 3770 2780/3780 Yes -2.1GB Fixed: 149MB/	16MB         16KB            400         Standard         4MB         Prop.         6         5MB/sec.         4            Kbps         Kbps         Standard         X25, BSC,         WSN, SNA, E         TTY         VT100         WangNet         2780/3780, I         SNA, BSC         /280MB/         Fixed: 67MB-	
1GB         64KB         Standard         Standard         416         Standard         8MB, 16MB         Dynabus         32-256         20-80MB/sec         256/proc.         Standard, 80         > 19.6K bps         25. MAP,         DCCP         LU6.2, SNA,         perchannel         70         2780/3780,         SNA, BSC         1GB         Fixed: 64MB-	4GB 44KB Standard  100  4/16MB  4/16MB  11MB/sec  11MB/sec  NOptional, 307K Standard, 19.2 X.25, MAP, X.25, MAP, ADCCP TCP/IP, SNA, 1 Ethernet 3770 2780/3780 Yes -2.1GB Fixed: 149MB/	16MB         16KB            400         Standard         4MB         Prop.         6         5MB/sec.         4            Kbps         Kbps         Standard         X25, BSC,         WSN, SNA, E         TTY         VT100         WangNet         2780/3780, I         SNA, BSC         /280MB/         Fixed: 67MB-	
64KB Standard Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. Standard, 80 9 19.6K bps 256/proc. Standard, 50 Standard, 5	44KB Standard 	16KB            400         Standard         4MB         Prop.         6         5MB/sec.         4            Kbps         Standard         K.25, BSC,         TTY         VT 100         WangNet         2780/3780, I         SNA, BSC         /280MB/	
Standard Standard 416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. 256/proc. 256/proc. 256/proc. Standard, 80 519.6K bps 25, MAP, DCCP DCCP perchannel 70 2780/3780, SNA, BSC 1GB Fixed: 64MB-	Standard 		
bps 255/proc. 255/proc. 255/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 256/proc. 2780/3780, 2780/3780, SNA, BSC 1GB Fixed: 64MB-	c	Standard 4MB Prop. 6 5MB/sec. 4 	
416 Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. Standard, 80 Standard, 80 Standard, 80 Standard, 50 Standard,	c 4/16MB     11MB/sec    0ptional, 307K Standard, 19.2 SDLC, HDLC, X TCP/IP, SNA, T Hyperchannel 3770 -2.1GB   2780/3780 Yes	Standard 4MB Prop. 6 5MB/sec. 4 	
Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. 256/proc. Standard, 800 Standard, 800 Standard, 800 Standard, 800 Standard, 800 Standard, 800 Standard, 50 DCCP LU6.2, SNA, perchannel 170 2780/3780, SNA, BSC	c 4/16MB     11MB/sec    0ptional, 307K Standard, 19.2 SDLC, HDLC, X TCP/IP, SNA, T Hyperchannel 3770 -2.1GB   2780/3780 Yes	Standard 4MB Prop. 6 5MB/sec. 4 	
Standard 8MB, 16MB Dynabus 32-256 20-80MB/sec 256/proc. 256/proc. Standard, 800 Standard, 800 Standard, 800 Standard, 800 Standard, 800 Standard, 800 Standard, 50 DCCP LU6.2, SNA, perchannel 170 2780/3780, SNA, BSC	c 4/16MB     11MB/sec    0ptional, 307K Standard, 19.2 SDLC, HDLC, X TCP/IP, SNA, T Hyperchannel 3770 -2.1GB   2780/3780 Yes	Standard 4MB Prop. 6 5MB/sec. 4 	
