THE ECONOMICS OF GOING ADDRESSABLE

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ABSTRACT

While many cable operators have become acquainted with the state-of-the-art features inherent in addressability, few are aware of the attractive cost and revenue benefits that accompany this technology.

This paper will present a computerized model that was developed to demonstrate the attractive financial benefits of addressability. It compares the decision to go addressable with more traditional CATV approaches, namely, plain and pay cable systems.

The comparison will be made in four key areas: capital investment, operating costs, new profit opportunities, and other addressable advantages (optional).

This is a flexible model capable of accepting individualized inputs and performing analyses based upon various system decisions such as upgrades, replacement equipment or new build. The model provides a customized payback analysis based on the areas of consideration. It can produce "pro-forma" income statements and associated net present value (NPV) analyses.

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INTRODUCTION

"The Economics of Going Addressable" (aka EGA MODEL) was originally developed by Jerrold's Subscriber Marketing department as a sales tool, and it has since evolved into a computerized model to examine the tangible "dollars and cents" benefits related to the implementation of addressability. The model was built into an electronic spread sheet using traditional approaches to Payback and Net Present Value analysis in order to facilitate ease-of-use and quick analysis turnarounds. It's real beauty lies in an inherent flexibility that allows any one analysis to examine the unique considerations of each individual system application.

This economic model can analyze system addressability on its own merits or in comparison to other cable technologies, i.e., plain, pay. Moreover, it effectively handles a large number of key system variables, such as subscriber base, pay revenues, service calls, etc.

EGA MODEL PARAMETERS

Use of the model is initiated by completion of a simple questionnaire (see Exhibit 1). The completed questionnaire provides the model with all necessary inputs for processing the analysis. The inputs considered include:

Type of Addressable Decision

Accounts for factors relating to a new build, upgrade, or replacement decision in relation to the presence or lack of existing product technology.

System Considerations

Information with regard to subscriber base, number of pay services, and converter/descrambler equipment provides input necessary to determine appropriate capital investment considerations.

Operating Cost Considerations

Cost data from previous experience (or estimation) provides a basis for analyzing potential cost savings derived from the decision to go addressable.

Revenue Considerations

Addressability's ease in handling multiple pay services, pay-per-view and impulse-pay-per-view provides consideration for enhanced system revenues.

Additional Factors

Where applicable, the model allows for consideration of some of the less tangible factors involved in cable operations such as theft of service.

EGA MODEL ANALYSIS

These inputs are then integrated and the model run. The following outlines the computations that the model goes through on the way to generating its final output.

Capital Expenditures	Computation/Assumptions
. Addressable Control System	System size and service offerings define chosen controller.
. Scrambler/Encoders	Number of additional scrambled channels times the cost per scrambler
. Addressable Converter/ Descramblers	Number of subscribers (or system TV sets) times the price of the addressable converter or price difference with the alternate converter technology.
. PROM Programmer & Miscellaneous	Summation of the cost for supporting peripherals.
. Converter Installation	Number of addressable subscribers (or system TV sets) times the cost per converter installation
..Total Capital Investment	Summation of Capital Expenditures
Operating Costs	
. Service Call for Pay Change	The cost difference between a per subscriber "truck-roll" (alternate technology) and addressable control computer keyboard entry are factored by a growth rate (%) due to the increased number of pay service offerings
. PPV Set-Up	The cost difference or cost adder (if no plans to offer PPV with alternate technology) is calculated as in "Service Call for Pay Change"; however, the required number of service calls are based on the PPV penetration rate.
..Total Savings in Operating Costs	Summation of Operating Costs
New Profit Opportunities	
. Growth	An annualized figure based on Basic monthly profit per subscriber times growth factor (% of base due to wider service offerings) times 12 months
. Lift	Calculated as in "Growth" item computation except Lift factor and profit are based on Pay Service considerations
. PPV	An annualized figure calculated by average PPV penetration times profit per event times number of events per year
..Total New Profit Opportunities	Summation of New Profit Opportunities

EGA MODEL SUMMARY

At this point, the aforementioned computations and totals are then summarized by the model's output (see Exhibit 2). Output from the model's analysis falls into four key areas:

Capital Investment

Determines and outlines investment in addressable equipment, and when necessary, installation, as required to accommodate "Type of Addressable Decision" and "System Consideration" factors.

