

Broadcasting & Cable's

# Telemedia

# Week

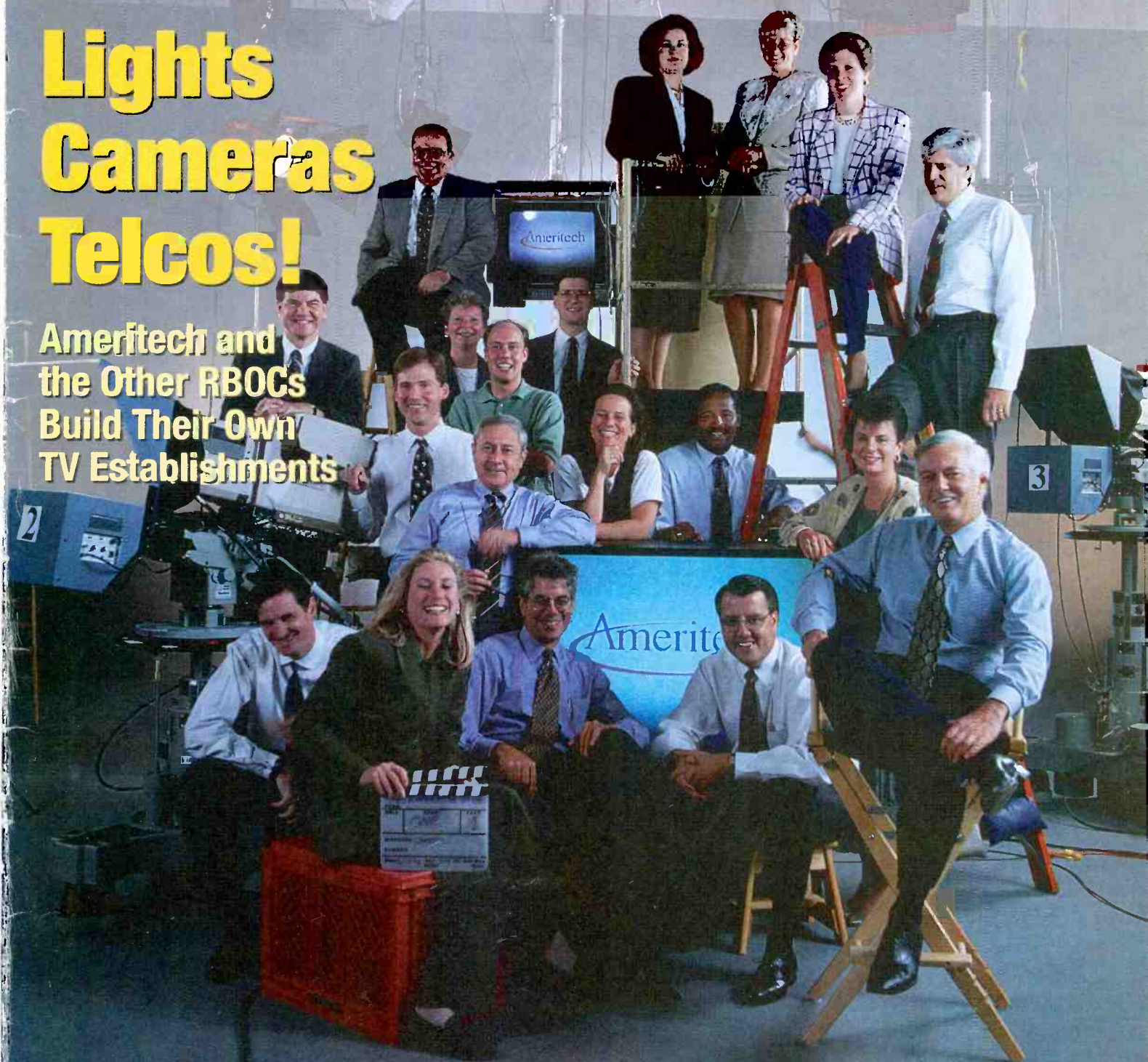
THE INTERACTIVE WORLD OF VOICE, DATA AND VIDEO

October 1994

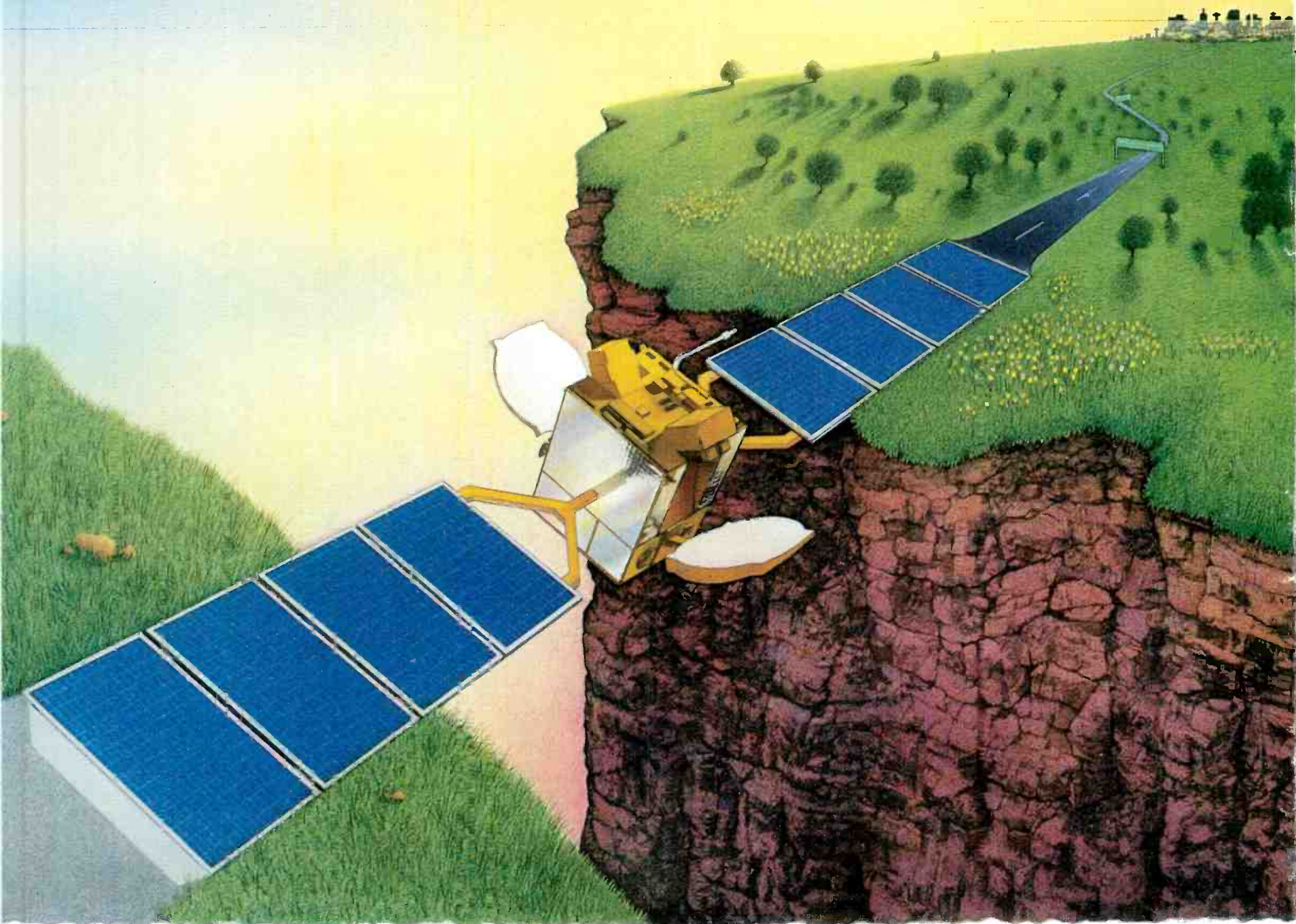
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## Lights Cameras Telcos!

Ameritech and  
the Other RBOCs  
Build Their Own  
TV Establishments



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For your information, you don't have to wait for a superhighway to pave the way. Telstar 4 gives you a flying start on all kinds of possibilities for the years ahead.

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# Telemedia

THE INTERACTIVE WORLD OF VOICE, DATA AND VIDEO

# Week

Interactive

## TV Guide On Screen launches digital guide

*Passive system to be followed next year by interactive program guide*

By Mark Berniker

Attempting to crack the Prevue Channel's hold on more than 40 million cable homes, TV Guide On Screen is offering cable operators what it bills as the first "fully digital" electronic program guide.

The company is shipping its new digital on-screen program guide, On Screen Channel, to Comcast's 161,000-subscriber system in Philadelphia and to TeleCable's 11,500-subscriber system in Radcliff, Ky.

"We hope to be in more than 3 million homes by the end of the year, signing deals

with more than 100 cable operators," says Larry Miller, director of marketing for TV Guide On Screen. He says that TV Guide On Screen plans to carve into at least 20% of the more than 40 million homes where the Prevue Channel runs (nearly 8 million subscribers) by sometime next year.

Miller says TV Guide On Screen makes its money from cable subscription fees that range from a penny to 20 cents per subscriber per month. He says TV Guide On Screen, a joint venture of John Malone's TCI and Rupert Murdoch's News

*continued on pg. 5*

## Sony signs licensing agreement with StarSight Telecast

Sony Corp. has signed a licensing agreement with

**SONY**

StarSight Telecast Inc. that will allow Sony to integrate StarSight's patented on-screen, interactive program guide into its future U.S. consumer electronics products, including televisions and VCRs. StarSight's guide provides one-button VCR recording, instant program selection, seven-day program information and direct-tuning by program title and such categories as movies, sports, children's shows, news and entertainment. StarSight Telecast is backed by Viacom International, Spelling Entertainment (a Blockbuster Entertainment Co.), Cox Communications, The Tribune Company, Times Mirror Cable Television, KBLCOM and Providence Journal Co.

Cable TV



John Malone

By Kim McAvoy

Tele-Communications Inc. President John Malone hopes to capture 15% of the telephone market in Pittsburgh.

"We'll launch a few telephone systems in our markets and see what happens," Malone told a conference audience in Washington. "If it doesn't work, then we'll go back to the government and say we can't support two wires."

TCI now operates a network in the UK that delivers both cable and telephone services. "Our hybrid system in the UK is actually generating more telephony than entertainment," said Malone.

Indeed, the TCI chief thinks that "ultimately, the UK model will be deployed worldwide." That system, has fiber to the neighborhood and coax to the home, he said. However, he said, as the rest of the world moves ahead, the U.S. "is caught in its own regulatory underwear."

Malone also said that TCI no longer looks at the TV as just a TV set. "We look at it as a set, personal computer,

## Malone high on cable telephony

*Says TCI ultimately could grab 15% of local phone market in Pittsburgh*

video games, stereo, telephone and a fax. We're looking at how we can satisfy all those needs."

Malone predicted that direct broadcast satellite is "going to be very successful. It will pick up the eight to ten million households that don't have cable."

Overall, Malone is sanguine about the so-called information superhighway: "Good fruit will come from this tree. We can't predict the flavor or the magnitude." ■

## The Ins and Outs of Telemedia Week

Since May 23, *Telemedia Week* has been a regular feature of *Broadcasting & Cable* magazine. It will continue to be in the future, but this week we're spreading our wings a little farther. Instead of a four-page "insert," we've expanded to a 44-page "outsert" for this issue. It's all part of the process of developing a new editorial product, and marketing it to a new generation of readership. Look for your next TW insert on Oct. 10. Look for your next TW outsert on Nov. 28. In the meantime, stay tuned.

Interactive

# G0tv to offer interactive guide

US West signs deal with studios, MovieFone and Visa

By Mark Berniker

US West has taken another step toward creating a menu of information services to be offered over interactive TV systems.

Its latest venture, G0tv, will offer in-home information to consumers about local movies, restaurants and events through deals with local merchants and national advertisers.

G0tv has signed several of the major Hollywood movie studios to be part of the movie information service, including Columbia Pictures, Twentieth Century Fox, MCA, MGM/United Artists, Paramount Pictures, TriStar and Warner Bros.

"Our platform is interactive television, and we are essentially creating an entertainment guide to out-of-the-home entertainment," says Margaret Piccinelli,

director, new media, US West Marketing Resources.

The entertainment information service will be available only over interactive television systems, many of which are in the process of construction. But while US West is investing billions to upgrade its network to become interactive television-capable, the western telco is advancing its focus on providing compelling interactive services that it hopes will attract consumers to its competitive offering to the local cable operator.

Piccinelli says US West's goal with G0tv is to "create a video magazine" that will contain trailers and behind-the-scenes information about movies and that will serve as a cross-promotion tool for the Hollywood studios and local movie theaters.

At the same time, G0tv will incorporate a local com-



Margaret Piccinelli

ponent by creating connections with local restaurants and events at nearby venues, such as concerts, theater or sports events. Piccinelli hopes that after the trial period G0tv will be supported by both national and local advertising and that US West will get a share of the transactions if a consumer buys a movie ticket or other form of local entertainment.