BMB, 16MB           proc.         32-256           20-80MB/sec         256/proc.           bps         5tandard, 80i           0.19.6K bps         Standard, 80i           25, MAP,         SDLC, HDLC,           perchannel         2780/3780,           70         SNA, BSC           1GB         Fixed: 64MB-	c 11MB/sec 	4MB Prop. 6 5MB/sec. 4 	
BMB, 16MB           proc.         32-256           20-80MB/sec         256/proc.           bps         5tandard, 80i           0.19.6K bps         Standard, 80i           25, MAP,         SDLC, HDLC,           perchannel         2780/3780,           70         SNA, BSC           1GB         Fixed: 64MB-	c 11MB/sec 	4MB Prop. 6 5MB/sec. 4 	
Dynabus 32-256           20-80MB/sec           256/proc.           256/proc.           Standard, 80           50,55           25, MAP,           DUP           DUP           Dynabus           20-80MB/sec           256/proc.           Standard, 80           SDLC, HDLC,           DUCCP           DUCCP           DUCCP           12EE 803.2, H           2780/3780,           SNA, BSC           1GB           Fixed: 64MB-	c 11MB/sec 	Prop. 6 5MB/sec. 4 	
32-256           proc.         256/proc.           256/proc.         Standard, 80           919.6K bps         Standard, 80           .25, MAP,         SDLC, HDLC,           DCCP         LU6.2, SNA,           perchannel         IEEE 803.2, F           70         2780/3780,           1GB         Fixed: 64MB-	K bps to 19.6K bps X.25, MAP, ADCCP Hyperchannel 3770 -2.1GB K bps Standard, 19.2 SDLC, HDLC, X TCP/IP, SNA, 1 Ethernet 2780/3780 Yes	6 5MB/sec. 4 	
32-256           proc.         256/proc.           256/proc.         Standard, 80           919.6K bps         Standard, 80           .25, MAP,         SDLC, HDLC,           DCCP         LU6.2, SNA,           perchannel         IEEE 803.2, F           70         2780/3780,           1GB         Fixed: 64MB-	K bps to 19.6K bps X.25, MAP, ADCCP Hyperchannel 3770 -2.1GB K bps Standard, 19.2 SDLC, HDLC, X TCP/IP, SNA, 1 Ethernet 2780/3780 Yes	6 5MB/sec. 4 	
proc.         20-80MB/sec           bps         Standard, 80           19.6K bps         Standard, 80           .25, MAP,         SDLC, HDLC,           DCCP         LU6.2, SNA,           perchannel         IEEE 803.2, 1           70         2780/3780,           1GB         Fixed: 64MB-	K bps to 19.6K bps X.25, MAP, ADCCP Hyperchannel 3770 -2.1GB K bps Standard, 19.2 SDLC, HDLC, X TCP/IP, SNA, 1 Ethernet 2780/3780 Yes	5MB/sec. 4 	
256/proc. Standard, 80i 50 19.6K bps 25, MAP, DCCP perchannel 70 1GB 256/proc. Standard, 80i Standard, 80i Standard	K bps to 19.6K bps X.25, MAP, ADCCP Hyperchannel 3770 -2.1GB K bps Standard, 19.2 SDLC, HDLC, X TCP/IP, SNA, 1 Ethernet 2780/3780 Yes	4 K bps K bps K 25, BSC, TTY VT 100 WangNet 2780/3780, I SNA, BSC /280MB/ Fixed: 67MB-	
bps         Standard, 80           19.6K bps         Standard, 80           .25, MAP,         SDLC, HDLC,           DCCP         LU6.2, SNA,           perchannel         IEEE 803.2, H           70         2780/3780,           SNA, BSC           1GB         Fixed: 64MB-	to 19.6K bpsStandard, 19.2X.25, MAP, ADCCPSDLC, HDLC, XTCP/IP, SNA, 1TCP/IP, SNA, 1Hyperchannel 3770Ethernet2780/3780 YesYes-2.1GBFixed: 149MB/	( bps — K bps Standard (.25, BSC, WSN, SNA, E TTY VT 100 WangNet 2780/3780, I SNA, BSC (280MB/ Fixed: 67MB-	