Operating Costs

Examines addressability's efficiency in handling service authorization changes compared with alternative technologies, i.e., plain or pay systems.

New Profit Opportunities

One key advantage of addressability is the ease with which it handles a large number of subscriber services and events. If marketed properly, a wider offering of pay services will provide potential for growth, lift and pay-per-view revenues.

Other Addressable Advantages

The model has been used to factor in profit regained as a result of superior signal security afforded by addressable technology. The operator's own theft of service estimates and projections relating to the addressable advantage provided input for this optional analysis.

Once annualized, the total for all segments is summed. This summation provides a payback status after Year 1. From this point, the model easily performs payback analyses and can be carried even further to produce pro-forma income statements and Net Present Value (NPV) analyses.

CONCLUSION

The "Economics of Going Addressable" computer model provides an extremely flexible tool for examining the hard cash flow associated with the benefits of addressable technology. As noted earlier, the model is elaborate enough to generate pro-forma income statements and NPV analyses. It thereby integrates such additional considerations as depreciation and tax factors. Even when taken to this limit, the model leaves the operator with other positive, intangible factors to consider:

. Sale or write-off of existing converters

. Effectively using addressability to improve accounts receivables

. Future revenue growth from improvements in PPV and IPPV delivery methods and offerings

When these and other factors begin to become more tangible to the cable system operator, they (the factors) can and will be integrated into the model. Regardless, today's model still offers an excellent analytical tool for the financial justification of addressability for cable operators who need such information to lend credence to their justification when seeking support from investors and lenders. In brief, the model provided in "The Economics of Going Addressable" can be a useful and effective tool to establish sound financial proof for the decision to go addressable.

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NOTE: The Questionnaire and subsequent Output (Exhibit 2) are completed with fictitious data for demonstration purposes.

- EXHIBIT 1 -

"ECONOMICS OF GOING ADDRESSABLE"

QUESTIONNAIRE

I. TYPE OF ADDRESSABLE DECISION

A. Check One: [x] New Build [ ] Replacement [ ] Upgrade (Add-on Descrambler)
B. If addressability is being considered in comparison to the installation of another technology, check which one: [x] Plain [ ] Pay
NOTE: If nothing is checked in I.B.,the model will analyze addressability solely on its own merits.

II. SYSTEM CONSIDERATIONS

A. Enter Number of Subscribers: 5,000
B. Number of Pay Service levels: current 3, with addressability 5
C. Enter Model and Cost (per unit) of addressable converter under consideration: Model ADD-1, Cost $90.00.
D. If applicable, enter Model and Cost (per unit) of alternative technology converter being considered (ref. I.B.): Model PLA-1, Cost $40.00.
Also, if trapping for Pay Service(s), enter: Model TRP-1, Cost $3.00 (per trap) and check: Reusable [ ], Disposable [x].

III. OPERATING COST CONSIDERATIONS

A. Enter average cost per converter installation $15.00.
B. Due to service level change, enter: cost per service call $15.00, and number of service calls per year 2,500
C. Without addressability, would you offer PPV events? Yes [ ] No [x]
If Yes, enter number of events per year _____ and estimate average cost (including service,trap, installation, etc.) per subscriber, per event: Cost _____.