MovieFone is also part of the deal and will provide movie showtimes and local theater locations as well as direct ordering of movie tickets from home that can be picked up at the theater. MovieFone is a telephone-based movie information service, but the company is diversifying into new ventures and recently announced a new service called MovieLink.

MovieLink offers film clips, movie descriptions and local movie schedules. MovieLink is expected to migrate into an online service and possibly will be delivered over broadband telco and cable networks in the future. G0tv will first be offered in the form of a trial in US West's Omaha broadband network test bed. Pic-



cinelli says G0tv also will be tested over Time Warner's Full Service Network in

Orlando, Fla.

The market trials will begin next spring and are expected to last 12 months. The service will be offered free and will be accessible only by consumers with a new digital set-top box and remote control.

Piccinelli says US West has "not determined a national rollout schedule," but the company plans to offer G0tv over other telco and cable networks besides its own. The strategy is similar to that being employed by US West in positioning its US Avenue interactive home shopping service, which will be offered over its own network and other systems interested in carrying it.

Another member of the G0tv venture is Visa, which will be one of the charter advertisers for the initial trials. Piccinelli says US West is talking with 10-20 other major national advertisers about participation in the trials.

Piccinelli also mentions creating a connection between the in-home entertainment-information offering and card-based services. US West Marketing Resources already is testing "Your Value Card" in Omaha and Denver. The card is associated with a coupon book, and local merchants give special deals and rebates when consumers purchase items from them using the card.

## US West taps Felser for multimedia development

Josh Felser has been named head of business and new product development for US West's broadband and multimedia services group. Felser will manage a number of corporate relationships with "content owners and multimedia developers and structure and negotiate distribution and development contracts," according to a company statement. Felser will be based in Denver and will report to Larry Levine, who leads US West's broadband and multimedia services group. Felser formerly worked at BSKyB in London, where he was involved in the launching of new satellite television channels and also in the development of interactive applications for television and CD-ROM. Prior to BSKyB, Felser was manager of business development at Fox Inc., where he structured film and television financing transactions with strategic investors.



### TV GUIDE continued from pg. 3

America Corp., has lost several million dollars during the past few years, but he expects the company will start to be profitable in "a year or so."

On Screen Channel is a passive electronic programming guide that provides programming listings delivered digitally via satellite to cable headends. The information is then customized by the local operator to incorporate premium and pay-per-view service promotions, which run on the top half of the screen.

The service delivers video packets of promotional trailers, then automatically switches the on-screen presentation from full-screen to half-screen format in real-time.

Although TV Guide On Screen's passive guide is coming to market, the company is finalizing development of its interactive guide. "The interactive service should start kicking in next year," Miller says.

TV Guide On Screen's interactive guide will be available on digital set-top boxes, including Scientific-Atlanta's 8600x home communications terminal, General Instrument's DigiCable series of set-top boxes and other set-tops from Hewlett-Packard and Pioneer.

"There is greater profit potential for both ourselves and the cable operators for the interactive television guide," Miller says.

TV Guide On Screen's interactive guide was set to premiere on Time Warner's Full Service Network in Orlando, Fla., but Miller says that Time Warner and Silicon Graphics wanted to strip so many features out of its guide that it didn't fit with the company's strategy. Time Warner went instead with Prevue's interactive guide.

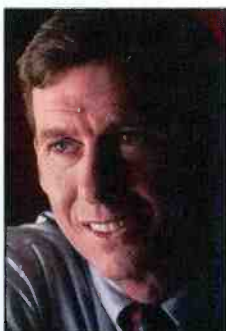
Prevue recently announced it is upgrading its delivery system with a national network of video servers that will cost the company roughly \$50 million. ■



*BellSouth's foray into TV programming is being led by the Interactive Media Services unit.*

### 10 Telcos tune in TV

The telcos are amassing TV programming and building the broadband networks to deliver it. And they're going after cable subscribers, believing they can lure them with a mix of conventional cable programming, telephony, video on demand and, eventually, other interactive services. Looking for experienced partners, Ameritech, BellSouth and Southwestern Bell are talking to Disney and Bell Atlantic. Nynex and Pacific Telesis are working with Michael Ovitz's Creative Artists Agency.



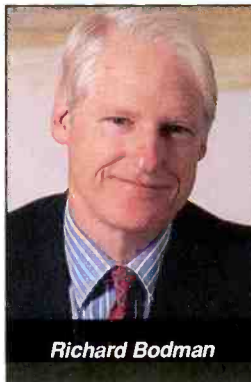
*Continental's Schleyer wants to take on the telcos head to head.*

### 16 Cable answers telephone's call

The nation's leading cable operators are out for a piece of the \$95 billion local telco business. But it's not just telephone service they have in mind: Cable hopes to offer telephone with pictures, PC services and even wireless telephony. Wired or wireless, it won't be easy.

### 24 AT&T's multimedia calling

AT&T's multimedia evangelist Bob Kavner has left the company, but AT&T's enthusiasm for the business is undiminished. The company plans to do for multimedia what it has been doing for years for conventional telecommunications. Drawing on its products and R&D arms, it will create multimedia services and build broadband networks to support them.



*Richard Bodman*

### 26 Richard Bodman leads the way for AT&T

AT&T's top strategist, Richard Bodman, outlines AT&T multimedia

strategy in an exclusive interview. "Now we have decided...to bring video and voice and data together in a multimedia set of services onto our core network services and deploy them broadly," he says.

### 30 Viacom's Ed Horowitz: an interactive game plan

Ed Horowitz is in charge of quickly moving Viacom into interactive media. His strategy: Forget convergence for the time being and create products for the parallel worlds of TV and the PC.



### 32 Selling home shopping

There's a difference of opinion between retailers and the cable television industry about the short-term potential of interactive home shopping. Cable is more optimistic, predicting that home shopping for cars, clothes and other items will reach \$20 billion by 1998.

### 36 Washington holds VDT cards

The FCC's controversial reconsideration of video dialtone has become the front line in the fight over telco entry into video. Cable is fighting a telco push to offer programming on the common-carrier platforms. Cable also says the telcos plan to illegally use their telephone revenue to subsidize their new video businesses.



*Rep. Ed Markey tells FCC to move carefully on video dialtone.*

### 38 Past is prologue

Drawn from the pages of BROADCASTING & CABLE'S "Telemedia Week" department, a roundup of the top news of the past six months from the interactive world, including a review of the stories leading up to the demise of information superhighway legislation at the end of September.

Drawn  
"THE CHANGELING"  
Tonight at 8:00 PM  
Channel 34

MOVIE SUMMARY FOR 8:00 PM

14 NICK	"MISERY" James Caan, Kathy Bates. Blackbustro exercising in psychological horror by Stephen King. (1-54)
15 HBO	"WHITE MEN CAN'T JUMP" Wesley Snipes, Woody Harris. A former basketball player who has trouble playing basketball played by two guys who have their own set of rules. (1-54)
16 HBO	"A LEAGUE OF THEIR OWN" Tom Hanks, Geena Davis. A group of World War II female pilots who formed the WASPs.

17 HBO	Summary: [unclear]	Summary: [unclear]	Summary: [unclear]
18 HBO	Summary: [unclear]	Summary: [unclear]	Summary: [unclear]

To Order Call  
585-1234  
30 min. Before to  
30 min. After  
Movie Start Time

8:00 PM	8:30 PM	9:00 PM	9:30 PM
14 NICK	Ren & Stimpy	Are You Afraid Of The Dark?	Alfred Hitchcock Presents
15 HBO	"HAMLET" Mel Gibson, Glenn Close		
16 REQ	"HOOK" Dustin Hoffman, Robin Williams, Julia Roberts		

9:00 pm TONIGHT  
**MANHATTAN MURDER**  
Call 728-1233 now!

8:00 PM  
Wesley Snipes, Woody Harris. A former basketball player who has trouble playing basketball played by two guys who have their own set of rules. (1-54)

Tom Hanks, Geena Davis. A group of World War II female pilots who formed the WASPs.

The Family Channel  
"AFRICAN SOBS"  
Tonight at 8:30 pm  
Channel 11

17 HBO	Summary: [unclear]
18 HBO	Summary: [unclear]
19 HBO	Summary: [unclear]

Showtime  
"SNEAKERS" 12:00  
Wednesday  
Channel 17

10:00 PM	10:30 PM	11:00 PM	11:30 PM
30 WGN	Night Court	Coach	
35 DISC	Satan	World Of Values	
40 NICK	Lucy Show	E-Tony	Mister Ed

8:15-30  
20  
ABC

"THE MIDNIGHT MAN"

20  
TNT

NFL Football: New England Patriots at New York Jets

30  
FAM

That's My Dog

THE JOY LUCK CLUB (R)  
7:00 pm TONIGHT on Ch. 38  
**THE JOY LUCK CLUB (R)**  
Call 728-1233 now! Only \$3.95

SLEEPLESS IN SEATTLE (PG)  
Summary: [unclear]

SUPERCHANNEL  
"THE DISTINGUISHED GENTLEMAN" @  
Friday  
Channel 19

1:30:05 PM	1:30 PM	2:00 PM	2:30 PM
13 WGN	Honeymonsters	Designing Women	Three Stooges
14 YTV	Lamb Chop's Play Along	Camp Cartoon	Count Duckula
15 TMN	"MURDER 101"	"PINCE LAZURE"	

THE MIGHTY DOG  
Call 456-1000

## Get The Picture?

No matter which words you use, how big the words are, or how loud you shout them, they'll just never have the selling power that video promotion does.

Cases in point: Prevue Channel and Sneak Prevue. When viewers want to see what's on, only these channels provide 24-hour video promotion that keeps viewers coming back for more.

**Starts in 15:22**  
HT on CH. 39  
**ER MYSTERY (PG)**  
Now! Only \$3.95

**SLEEPLESS IN**  
Call 728-0840 n

**THE FIRM**  
Starts in 8:07  
9:00 pm TONIGHT on Ch. 39  
**THE FIRM (R)**

**MOVIE SUMMARY FOR 8:00 PM**  
15 "WHITE KIN CAN'T JUMP" W. Wesley Snipes, Woody  
Henderson. A comic book's the All-American son of hoodlum  
played by Wesley Snipes who have been two for 100 years. (PG)  
16 "A LEAGUE OF THEIR OWN" W. New Heroes, Gena Davis,  
Madonna. Penny Marshall's comic account of the women who took  
over in 1942 to join the All-American Girls Professional  
League. \$2.95 to order call 800-1235 now.

8:15-30  
28  
AGE  
28  
TNT  
30  
FAM  
8:00 PM  
"THE MIDNIGHT MAN"  
NFL Football: New England Patriots  
at New York Jets  
That's My Dog  
Big Brother  
Jake

USA  
TENNIS FINALS  
Saturday  
Channel 38

Brother  
Snowy  
Blower

**CLIFFHANGER (R)**  
8:00 pm TONIGHT on Ch. 39  
**CLIFFHANGER (R)**  
Call 728-0840 now! Only \$3.95

**THE FUGITIVE (R)**  
5:30 Today 8:00 PM  
Call 738-0839 to order within  
1 to 1/2 hour before start time.

**SO I MARRIED AN AXE MURDERER (PG 13)**  
10:00 pm TONIGHT on Ch. 40  
**SO I MARRIED AN AXE MURDERER (PG 13)**  
Call 728-0840 now! Only \$3.95

**PREVUE TONIGHT**

**IN THE LINE OF FIRE (R)**  
Starts at 10:14  
9:00 pm TONIGHT on Ch. 38  
**IN THE LINE OF FIRE (R)**

**DUCKS (PG)**  
now! Only \$3.95

Para ordenar llame al  
**555-1234**  
desde 30 min. antes  
hasta 30 min. despues  
del comienzo de la película

From its beginning, Prevue Networks has specialized in video promotion products that make the very best of video and text. Our unique promotional approach allows us to expose viewers to the widest variety of programming choices. The result? Destination channels that *viewers seek out*.

Even as we're developing text-based interactive products today,

it's all leading up to the most effective, most compelling text and video combinations—with the near video on demand of Prevue Express Plus<sup>SM</sup> and the ultimate video on demand of Prevue Express Plus Video<sup>SM</sup>.

When viewers are looking for what's on—basic, pay or PPV, let them look at Prevue and Sneak. Just picture the resulting success.

After all, mere words won't be able to describe it.

**PREVUE**  
CHANNEL<sup>SM</sup>

*Sneak*  
**PREVUE**

THE GATEWAY FOR TELEVISION 800-447-7388

### Financial boost for Interactive

After being on the brink of bankruptcy, Interactive Network has received a major financial boost from Sprint, Motorola and several other investors, which have poured \$42 million into the interactive gaming system.

Interactive Network's initial investors, TCI and NBC, helped set up the capital infusion, while Motorola and Sprint each provided \$5 million to the venture. As part of the deal, Motorola may manufacture cable-based set-top hardware for Interactive Network, and Sprint will explore providing national data links. In addition to the \$5 million from Sprint and Motorola, IN received \$10 million from TCI, \$5.25 million from NBC (owned by General Electric), \$12 million from foreign institutions and \$5 million in convertible debt.

