

premises broadband addressable taps in this previously trapped system, during its normally scheduled upgrade, results in a reasonably favorable economic scenario driven primarily by operating economies and contributed to by pay-per-view revenues. If such an installation were contrasted with addressable set-top converter/descramblers, subscriber satisfaction and converter capital reduction elements would be introduced, but the pay-per-view benefit would be reduced, since that capability exists with set-top addressables as well.

FIGURE 6

SAMPLE SYSTEM ECONOMICS

CAPITAL INVESTMENT REQUIRED

HOUSINGS & BACK PLANES		
7,395 LOCATIONS X \$150		\$1,109,000
SUBSCRIBER MODULES		
88% X 21,550 PASSINGS X \$50		948,000
POWER SUPPLYS		
88% X 21,550 X \$10		190,000
TOTAL		\$2,247,000

ANNUAL INCREMENTAL

CASH FLOW REQUIRED FOR 10YR IRR OF 10%
\$365,000/YR

CASH FLOW GENERATORS

TRUCK ROLLS SAVED FOR DISCON & RECON
 30% CHURN X 16,500 SUBS
 X \$20/TK. ROLL X 2 TK. ROLLS
 (DISCON & RECON) = \$198,000/YR

TRUCK ROLLS SAVED FOR SPIN
 10,500 PAY SUBS X
 20% SPIN X \$20/TK. ROLL = \$42,000/YR

20% PPV REVENUE/MONTH X 12 MO X 16,500
SUBS X \$2 NET/TAKE = \$79,200/YR
\$319,200/YR

ACTUAL IRR = 7 %

The example illustrates the difficulty of viewing off-premises broadband addressability as a highly attractive investment in terms of direct pay back. However, when viewed in the context of a more competitive environment the argument for its installation becomes far more compelling. Clearly, reduction in the hardware cost, or a more aggressive view of Pay-Per-View revenue potential would have a major favorable impact.

SUMMARY

We've seen that the quest for an improved cable television signal delivery system leads us to seriously examine off-premises broadband addressable delivery of our services. We have also seen that there are significant technical and economic challenges in our path as we seek to realize hardware which would meet these goals. There is clearly a substantial reward to the cable industry in finding such a solution. It is hoped that in working with potential manufacturers of such hardware, the industry as a whole can realize the goal of reduced operating costs, increased subscriber satisfaction with our service, enhanced pay-per-view revenues, and a network which is better positioned for a more competitive future.

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Jim Chiddix - Senior Vice President, Engineering and Technology, for American Television and Communications Corporation, the country's second largest cable television operator, headquartered in Stamford, Connecticut. Mr. Chiddix is responsible for corporate engineering activities as well as research and development. ATC serves 3.9 million subscribers in 32 states and is 82% owned by Time, Inc. Upon completion of its pending merger with Warner Communications, which also owns cable TV operations, the combined companies will serve 5.6 million homes.

ATC leads the cable industry in exploring the use of optical fiber technology in cable television systems. Their "fiber backbone" concept for optical trunking has gained wide acceptance as an evolutionary approach, offering the prospect of improved performance and increased channel capacity from existing cable systems. In recognition of his pioneering role in exploring this use of fiber, Mr. Chiddix was named Man Of The Year by Communication Engineering and Design Magazine in January, 1989.

Mr. Chiddix, 43, has been in the cable television business for 17 years. He spent seven years as General Manager at Cablevision, Inc. in Waianae, Hawaii, and eight years as Engineering Vice President at Oceanic Cablevision in Honolulu, an ATC division. In September, 1986, he joined ATC's corporate office.

Mr. Chiddix is a Senior Member and former Director of the Society of Cable Television Engineers (SCTE). In 1983 he received the National Cable Television Association's Engineering Award for Outstanding Achievement in Operations, reflecting, in part, his role in introducing addressable converter technology.

Dave Pangrac is the director of engineering and technology for American Television and Communications Corporation (ATC), the country's second-largest cable television operator.

Pangrac has been in the cable television business for 22 years. He joined ATC in 1982 as Vice President and chief engineer for American Television of Kansas City and in 1987 joined the ATC corporate staff as director of engineering and technology.

Pangrac is a member of the Society of Cable Television Engineering and past president of the Hart of America Chapter.

Pangrac is currently involved in ATC's effort to develop the use of fiber optic technology in cable television plants.