IV. REVENUE CONSIDERATIONS

A. Enter charge for basic service: $9.00 (per sub.).
B. Enter average charge for Pay Services: $10.00 (per sub.).
C. With Addressability, enter (or estimate) number of PPV event offerings per year 6 and average charge per PPV event $5.00.
D. Enter percent of revenue operator retains on Pay Service programming 50% and PPV events 50%.
E. Addressability Growth Factors: Based on feedback received from current users, the following growth factors have been assumed by the model.
(NOTE: Factors (1) and (2) are based on a wider variety of Pay offerings as facilitated by Addressability's ease in accomplishing service change). If you disagree with any of the assumed growth factors, please enter your own estimate:
(1) 5% growth in subscriber base. Customer estimate _____%,
(2) 25% lift factor (25% of subscriber base). Customer estimate _____%.
(3) 15% penetration on PPV events. Customer estimate _____%.

V. OTHER FACTORS (Please describe in detail)

_____

_____

_____

- EXHIBIT 2 -

"ECONOMICS OF GOING ADDRESSABLE"

OUTPUT

I. CAPITAL INVESTMENT:

. Addressable Control System	$ 16,500	
. (2) Scrambler/Encoders	$ 3,200	*1
. (5,000) Addressable Converter/ Descramblers ($90/each)	$450,000	
. Less (5,000) Plain Converters ($40/each)	($200,000)	*2
. PROM Programmer & Miscellaneous	$ 3,000	
.. Subtotal	$272,700	
. Converter Installation	0	*3
... Total Capital Investment	$272,700	

*1 Required to accommodate 2 additional Pay Services with Addressability (See II.B. on Questionnaire).
*2 Since this sample analysis involves a new build where installation of alternative technologies is being considered, the cost delta between alternative converters is used.
*3 The cost of installation is a washout as it would also be required if the alternative was selected.

II. OPERATING COSTS:

- Service call for Pay change			
Plain System:			
. Cost of Trap	$	3.00	
. Cost to Service	$	15.00	
.. Sub-Total	$	18.00	(x)
. Subs requiring Change (per year)		2,500	
.. Sub-Total	$	45,000	
Addressable System:			
. Cost to Service (Computer Entry)	$	1.25	(x) *4
. Subs Requiring Change (per year)		2,500	(x)
. Growth Factor (due to increase in number of Pay services)	$	1.25	
.. Sub-Total	$	3,906.25	
- PPV Set-Up			
Addressable System:			
. Cost to Service (Computer Entry)	$	1.25	(x)
. Participating Subs (15% of Base)		750	(x)
. Number of Events (per year)		6	
.. Sub-Total	$	5,625	

... TOTAL SAVINGS IN OPERATING COSTS:

$$\underbrace{\$45{,}000\ (Pl.) - \$3906.25\ (Add.)}_{\text{Service Charge}} - \underbrace{\$5625\ (Add.)}_{\text{PPV Set-Up}} = \$35{,}468.75$$

*4 Very conservatively estimates, one computer operator being paid $12.50/hr. making the change in 6 minutes. ($12.50/hr x .10 hrs = $1.25 per authorization change)

- EXHIBIT 2 -

"ECONOMICS OF GOING ADDRESSABLE"

OUTPUT

III. NEW PROFIT OPPORTUNITIES:

- Growth			
. Sub Growth (5% of Base)		250	(x)
. Monthly Profit per Basic Sub (50% of $9.00)	$	4.50	(x)
. Annualized		12	
.. Sub-Total	$	13,500	
- Lift			
. Sub Lift (25% of Base)		1,250	(x)
. Monthly Profit per Sub Pay Service (50% of $10)	$	5.00	(x)
. Annualized		12	
.. Sub-Total	$	75,000	
- PPV			
. Participating Subs (15% of Base)		750	
. Profit per Sub Event	$	2.50	
. Number of Events (per Year)		6	
.. Sub-Total	$	11,250	

... TOTAL NEW PROFIT OPPORTUNITIES:

$13,500 (Growth) + $75,000 (Lift) + $11,250 (PPV) = $99,750

IV. YEAR ONE SUMMARY:

(-) Capital Investment	($272,700.00)
(+) Operating Cost Savings	$ 35,468.75
(+) New Profit Opportunities	$ 99,750.00
Payback Status after Year 1	($137,481.25)

V. PAYBACK ANALYSIS:

($272,700)/135,218.75 = 2.02 years.