### BellSouth to enter cable in Alabama

BellSouth has won federal court approval to offer cable television service in Vestavia Hills, Ala. BellSouth says it will begin construction in early 1995, following approval from the FCC and the Vestavia Hills City Council. Vestavia Hills is part of the Greater Birmingham metropolitan area.

### 'EXTRA' on America Online

EXTRA—The Entertainment Magazine created EXTRA Online on America Online to provide entertainment news and information. The show is syndicated by Warner Bros. and appears six days a week. The online area will feature lists of the week's top 10 movies, TV shows, home videos, records and live concerts. There also are message areas, a photo gallery and a multimedia area with audio clips.

### HSN chooses Macromedia

Home Shopping Network has picked Macromedia's Director as the multimedia authoring software tool for its recently purchased Internet Shopping Network. Macromedia's tools will be used by creative agencies to develop purchasing menus and interactive advertising areas on the Internet. Macromedia's tools combine graphics, animation, video and sound into multimedia interfaces.

### Interactive

# Telco taps Microsoft, Lockheed for interactive trial

Southwestern Bell brings computer giant's software system to Texas video test

By Mark Berniker

Southwestern Bell has chosen Microsoft software and Lockheed systems integration for its video and interactive television project slated to begin in Richardson, Tex., next year. It marks the first time Microsoft has signed a deal for an interactive television trial with one of the Baby Bells.

Southwestern Bell's Richardson trial, which awaits approval from the FCC, will deliver both traditional broadcast and cable television and a number of interactive services, such as video on demand, home shopping and other entertainment applications.

The deal is in the form of a "memorandum of understanding," with a final agreement still pending. "This operating system will allow developers to create applications that will operate across the network in a distributed manner [with software controlling intelligence at numerous points throughout the system]," said Jim House,



business development manager for public networks for Microsoft's advanced consumer technology group.

Microsoft said the system will go beyond its "Tiger" continuous video file server system. The Microsoft system is an "end-to-end software solution for a fully switched digital broadband network, including distributed operating system software connecting set-top boxes and personal computers in consumers' homes with a wide variety of head-end services," according to a statement by the partners in the venture.

Although Southwestern Bell and Microsoft have been working on interactive television ventures, this is the first time Lockheed, an aerospace and defense contractor, has entered the market. Lockheed's Media Systems

Integration group will serve the telco with systems integration, vendor assessment and selection and project management services.

In June, Southwestern Bell said it had chosen AT&T and BroadBand Technologies to provide the network equipment for its fiber-to-the-curb architecture, which plans to reach 47,000 homes.

Connecting video servers in the cable headend or telco central office with the network and the set-top boxes will be no simple undertaking.

Microsoft will soon announce its arrangements with a number of video server and digital set-top manufacturers. Microsoft has been working with General Instrument/Jerrold and Intel on a series of set-top boxes for interactive television.

Cynthia Browne, vice president of Southwestern Bell Video Services, said the Richardson trial will be a "real business" and not simply a test of technology. ■



Bill Gates

### Microsoft wants partners

On the heels of the announcement that Microsoft will provide the software for Southwestern Bell's interactive video trial in Texas (see story, above), Microsoft's chairman and chief executive, Bill Gates, was in Washington to talk about his company's plans. "We have to focus on what we are good at, which is software products," Gates told reporters at a Washington conference sponsored by CMP Publications. As a player on the information superhighway, Microsoft will continue to seek alliances with other businesses, he said. But Gates indicated that Microsoft would opt to work as a partner rather than an investor and that it could form successful business partnerships without an equity stake.

## Democracy on demand

Movies on demand, interactive video games and home shopping are the applications most commonly talked about in connection with next-generation telco and cable networks, but what about electronic democracy?

The Democracy Network, developed by the Center for Governmental Studies, a Los Angeles-based nonprofit group, is billed as "an interactive multimedia political communication system" that will give voters access to a variety of political information on-demand.

The system will enable voters to access video, audio and text of political candidates. The service is not currently available. "Via-com wanted to put it into a testbed this year, and we were hoping that Bell Atlantic or Time



Warner would be ready in time for this year's elections, but they're not," says Bob Stern, co-director of the Center.

Stern says the plan is to offer The Democracy Network to a cable operator or telephone company, which would in turn provide the service free to the voter. The candidates would be

expected to produce the video, audio and text information. Stern says his group is testing a prototype version of The Democracy Network on a Macintosh AV with the multimedia content stored on a hard drive connected to a color monitor and remote control.

Stern expects The Democracy Network will be part of broadband trials next year, and available for state elections in 1995 and the presidential election in 1996. —MB

## Cable TV

# Southwestern Bell systems for sale?

*Company refuses comment on suggestion it is selling cable systems it bought from Cox*

By Rich Brown

It's getting hard to figure out just what the telephone companies want these days.

Industry players were scratching their heads last week amid rumors that Southwestern Bell was looking to sell its cable systems in Maryland and Virginia. It was only eight months ago that Southwestern Bell closed on its ground-breaking deal to buy the former Hauser Communications systems for \$650 million.

"I have no idea what's in the minds of the telcos," says Timothy David of cable brokerage firm Daniels & Associates. He says that with few exceptions, namely US West, the telcos have "hopscoched all over the place" when it comes to deciding whether to get into the

cable system business.

Ian Crowe of Toronto Dominion Bank agrees that US West is a standout among telcos that continue to show interest in the cable business. But he says there have been some signs of interest from other telcos, like Nynex, which is investing heavily in cable systems abroad.

One thing that may be keeping the telcos from investing in the cable business en masse, Crowe says, is the collapse of the Bell Atlantic/Tele-Communications Inc. deal (both companies called the failed merger a victim of onerous cable reregulation). He says the telcos are also busy focusing on other areas that are of special concern right now, such as expansion into the long-distance telephone business.

"I'm not convinced that they're still not buyers," Crowe says of the telcos. "My sense is, they'd still be interested—at the right price."

A Southwestern Bell spokesman would not say whether the company plans to sell its cable system properties. Industry analysts said the company likely would take a loss on a sale of the systems, which had been purchased by the telco for \$2,600-\$2,700 per subscriber, or 11 times cash flow. A sale of the systems would mark the latest dramatic shift away from the cable TV business by Southwestern Bell, which last April called off a \$4.9 billion merger agreement with Cox Communications.

"Our cable properties in Virginia and Maryland are among the most attractive in the industry," said the Southwestern Bell spokesman. "We're moving full speed ahead with plans to upgrade our system and offer telephone service while continuing to invest in our core cable television business."

## Telemedia

  
*Week*

Founder and Editor

Sol Taishoff (1904-1982)

1705 DeSales Street, N.W. Washington, DC 20036  
Phone: 202-659-2340 Editorial Fax: 202-429-0651  
Advertising Fax: 212-337-6947

Lawrence B. Taishoff, chairman  
Peggy Conlon, publisher

### Editorial

Donald V. West, editor/senior vice president  
Harry A. Jessell, executive editor  
Mark K. Miller, managing editor  
Kira Greene, assistant managing editor  
John S. Eggerton, assistant managing editor  
David R. Borucki, art director  
Rick Higgs, systems manager  
Kim McAvoy, Washington bureau chief  
Elizabeth Rathbun, assistant editor  
Chris McConnell, Christopher Stern, Julie A. Zier, staff writers  
Denise P. Smith, production artist  
Kenneth R. Ray, production artist  
Winslow Tuttle, proofreader  
Catharine Garber, proofreader  
New York 245 West 17th Street, 10011 212-645-0067  
Fax 212-337-7028

Stephen McClellan, chief correspondent  
Mark Berniker, senior editor (interactive TV)  
Rich Brown, assistant editor (cable)  
Donna Petrozello, staff writer

Los Angeles 5700 Wilshire Blvd., Ste. 120, 90036  
213-549-4100 Fax 213-937-4240

Steve Coe, bureau chief

David Tobenkin, staff writer

London Europa House, 54 Great Marlborough St., W1V 0DD, 44-71-437-0493 Fax 44-71-437-0495

Meredith Amdur, international editor

### Advertising

New York 212-337-6940 Fax 212-337-6947

Randi T. Schatz, international sales director

Robert Foody, Karen Brady, account executives

Stacie Mindich, marketing/sales support coordinator

Joan Miller, executive secretary

Sandra Frey, executive assistant

Patrick Church, advertising billing/contracts

Antoinette Fasulo, classified advertising manager

Classified 212-337-7073 Fax 212-206-8327

Los Angeles 213-549-4113 Fax 213-937-5272

Gary Rubin, national marketing director,

director of syndication advertising

Michael Brooks, account executive

Erika Sedey, administrative assistant

Washington 202-659-2340

Doris Kelly, sales service manager

### Advertising Production

Jennifer Allen, production manager

212-463-6527 Fax 212-463-6655

### Advertising Representatives

Ayer Communications (West Coast equipment

advertising): 714-366-9089 Fax 714-366-9289

Yukari Media (Asia): (81) 6 956 1125

Fax (81) 6 956 5015

Max Montocchio, BCC (Europe):

(44) 71 437 0493 Fax (44) 71 437 0495

### BROADCASTING & CABLE

(United Kingdom): (44) 71 637 3663

Fax (44) 71 580 5559

### Circulation

Michael Borchetta, subscription promotion dir.

Leonard Weed, fulfillment director

### Manufacturing/Distribution

Michael Arpino, director

Bob Gaydos, advertising production director

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Louis Bradfield, distribution director

William Cunningham, distribution manager

Jose Medina, quality assurance manager

Jacqueline Panepinto, production assistant

Yvonne Yang, production assistant

### Cahners Consumer/

### Entertainment

### Publishing Division

John J. Beni, senior VP-general manager

Lawrence B. Taishoff, adviser

Richard Vitale, VP-operations & planning

Robin Ruskin Linder, VP-telemarketing

Barrie Stern, VP-creative services

James Borth, circulation director

# Telcos dial up television

*Would-be video programmers assemble teams to fill the pipeline*

*By Mark Berniker and Rich Brown*

It still takes some getting used to, but the regional Bell operating companies are in the TV business.

Or close to being in it, anyway. Each of the RBOCs has a cohort of executives (many from the ranks of cable and broadcast TV) hard at work mustering TV programming and figuring out how to market it. Their efforts dovetail with those of other RBOC executives who are charged with building the broadband networks to deliver the programming.

Together, they are taking aim at cable TV subscribers, believing they can steal away a significant number of them with a mix of conventional cable programming, telephony, video on demand and, eventually, other interactive services.

The telco programmers are talking to broadcasters, cable programmers, Hollywood studios and the purveyors of new interactive offerings.

Looking for help in the effort,



*BellSouth's foray into TV programming is being led by the Interactive Media Services unit. Its top executives: Jim Gadd, president (seated, left); Andrew Dietz, manager, programming and content (seated, right), and Dewey Crim, director, programming and content.*

## COVER STORY

Ameritech, BellSouth and Southwestern Bell have been negotiating a partnership with Disney that would not only give the three use of the valuable Disney brand and programming, but also entree into the Hollywood creative community. "The venture, if it works, will give us clout in the marketplace that we would not necessarily have had," says Jim Gadd, president, BellSouth Interactive Media Services.

A Disney deal would be a major step toward licensing, packaging and developing content for both the analog and digital portions of Southwestern Bell's services, says Steve Dimmitt, vice president, Southwestern Bell Video Services. But, he adds, "a lot of details are going to have to be worked out before the joint venture is finalized."

With similar motivations, Bell Atlantic, Nynex and Pacific Telesis reportedly are working with Michael Ovitz's Creative Artists Agency. CAA can help the telcos license and create programming. According to sources, CAA and the telcos are planning a

"digital studio" for producing interactive programming. Neither CAA nor the telcos will talk about their arrangement.

Of all the RBOCs, Bell Atlantic appears to be the most ambitious programmer. The company plans to "partner" with other programmers, large and small, and "invest in and co-develop productions," says Stu Johnson, president, Bell Atlantic Video Services. It also plans to produce its own programming, he says.

US West's Hollywood partner is Time Warner. In May 1993 US West invested \$2.5 billion in Time Warner Entertainment, the unit comprising cable operations and programming in Home Box Office.

Only three of the telcos—Bell Atlantic, US West and BellSouth—are now permitted to own or package programming in their telephone service areas, having successfully challenged

on First Amendment grounds the statutory ban on telco-cable crossownership. BellSouth joined the club last month.

But the other four—Ameritech, Nynex, Southwestern Bell and Pacific Telesis—are proceeding on the assumption that they too will win their programming freedom, if not sooner through the courts then later through legislation. "We better be raring to go," says Heidi Diamond, vice president of consumer marketing and sales for Ameritech's video and interactive services.

(The information superhighway legislation that died in the Senate two weeks ago would have permitted all the telcos into video, but on a slow schedule with plenty of regulations.)

In the meantime, the telcos have sought out unaffiliated companies to lease capacity on their broadband networks under the FCC's so-called video

dialtone (VDT) rules. These companies are the telcos' surrogate programmers or anchor programmers.

