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THE DATAPOINT ARC  
**LOCAL AREA NETWORK**

MILESTONES



**T**he natural evolution of a local area network. You don't see it very often because most local area networks haven't been around that long. Datapoint introduced the ARC<sup>®</sup> (Attached Resource Computer<sup>®</sup>) local area network in 1977, before anybody knew what a local area network was. Since that time, Datapoint has installed 5000 networks. The story behind the on-going development of the ARC network is one of continually expanding capability and performance. So take a good look at this historical perspective on a local area network. It may be the only one you'll ever see.

## MILESTONES

Prior to 1976 many Datapoint processors were being used within the company as part of "communication bus" networks that allowed file transfer between processors at a speed of 50 kilobaud over twisted pair wiring. The drawbacks to this system, which had evolved to meet practical needs, were threefold: slow speed, single-user access, and file (as opposed to packet) transfer.

### March 1976

Datapoint engineers begin work on the idea of a multiport disk controller. This idea leads to the development of a high-speed communications interface that can be linked in multiples with coaxial cable. Various methods of line access are proposed; a "collision detection" scheme is tried and found to be unacceptable.

### July 1976

Working breadboards of the hardware are running successfully. An ARC network software product proposal is written.

### August 1976

Coding begins on the software for the ARC network application processors.

### December 1976

ARC network applications processor is operational.

### March 1977

ARC network file processor is operational.

### May 1977

An ARC network prototype is up and running full time in the Advanced Product Development group. From then on it is used for software development.

### October 1977

The first commercial installation is completed at a major New York City bank. Other Beta test sites include a second New York City bank, a multinational oil company in Houston, and an aircraft manufacturer in Los Angeles.

### December 1977

Datapoint Corporation publicly announces the release of its new Attached Resource Computer (ARC) network. The original press release states that this new network will "dramatically alter the way the business world thinks about and uses computers." Announced at the same time is the Direct Channel Interface Option that allows an IBM mainframe to participate as an applications processor in an ARC network. Two new ARC

network applications processors are also announced: the 3800 and the 6000.

### June 1979

Datapoint announces two specially priced and packaged ARC networks. Each network includes six processors, system software, three programming languages, all cabling hardware, and either 60 or 120 megabytes of disk storage.

### November 1979

Datapoint announces the Integrated Electronic Office™, which provides word processing and electronic message services on the ARC local network. In late November, Datapoint announces LightLink, an infrared transmission device designed for use with ARC local networks.

### March 1980

Datapoint announces a family of software products that enables ARC network processors to communicate with remote mainframe computers over telecommunications links.

### November 1980

Datapoint announces a powerful new operating system and a new top of the line ARC network processor. The Resource Management System™ (RMS™) operating system greatly enhances the capabilities of the network by providing full resource sharing and multitasking. The 8800, with up to 1 megabyte of memory, uses an advanced architecture consisting of a central processor and main memory supported by internal peripheral processors all linked by a high-speed internal bus and direct memory access.

### September 1981

Datapoint announces a new processor, terminal and integrated circuit, all designed to enhance ARC network capabilities. The 8600 processor and the 8220 terminal are the first Datapoint products to make use of new ergonomic design features such as amber screens and tilt/rotate bases. The Resource Interface Module (RIM) chip is the first commercially available integrated circuit specifically designed to interface to a local network.

Also in September of 1981 Tandy Corporation announces plans to use an ARCNET network to link its TRS-80 Model II computers. Datapoint grants Tandy a license to use the trademark "ARCNET".

### November 1981

Datapoint announces two more network-based components of the Inte-

grated Electronic Office, the Color Business Graphics System (CBG) and the 9660 Laser Printer. The CBG system allows users to create, display, print and photograph color graphic images. The 9660 uses an electro-photographic printing process and a high resolution laser scanner controlled by electronics and software.

### May 1982

Datapoint announces commercial availability of the integrated circuits that provide workstations with a hardware-level interface to an ARCNET local network. Standard Microsystems Corporation of Hauppauge, New York is granted a non-exclusive license to market the Datapoint RIM chip and the associated ARCNET transceiver chip.

### August 1982

Telex management is added to the list of ARC network-based office automation functions as Datapoint announces its International Telex Management system (ITMS). ITMS (also available in a standalone configuration) gives Datapoint workstations the ability to send and receive telex messages, and lets conventional telex machines access selected Datapoint databases.

### October 1982

Datapoint brings networking to the small business user with the announcement of the 1560 small business computer system. As many as 255 1560s may be interconnected in a local network environment under the Datapoint DOS (Disk Operating System).

### November 1982

Nestar Corporation of Palo Alto, California adopts ARCNET technology as its LAN standard. Nestar's PLAN 4000 allows IBM personal computers and Apple II and III computers to be connected in a network environment.

### May 1983

Datapoint announces the installation of more than 5000 ARC local area networks.

EDITOR'S NOTE: ARC—is the Datapoint local area network consisting of high-level operating system software and hardware. An ARC network includes ARCNET™ local area network protocols and signaling devices. ARCNET—is the Datapoint brand of local area network exclusive of high-level system software. It is the physical link in the implementation of a local area network. ARCNET network components consist of coaxial cable, hubs, and specially designed network interface chips. Other companies, such as Tandy and Nestar, use ARCNET components in the implementation of their local area networks.

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