

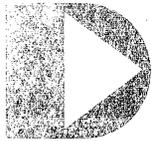
**Datapoint announces the
most important development
in data processing since
the minicomputer**



Attached Resource Computer™

DATAPOINT CORPORATION

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NEWS

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Release: Immediate

DATAPOINT CORPORATION ANNOUNCES REVOLUTIONARY ATTACHED RESOURCE COMPUTER™ SYSTEM

San Antonio, December 1, 1977....Datapoint Corporation today announced the release of its new Attached Resource Computer System, a system which will dramatically alter the way the business world thinks about and uses computers. Based upon an innovative attached processing concept, Datapoint's ARC™ System will provide small and large businesses alike with the processing power and common database features of a large computer, while at the same time afford them the easily-upgraded and task-oriented flexibility of functionally dispersed smaller computers.

"Attached processing offers as its basic premise the idea that a computer system can be designed to accommodate the specific and varied needs of a business, rather than a business tailor its demands to the requirements of the computer," relates Victor Poor, senior vice president of Datapoint's Research and Development Division. "The tangible product of this attached processing concept is Datapoint's ARC system, an extremely efficient and adaptable, though totally integrated computing facility which links together an arbitrary number of functionally dispersed smaller computers by means of a high-speed electronic pathway or 'bus' and a fully compatible library of systems

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software.

"As such," continues Poor, "each user of the ARC system has complete and immediate access to all system components -- data processing units, the common database facilities, and various peripheral devices -- no matter where they may be physically situated in the system. By the same token, the ARC system can sustain many different types of applications -- data entry, batch and transaction processing, database inquiry, and communications -- in the most efficient manner possible. Most importantly, a variety of business tasks can be performed simultaneously using the common resources of the system, with no one user bound by the activities of another."

An attractive feature and key element of an ARC system is its modular architecture. The system can grow, both in terms of power and tasks to be performed, as the business it is serving grows. Whenever more processing power or faster data access times are necessary, an additional processor or two may be easily attached to the existing system. Should additional data storage space be called for, more disk drives can be attached to the common system database. Impressively, this sort of system reconfiguration and expansion can be accomplished while the system remains in operation and does not necessitate changes in existing system applications programs or operating system software.

Datapoint's ARC system also avoids many of the pitfalls that are normally associated with more conventional computer systems. Unlike traditional computer architecture, the ARC system does not require reprogramming or computer upgrade investments each time more

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processing power or a larger database is called for. Likewise, the ARC system, capable of supporting a variety of functionally diverse tasks with one common database, is not dependent upon the relatively slow telephone communications or physical medium transfers that are normally used to link separate databases in a multiple computer configuration. Rather, the transfer of data is accomplished at extremely high speeds over the ARC system interprocessor bus and is always completely transparent to system users.

ARC systems, whether small or large, incorporate three basic components: applications processors, file processors, and an interprocessor bus. Applications processors, an almost unlimited number of which may be contained within the system, are dedicated to performing batch or transaction processing tasks in either single or multi-user modes. Freed from time-consuming data storage and retrieval tasks, these processors can operate at extremely high speeds to get more actual data entry and data processing work done. File processors, on the other hand, are dedicated to the management of data and data storage units. Because this is their only task, they can locate and deliver remotely stored data to the applications processors as fast or faster than this data could be retrieved from local disk storage areas.

The ARC system interprocessor bus includes a number of hardware and software components, all of which are used to connect applications processors and file processors into one totally integrated computer system. An essential hardware component of the system interprocessor

bus is the inexpensive coaxial cable which physically connects all the other components of the bus. Another component of the interprocessor bus is the Resource Interface Module (RIM), a special-purpose data transfer module which connects directly to a processor input/output bus. The RIM provides a unique address for the processor in the ARC system and allows data to be transferred over the system bus at exceptionally high speeds.