The VDT rules, which have yet to be finalized (see story, page 36), permit the telcos to build and operate video networks without having to obtain a municipal franchise as long as they offer the capacity on a common-carrier basis.

"We are letting Vanguard [Cable] teach us about the cable business," says BellSouth's Gadd. Vanguard is the anchor programmer BellSouth created through its investment in Prime Cable, an Austin, Tex.-based cable operator.

While Vanguard lines up the conventional cable programming, Gadd says, BellSouth is working on the "digital interactive services."

Pacific Telesis's anchor programmer is Anchor Pacific Corp., headed by Ron Dorchester. Under its deal with PacTel, Anchor Pacific will provide programming for 35 of the 70 available analog channels, while all of the up-to-300 digital channels will be available to other programmers.

PacTel sees itself more in "facilitation and distribution than in content creation or ownership," says Roland Wolfram, vice president of interactive services, Pacific Telesis Video Services. "Our business is the distribution of other people's content and services over our network."

The telcos will have little trouble assembling cable programming for the

video packages. Cable networks owned by cable operators must license their programming to all multichannel providers, according to the 1992 Cable Act. And independent cable networks will be happy for the extra reach and revenue cable telco carriage would deliver.

"I'll sell to anybody who will get me into homes," says Lloyd Werner, senior vice president, sales and marketing, Group W Satellite Communications, among those talking to the telcos. "Our goal is to get TNN into every home in the country."

Many of the smaller, start-up networks have focused on building their cable system distribution and have spent little time with the telcos.

"We really need to serve the cable industry to get rolling," says an executive at one planned service. "We are devoting all our efforts to working with the cable industry. As far as I'm concerned, that's the primary effort."

The Golf Channel has been approached by one of the telcos, but is not close to a deal, says Joseph Gibbs, president/CEO. Signing up with a telco could be costly because all of the network's programming would have to be converted to digital at a cost of \$1,500-\$2,000 per hour, he says.

"When you're a start-up and you're burning 24 hours a day, that adds up," says Gibbs. He says it becomes particularly costly considering that the telcos initially will have limited distribution.

Nevertheless, Gibbs expects the telcos to eventually carry The Golf Channel. The network, which has the financial backing of seven cable operators, launches in January 1995.

Most of the telcos planned to couple the cable programming with various interactive services, the most important and immediate of which seems to be video on demand (VOD).

The enhanced pay-per-view service, which allows viewers to call up programming of their choice whenever they choose, brings with it a whole new set of licensing issues.

Today's PPV deals favor the studios, giving them the lion's share of the revenues. Although eager to cut deals with the studios, the telcos say they don't want to set any precedents that leave them forever on the short end of the VOD split.

On their end, the studios are being equally careful.

Warner Bros. does not want a repeat of its pay-per-view experience with cable system operators and is asking the telcos for guaranteed returns on any Warner titles offered on-demand, according to Edward Bleier, president of Warner Bros. Domestic Pay TV, Cable and Network Features. He says it is "very likely" that such guarantees will be a prerequisite for any deal

## COVER STORY

**Bell Atlantic's top video programmer, Bob Townsend, at the controls of BA's Stargazer interactive TV system which will feature 360 on-demand offerings beginning next year in market trials. The "portfolio of entertainment product" includes classic movies, recent hits and "evergreen product," says Townsend.**



between the telcos and the studio.

Bleier says the studios have long suffered by letting cable system operators offer their movies on pay per view without any guarantees. PPV has been experimental too long without satisfactory results, he says.

"We're not going to have casual terms for our best product," says Bleier. "Our biggest concern is that the on-demand systems, which could displace the video business, perform the same way as the video business."

Bleier says a hit video can bring in \$37.5 million in revenues. He says the studios depend on that kind of business to help cover the \$8 billion-a-year costs of first-run movie production and domestic marketing.

"If they can't meet our guarantees or minimums, maybe they don't have a business," he says.

Some of the telco executives say they would help finance films in exchange for early-VOD-release windows prior to conventional PPV or home video.

Ameritech plans to include interactive services from the get go, although initially they may be offered over the phone or PC, says Patrick Campbell, executive vice president, Video and Interactive Services, Ameritech. But down the line, he says, they will "migrate to become broadband offerings."

The centerpiece of Bell Atlantic's interactive offerings is Stargazer. The "portfolio of

## COVER STORY

entertainment product" will include recent hit films, some classic movies and a limited amount of "evergreen product," says Robert Townsend, president, Interactive Multimedia Services, Bell Atlantic.

Bell Atlantic plans to start its market trial sometime early next year with 360 on-demand offerings—divided between movies and "series on demand," Townsend says.

Before the telcos seriously can consider offering VOD, they must find a practical video server: a computer capable of storing hundreds of movies and transmitting a single one simultaneously to hundreds or thousands of homes.

Ameritech is "continuing to evaluate" video server providers and set-top manufacturers but already is integrating equipment from ADC Telecommunications and Scientific-Atlanta into its existing network systems, says Greg Brown, vice president, Video and Interactive Services, Ameritech.

The telcos are in a "period of experimentation," especially as it pertains to what programming is placed on the server, says US West's Larry Levine.

Martin Nisenholtz, director of content

## The telco TV platforms

*Each of the seven RBOCs has plans for broadband networks to deliver video and other interactive services*



Ameritech says it will invest more than \$4.4 billion over the next 15 years to make networks video-capable, and hopes to reach more than six million customers before the turn of the century. In the initial rollout, the Chicago-based telco has targeted 1.2 million homes in Chicago; Cleveland; Columbus, Ohio; Detroit; Indianapolis, and Milwaukee. The plans are subject to FCC approval.



Bell Atlantic plans to have 8.5 million of its mid-Atlantic telephone customers (about 80%) wired for video by the end of the decade. The first step, upon FCC approval, is to upgrade networks serving 3 million homes in Pittsburgh, Washington, Baltimore, Philadelphia, northern New Jersey and Norfolk, Va. Bell Atlantic hopes to complete the initial phase in the six markets by the end of 1997 for \$1.5 billion. So far, it has FCC permission only to build a 38,000-home video system in Toms River, N.J. It also is conducting a technical trial of a video on demand over conventional telephone lines in Washington.



BellSouth is investing approximately \$300 million for about a 22.5% stake in Prime Cable, Austin, Tex., which serves fewer than 500,000 cable subscribers. BellSouth also is planning a 12,000-home system near its Atlanta headquarters. The system will have 60 channels of conventional TV and up to 300 channels for still-undefined interactive services.



Nynex has asked the FCC for permission to build video networks in Rhode Island, Massachusetts and Maine. Given that permission, it expects to deploy 1.5 million-2 million broadband lines by the end of 1996. It is moving ahead with a technical trial of video services in Manhattan involving 2,500 homes. And it has invested \$1.2 billion in Viacom Inc., giving it the inside track on that company's considerable programming resources.



Southwestern Bell was the first of the Baby Bells to go outside its home operating region, purchasing two cable systems from Hauser Communications in suburban Washington for \$650 million. The systems serve 230,000 homes. However, there is some talk that the telco may soon unload the systems. The telco is also in the process of setting up a technical video trial in Richardson, Tex., involving 2,000 customers.



Pacific Telesis plans to invest \$16 billion during the next seven years to build hybrid fiber/coax networks throughout its West Coast region. Assuming prompt FCC approval, it says it will reach 1.5 million customers by the end of 1996. The initial rollout is planned for communities in San Francisco, San Diego, Los Angeles and Orange County.



US West has been a telco video leader, acquiring a \$2.5 billion stake in Time Warner Entertainment and access to its cable programming and operational expertise. Earlier this summer, it joined Southwestern Bell as an owner of an out-of-region cable system with its \$1.2 billion purchase of systems in the Atlanta market. In region, the telco says it is prepared to spend \$10 billion to bring video to its current customers, starting in Denver; Portland, Ore.; Minneapolis; Salt Lake City, and Boise, Idaho. It expects to have 800,000 homes on video lines within two years and to add more homes at a rate of 500,000 per year. It is using Omaha as its testbed for interactive services.



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Bill Boyd  
(612) 894-2121

South Central  
David Scally  
(404) 917-9506



## The Ameritech TV Team

The Chicago-based squad comprises 19 programming and network executives headed by Patrick Campbell, executive vice president, corporate strategy and business development. The lineup:

1. Campbell
2. Jim Fischer, director, technical support, video and interactive services (VIS)
3. Carol Scheff, vice president, marketing and sales, VIS
4. Deb Lenart, vice president, strategy and program management
5. Elizabeth Banks, director, business analysis and performance management
6. Mike Ault, director, information technology, VIS
7. Bill Beckmann, manager of technology analysis and planning
8. Linda Helvey, director, build support
9. Bill McSorley, manager, network services technical support
10. Scott Melland, manager, alliance development
11. Chris Moore, supervisor, alliance development
12. Sara Clarke, director, alliance development
13. Fred Fouse, general manager, VIS operations
14. Liz Millet, operations manager, central office systems, VIS
15. Joel Engel, vice president, technology
16. Jon Tilkemeier, general manager, subscriber marketing and sales, VIS
17. Heidi Diamond, vice president, subscriber marketing and sales, VIS
18. Martin Nisenholtz, director, content strategy
19. Greg Brown, vice president, VIS

## COVER STORY

strategy at Ameritech, says that CD-ROM and video games fall prey to the same inherent problem: They become out of date as soon as they are published. Nisenholtz thinks that networked games and other interactive applications which incorporate communications and transaction features will be the wave of the future. "It is very important within an interactive television application to be very easy to use," he says.

The telcos may have some marketing advantage over their cable competitors because of their near-universal telephone service. It means they have been dealing with virtually every home and business in their markets for years. When the video is ready, they'll be able to package it with telephone service, possibly offering a package discount.

Most also will be able to enjoy the economies that come from marketing to an entire metropolitan area. Cable's marketing efforts traditionally have suf-

fered from the fact that several operators share markets that are divided like pieces of a jigsaw puzzle.

Nonetheless, the telcos say it will be a difficult task to move in on cable's turf. The toughest job may be simply overcoming "consumer inertia—convincing the consumer to change," says Ameritech's Campbell. "We'll have to offer a demonstrably better picture and voice services," he says.

"We need to have a fully fleshed-out package of voice, data, video and wireless services for one-stop shopping," Campbell says.

Ameritech's Diamond emphasizes "choice and customization." It's important to reach out to market segments and not try to create a mass appeal service, she says.

US optimism about marketing a combined cable/telephone service in the U.S. flows from its experience in marketing such a service in England through its TeleWest venture with Tele-

Communications Inc., says US West's Levine. TeleWest has made deep inroads into what had been a British Telecom monopoly.

To overcome consumer inertia, says Bell Atlantic's Johnson, his company is trying to differentiate its product through better selection, picture quality and prices. Bell Atlantic, Townsend adds, plans to offer programming on an a la carte basis and in various bundled combinations.

"Will they go in and buy a series on demand and special interest programming and at what price points," Townsend says, adding that he hopes the video dialtone market trials will help the telco answer that question. "But the question remains: What does the consumer want to buy in an on-demand environment, beyond new movie releases?"

"Ultimately, content and marketing are going to determine whether this is a success or not," says Wolfram of Pacific Telesis Video Services.



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# Cable wants to reach out and touchtone

**MSOs are looking to take on local telcos for phone service, perhaps through alignments with long-distance companies**

By Harry A. Jessell

Cable found the killer app for the information superhighway.

It was hanging right there on the kitchen wall—next to the spice rack and the message board—all the time. The killer app is the telephone.

Uncertain about the technology and the market for other much-hyped interactive services, the nation's leading cable operators now are targeting the \$95-billion-per-year local telephone market.

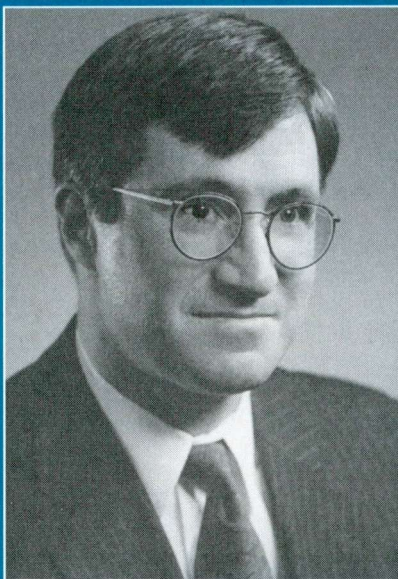
They're convinced that they can siphon off enough of those billions to support their entry into not only telephony, but also into interactive movies, video games and shopping, when the time is right.

Tele-Communications Inc. has looked at all the interactive services, says Bruce Ravenel, senior vice president and COO, TCI Technology Ventures. "Telephony is at the top of the list."

"We now have a broadband plant in place," says David Woodrow, senior vice president, broadband services, Cox. "If we can get into telephone with lower capital cost and lower operating costs than the incumbents, then why don't we?"

The operators also realize that local telecommunications rapidly is becoming an all-or-nothing proposition. They must either plunge into telephony and compete head to head with the local telcos or watch their video business gradually slip away to them.