bps         Standard, 80           19.6K bps         Standard, 80           .25, MAP,         SDLC, HDLC,           DCCP         LU6.2, SNA,           perchannel         IEEE 803.2, H           70         2780/3780,           SNA, BSC           1GB         Fixed: 64MB-	to 19.6K bpsStandard, 19.2X.25, MAP, ADCCPSDLC, HDLC, XTCP/IP, SNA, 1TCP/IP, SNA, 1Hyperchannel 3770Ethernet2780/3780 YesYes-2.1GBFixed: 149MB/	( bps — K bps Standard (.25, BSC, WSN, SNA, E TTY VT 100 WangNet 2780/3780, I SNA, BSC (280MB/ Fixed: 67MB-	
19.6K bps         Standard, 50           .25, MAP,         SDLC, HDLC,           DCCP         LU6.2, SNA,           perchannel         IEEE 803.2, H           70         2780/3780,           SNA, BSC         IGB	to 19.6K bpsStandard, 19.2X.25, MAP, ADCCPSDLC, HDLC, XTCP/IP, SNA, 1TCP/IP, SNA, 1Hyperchannel 3770Ethernet2780/3780 YesYes-2.1GBFixed: 149MB/	IK bps Standard K.25, BSC, WSN, SNA, E TTY VT 100 WangNet 2780/3780, I SNA, BSC /280MB/ Fixed: 67MB-	
19.6K bps         Standard, 50           .25, MAP,         SDLC, HDLC,           DCCP         LU6.2, SNA,           perchannel         IEEE 803.2, H           70         2780/3780,           SNA, BSC         IGB	to 19.6K bpsStandard, 19.2X.25, MAP, ADCCPSDLC, HDLC, XTCP/IP, SNA, 1TCP/IP, SNA, 1Hyperchannel 3770Ethernet2780/3780 YesYes-2.1GBFixed: 149MB/	IK bps Standard K.25, BSC, WSN, SNA, E TTY VT 100 WangNet 2780/3780, I SNA, BSC /280MB/ Fixed: 67MB-	
.25, MAP, DCCP SDLC, HDLC, LU6.2, SNA, perchannel IEEE 803.2, F 770 SNA, BSC SNA, BSC SNA, BSC SNA, BSC SNA, SSC SNA, SS	X.25, MAP, ADCCP SDLC, HDLC, X TCP/IP, SNA, 1 Hyperchannel Ethernet 3770 2780/3780 Yes -2.1GB Fixed: 149MB/	(.25, BSC, WSN, SNA, E TTY VT 100 WangNet 2780/3780, I SNA, BSC /280MB/ Fixed: 67MB-	
DCCP LU6.2, SNA, perchannel 2780/3780, SNA, BSC 1GB Fixed: 64MB-	ADCCP TCP/IP, SNA, T Hyperchannel Ethernet 3770 2780/3780 Yes -2.1GB Fixed: 149MB/	TTY VT 100 WangNet 2780/3780, I SNA, BSC /280MB/ Fixed: 67MB-	
perchannel IEEE 803.2, 1 70 2780/3780, SNA, BSC 1GB Fixed: 64MB-	Hyperchannel Ethernet 3770 2780/3780 Yes -2.1GB Fixed: 149MB/	WangNet 2780/3780, I SNA, BSC /280MB/ Fixed: 67MB-	HASP
70 2780/3780, SNA, BSC 1GB Fixed: 64MB-	3770 2780/3780 Yes -2.1GB Fixed: 149MB/	2780/3780, I SNA, BSC /280MB/ Fixed: 67MB-	HASP
SNA, BSC 1GB Fixed: 64MB-	-2.1GB Fixed: 149MB/	/280MB/ Fixed: 67MB-	HASP
1GB Fixed: 64MB-	-2.1GB Fixed: 149MB/	/280MB/ Fixed: 67MB-	
Rom + 240M			
	B 458MB; Rem.:	300MB Rem.: 288MB	3
	100 ips, 1600-		
0 bpi 75/50 ips, 1		30 ips, 6400	
	800-6250 bpi -	75 ips, 800/	
	00/1200 lpm 270-1200 lpm		
/1200 ipin 300/000/100			411
	160-400 cps	180 cps	•
55 cps	55 cps	40/60, 60/92	
	Laser- 8/10/15	5/20 ppm Laser, 8/12/2	24 ppm
l	ł	l	
Guardian 90X	KF UNIX	VS-OS	
nultiuser RT, multitask	, multiuser Batch, RT, Mult	ltitask/use Multiuser	
	Yes	VS IN/ix	
Encompass	Oracle, Ingres,		Oracle
		Assembler	
Cobol Basis Basar	C Cobol Basia Bass-L		
, Cobol, Basic, Pascal , TAL, Fortran, Mum			rl/1, C,
		Ada Basic	
Extended Bas			
ion On-line transa	action [	OA	
processing		A	fa Cai/F
		App. dev., m	iy, oci/eng