The ARC system RIMs, in turn, are linked to the system interprocessor bus by means of passive or active hubs. A passive hub acts as a common junction point for the connection of up to four RIMs within the ARC system. An active hub is a switching and amplification device used for the connection of up to eight (sixteen optionally) system RIMs or other active hubs. Cable lengths between an active hub and a RIM (or another active hub) may reach up to 2000 feet. Up to ten active hubs may be attached in tandem to the same cable to permit system lengths of up to four miles.

ARC system software is completely compatible with that being used with existing Datapoint systems. ARC utilizes Datapoint's standard Disk Operating System (DOS), which allows for fast and easy creation and maintenance of programs and files, as its basic operating system. Applications programs written in any Datapoint supported language -- DATABUS[®]/DATASHARE[®], DATAFORM[®]/MULTIFORM[™], BASICPLUS, RPGPLUS, COBOL and SCRIBE[®] -- will execute in the ARC system without modification. In addition, ARC will support a full range of communications and emulator software in a variety of disciplines so that user communications with

other computer systems (including other ARC systems) may be easily accomplished.

Practically any combination of existing and newly released Datapoint processors may be used within an ARC system environment. Many of Datapoint's well-established and time-proven business processors -- the 6600 and 5500 Advanced Business Processors and the 1170 and 1150 Dispersed Processors -- may be incorporated into an ARC system, providing an excellent upgrade path for current Datapoint users.

The Datapoint 6600, with 120K bytes of user program memory, can support up to 24 user video workstations in the ARC system environment, while the 5500 (48K user memory) is able to support up to 16 workstations. Both the 6600 and 5500 processors feature dual cassette decks and full support capabilities for disk storage, printing and other peripherals.

Datapoint has also produced two entirely new series of economical, though powerful processors for use in the ARC system -- the 6000 and 3800 series of Attached Processors. The 6000 Attached Processor (based on the 6600 Advanced Business Processor) is available in two versions, the 6010 with 60K user memory and the 6020 with 120K user memory. Both types feature an integral RIM, typewriter-style keyboard, programmable function keys, video display, and are capable of supporting local disk storage (for restricted file usage) and multiple DATASHARE video display workstations.

The 3800 Attached Processor is an ARC-dependent processor,

developed especially for single-user applications in the ARC system. The 3800 also comes in two models -- the 3810 with 60K user memory and the 3820 with 120K user memory -- both of which are able to support all peripherals except user workstations and local disk storage. The 3820 and 3810 come equipped with an integral RIM, typewriter-like keyboard, programmable function keys, and a large 24-row by 80-column video screen.

"ARC systems may be comprised of as many or as few resource units -- processors and peripherals -- as a business requires and in any number of possible configurations," notes Edward Gistaro, senior vice president and general manager of Datapoint's Domestic Marketing Division. "This is possible because the growth and shape of ARC systems is determined solely on the basis of each company's own functional requirements, and not on the basis of conventional computer architecture.

"ARC system components also lend themselves well to specialization," Gistaro continues. "The Datapoint 6600, for example, is particularly well-equipped to act as a file processor within the ARC system, as it can support up to 200 million bytes of disk storage. The 6600, along with the 5500 Advanced Business Processors and the 6000 series of Attached Processors, can support a large number of Datapoint 3600 video workstations in a timesharing environment. Other Datapoint processors, like the 3800 Attached processor, may be utilized for other specialized applications assignments such as program development. Since a very large number of processors may be

assigned to any given function within an ARC environment, system processors can be easily added to match both the increasing database storage and data processing requirements of a growing business."

All these individual resources are, of course, linked together by the ARC system interprocessor bus and constitute to users anywhere in the system a single accessible resource. Assigning each particular system component a specialized task is important inasmuch as it allows for the functional dispersion of tasks and for faster overall system operations.

Since ARC system architecture does not employ a central, controlling host computer, failure of any individual processor in the system will not bring all operations to a halt. Should an ARC system unit have to be taken off-line, operations will continue without interruption and all other system components function just as before. If a file processor goes down, for instance, its disk units can be transferred readily to another file processor or even an applications processor that has ample data storage capabilities. Applications processors, printers, and other system peripherals can also be interchanged quite easily in the event of a failure.