"When seven deep-pocketed companies like the RBOCs are rattling their cages and threatening to take away



**Telephony becomes an "interesting business" when penetration tops 10% and a "fabulous" one when it hits 25%.**

—Glenn Britt

share from your business, you'd better prepare to take share away from theirs," says William Schleyer, executive vice president, Continental Cablevision.

Should an joint industry request for proposals yield the anticipated technology solutions, the cable operators think they can start rolling out telephone service in some markets late in 1995.

Going in, cable has more to gain from the competition. If cable loses 10% of its business (\$2.3 billion), but picks up 10% of the telcos' (\$9.5 billion), cable comes out way ahead. No one knows how quickly cable will be able to penetrate the telco market or vice versa.

The operators are wary of making penetration predictions. Glenn Britt, president, Time Warner Ventures,

comes closest. Five percent or 10% penetration yields sufficient revenue to cover the capital expenses, he says. It becomes an "interesting business" when penetration tops 10% and a "fabulous" one when it hits 25%.

It's not just plain old telephone services (POTS) the operators have in mind. Down the road, they hope also to offer video telephony—telephone with pictures—and high-speed data communications so that subscribers can swap computer software and speed through the cyberspace of the Internet and the rapidly multiplying online information services.

And it's not just wired service. The operators also expect to be players in wireless telephony through the FCC's

personal communications service. According to its proponents, PCS is just like cellular telephone, only cheaper. Some see it as a complement to wired service; others, as a sometimes substitute. Watch for the big cable operators at the FCC's auction of PCS licenses this December. "Wireless is an important component of an overall service package," says Schleyer. "You have to be at the table."

"The only way to stop wireless from capturing the voice telephony market is to spread rumors that microwaves cause cancer," says Philip Sirlin, an analyst with Wertheim Schroder & Co.

Wired or wireless, it won't be easy. Technical, marketing and operational problems abound, and they may pale against the legal and regulatory troubles. Cable's telephone ambitions suffered a big setback two weeks ago, when telecommunications reform legislation died in the Senate, the victim of the local telcos' stubborn opposition. On behalf of its largest duespayers, the National Cable Telephone Association had lobbied hard for the bill.

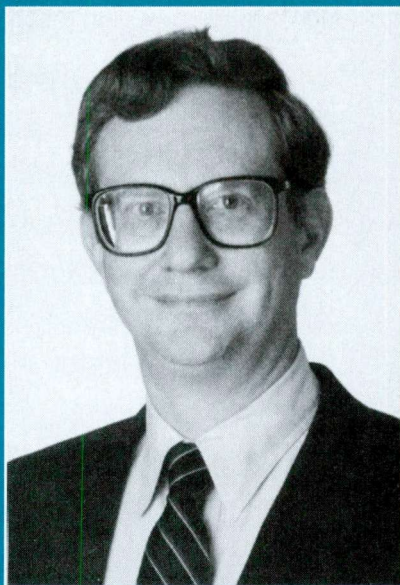
The legislation would have eliminated state barriers to cable's competing with the incumbent telephone companies. Cable operators determined to enter the business must now fight to remove the restrictions state by state. Today, only six states have opened the door to competitors in the local loop.

Most of the state restrictions apply only to POTS. Until the restrictions are lifted, cable operators could leapfrog voice telephony and start with the high-speed data services and video telephony for personal computers.

(The legislation also would have permitted the telcos to provide video services in their telephone service areas—a practice banned by the 1984 Cable Act. In supporting it, the NCTA figured the telcos eventually would get into video anyway by challenging the statutory ban in court. In effect, the legislation may have slowed the telcos' entry into TV, making it easier for cable to meet the challenge.)

To cope with some of the entry obstacles, leading cable operators have been talking among themselves about jointly pursuing the telephone business. The telephone companies are "scale players," says Mark Coblitz, the top strategist for Comcast. "We need to find a way to operate on the same scale they do."

The talks involve Tele-Communications Inc., Cox, Comcast, Continental



***The telephone companies are "scale players... We need to find a way to operate on the same scale they do."***

**—Mark Coblitz**

and, possibly, Time Warner. It is unclear whether they now envision a national venture or a series of local ones for each of the major markets.

According to the operators, becoming partners would have myriad benefits. It would insure seamless interconnection among the several cable operators that typically serve a major metropolitan area. It would allow for administrative, operational and marketing economies. And it would give the operators sufficient financial muscle to keep up technically and operationally.

The operators also could insure simultaneous introduction in many markets of new services such as video telephony. For such services to take hold, Coblitz says, consumers have to be able to make calls to distant cities as well as within their own. "You have to have a critical mass."

Cooperation is "absolutely essential," says Cox's Woodrow. "Do you need all the systems in a market? Probably not. Do you need a majority of them? Yes."

Winning PCS spectrum at the upcoming auction will be expensive. The government expects it to raise \$10 billion-\$12 billion in all. To stay in the bidding with the regional Bell operating companies, non-Bell cellular telephone operators and who knows who else, the cable companies will do their best to pool their resources.

According to industry sources, Cox, Time Warner, Comcast and Sprint are trying to put together a venture to jointly tackle PCS. TCI also may be involved in the talks. In addition to being the

third-largest long-distance company, Sprint is the ninth-largest local telco and the eighth-largest cellular telephone operator.

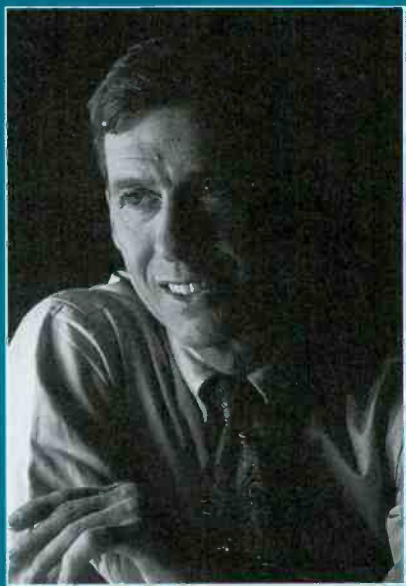
Cox already has the guarantee of a PCS license for the greater San Diego market, having been awarded a licensing preference for its pioneering PCS work. Cox also was supposed to get the spectrum for free, but it now looks as though all it will get is a discount. Cox likely will have to pay 80% or 90% of the winning bid for spectrum in comparable markets.

The cable-Sprint group has had meetings with the Washington Post Co.'s American Personal Communications about its joining the partnership, the sources say. Like Cox, APC was granted a pioneer preference for PCS spectrum covering the Washington-Baltimore market.

The operators acknowledge that "everybody is talking to everybody" in preparation for the PCS auction. But they clam up when asked precisely who is talking to whom.

A union between cable companies and the big long-distance companies is also a strong possibility. AT&T, MCI and Sprint would like nothing better than to see real competition in the local loop. The long-distance companies pay some \$30 billion a year to local telephone companies for access to their end customers. In other words, about 45 cents out of every dollar you spend on long-distance flows back to the local telcos.

"The cable companies' natural com-



***"When seven deep-pocketed companies like the RBOCs are ...threatening to take away share from your business, you'd better prepare to take share away from theirs."***

***—William Schleyer***

plementary relationship is not with the local telephone companies; it's with the long-distance companies," says analyst Sirlin. Long-distance and local cable dovetail operationally, and they have similar corporate cultures, he says. "We are going to see cable companies hooking up with Sprint or MCI."

With or without cable partners, MCI wants into the local loop. Last January, it announced plans to invest \$20 billion during the next six years to upgrade its

network, including \$2 billion to develop MCI Metro local networks in 20 cities in the next two years. MCI has hooked up with Jones Intercable to conduct residential telephony trials in Alexandria, Va., and Wheaton, Ill.

MCI is eager for cable, wireless or even electric utilities to break up the local telco monopolies, says Tony Pomilla, director of access policy and vendor development. The competition certainly will drive down MCI's access

charges, he says. But, more important, he adds, it will create fertile ground for new products and services such as MCI Business, a communications and information service for businesses introduced last month.

AT&T's enthusiasm for the local loop with cable is not as clear. It just closed on its purchase of McCaw Communications, a large cellular operator. But that seems to be all AT&T can handle right now. "It just isn't practical for us to talk about what we might theoretically do with cable and other carriers or go swinging our big bat at this point," says Richard Bodman, AT&T's top strategist (see interview, page 26). (AT&T, as Bodman also points out, is ready to sell cable or anybody the hardware and software for local networks.)

Cable also would benefit from a partnership with a long-distance carrier. Cable could offer discounted long-distance service in a package with the local service. Or, it might be able to use the local service's established brand names. It would be far easier for cable to crack the local market with the MCI or Sprint brand than with its own or a new one, the operators concede.

When cable operators finally go to market with their telephone service, they may find consumers reluctant to give up the security that comes from sticking with the local phone company. Consumers may have experienced too

## Gloom and doom for local telcos

What happens to the local telephone companies if the cable companies come rushing into their market? It ain't pretty, according to a study by Philip Sirlin, an analyst with Wertheim Schroder & Co. Because of competition from cable and wireless telephone operators, he says, one half of the telcos' current revenues "is significantly at risk," and their cash flows and earnings will be placed "under enormous pressure."

The telcos' market share gradually will drop from 100% to 70% or less, Sirlin says. Their prices will fall 20%-30%, and sales and marketing expenses will rise sharply—from 6% to at least 16% of revenues. (The projections are based on AT&T's experience in the competitive long-distance business during the past decade.)

What's more, Sirlin says, the market will shrink. Revenues are as high as they are now—\$95 billion per year—only because local telcos operate in monopoly markets in which regulators have permitted telcos to recover costs on an inefficient plant and deliver a healthy return to shareholders.

According to Sirlin, the competitors have a technological advantage that will allow them easily to underprice the incumbent telcos, which receive about \$45 a month from

each home they serve. (The \$45 includes the price of the local services plus a chunk of the long-distance bill the telcos take for providing local access.)

By Sirlin's calculation, either the wireless or cable operator can install the equipment necessary for local service for about \$500 per home. That means its payback on capital could be just \$8 a month, or about 20% a year. Add another \$10 a month in operating expenses and the total monthly cost per home amounts to just \$18, far less than the telcos now are taking out of each home.

The big picture is equally promising for the competitors. For \$500 per home, they could hook up every one of the 100 million telephone homes and businesses in the country for \$50 billion, not such a large number when viewed against the \$30 billion the long-distance companies pay the telcos for local access each year.

Confronted with such competition, the telcos will be forced to lower prices for local services at the same time that they are losing the internal subsidies for the services due to competition from alternate access providers in long-distance access and intraLATA tolls.

"That's exactly why the box closes on them," says Sirlin. "There is no way out."

—HAJ

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many service outages and late or inconsiderate cable technicians to trust cable operators with their telephone.

A BROADCASTING & CABLE survey of 1,000 cable subscribers last spring found that 27% were willing to buy video services from their telephone company, but only 8% were prepared to buy telephone service from their cable company.

And a just-released consumer survey from the EDS consulting group confirms the findings. Two-thirds of the respondents say they would consider integrated cable/telco service. Of those, just over half had a preferred provider. Although 26% said they would buy it from the local telephone, and 21% from a long-distance company, just 6% say they would buy it from the local cable operator. The survey did not ask consumers what they would think of a joint long-distance-cable offering.

Of course, lower prices will attract some consumers, if the laws of economics continue to hold. And if cable demonstrates it can deliver service comparable or superior to that of the telcos, other consumers will follow.

The operators believe they can

undercut the telcos on price, assuming that they can, as they hope, equip a home for telephone service for \$300 or \$400.

But they also believe they have more to offer their customers than simply a lower price on basic service. Cable could offer a wider flat-rate service area, allowing subscribers to avoid costly intraLATA tolls, and they could package telephone with video services. "The key is creative marketing," says John Aronsohn, a consumer communications analyst for the Yankee Group. "Cable operators could say, 'I'll give you HBO at half price if you take telephone service from us.'"

Cable will have an edge by having more sophisticated, up-to-date software undergirding its network, says Glenn Britt, president, Time Warner Ventures. For instance, he says, cable will be able to add a second line to a home electronically without having to send out a truck, says Britt. And it will be able to remotely monitor every link in the network to insure a high level of reliability, he says.

The good news for cable is that many cable systems are already telephone-

ready. Five years ago, the industry began to deploy a new network architecture, installing fiber optics lines to the neighborhood and using the existing coaxial cable for the final run into the home.

The hybrid fiber-coax systems not only improve service quality and reliability, but also allow for expanded channel capacity. The systems give operators a platform suitable for telephony and other two-way services.

The big cable operators already have experience in the telephone business as alternative access providers. ALTs, as they are known, provide direct long-distance access and private-line services to large businesses looking to cut their local telephone bills. The operators see it as an important first step toward offering full-scale telephone service, including homes and small businesses. "It's getting your toe wet for sure," says Continental's Schleyer.

By some measures, the nation's largest ALT is the Teleport Communications Group, which operates 17 networks in 19 markets. It is owned by four cable operators: Cox (30.6%), TCI (29.4%), Comcast and Continental (20% each). The same companies are involved in forming the local cable telephony consortium.