Contact vend	lor CPU, 16MB me disk dr, 1 dsk cntrl, 16 wk st lic., console	& 1 tape prntr, 2 laser t, UNIX VS-OS lic, 20	prnt,
Contact vend	disk dr, 1 dsk cntrl, 16 wk st	& 1 tape prntr, 2 laser t, UNIX VS-OS lic, 20	prnt,
	\$2,368		
_	I—	I—	
_	I—	April 1986	
3 April 1986	N/A	—	
3 April 1986			
	13 April 1986	13 April 1986 —	13 April 1986 — April 1986

MANUFACTURER & MODEL	Wang Laboratories VS 65	Wang Laboratories VS 85	Wang Laboratories VS 100	Wang Laboratories VS 7100 Series
WORD LENGTH	32 bits	22 hite	32 bits	22 hite
		32 bits		32 bits
DISK STORAGE CAPACITY	76MB-2.6GB	75MB-5GB	75MB-10GB	75MB-15GB
MEMORY RANGE	2MB-4MB	2MB-8MB	4MB-16MB	4MB-16MB
NO. WORKSTATIONS SUPPORTED	40	80	128	128
PRICE RANGE, \$	From 30,000	From 67,000	From 112,000	From 112,000
TARGET MARKET(S)	OA, mfg, Sci/Eng	OA, mfg, Sci/Eng	OA, mfg, Sci/Eng	OA, mfg, Sci/Eng
CENTRAL PROCESSOR	NO 05	W	W V0 100	2100
CPU Manufacturer and Model	Wang VS 65	Wang VS 85	Wang VS 100	Wang VS 7100
CPU Cycle Time, nanoseconds	200	200	200	120-900
MIPS				
Hardware Floating Point	SP, DP	SP, DP	SP, DP	SP, DP
Virtual Memory (addressable bytes)	16MB	16MB	16MB	16MB
Cache Memory, bytes	16KB	32КВ	32КВ	32KB
Battery Backup		—		—
Realtime Clock		( <u> </u>		1
MAIN STORAGE				
Cycle/Access Time, nanoseconds	400	480	480	480
Storage Protection	Standard	Standard	Standard	Standard
Increment Size, bytes	4MB	4MB	4MB	4MB
NPUT/OUTPUT CONTROL			1	-
Type of Bus	Prop.	Proprietary	Proprietary	Proprietary
No. of I/O Channels	32	32	16	10
Aggregate Bandwidth, bytes/sec.	5MB/sec.	8.3MB/sec.	16.6MB/sec.	33.3MB/sec.
COMMUNICATIONS	JIVID/ Sec.	0.5IVID/Sec.	TO.ONID/Sec.	SS.SIVID/SEC.
	10	6		10
Max. Number of Lines	16	6	9	16
Synchronous				
Asynchronous	Standard	Standard	Standard	Standard
Protocols Supported		WSN, SNA, BSC, X.25, TTY		
	VT100	VT100	VT100	VT100
LAN Supported	WangNet	WangNet	WangNet	WangNet
RJE Terminals Supported	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 Emulation	SNA, BSC	SNA, BSC	SNA, BSC	SNA, BSC
PERIPHERAL EQUIPMENT		1		
Disks Supported	Fixed: 76MB-314MB	Fixed: 76MB-314MB	Fixed: 76MB-314MB	Fixed: 76MB-452MB
	Rem.: 288MB	Rem.: 288MB	Rem.: 288MB	Rem.: 288MB
Streaming Tape Drives	90 ips, 8000 bpi	90 ips, 8000 bpi	90 ips, 8000 bpi	90 ips, 8000 bpi
Cartridge Tape Drives	30 ips, 6400 bpi	30 ips, 6400 bpi	30 ips, 6400 bpi	30 ips, 6400 bpi
Reel-to-reel Tape Drives	75 ips, 800/1600/6250bpi	75 ips, 800/1600/6250bpi	75 ips, 800/1600/6250bpi	75 ips, 800/1600/6250
Line Printers	250-1,100 lpm	250-1,100 lpm	250-1,100 lpm	250-1,100 lpm
Serial Printers	180 cps	180 cps	180 cps	180 cps
Letter Quality Printers	40/60, 60/92 cps	40/60, 60/92 cps	40/60, 60/92 cps	40/60, 60/92 cps
Non-Impact Printers	Laser, 8/12/24 ppm	Laser, 8/12/24 ppm	Laser, 8/12/24 ppm	Laser, 8/12/24 ppm
Other Peripherals Supported				
SOFTWARE				
Proprietary Operating System Name	vs-os	vs-os	vs-os	vs-os
Operating System Type	Multiuser	Multiuser	Multiuser	Multiuser
Unix Derivative	VS IN/ix	VS IN/ix	VS IN/ix	VS IN/ix
Database Management System	Pace, Total, Oracle	Pace, Total, Oracle	Pace, Total, Oracle	Pace, Total, Oracle
Assembler				í
