

**THINK OF US AS
THE UNITED NATIONS
OF NETWORKING.**



Why The United Nations of Networking?

The United Nations is a symbol of the positive results possible when people of different cultures and heritage work together for the advancement of all. Not unlike this forum of communications, Network Systems is a company whose products are dedicated to realizing for its users increased productivity through effective communications between different computer systems and computing equipment. Our networking products offer the user an opportunity to expand their computer operation effectiveness in ways and in places never before possible. Welcome to the world of Network Systems, the United Nations of networking.

There are many respected names when it comes to computer systems. There's one to look for in Networking.

Network Systems Corporation was founded in 1974 with the objective of developing an ultra high speed, sophisticated method of networking many different types of computers and computing equipment. Network Systems was dedicated to meeting the total computer data networking hardware, software and support needs of our customers. The company's dedication and strategy remains the same today.

In 1977 we delivered the first HYPERchannel® local area networks. The 50-million-bit-per-second HYPERchannel units revolutionized computer communications by providing full use of the computers' data channel speed over long distances, as well as to different brands of computer systems. The restricted boundaries of channel speed computer communications were removed.

In 1981 Network Systems supplemented the HYPERchannel hardware with a broad range of computer software we call NETEX™ (Network Executive). NETEX is designed specifically for a network environment, providing a simplified, high-level access to the network, and serves as the language translator between the various computer operating systems.

The latest addition to our product line, HYPERbus®, was announced in early 1982. The 10-million-bit-per-second HYPERbus units provide an economical, high speed network for smaller computers, work stations, personal computers and various terminal equipment. HYPERbus is supported by our NETEX software and can be directly integrated into the HYPERchannel network.

In the last decade, computer data communication requirements have dramatically increased. During this time, NSI has grown to be the recognized leader in high performance networking technology. Our extensive line of network hardware and software now encompass virtually every major brand of computer—large and small—as well as many high speed peripherals and a vast array of terminal equipment. With almost a decade of experience, Network Systems is the one networking company that provides a total solution to computer data networking needs.



A major university computing facility provides multiple application opportunities for Network Systems equipment.

Network Systems. A Bridge For The Computer-Communications Gap.

Growing business creates the need for computer networking.

This networking interpretation visually symbolizes the organization of a local area network. Every network is a solution for a unique circumstance. Before anyone else, Network Systems Corporation perceived the need to understand and create interface compatibility through networking to meet the incompatibilities of computer systems and computing equipment. As

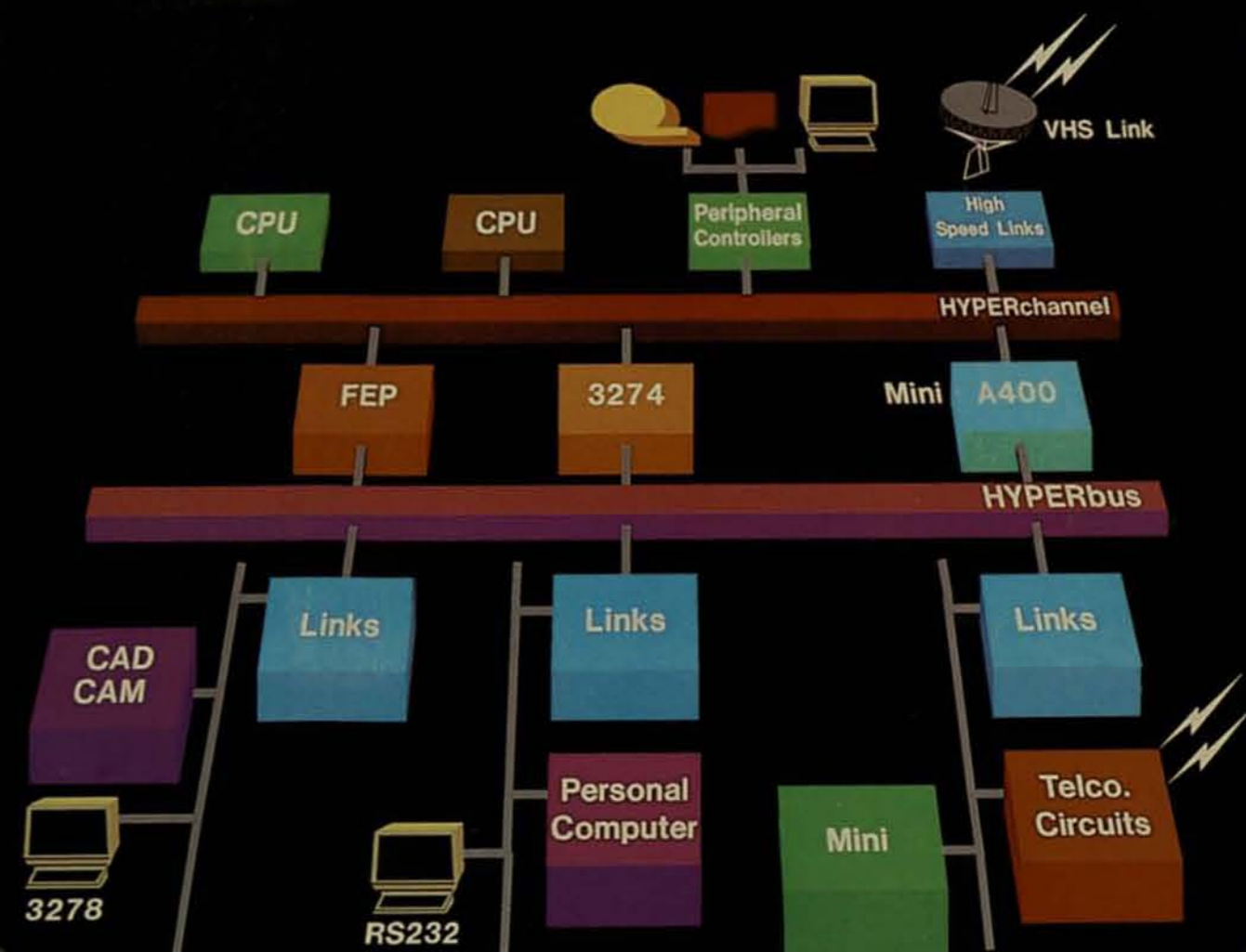
the need to process and distribute the growing amount of data increased, these challenging computer-communications problems were identified and dealt with by Network Systems:

1. How to permit mixed vendors to share information.
2. How to provide high speed communications between primary processing and peripheral equipment.

3. How to extend the working distance allowable between computers in the computer center.

4. How to efficiently transfer data between major computer centers.

Network Systems provides the answers to these challenges. Our bottom line justifies your investment because when computers work together, increased productivity and lower computer costs result.



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Our Unique Total Solution Begins With Our Products.



The HYPERchannel system. Operating at 50 million bits per second its speed has revolutionized computer communications.

Our hardware products, HYPERchannel and HYPERbus, satisfy the demands of both ultra high speed computing centers and high performance user oriented environments. Our unique networking software, NETEX, enhances HYPERchannel and HYPERbus, enabling host-to-host communications and specialized data transfer services. Let's review each in more detail.

HYPERchannel: Computers can talk the language they want at the speed they want.

HYPERchannel enables you to interconnect high-speed data processing equipment within a local and/or geographic network.

The interconnection of mainframe, mini-computers and peripheral devices is carried out by HYPERchannel adapters, which communicate with one another through a common coaxial cable network at distances up to 3 kilometers. In addition, link adapter models enable networking over land lines and satellites. By extending the distance between equipment, HYPERchannel offers flexibility in computer room planning and

maximum utilization of computing resources: computer room performance without computer room restrictions.

Communication between HYPERchannel adapters occur at extremely high speeds: 50 million bits per second. Computers and computing equipment of virtually any make are able to communicate with each other at computer channel speeds, while

continuing to remain independent of other operations on the network.

NSC provides adapter models for most major brands of computers. All adapters include buffer storage, control logic, a micro-processor and a unique interface. The HYPERchannel can be easily configured to meet specific equipment requirements. And, as those requirements change, the adapters can be easily reconfigured to meet the new objectives. Therefore, you'll

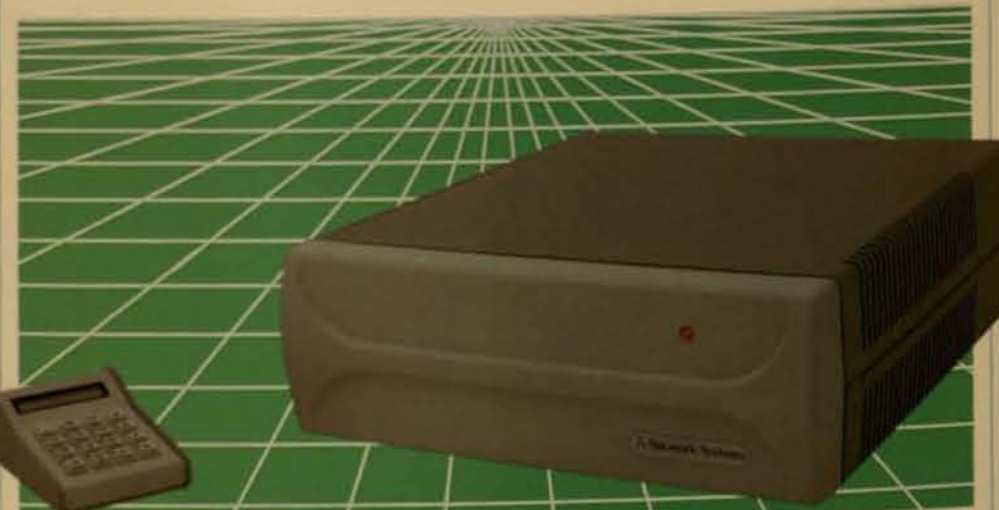
always be able to take full advantage of the latest equipment and technologies.

HYPERbus: For networks extending around the corner or around the globe.