Other cable operators in the ALT business include Time Warner, Cablevision and Jones Intercable. Time Warner announced last December its intention to buy into the TCG partnership, but most now doubt that any deal will be done, possibly because of US West's heavy investment and involvement in Time Warner.

The ALT experience is invaluable to those aiming for the consumer telephony market, the operators say. Because of Comcast's involvement in the ALT business, says Coblitz, the company has "skilled telephone people," telephone switches and other technology, and relationships with local regulators and telcos.

Time Warner and Cablevision seem to be out ahead of the TCG partners in making the jump from providing limited services to large businesses to fullblown telephone service for all. Both hope to make the move later this year.

With the help of cooperative New York state regulators, Time Warner expects to roll out telephone service in Rochester, while Cablevision plans to introduce service on Long Island, where its cable franchises cover the

## All cable is divided into three parts

Through a formal request for proposals, CableLabs has asked vendors to propose telephony solutions for three types of systems, each representing an entire class of system. Because the three systems have different economics, telephone ambitions and technology, the RFP presupposes that each will demand a different telephony game plan from the vendors.

**Metrocom system**—The big-city Metrocom system serves 91,000 subscribers (65% of the 140,000 homes passed). Its 750 mhz fiber-coaxial network is capable of delivering up to 110 analog TV channels. Its headend and seven hubs are linked together by two fiber networks—one for distribution of analog video, the other for digitally compressed switched video and transport of telephone signals. It also has a separate Alternate Access Provider (ALT) network for providing private-line and long-distance interconnection for large businesses. Unlike the Anytown and Smallville systems (see below), it plans to use switching equipment in its telephony service.

It expects to offer plain old telephone service—POTS—to 42,000 homes (30% of homes passed) and to sign up 21,000. It plans to offer high-speed data services within six months after the POTS rollout and video telephony within two years after POTS.

**Anytown**—The Anytown system serves 37,500 of the 50,000 homes it passes (75% penetration). Its fiber-coaxial 450 mhz plant is designed to be upgraded to 550 mhz when economically feasible. Before the upgrade, it can dedicate two channels for telephony. If all goes well with the introduction of telephone service, it expects to provide basic telephone service to 10% of its cable subscribers after two years; 20% after three years, and 30% after five years.

**Smallville**—The "classic" Smallville system serves 3,600 of the 4,000 homes it passes—90% penetration. Its 330 mhz all-coaxial plant is capable of just 40 channels of service. It's planning an upgrade to 550 mhz with two-way addressability, but is holding off on fiber until it knows more about the potential of telephony in a system its size.

—HAJ

entire 516 area code. It all depends on the hardware, says Joe Cece, president of Lightpath Inc., Cablevision's telephone unit. "We've got to get the vendors to deliver on their promises."

It is strategically essential for Time Warner to be prepared to move from the ALT to the local telephone business, says Britt. For Time Warner, the ALT business becomes "less interesting in the long term."

Today, ALTs have been able to capture a piece of the long-distance access business, partially because regulators have kept the telcos' access prices artificially high so that they can subsidize their basic local service, Britt explains.

Once real competition develops and government steps out of the picture, "pricing will get rationalized," Britt says. Access, along with intraLATA toll prices, will come down, he says. That will make it tougher for the ALTs, but without the subsidies local rates will tend to go up, creating an opportunity for cable in the local business.

If the cable operators were to remain in the ALT business alone, the telephone could cut prices in the access and private-line businesses to meet the competition and raise prices in the local telephone services to offset the losses, Britt says.

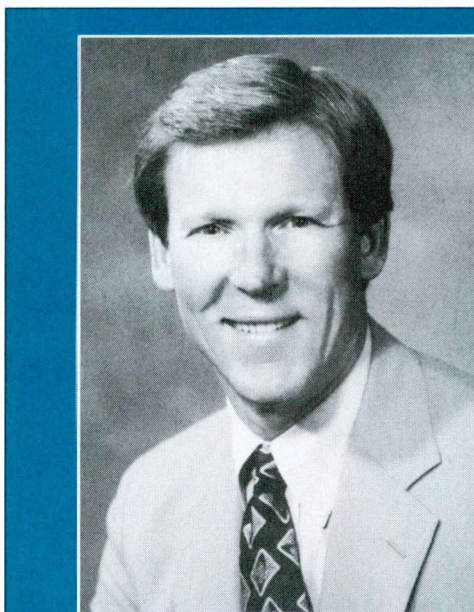
Cable's telephone strategy winds through a 210-page request for proposals issued by CableLabs in August on behalf of its members, who serve 85% of the nation's cable subscribers. TCI, Comcast, Continental, Cox, Time Warner and Viacom have pledged to buy equipment through the RFP.

In essence, the document asks hardware and software vendors and system integrators how to provide telephone services on cable systems and how much it all will cost. The services envisioned by the RFP include not only POTS but also video telephony and high-speed data transmission.

"This is the first step toward providing telephone services for residences and small businesses, says CableLabs President and CEO Richard Green. "The idea here is to find technology that will allow rapid entry."

The deadline for responding to the RFP has been extended to this Friday (Oct. 7). But given that some 90 companies have notified CableLabs of their intent to bid, Green says, "we are optimistic we will get some good ideas."

Demanding performance "equal to or better than" that of the telcos, the RFP calls for systems interoperable with



***"If we can get into telephone with lower capital costs and lower operating costs than the incumbents, then why don't we?"***  
—David Woodrow

other existing local and long-distance networks as well as future PCS networks. And the systems have to support all the user equipment that rides on today's telephone lines—computer modems, fax machines and answering machines.

The RFP asks for information on every type of cable system: the big urban system with high-capacity fiber-coax architecture; the suburban fiber-coax system with 50,000 subscribers, and the small all-coax system serving fewer than 5,000 subscribers (see box, page 20). Nobody is to be left out of the telephone game.

Even if the cable operators could magically repeal state barriers to cable or anyone else competing in the local loop, they still would have tough regulatory hurdles to overcome.

Chief among these sticky issues are interconnection and number portability. Until the far-off day when a cable operator wires every home in his market for telephony, it will have to interconnect with the local telco to insure its customers can reach anyone and receive calls from anyone.

It's not so much interconnection per se that causes the trouble, but the terms and conditions of it. They can make or break an alternative telephone service.

There are plenty of skeptics about whether the telcos will provide interconnection on reasonable terms. "Will the RBOCs walk the talk when they say they're prepared to open their networks to competitors?" asks TCI's Ravel.

The mutual-compensation deal

Time Warner struck with the regulators and Rochester Bell in Rochester could be a model. Under the terms of the deal, Time Warner pays the telco for each call it originates and the telco terminates, and the telco pays Time Warner for each call it originates and Time Warner terminates. Because the telco serves and will continue to serve many more homes, says Britt, Time Warner will be a "net payer" to Rochester Bell.

"It's got to be reciprocal compensation," says Lightpath's Cece. "If we can get economically viable interconnections terms and rates, we will be ready to compete; we will be anxious to compete."

Another loaded issue is number portability, which boils down to whether customers can keep the telephone numbers they were assigned by the local telco when they make the switch to cable or some other competitor. It's not a big deal for most individuals, but it is for many businesses that have invested heavily in a number through advertising or simply don't want to replace reams of stationery.

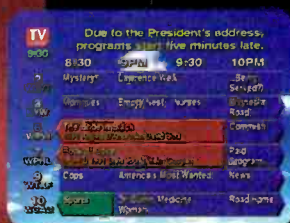
If cable can overcome the regulatory hurdles, the technical obstacles and the marketing challenges, it may reach the \$95 billion pot of telephone gold. But the telcos are powerful companies that will prove tough competitors and, not incidentally, a real threat to cable's core video business.

"We are going after a very large market," says Cece. "But we are David in this field going against Goliath." **TW**



**We don't know  
where people  
will watch TV  
in the future.**

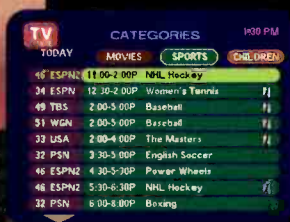
**We do know  
how they'll find  
out what's on.**



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# AT&T focuses on the medium rather than the message

*Telco sets its sights on creating local broadband multimedia networks*

By George Mannes,  
special correspondent

**A**t last January's winter Consumer Electronics Show in Las Vegas, AT&T embarked on an exciting trip down the wide river of voice, data and video. For the benefit of onlookers, Robert Kavner, AT&T's resident multimedia visionary, stood in the AT&T booth and played a video game against Sega of America President Tom Kalinske in the Sega booth in another building. Central to the game was Edge 16—a bit of AT&T technology that allows people not only to play games by phone, but to talk to one another on the same line.

The gadget symbolized the role AT&T sees for itself in the coming years: a supplier of multimedia technology and networking enabling all sorts of interactive applications. Kavner, the evangelical head of AT&T's Multimedia Products and Services Group, called the underlying technology of Edge 16 "part of the DNA driving the interactive multimedia revolution."

In June, Kavner left AT&T for Hollywood's Creative Artists Agency to act as a bridge between the multimedia technologists and the creative community. Two months later, the company said it was scrapping Edge 16. Nonetheless, the drive to create multimedia networks and to encourage their use remains at AT&T.

As the intelligence of telecommunications networks migrates from centralized hardware to decentralized, customized software, AT&T is pushing hard to be a leader in this new realm, says Ken Zita, a partner in New York-based telecommunications consultancy Network Dynamics Associates. "It's not a slam dunk for anyone, but AT&T is as well prepared as any manufacturer in the business, and more prepared than most," he says.

Zita, who left AT&T in 1989, sees a positive shift at the company in the intervening years. "They've...sort of woken up to the fact that they have to pay attention to the world," he says, "as opposed to the world paying attention to them."

"We are trying to be the master builders domestically and globally of advanced telecommunications systems," says Richard Bodman, AT&T's top strategist (see interview, page 26). "Over the past three years, we were very much in a learning and experimental phase. Now we have decided, particularly in the commercial markets, to bring video and voice and data together in a multimedia set of services onto our core network services and deploy them broadly."

What this new phase means is that AT&T plans to do for multimedia what it has been doing for conventional telecommunications for years. Drawing on its products and research-and-development arms, it will build local broadband networks to support multimedia services. It will help develop those services. And it will establish a national broadband network, interconnecting the local networks with each other and with national servers, reservoirs of digitized video and multimedia programming.

One of the challenges of embarking on any major deployment at a company like AT&T arises from its size. Its 1993 revenues were \$67 billion, three times those of the entire cable industry. Most of the revenues flow from its position as the nation's dominant long-distance telephone company.

Multimedia initiatives at AT&T are spread across its numerous business groups and units. The prevailing corporate philosophy seems to encourage individual enterprise among them. "I don't spend a tremendous amount of time worrying about coordinating them," says Bodman. "That isn't to say people like to be sloppy, but as a practical matter, we gain some real advantage letting a few flowers grow in the company."

That's also not to say that there is no desire at AT&T to make the whole more than the sum of its parts. Two



years ago, the company set up several groups to focus on marketing and technology outside the company's principal businesses. Heading the group devoted to video and multimedia is Doug Dunn.

Aside from keeping an eye on the markets, Dunn says, he's responsible for making sure that different products and services work together, that the wheel isn't re-invented in

different parts of the corporation, and that technological and marketing expertise is shared and re-used. For instance, he says, his group helps link the people from different corners of the company working on interactive TV trials.

It's not easy, Dunn says. "Facilitating that interoperability is really a fair challenge to us." He adds: "It would be really unusual for new solutions to come to the market that were optimal for every piece of AT&T."

The real focal point for the future services is the Consumer Video Services group, which moved out of the Multimedia Products and Services group Kavner had headed and into the Communications Services group, the home of AT&T's bread-and-butter long-distance services.

CVS is dedicated to "understanding what services—primarily wideband or broadband—AT&T should pursue as networks are upgraded to the residential market," says CVS General Manager Dave Carter.

The CVS's highest-profile efforts are the interactive TV trials with Viacom in Castro Valley, Calif., and with GTE's system in Manassas, Va. There's plenty to learn, says Con Brosnan, trial services director: "How do we interface with the consumer who has no background at all in computing, has never used a CD-ROM? Everybody in print seems to have an opinion about what this industry's going to be about. And I think that this trial [Castro Valley] is going to be the first fac-

tual accounting of what's real or unreal about this business."

"We believe that for video services to the residence, the storage-versus-transport cost equation forces the content to be stored locally," Carter says. "Therefore, that will drive a need for some kind of national distribution of content to a family of local servers or distributed servers. So we've identified that opportunity and, in fact, will try to implement a small version of that when we have both Castro Valley and Manassas up and running. So it's [transmitting content] into the local server, keeping track of inventory, making sure things that are Castro Valley-specific end up in Castro Valley, and things that are Manassas-specific end up in Manassas. We see a business opportunity there."