Compilers	Assembler Cobol, RPGII, PL/1, C,	Assembler Cobol, RPGII, PL/1, C,	Assembler	Assembler Cobol, RPGII, PL/1, C,
Complete	Basic	Basic	Cobol, RPGII, PL/1, C, Basic	Basic
Principal Application Available	OA	OA	OA	OA
Other Applications Available	App. dev., mfg, Sci/Eng	App. dev., mfg, Sci/Eng	App. dev., mfg, Sci/Eng	App. dev., mfg, Sci/Eng
PRICING & AVAILABILITY				
Typical System Configuration and Price	CPU, 4MB mem, 314MB disk	CPU, 4MB mem, 147MB disk		CPU, 8MB mem, 1.4GB of
	prntr, 2 laser prnt,	prntr, 2 laser prnt,	prntr, 2 laser prnt,	tape, prntr, laser prntr
	32 ser ports, 20 wkst,	32 ser ports, 20 wkst,	32 ser.ports, 20 wkst,	64 ser.ports, 100 wkst,
	VS-0S lic.—\$160,000	VS-OS lic. — \$246,300	VS-OS lic. — \$278,600	VS-OS lic. — \$655,500
Monthly Maintenance of Typical	_			_
Configuration				
Date of First Delivery	January 1985	1983	1983	1983
Number Installed to Date			_	
COMMENTS				
	1		1	1

MANUFACTURER & MODEL	Wang Laboratories VS 7310			
WORD LENGTH	32 bits			
DISK STORAGE CAPACITY	75MB-25GB			
MEMORY RANGE	8MB-16MB			1
NO. WORKSTATIONS SUPPORTED	192			
PRICE RANGE, \$	From 184,000			
TARGET MARKET(S)	OA, mfg, Sci/Eng			
TANGET MARKET(3)	OA, mig, sci/eng			
CENTRAL PROCESSOR				
CPU Manufacturer and Model	Wang VS 7300		[	
CPU Cycle Time, nanoseconds	120-900			
MIPS	_			
Hardware Floating Point	SP, DP			
Virtual Memory (addressable bytes)	16MB			
Cache Memory, bytes	32KB			
Battery Backup				
Realtime Clock				
MAIN STORAGE				
Cycle/Access Time, nanoseconds	480			
	Standard			
Storage Protection				
Increment Size, bytes	4MB			
INPUT/OUTPUT CONTROL	Description			1
Type of Bus	Proprietary		1	[
No. of I/O Channels	15			
Aggregate Bandwidth, bytes/sec.	33.3MB/sec		[	
COMMUNICATIONS				
Max. Number of Lines	208		ł	1
Synchronous	—		1	
Asynchronous	Standard		1	1
Protocols Supported	WSN, SNA, BSC, X.25, TTY			
	VT100		l .	
LAN Supported	WangNet			
RJE Terminals Supported	2780/3780, HASP			
IBM 3270 Emulation	SNA, BSC			1
PERIPHERAL EQUIPMENT				
Disks Supported	Fixed: 76MB-452MB		{	
<b></b>	Rem.: 288MB			1
Streaming Tape Drives	90 ips, 8000 bpi		1	ļ
Cartridge Tape Drives	30 ips, 6400 bpi			1
Reel-to-reel Tape Drives	75 ips, 800/1600/6250bpi			
Line Printers	250-1,100 lpm			
Serial Printers				
	180 cps			
Letter Quality Printers	40/60, 60/92 cps			
Non-Impact Printers	Laser, 8/12/24 ppm			
Other Peripherals Supported			1	)
SOFTWARE				
Proprietary Operating System Name	VS-OS			1
Operating System Type	Multiuser			
Unix Derivative	VS IN/ix			1
Database Management System	Pace, Total, Oracle			1
Assembler				
	Assembler			1
Compilers	Cobol, RPGII, PL/1, C,			
	Basic		1	
Principal Application Available			1	
The state of the s	OA		1	1
Other Applications Available	Ann day		1	1
Other Applications Available	App. dev., mfg, Sci/Eng			l
PRICING & AVAILABILITY				
Typical System Configuration and Price				
Typical System Configuration and Frice	CPU, 8MB mem, 1.4GB disk			
	tape, prntr, laser prntr			
	64 ser.ports, 100 wkst,			
	VS-OS lic. — \$703,500			1
	1		1	1
				1
			1	1
	1			ļ
		1	1	
Monthly Maintenance of Typical	I—		1	
Configuration	(		1	1
Date of First Delivery	1983		1	1
Number Installed to Date				
COMMENTS			1	1
			1	1
			1	]
		1	1	