HYPERbus extends the networking capabilities of HYPERchannel into areas requiring high-performance RS232 and 3270-type terminals, personal computers, mini-computers, CAD/CAM and other user work stations.

The HYPERbus system is also designed for a multi-vendor environment and permits different applications to share a common network on a point-to-point basis. HYPERbus networks may span local areas, or may be extended via public or private communications facilities into larger and even worldwide networks.

The primary HYPERbus medium, the bus itself, is a coaxial cable operating at 10 million bits per second. The computers, work stations and terminals are all connected to the same bus by NSC's microprocessor-based Bus Interface Units (BIU's).



HYPERbus with Dial Pad. Our most recent product addition, HYPERbus is designed as an economical, high-speed network, operating at 10 million bits per second.

Our Service Compliments Our Products.



Helping solve your networking needs begins with our sales staff's capacity to understand your company's unique circumstances.

The BIU's are available in various models which have been designed according to the type of application and device being used. They are divided into four major application areas:

- RS232 devices
- IBM 3270 equipment
- Mini and micro-computers
- Link Applications

HYPERbus interconnects new and existing computer and terminal equipment right into the laboratory, factory or office environment. HYPERbus can also be connected directly to the HYPERchannel to provide a total communications network.

Computers of every nationality understand NETEX.

NETEX enables any two application programs in any two separate computers to communicate with one another without

regard to the particular software operating system of the computers. It facilitates such applications as file transfer, job transfer and transaction processing.

NETEX conforms to the ISO Open Systems Architecture Reference Model for data communication standards. The design of NETEX is specifically for a network environment and facilitates effective communications between computers of different manufacture, without requiring modifications to the computer's operating system.

NETEX takes full responsibility for the transmission of information to its destination. End-to-end protocol and data integrity is provided, including flow control and error recovery routines.

NETEX software is now available for many major operating systems and more are currently being developed. NETEX is an integral part of our product strategy. What we have accomplished with network hardware you can expect us to match with network software.

We have service centers in a league of nations.

Network Systems is committed to providing our customers with high quality service. Our sales organization is staffed with trained representatives located throughout the United States, Canada, France, the United Kingdom and West Germany. Our sales representatives are professionally trained to identify and provide solutions to our customer's networking requirements.

Supporting our sales force, NSC System Engineers provide consulting services to our customers and assist in determining the system configuration most appropriate to the application.

Network Systems' extensive maintenance organization provides timely and expert service and support for our customers worldwide. Our Field Engineers are available on a twenty-four hour basis should urgency require immediate handling.

We offer complete installation, maintenance, consulting and ancillary services throughout Western Europe, the United States and Canada. And our Australian, African and Italian based distributors/agents are responsive to customers needs in those areas.

Network Systems. In Touch—Around The World.

All of our products are fully and professionally supported. You can expect and you will receive a very high quality support service from Network Systems. We are indeed the Total Solution.

Your network begins in Minneapolis: Our world headquarters.

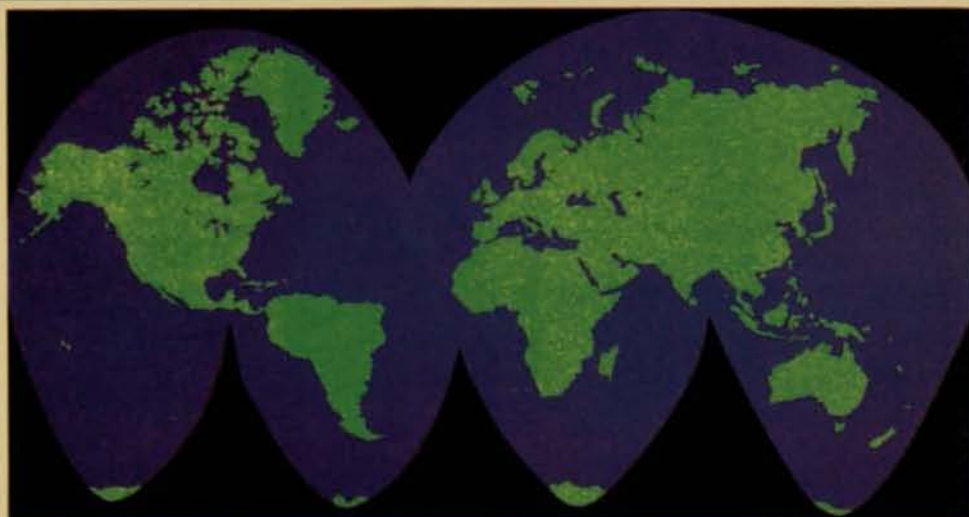
Our Minneapolis facility has a staff of employees dedicated to marketing support, training, manufacturing, research and development. We are committed to our reputation of customer support, and determined to represent our client's needs.

The United Nations of networking. Our time has come.

Different applications, different computers, different countries, but one solution; Network Systems. We'll match our system to your needs. We can because we're the United Nations of Networking.

Our Worldwide Sales and Service Network:

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*Manufacturing and assembly integrity
assures customer satisfaction.*



Network Systems. The Total Solution.

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