



NEWS RELEASE

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ALT-57

For Immediate Release

ETHERNET™ AND ALTOS-NET™ CAPABILITY ANNOUNCED FOR ALTOS 16-BIT MICROCOMPUTERS

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New Local Area Networks Can Cost-Effectively Link Hundreds of Users

Altos broadens its market among large organizations

SAN JOSE, Calif., June 9th--Altos Computer Systems today announced Ethernet™ computer networking capability for its 16-bit microcomputers, thereby creating one of the lowest cost computer systems to offer Ethernet hardware, and catapulting Altos into a new marketplace among larger organizations. The company also introduced a highly economical Altos-to-Altos high speed networking scheme called Altos-Net™.

Networking will permit Altos users to share data bases among several computers, pool expensive peripherals, and expand their systems extensively. Once tied into the network, users can share files, send and receive electronic mail, and emulate other terminals from their own.

The new networks implement ALTOS-NET/UNET™ networking software, running under the Xenix™ version of the UNIX™ operating system. Because the two networking schemes--inter-Altos and Ethernet--share the same software, users can easily upgrade.

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"This is a very significant move for us and the microcomputer industry," said David Jackson, president of Altos Computer Systems. "While many vendors have talked about the Ethernet solution, we're ready and able to provide the complete package including networking hardware and software. Altos is one of the first microcomputer firms to implement Ethernet, providing minicomputer networking capabilities at microcomputer costs."

Adds Ron Conway, vice president of marketing, "Ethernet allows Altos to offer a viable solution to the Fortune 1000 companies who are pursuing cost effective office automation computer systems."

Ethernet will permit the networking of up to 100 Altos 16-bit computers, with up to eight-users per CPU, thereby providing medium and large installations with a powerful, flexible system.

As an alternative, inter-Altos networking can be accomplished with ALTOS-NET/UNET software utilizing low-cost twisted pair cabling with high transmission speeds. This economical approach offers substantial savings for installations wishing to link up to 32 Altos computers.

Selecting Ethernet

According to Kapil Nanda, vice president of software engineering for Altos, "It is our policy to identify and implement technologies having the highest prospects of being adopted industry-wide. While other local networking techniques may be used with Altos computers, Ethernet--with its endorsement

by Xerox, Intel, and DEC--is the most viable candidate.

"The system has been tested, tried and proven for over a decade by Xerox and at several research facilities, and has the advantage of widespread acceptance, standardization, and availability. In addition, its bandwidth of 10 MHz is broad enough to provide the kind of power a business-user requires."

According to Nanda, the Ethernet standard will provide OEMs with a stable, permanent foundation for systems development, while allowing the addition of hardware from several different vendors. This is in contrast to other local area networks on the market that handle equipment from only a single manufacturer and thereby risk quick obsolescence and reduce hardware flexibility.

Three functional layers make up an Ethernet network: The network medium itself--consisting of shielded coaxial cable, transceivers, interfaces, and terminators; users--who initiate actions and request services; and servers--such as printers and other shared peripherals.

Altos computers can be directly (locally) connected to Ethernet through Altos' Ethernet interface, as well as indirectly (remotely) connected via telephone lines. To reduce communications costs, up to eight Altos local terminals can share a single Ethernet connection.

The Altos computer also can serve as a gateway between multiple networks. ALTOS-NET/UNET software carries the necessary algorithms to control these connections.

Ethernet makes use of coaxial cable running up to 1,500 feet in length, supporting transmission at a rate of 10 megabits/second. (Lengths of up to 4,500 feet are possible with the use of repeaters.) At any place along the way, an Altos computer may be attached via a small transceiver, using an interfacing cable stretching up to 150 feet.

Electronic mail, shared files. . .

Once tied into the network, users can share files, send and receive electronic mail, and emulate other terminals from their own. Hence customer records in the accounting department can be utilized by marketing, and reports generated in sales are accessible in forecasting. Using the network, managerial personnel can access status reports for all departments from a central location.

Furthermore, output devices attached at one location are accessible by all users, enabling the pooling of expensive peripherals such as large-storage Winchester hard disk drives. Systems and even entire networks located off-site can be interfaced via a single modem.

ALTOS-NET/UNET networking software

Altos' Ethernet network runs ALTOS-NET/UNET software, provided by 3Com Corporation of Mountain View. This package uses the Internet Protocol (IP) and Transmission Control Protocol (TCP) to provide operating systems support for OEMs and software houses wishing to develop distributed applications. These standards are maintained by the U.S. Department of Defense.

At the application level, the software provides file transfer capability, and electronic mail and terminal emulation protocols.

The ALTOS-NET/UNET file transfer program allows one or more files to be moved to and from any computer in the network while maintaining full UNIX security. The transfers take place in either an interactive mode with user prompts, or via command lines.

Electronic mail capability allows users to send and receive messages across the network in a format conforming to UNIX standards. The program sends messages immediately, queuing delivery for a later date if the destination computer is inaccessible. After a specified period, the message is returned to the sender.

The virtual terminal program allows users to log-in to any computer on the network as if they were directly connected.

X.25 CCITT supported

For long distance communication, Altos is committed to supporting remote communications standards, which will simplify network design and assure compatibility among various computers and networks at a practical cost. Altos will support the X.25 CCITT standard and the ISO provisional architectural model for data communications.

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Networking at low costs

Altos' implementation of Ethernet costs \$2,500 per CPU, which includes ALTOS-NET/UNET networking software and the Ethernet controller. Cabling and transceivers are extra. Altos-Net networking costs \$295 per CPU plus cabling.

Altos Computer Systems

Located in the heart of the Silicon Valley, Altos Computer Systems is a leading manufacturer of multi-user computers, including its 16-bit ACS8600 family, the Z-80 based ACS8000 Series and the Series 5 small multi-user systems. Over 25,000 Altos computers are serving business, science, and industry around the world.

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