

NETWORKING

FDDI: Concentrating on cost

Previous claims of FDDI concentrator cost savings come under scrutiny

ANALYSIS

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CW STAFF

Now that Fiber Distributed Data Interface (FDDI) concentrators are hitting the shelves, age-old prophecies that such products will slash network connection costs and fuel the market are under scrutiny.

An intelligent device that connects to an FDDI local-area network, an FDDI concentrator hooks workstations in a star configuration to the 100M bit/sec. fiber ring, much the way a terminal server links personal computers and terminals to the Ethernet or Token-Ring network.

A report last year from market research firm International Data Corp. (IDC) suggested that the high price per connection to an FDDI LAN — now about \$11,000 and prohibitively high for many user companies — would be less of an inhibitor once concentrator products appeared on the scene.

However, prices still may not be low enough for commercial users. In fact, the author of the

IDC report, Rick Villars, manager of computer networking systems, cited "the protection of the network rather than cost savings" as the main advantage to using a concentrator.

Digital Equipment Corp.'s FDDI product rollout this month included an eight-port, \$15,000 concentrator, which, when coupled with the vendor's \$6,000 FDDI network adapter card needed for each workstation, gets the per-port cost down to about \$8,000.

Timeplex, Inc. introduced a \$30,700, eight-port FDDI concentrator in January. The DEC and Timeplex products dual-attach to the backbone to protect the inherent redundancy afforded by FDDI's dual, counterrotating ring topology.

However, Timeplex's concentrator cost nudges \$4,000 per port and still requires an FDDI adapter card for each attached workstation (\$6,000 to \$10,000, according to IDC). These are hefty price tags for users accustomed to hooking their computers to an Ethernet network with a \$200 adapter card. In addition, some high-perfor-

mance workstations are now \$4,000 to \$5,000 — half the price of an FDDI connection.

There is still progress being made to cut connection costs, however. This week, two working groups formed at last month's FDDI standards committee meeting will convene in Boston to explore less expensive



means to FDDI's high data transmission rates. One group will consider a new component to the FDDI standard specifying shorter distances between nodes in concentrator configurations, according to Bruce McClure, the group's chairman.

McClure, who is also chairman of FDDI start-up Synernetics, Inc. in North Billerica, Mass., said his group will discuss reducing the concentrator-to-station distance from 2km to 100m, which would ease performance requirements for products and possibly lower the cost to users by 30% to 40%.

In the meantime, users and analysts are touting other concentrator benefits — enhanced network management, wiring flexibility and protection of the FDDI backbone — as more germane to network concerns than cost savings.

"The dual ring is important for the backbone, but the concentrator will let us transparently reconfigure our network without having to pull new runs," commented Warren Fugate, director of systems and networks at the University of Pittsburgh. Fugate has been beta testing DEC's FDDI product line and said he "certainly intends to buy" the Deconcentrator 500, which, like Timeplex's Time/LAN FDDI Concentrator+, accommodates single-attached workstations only.

Different thoughts

Opinions vary about the benefits of single-attached vs. dual-attached workstations. Single-attached workstations, which run just one pair of fiber wires to the concentrator, require less intelligence on their FDDI network adapter cards — rendering the cards less expensive — and reduce the amount of fiber cabling needed.

However, the number of fiber-optic connections involved in concentrator configurations

is, ironically, greater. While only one fiber-optic connection is required on the workstation side, a counterpart connection is required on the concentrator, and an additional two connections are required from the concentrator to the dual ring.

The single-attached workstation approach also does not take advantage of the full redundancy capabilities inherent in the dual-ring concept of FDDI. If a cable running to the single-attached workstation breaks, that node is out of commission. In a dual-attachment scenario — advocated by such workstation vendors as Hewlett-Packard Co.'s Apollo division, Prime Computer, Inc. and Silicon Graphics, Inc. — the workstations would be backed up by the secondary ring.

One problem with using all dual-ring attachments without a concentrator is that if there is a fiber cut on the active ring, the network will default to the backup ring, wrap and "self-heal." If two devices malfunction, the two wraps would isolate a section of the backbone from the rest of the network, pointed out Mark Leary, director of communications and networking research at Technology Investment Strategies Corp. in Framingham, Mass. A concentrator, on the other hand, allows the ring to bypass the malfunctioning node.