How big a business is national multimedia networking? Carter isn't willing to say. "We've tended to treat this as an end-to-end architecture and solution" rather than "divide these up into parts and say which ones are bigger/better/best."

If not the information superhighway's "master builder," AT&T Network System is certainly an important general contractor. The group has announced agreements to build broadband voice/video/data networks for Connecticut-based SNET (500,000 customers in the state), Southwestern Bell (up to 47,000 homes in Richardson, Tex.), Pacific Bell (more than 1.5 million California homes by the end of 1996) and Bell Atlantic (20 mid-Atlantic markets within five years). AT&T also is working as systems integrator for Bell Atlantic.

And as it is selling the gear that will bring video to telcos, Network Systems also is working to bring telephony to cable. It is supplying an ATM switch for Time Warner's full-service network experiment in Orlando, Fla., and tentatively has agreed to be the primary supplier and systems integrator in upgrading other Time Warner cable systems for telephony.

In AT&T's efforts to lower local access costs, Network Systems is "the secret weapon," says Berge Ayvazian, senior VP, the Yankee Group. "Net-

work Systems is carrying out the mission that other parts of AT&T can't perform directly—that is, working to bring the cable TV industry into the mainstream of telecommunications that allows them to become competitors with the phone companies."

AT&T "can't start taking 50% of [its] access traffic and giving it to Teleport [Communications Group] in the

telephone network copper wire. Called VideoSpan, the Asymmetric Digital Subscriber Line (ADSL) technology is appropriate for two major U.S. applications, says Frank Wiener, director of business development for AT&T Paradyne's advanced transmission technologies business unit. One is as a relatively inexpensive way to test interactive video services, he says. The other is as a way to meet universal service commitments for an interactive video network: VideoSpan would be a cost-effective way to deliver video to poorer neighborhoods, where economic projections wouldn't justify the expense of a broadband network, he says.

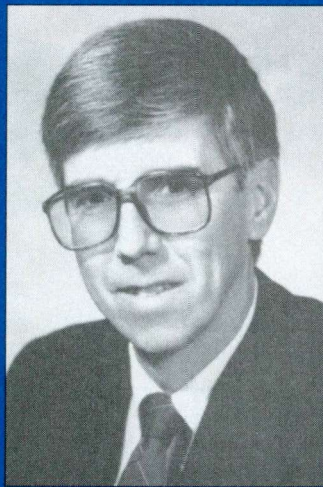
AT&T Paradyne says its technology is being used in 11 trials worldwide, but the only company in the U.S. using ADSL for home video delivery is Bell Atlantic. As a prelude to the broadband network to be built by AT&T Network Systems, the Baby Bell is using ADSL in a 300-home technical trial of video on demand in Northern Virginia. Bell Atlantic also plans to use ADSL in a 2,000-home trial and in one of the five metropolitan areas where it has applied to build a hybrid fiber-coaxial cable network. According to

Wiener, one of the challenges of marketing ADSL in the U.S. is that telcos feel they must deploy fiber-coax networks to compete with cable in video, even if the economics are a stretch.

AT&T is not particularly interested in creating content, although it has stakes in video game-maker Spectrum Holobyte and in educational software company Knowledge Adventure. What the telco definitely is interested in is "hosting." Vincent Grosso, who is supervising content development for the Castro Valley trial, explains: "We don't own your content. You own it. You're paying us a fee to push it down the network and quality-control it. We're friends of content, facilitators of content, which in essence is an extension of the business we're in today."

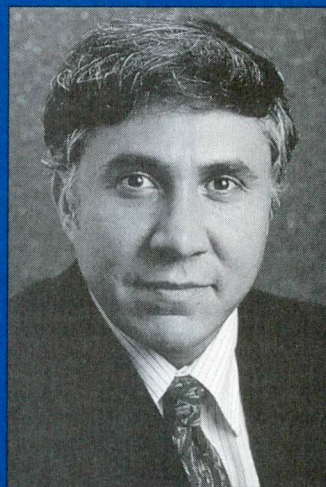
When pressed, Grosso doesn't rule out deeper involvement in content: "It's something we want to learn. There may be a gap between content and the network that we can fill."

TMW



*"It would be really unusual for new solutions to come to the market that were optimal for every piece of AT&T."*

—Doug Dunn



*"We don't own your content. You own it. You're paying us to push it down the network and quality-control it. We're friends of content, facilitators of content, which in essence is an extension of the business we're in today."*

—Vincent Grosso

absence of customer demand," Ayvazian says. But on the Network Systems side, it can become very aggressive at providing cable companies with the turnkey network solutions they'll need to compete vigorously with the Bell companies. "TCG is a cable-owned company that provides alternative long-distance access and private-line services for large businesses in several markets."

(The head of Network Systems' global public network unit, Dan Stanzione, also is chairman of Interactive Digital Solutions [IDS], a joint venture between AT&T and Silicon Graphics [SGI]. Based in Mountain View, Calif., IDS aims to develop software to integrate SGI servers into public networks.)

Separate from AT&T Network Systems, AT&T Paradyne, the successor to a company that AT&T purchased in the late 1980s, is marketing its technology for transmitting video over existing

*AT&T intends to be a major player on the information superhighway and in the new multimedia services that will travel over it. And given its status as the world's largest telecommunication company, it seems to have the financial wherewithall, the talent and the technology to fulfill those ambitions. Helping to make sure the resources are applied efficiently and properly is Richard Bodman, senior vice president, corporate strategy and development, and a member of the top-level Management Executive Committee. In this interview with TeleMedia Week's George Mannes, Bodman outlines AT&T's strategy for fostering construction of competitive full-service local networks, while developing what amounts to a broad-band long-distance network to interconnect them.*

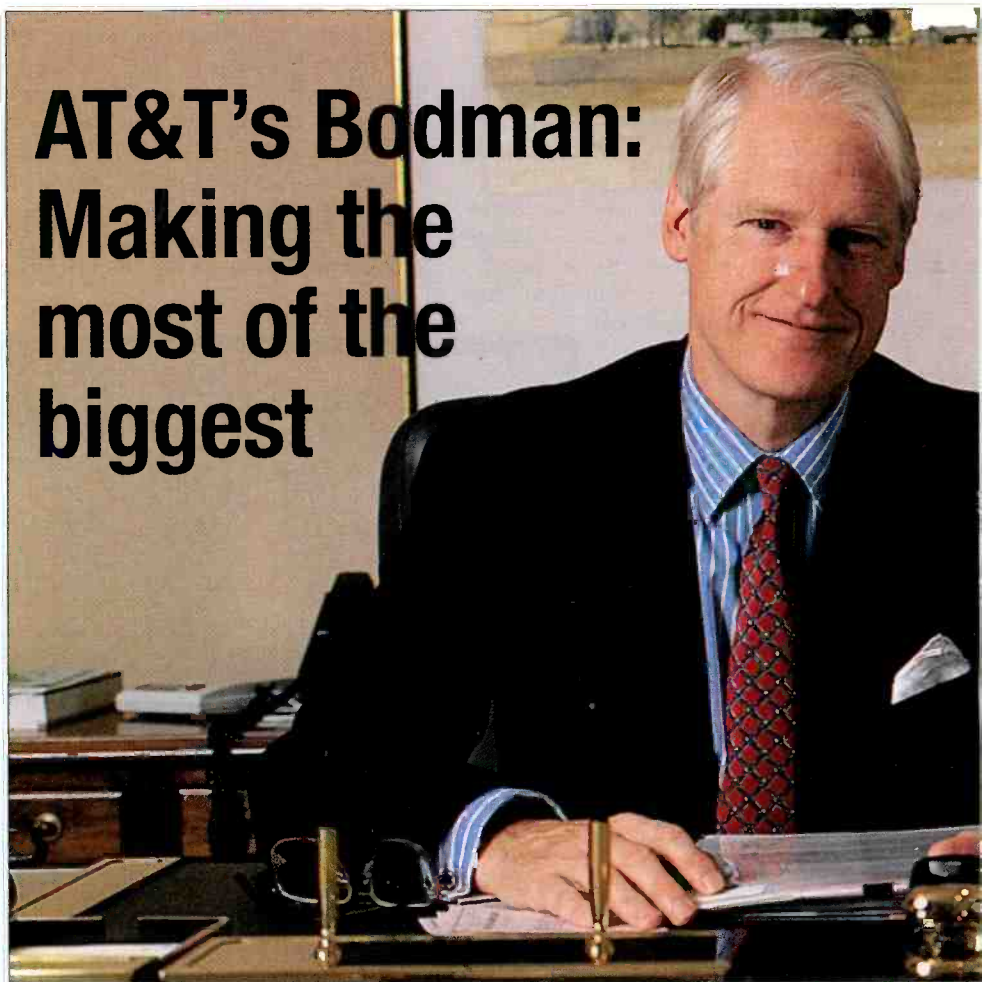
**Cable operators and others are providing local telephone services to large businesses in some markets. They are planning eventually to extend the services to homes and small businesses. How important are these alternative carriers to long-distance companies?**

The long-distance carriers, as an industry, share the problem that local distribution today is a monopoly. And it is a big-time problem in spite of the fact that others tend to play it down. And so, the long-distance industry is looking for every alternative that it can find and is encouraging competition in the local-access market.

**Over a long time—and I'm going to say five-plus years—the cable companies clearly could begin to develop a viable alternative by either adding wireless capabilities to the networks or upgrading their networks so that they are two-way communication networks.**

The long-distance industry is going to have to find some way to stimulate that. At AT&T, we have developed and integrated the technology to allow anyone—be it a company or fiber-optic loop—to build a competitive network, both in today's narrow-band environment and in tomorrow's broadband

## AT&T's Bodman: Making the most of the biggest



environment. And we offer it for sale at competitive prices to anybody who wants it. We've urged everybody to get into the business, and we've said we'll help you get there by building it for you, operating as a systems integrator and equipment- and-systems developer.

**But you don't think cable will be a significant factor for at least five years?**

First, it's extremely complex to build and make work even a simple telephone network that competes effectively with what the RBOCs have on the table today. Second, the cable companies are going to have to garner the capital, which takes a little while, and commit to spending those funds to upgrading those networks. And third, when they go out to start getting customers, it just takes a while to get enough mass so that you really are a viable alternative to the local phone companies.

So even if they run as fast as they can, I still don't see more than five or six percent of local access being delivered through cable companies or alternate access carriers over the next five or six years.

**Other than equipping cable operators to provide alternative local outlets for you,**

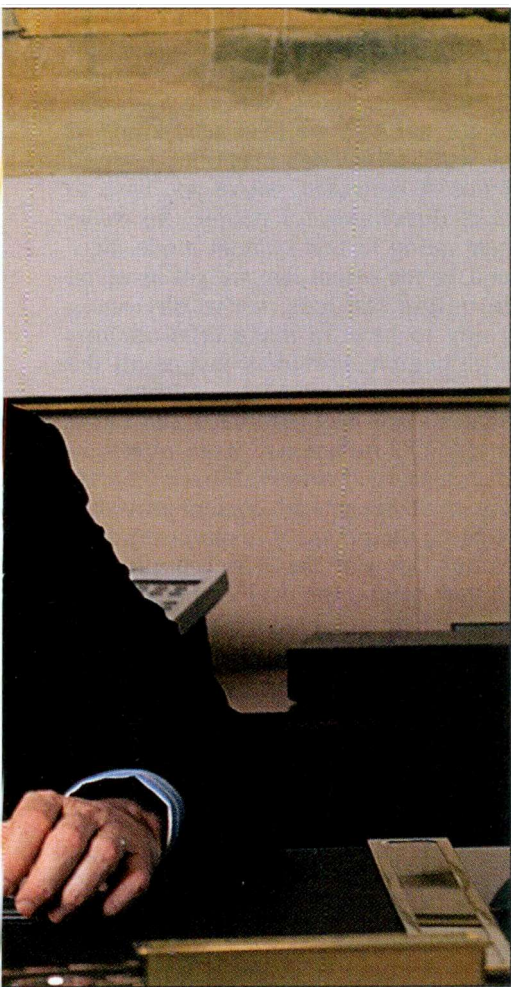
**do you see any other business relationships with cable?**

AT&T has just completed an enormous acquisition [of McCaw Cellular Communications], which we have to round out and carry forward. And we're operating under certain consent decrees in connection with the acquisition. It just isn't practical for us to talk about what we might theoretically do with cable or other carriers or go swinging our big bat at this point. I think what's practical for us is [to] develop the very best relationships that we can with everybody that's out there trying to provide advanced local access.

**Cable is interested not only in voice telephony but video telephony as well? Is AT&T still a believer in the picture phone?**

Clearly, from the network-systems-and-products point of view, it is our intention to develop and market video telephony technology for the local markets. The network systems part of our company is dedicated to developing those technologies and getting them in place, and right now is involved in several experiments or programs to do that.

With regard to our service desires, we think ultimately that video telepho-



The concept of servers—platforms for storing in digital form all kinds of stuff—makes a lot of sense. There are some things that will be more practical being stored at the local level, and there will be some things more practically stored in a more national-network environment. Where AT&T sees itself is hosting some of these nationally distributed activities and providing the core services for billing, transaction control, clearing and engagement of customers on a nationwide basis.