Should the need arise, access to data in an ARC system can be restricted under several types of security controls. For example, with the built-in security provisions of the ARC system, any user may designate as "restricted" portions of the common database. Data can also be restricted by locally attaching disk volumes to a system applications processor. These directly attached disk drives are

completely "private" and can be accessed only by the applications processor to which they are attached.

Another important feature of ARC system architecture is the optional capability it provides to interface to large central mainframes. By means of a recently announced Datapoint Direct Channel Interface Option (DCIO), an IBM 370/360 is permitted to participate in the ARC system by attaching to the interprocessor bus. Acting as any other applications processor within the ARC system environment, the IBM 370/360 can utilize data stored in the common database to execute a variety of mainframe applications programs running in any language, including COBOL, RPG, BASIC, and PL/1.

"What is truly revolutionary about the Datapoint ARC system," emphasizes Gistaro, "is that it can be configured to match exactly the business tasks it is to perform. As these business tasks become more numerous and varied, the ARC system can be reconfigured accordingly, without interrupting current system operations and without necessitating an expensive capital outlay for a computer upgrade. System resources are placed in those locations where they can most effectively address these varied business needs, and these resources are always available to all users participating within the ARC system. Most importantly, ARC system costs are so moderate and ARC system structure so flexible that most commercial users will find it the perfect solution to present and future business processing needs."

Datapoint ARC system prices vary according to kind and number of processors, peripherals, and interprocessor bus facilities employed in

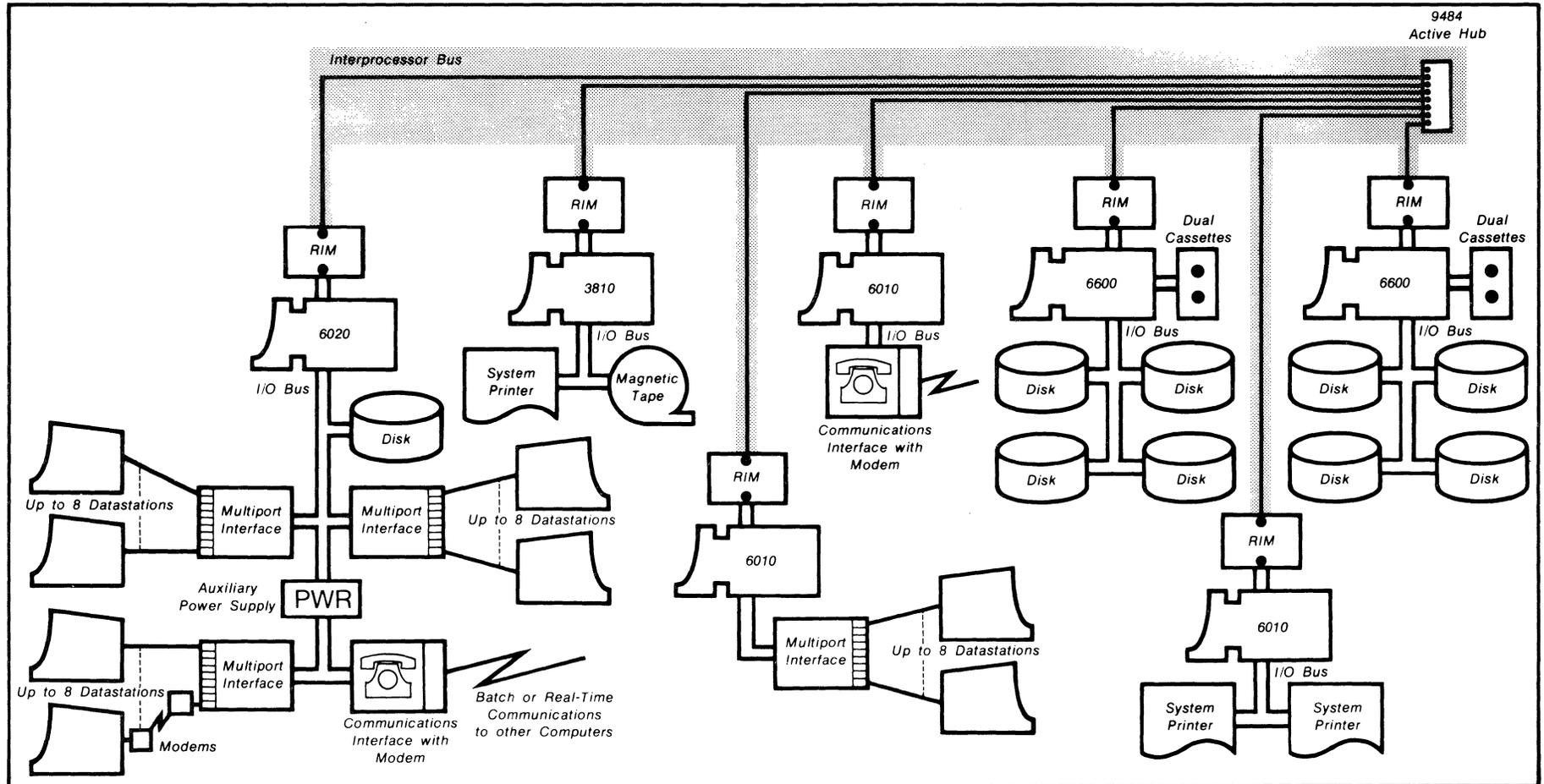
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Attached Resource Computer System
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the system. The purchase price for a typical ARC system -- with a 4634 file processor (including 60MB storage), one 6020 applications processor, five 3810 applications processors, three multiport adaptors, one active hub, and twenty-four 3601 Datastations -- is \$155,850 (excluding maintenance). The three-year lease price for this same ARC system configuration is \$4938 per month, not including maintenance. Convenient one and two-year leasing arrangements are also available.