NEW PRODUCTS

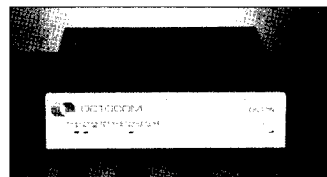
Network management

Isicad, Inc. has introduced a stand-alone software package designed for IBM Personal Computer XTs, ATs and compatibles.

Command 2000 can be used throughout network design, installation and change management processes. It features help desk and troubleshooting capabilities and a graphics-to-database link that ties graphical data to a nonproprietary relational database system.

The package is available for \$12,950.

Isicad
1920 W. Corporate Way
Anaheim, Calif. 92803
(714) 533-8910



Octocom's OS1821N offers access security

Octocom Systems, Inc. has introduced the OS1821N Desktop Access Security and Network Management System.

The system allows network

managers to surveil and control dial and two- or four-wire leased-line data networks from a desktop. Features include a menu of event and alarm monitoring and logging capabilities, device configuration and control, four levels of host access security and a system log that provides an audit trail of network activity, alerts and alarms.

OS1821N is priced at \$3,200; a personal computer software license costs \$500.

Octocom
255 Ballardvale St.
Wilmington, Mass. 01887
(508) 658-6050

Triticom has announced an Ethernet real-time traffic monitoring tool that was designed to operate with any Ethernet local-area network.

Ethervision enables network managers to monitor traffic and errors in real time, display network usage and assign user names to network addresses.

The product was designed to operate with Novell, Inc.'s NE2000 or a compatible Ethernet adapter. DOS Version 3.1 or higher is also required.

Single workstation versions that include a user manual and

3½- or 5¼-in. floppy disks sell for \$225. Versions with Ethernet adapters cost \$525.

Triticom
P.O. Box 11536
St. Paul, Minn. 55111
(612) 937-0772

Codex Corp. has introduced the 9110 Dial Monitoring System.

The system lets users monitor and control dial modem pools from a central site or through remote access. It supports up to 960 dial modems simultaneously and is available as a software kit or as a system equipped with a Hewlett-Packard Co. Vectra personal computer.

The 9110 is scheduled to ship in the third quarter. Pricing will be based on configuration and will begin at approximately \$3,000.

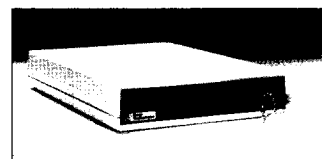
Codex
20 Cabot Blvd.
Mansfield, Mass. 02048
(508) 261-4655

Microtronix Datacom Ltd. has announced a Digital Equipment Corp. VMS-based communications system designed for performing applications over wide-area networks.

The Packet Miser minimizes the cost of transferring packet-switched data over X.25 or public switched networks. The product enables users to communicate with VAX/VMS-based host processors without relying on network echoing to be performed by a host.

Pricing for the product begins at \$4,500, depending on configuration.

Microtronix
125 Bessemer Road
London, Ont.
Canada N6E 1P9
(519) 681-3430



Group Technologies' Glo-worm

Links

Group Technologies Corp. has announced a digital encryption/decryption device that features modem, key management and remote user capabilities.

The Glo-worm can be connected to any computer equipped with an RS-232C interface. It transfers data at 9.6K bit/sec. and incorporates personal identification keys and remote user modules.

Glo-worm is priced at \$2,995.
Group Technologies
10901 Malcolm
McKinley Drive
Tampa, Fla. 33612
(813) 972-6000

Pacer Software, Inc. has announced Pacer-Share, Pacer-Link and Pacer-Print.

Pacer-Share acts as an Apple Computer, Inc. Appleshare server that enables Apple Macintosh users to store files on a Digital Equipment Corp. Ultrix host. Pacer-Link is an integrated communication device for linking Macintosh and IBM Personal

Computers to supported hosts. Pacer-Print is print server software that enables Macintosh and Unix users to print to Postscript-compatible printers.

Minimum license fees for Pacer-Share and Pacer-Link are

\$1,200. Pacer-Print prices start at \$1,000 per VAX or reduced intrusion set computing CPU.

Pacer
1900 W. Park Drive
Westboro, Mass. 01581
(508) 898-3300

Local-area networking hardware

Fresh Technology Group has announced a product that allows authorized users of Novell, Inc. Netware-based local-area networks to view the screen and operate the keyboard of a file server console from any workstation on a network.

Remote Console uses 2K bytes of server memory and is compatible with Netware 286 2.1 and later versions. It allows access to the console of a non-

