

Waving the flag for data transmission

Those with stakes in business discuss high-speed transmission, expected revenues and problems of standards at videotext session

Manufacturers at a NCTA convention panel session painted bright pictures of cable's future as a distributor of data communications for businesses and institutions.

Speaking on a panel entitled "Videotext Technologies (Commercial/Institutional)," Alex Best, of Scientific-Atlanta, said local data distribution may give cable a boost in revenues on the order of pay television.

The advent of pay television increased the revenues of cable operators 100%, Best said, but because of the complexity and cost of building cable plants in major cities, operators are in search of a business that can generate similar revenues. "It is the belief of a lot of people," Best said, "that possibly the next major source of revenue for cable systems will be the transportation of business data over cable."

Although data distribution is a new business for cable, Best said, it should not be technically overwhelming. Data transmission is simpler "than what we are doing today," he said. The equipment is "less complex than some of the very sophisticated headends we are installing in some cities," he said.

Best and the other three panelists had self-serving reasons for their optimism about cable's role in data communications. They are all makers of the digital devices needed to pick up and transmit data.

Intercity data transmission can be done by satellite, said Gilles Vrignaud, of the CATEL-Division of United Scientific Corp. What is needed is high-speed transmission of data locally, he said, and "there are 10 or more contenders each claiming to have the ultimate solution for the local network."

Right now the high-speed satellite transmissions are distributed locally by the "turtle network," Vrignaud said, flashing a slide of a turtle with the AT&T logo inscribed on its shell. To use telephone lines, high-speed data has to be funneled into low-speed telephone lines, he said.

Not only is broadband cable a reliable and relatively inexpensive means of handling high-speed data, but it's also capable of carrying low-speed data. Broadband cable, said Wayne Martson of Sytek, "is one of the most flexible technologies available in the world today. The other technologies available for data communications are not nearly as flexible."

Compatibility was the chief topic of panelist Tom O'Brien of Jerrold Electronics, although he was more concerned with standards for information services for the home. He called on the industry to "stop now" and consider estab-

lishing a standard for data communications. "I know this is a radical departure for cable," O'Brien said, "but somewhere along the line it has got to start." Standards are needed, he said, to make sure the information that passes through different paths on its way to homes and offices "doesn't get disrupted."

O'Brien presented Jerrold's recommended parameters for TV games, security systems, videotext and home shopping. The videotext standard called for a Prestel protocol, 6 mhz bandwidth, time division multiplexing, ASK modulation and a 3.58 mbs bit rate for downstream transmission and PSK modulation, plus or minus 100 khz bandwidth, a unique protocol, and a 28 kbs bit rate for upstream. Three of the information systems—Virtex, Virdata and Indax—currently available to cable operators were discussed in a session, "Videotext Technologies (Consumer/Residential)," that preceded the session on business applications.

Walter Ciciora, of Zenith, explained the company's Virtex and Virdata systems. Virtex is a one-way system, that, like teletext, makes use of the vertical blanking interval of the television signal, Ciciora said. The system, which is based on the British Prestel format, is being used by Southern Satellite Systems to beam Reuters and UPI news services via satellite to cable systems in the vertical blanking interval of superstation WTBS Atlanta. The services are encoded at the uplink and decoded at the cable operators' headends. Each of the services is then distributed to homes on a separate channel; pages are displayed sequentially.

According to Ciciora, Virdata makes use of the same vertical blanking interval of television signals beamed by satellite or carried on cable systems, but Virdata is designed to transmit all types of data and is not restricted to any page format. And, he said, since each terminal employed in a Virdata system is addressable, it can be used for electronic mail or, more specifically, business communications among systems of a multiple system operator.

Neither system is particularly costly. Ciciora said a Virtex decoder costs \$1,500. The Virdata terminal is cheaper at \$1,025, but several are needed to establish a communications network.

Mike Ellis, of Cox Cable Communications, said Cox's Indax system, a two-way system capable of TV access control, home banking, catalogue shopping, data retrieval, home security and energy management, is based on state-of-the-art technology.

Cox systems using Indax—which is being installed in San Diego and will be installed in Omaha this summer—will be tied into a national data base in Atlanta as well as to local data bases, he said.

All the data bases use the Telidon format, Ellis said. Cox is convinced, Ellis said, that it is the "most flexible way of describing" graphics. However, to keep decoder costs at a minimum, Ellis said, a Motorola videodata generator is employed to create the text pages.



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Harold Friedman Consortium
420 Lexington Avenue
New York, N.Y. 10017
Tel. 212 697-0858

Producers: Harold Friedman, Albie Schloss, Susan Rubin
West Coast: Los Angeles
D. Rufus Friedman, Producer
(213) 821-0100
Chuck Dubow, Rep: Reels
(213) 938-5177

