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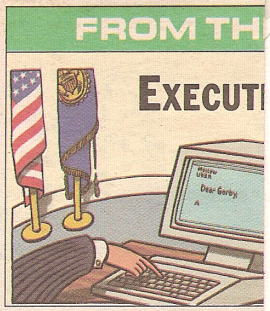

Microwave Link Runs at Ethernet Speed

BY BARBARA DARROW

Network designers who need crosstown or cross-the-street links may be interested in a new 10-megabit-per-second microwave transmission system from Microwave Bypass Systems Inc. that can send Ethernet signals up to 4.3 miles between repeaters, according to company president David Theodore.

"People thought you couldn't do local area Ethernet transmission over microwaves because it was too unreliable and you couldn't get the full 10 megabits," said an enthusiastic Doug Gold, networking analyst at International Data Corp., in Framingham, Massachusetts. "This proves them incorrect."

One Microwave Bypass system already links Boston University (BU), Harvard, and MIT, forming part of the New England Academic Research Network (NEARNET).

Connecting Ethernet installations at the three schools, this implementation is faster and cheaper than traditional 1½-mbps T-1 microwave links, said Kent England, director of networks and systems engineering at BU. The BU-to-Harvard leg costs about $30,000.

England and his colleagues ruled out optical fiber because there were no existing lines. "Getting rights of way would have been virtually impossible," he said. T-1 microwave links were deemed too expensive and slow. "With T1 you have to put devices on each end to convert Ethernet to T-1 — there's more hardware and more complexity," he said.

"With the high speeds of Ethernet on microwave we can do network file systems like NFS, window protocols like X Window," England said. "If I'm at Harvard, I can fire up some X Window displays from my BU workstation. I can have a window controlled by that workstation and a window controlled by a server somewhere else in the building."

According to Theodore, Microwave Bypass' advantage is its combined networking and microwave expertise. "If you go to some microwave engineer and start talking about TCP/IP, his eyes will glaze over. And microwaves are the great unknown to LAN guys," he said. LAN people like the system because they can run their "native Ethernet" without worrying about microwaves at all, he said.

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