HIGHLIGHTS

TECHNICAL EYE OPENER WORKSHOP

THE ELUSIVE SUBSCRIBER TERMINAL - HOW MUCH AND WHEN?

Sponsor

Society of Cable Television Engineers

National Organizer

Robert Bilodeau
Suffolk Cablevision
Central Islip, New York

Organizer/Moderator

Steven Dourdoufis
Vision Cable
Ft. Lee, New Jersey

Panelists

Caywood Cooley
Magnavox, Co.
Manlius, New York

Jerry Crusan
Television Communications
Pennsauken, New Jersey

Mike Paolini
St. Petersburg Communications
St. Petersburg, Florida

Dr. Pat Nettles
Scientific-Atlanta
Atlanta, Georgia

Abe Reiter
Athena Communications
New York, New York

Dr. John Sie
Jerrold Electronics
Horsham, Pennsylvania

Gene Walding
Oak Electro/Nectics Corp.
Crystal Lake, Illinois

Reporter

Robert Bilodeau
Suffolk Cablevision
Central Islip, New York

Moderator Steven Dourdoufis opened this session with an introduction of the panelists followed by a brief positional statement from each.

Jerry Crusan set the stage with a Chicken and Egg analogy to the arrival and definition of software vs. hardware for the complete home terminal picture. The decision to purchase any specific hardware should be evaluated in terms of the overall capability of the supplier to maintain back-up at the same time keeping the cost factor in perspective, he said. Some of the key features to look for are "human engineering, reliability, availability, electrical performance, field adjustment ease, etc."

Dr. Pat Nettles directed his question to the market place - "Just really what terminal do you want?" Confronted with abundant technology the question he felt appeared to be one of marketing. He added the additional considerations for terminal hardware selection of actual two-way systems capability and output compatability of the device.

Caywood Cooley spoke of the absence of demonstrated services upon which to build the two-way network citing pay movies as the vehicle upon whose back the other services would have to be ushered in.

Abe Reiter illustrated the difference between the economic model for home terminals and the basic CATV system from the standpoint of its revenue generating capability. He also urged industry and user alike to strive for standardization of reverse and forward channel assignments, bandwidth, etc. Divergent energies, he felt, diluted the overall effort and precluded the development of inexpensive hardware.

Mike Paolini stated his position as one which places the operator dependent upon the development of a business around each phase of hardware - that in the absence of a specific use the hardware could not or would not be developed. He felt it was incumbent upon the manufacturer to develop hardware in such a manner as to accommodate each incremental requirement as it became viable. Dr. Nettles supported this approach more specifically by replying that pay TV would of itself be able to carry the freight for the initial terminal investment that could provide the basic building block up front with smaller proportional costs required of the add-ons.

Dr. Sie brought the title of the program back into focus by demonstrating and describing the hardware that his company had developed assuming the role of the Chicken and not the Egg. Extrapolating the concept of the home terminal through its potentially ultimate configurations reveals not only video services but places a mini-computer in the hands of the subscriber, he explained. He described how with the use of MOS/LSI techniques his company was able to bring the price and size of this terminal within a reasonable range. The design objective he stated were four in number - to preclude rapid obsolescence, provide flexibility of service, insure reliability of operation, and maintain low cost. The most reasonable approach to the fourth is through the use of LSI with its inherent cost and size reduction. Dr. Sie pointed out that no application in the computer field required one terminal to talk to many, many thousands of others but suggested that this type of problem had been resolved at a lower numerical level.

Gene Walding described a more immediately available kind of (addressable one-way) terminal that in his opinion is needed now to deliver software that is available now. In Mr. Walding's opinion the three most important design features of his terminal are a high degree of security, head-end control and minimum degradation due to signaling. While he recognized the ultimate development of the full interactive terminal he emphasized that the "quantum leap" in that direction was not justifiable at this time.

A question and answer period ensued.

Paul Kagen asked the panel to describe what hardware was available for purchase considering the almost non-existent two-way market conditions. Several panel members responded by describing their "available" one-way scramble, de-scramble addressable hardware. Mike Paolini estimated about 40,000 single channel converters and 5,000 one-way addressable devices were in actual use. An attempt to buy anything more sophisticated would meet with failure, he felt. Responding to a question on standardization of scrambling techniques, Paolini stated there were at least five to his knowledge with no cross-reference to each other - and none in sight.

Dr. Sie injected a personal opinion with regard to the ultimate viability of two-way services. His belief is that merchandising in its various forms is going to be the significant revenue generating feature of the two-way cable system of the future. A second and very interesting aspect of the two-way interactive system is in the field of education, he said.

One Q/A exchange described the capability limitations on telephone lines as an upstream input vehicle resulting in a concensus that ultimately wideband CATV type networks would provide the upstream growth requirements.

The soft security aspects of some of the one-way pay schemes was illuminated by discussions vis-a-vis multichannel converters and recent availability of 24, 25 channel TV sets (RCA, Magnovox). The conclusion, assuming the proliferation of these multichannel devices, would be a more expensive delivery system.