For literature and more information about Datapoint ARC systems, contact your local Datapoint sales office or Datapoint Corporation: Attn., Marketing Communications, 9725 Datapoint Drive, San Antonio, Texas 78284.

MULTIFUNCTION ARC SYSTEM WITH COMMUNICATIONS



More data storage space, real-time and batch communications capabilities, and additional processing power expand the previous Attached Resource Computer™ System into one suited for a larger, more functionally dispersed business operation.

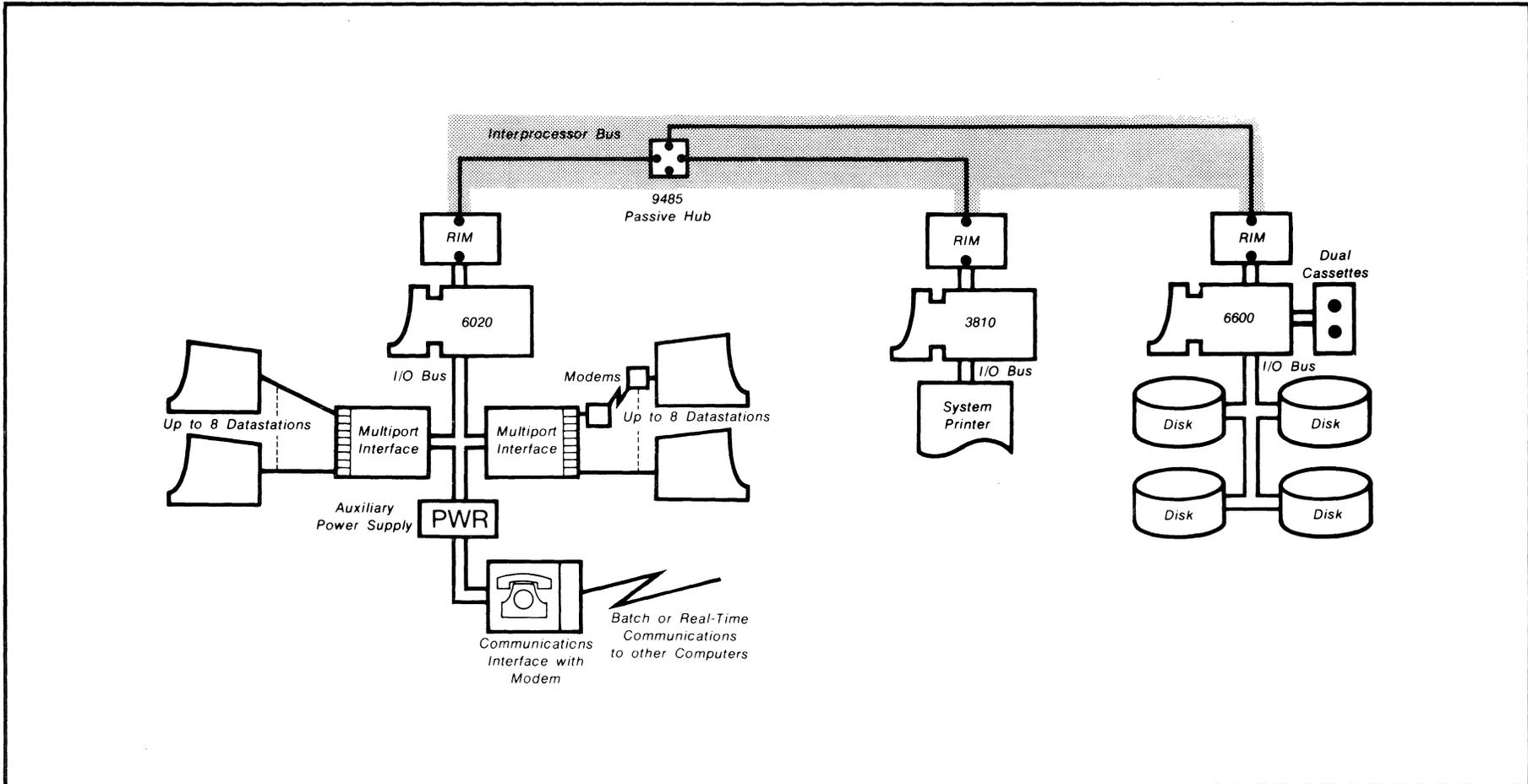
In addition to supporting multiple Datapoint DATASHARE® workstations, the 6020 processor includes a communications interface to permit real-time communications to other ARC systems (or other dispersed processing systems). The system also includes a 6010 applications processor with a communications interface, to perform remote job entry functions in connection with a remote host computer (such as a mainframe).

A second 6010 processor, along with two high-speed printers and print spooler software, is included in this ARC system to perform a variety of printing tasks for all system users. The third 6010 can support up to 16 Datastations, allowing 16 concurrent users to enter data or execute programs in batch or timesharing modes.

A magnetic tape is added to the 3810 applications processor performing program generation. Both printer and magnetic tape operation may be spooled.

The two 6600 file processors store and manage access to 320 million characters of data (expandable to 400 million characters). All system users may access this common data base.

BASIC ARC CONFIGURATION



Datapoint's new Attached Resource Computer™ systems may be comprised of as many or as few resource units as a business requires and in any number of possible configurations. The small ARC™ system illustrated above is perfectly suited for current users of Datapoint DATASHARE® Business Timesharing systems, as DATASHARE equipment, programs, and software can be used in this ARC system without modification.

The file processor shown in this ARC system is a Datapoint 6600 Advanced Business Processor with 160 million characters of data storage attached (larger disks may be substituted for a total of 200 million characters). The 6600 also includes dual cassette tapes for program loading and transfer. The Datapoint 6020 Attached Processor (120K user memory) is used

as an applications processor and is configured to execute DATASHARE in this ARC system. The 6020 is capable of supporting up to a total of 24 Datapoint 3600 workstations for entering data or executing programs in batch or timesharing modes.

The 3810 Attached Processor is configured for the generation and execution of COBOL programs (BASICPLUS, RPGPLUS, and DATABUS® programs may also be generated and executed). In addition, the single-user 3810 may be used for DATASHARE program generation, as well as for performing DOS utility functions like EDIT and SORT. The 3810 can also be used as a Print Spooler, queueing and executing print jobs requested by any user in the ARC system.