There is going to be a whole web of activities for which servers will be very important. And, again, I think you're looking at five years before the fire is lit. There really is a race between telcos and cable to build those networks, but it will probably be about five years before it really begins to move.

### **Why are the phone companies moving faster than cable companies at this point?**

Well, I think it's a question of who's got the dollars. I think there's no lack of desire on the part of the cable companies, and there's no lack of imagination or entrepreneurship. It's just that they've got to put together programs that make sense to their banks—to whom they already owe money—and to people who will provide money in the future. And, at the same time, they're chasing a content play that costs them more money.

### **What do you mean by "chasing a content play"?**

Take [Tele-Communications Inc. President John] Malone. He's done a very good job of getting control over certain aspects of the programming as well as having built up his networks. So that means he deploys funds in two ways at once. I don't make light of what he's doing, I'm just saying it requires that he stretch his dollars in a lot of directions.

### **What kinds of services are suitable for local servers? For national servers?**

Let's take something as simple as movies. I don't know that there's any particular advantage to having movies stored in a single national place. You probably can afford to have movies stored on servers in a local environment so that each community can decide what movies it wants to show its customers. So I don't see that as something where it's naturally a nationwide issue.

On the other hand, if you're talking about a big-time sporting event or some kind of activity that has interaction,

then a national network becomes very useful. If you're running a nationwide chatting service or forum service or having a town hall meeting on a national basis, that's the kind of thing we can do in a national network much more economically. And we have the massive switching and handling capability to clear all that activity.

### **So you see AT&T providing the same kind of national networking function for video as it traditionally has provided for voice?**

Absolutely. You put your finger on what I would consider the mainline business of AT&T. We have to be able to interconnect with full functionality for voice, video, data and interactivity—anything that goes on at the local level. In fact, we've got to be leading that. We're very much at work to try to put our network into that condition.

### **What do you and other telco executives mean by "hosting"?**

In the past, AT&T has made its money letting Andy talk to Joanne. We haven't had the faintest idea what they talk about or what they do. All we do is hook them together, and they make their own entertainment. More and more we're looking at people using our network in a multimedia way to do the same thing, but they don't want just to talk. They may want to share documents, they may want to share images, they may want to entertain one another. We need to provide an environment in our network so that they can use all those facilities. That's what I call hosting.

Hosting is different from packaging. We have been looking very hard at online kinds of services where people call our network, not necessarily to talk to somebody else, but to call us as the end point to get information. So there's a confusion sometimes between what I call hosting, which is the former, and packaging, which are these online services. You're going to see us active in both of these areas.

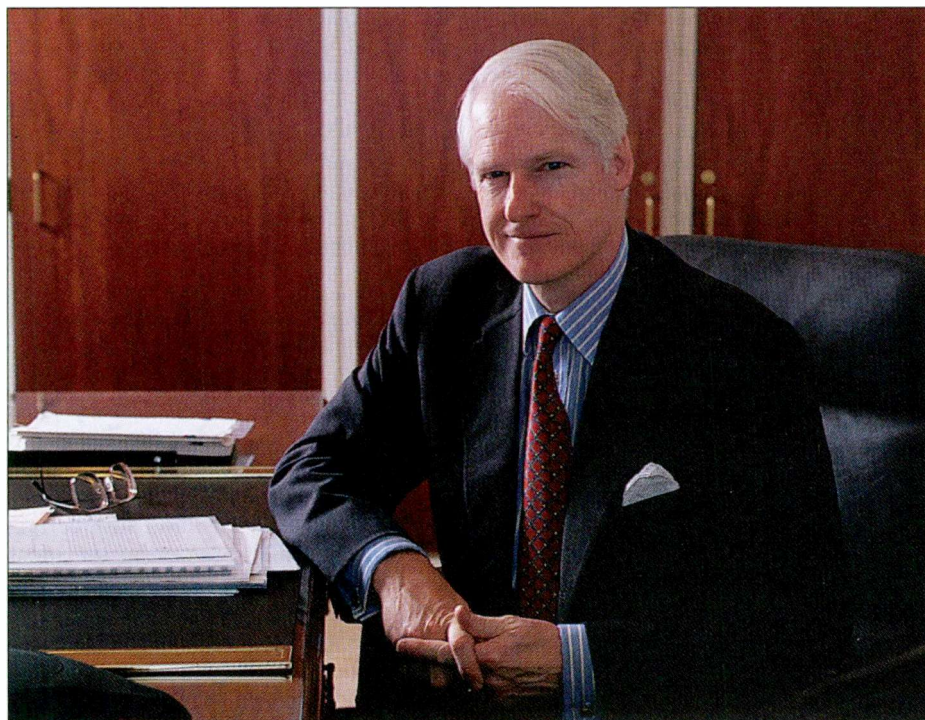
The first place where hosting is actually coming into reality here at AT&T is in the commercial market. We're taking Lotus Notes and Novell LAN software and putting it up in the network and creating an environment whereby an insurance company or a computer company or a hotel company can manage their relationships with their customers.

### **Can you talk a little bit about AT&T's involvement in interactive TV trials—**

ny delivered into the home is a very important thing. And we think both the phone companies and the cable companies are going to be enormous suppliers, and possibly partners, for members of the long-distance industry in delivering that. What I can't tell you is what AT&T's specific plans are at this point, but we intend to be engaged in that game significantly.

### **Cable talks about building fully interactive broadband networks capable of delivering video services to homes from video servers, computers stocked with digitized video for quick retrieval. Do you share that vision?**

It's a likely outcome over time. But it also applies to the phone companies that seem to be headed [there] at a very high rate of speed and, more than the cable companies, are putting dollars on the table to develop those networks. You know, we've received about \$20 billion worth of contracts in the past six months to put in networks that would be capable of doing that for the phone companies. We haven't received a lot in the way of business from the cable guys. They haven't really started to spend that money yet.



**with Viacom in Castro Valley, Calif., and GTE in Manassas, Va.? What do you expect to be learning from them? How important are they?**

Since we are out there as a sort of master builder or general contractor for these kinds of broadband two-way interactive systems, we intend to come away from those two studies having a really good understanding of how it works and how it doesn't work. And that's from a technical and network-operation point of view, which is probably esoteric to the consumer but absolutely vital for us because we have to deliver these systems up-and-running on a rather massive basis over the next five to ten years. So those projects are invaluable to us in working out those corners of the technology that need to be done to make the whole thing work well.

They're also terrific for learning about what the consumer patterns are, what's going to be attractive to them, how much delay they can tolerate when they push their button to try to get something started on their TV set before it comes up, which features are going to be selling at any particular time.

So you've got everybody watching this same digital piece of information in a slightly different sequence and different form. You hear all sorts of theoretical things: "Well, I can handle 6,000 of those people at once. I can handle 250 people at once." You don't know the answer to that question until the equipment's in place, until you see what the customers tolerate, and you see how it really works on a massive basis.

**How does a company as big as AT&T coordinate its activities to make sure its various business units aren't duplicating efforts or wasting resources?**

I don't spend a tremendous amount of time worrying about coordinating them. That isn't to say people like to be sloppy, but as a practical matter we've gained some real advantage letting a few flowers grow in the company.

**How important is it for AT&T to achieve internal synergies?**

We make money both from synergy and from tension. A little bit of competition helps us do things a little bit better. But let me back up a minute. When you refer to our business units, keep in mind they are gigantic businesses. Our Communications Services business group is a \$45 billion company. So we're very, very serious about those business units being able to maximize their profits and market opportunities in the market. And we're going to be very reluctant here at the corporate center to say, "You can't do something," just because it causes a little problem for somebody else in the building.

The Network Systems group is a \$10 billion-\$12 billion business. Our products end is another \$8 billion-\$9 billion business. So we are not about to change the motivations and requirements of our big business groups out there in the market because there is a little managerial roughage from time to time about whose device gets put in whose solution.

**AT&T traditionally has been reluctant to get into content. How strong is that reluctance today?**

Let's start at the lowest end. We've always provided some content in the form of directories, and I don't make light of that. Those were big businesses for us. And we have new kinds of networks: the video networks, Internet kinds of networks, where you have to have directories for people. So we're continuing in that content mode. Second, to the extent that we get involved in online services, we're obviously going to have to make relationships with content providers just as all the other competitors in the industry do. [There's no] way that we would run it materially differently from others in that business. So we will have increasing involvement with content providers to bring their content to our customers.

But I do not see AT&T putting its dollars behind the development of any kind of entertainment content or programming activity. That just isn't a skill that we have. The power of this company is in its networking capability. And it's in making all sorts of different things plug and play and work over a really broad area.

**When we hear of all the things AT&T is trying to do, we are reminded of Congress trying to do health care, campaign-finance reform and deal with Haiti, all in the few weeks before the members rush home to get re-elected. How do you prioritize?**

My office encourages the creation of an entity like Doug Dunn's to go around to the business units and say, "If only you'll look at these things collectively for a little bit, you can see how important this is going to be to our future."

What Kavner did for us during the past three years, particularly in that area, was to convince us that this is not just something on the edge, this is a mainline activity for this company during the next 10 years. The announcement of WorldWorx on the commercial side of our business is a very big deal. This is a commitment to make video, data and audio go over any kind of access device—be it a computer or a telephone—as seamlessly as regular telephone calls happen today. And that is one hell of a lot of work. You've seen a couple of our major competitors announce programs that purport to be doing these things, and I can assure you that it just isn't simple. It's a tough task.

What's happened now is we've brought that into the mainline parts of our business and said, "Make it work. Take off." So in that part, I've done my job. I can sit back and just say, "Execute, execute, execute."

TNN

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# Ed Horowitz and the theory of new media parallelism

*Viacom's interactive media chief believes computer and TV initially will remain distinct markets*

By Mark Berniker

Ed Horowitz has a definite vision of the migration to interactive television. One thing he can see already is that it isn't going to happen overnight. Another is that the TV and computer, rather than a merging hybrid, will be on parallel tracks, at least at the outset.

Horowitz expects a million U.S. households will have access to the first generation of interactive television services by 1996, with an additional 4 million added each year thereafter.

Horowitz, chairman and CEO of Viacom Interactive Media as well as senior vice president, technology, for Viacom, presides over three new departments (interactive TV, software publishing and online) that are moving quickly into the business of creating interactive media and have the wherewithal to be a major force in those evolving niche markets.

As Viacom puts the finishing touches on its purchase of Paramount, and works

to add Blockbuster to its stable, the company is on an acquisition binge that will bring new talent and entertainment businesses to draw upon. Although Horowitz is bullish on interactive media, he realizes that the core business of Viacom is still television. Paramount's specialty is films and Blockbuster is the pre-eminent video rental store.

So, instead of reinventing the wheel, Horowitz's strategy is to invest in growing markets and to experiment with future technologies, all the while recognizing that no one knows exactly how the market is going to evolve during the next few years.

## The two home displays: television and computer

Horowitz is not buying into the theory that the telephone, computer and television experiences are merging into one. He believes, instead, that each is developing at its own rate and market dynamic.

"There will be two separate displays

in the home for a while, one for the television and the other for the personal computer," says Horowitz. He points to the important distinctions between the consumer's passive relationship with television while viewing a linear program and the interactive nature of personal computing. The dynamics of the two are changing, but each still constitutes a distinct market. "We will develop content for both, but consumers' interaction will be very different on each of the displays," he says.

Horowitz says those who use personal computers usually sit at a desk, about 18 inches from the screen, and expect to be engaged in highly interactive activities. On the other hand, most TV viewers sit casually or lie down at least nine feet away from the television and do not necessarily want to be "interactive." TV viewers often are looking for a passive experience, he says.

The way in which consumers spend money on television and the personal computer differs as well, he says. In the

## Viacom's interactive scorecard

Viacom Interactive Media's definition of itself is "the division that encompasses the new media, interactive television, online services, radio, consumer products, technology, network operations and corporate information systems activities for Viacom Inc." All of those departments report directly to Ed Horowitz.

■ **Interactive Television Services**—This division is responsible for the development of broadband interactive TV applications for both the telco and the cable industries. Horowitz sees this division as a place where "nonlinear, more personalized programming" will be developed. Geoffrey Darby, recently named president, will oversee programming initiatives under way with AT&T and Nynex in the Castro Valley, Calif., trial. Darby formerly worked for Whittle Communications' now-defunct Medical News Network and before that helped to develop Nickelodeon/Nick at Nite.

■ **Viacom New Media**—Is involved in software publishing from production and development to distribution and marketing. It is creating interactive software for standalone multimedia platforms, including CD-ROM, Super Nintendo Entertainment System and Sega Game Gear and Sega Genesis. Michele DiLorenzo is president of the division, which recently brought Paramount Interactive under its wing. DiLorenzo oversees creative and technical development of all software



Nickelodeon's interactive screening room

properties and has ambitious plans to create a range of new titles in the coming year.

■ **Viacom Online Services**—Sueann Ambron was recently named executive VP. In addition to moving Viacom into the developing online services arena, she will also retain her involvement in Paramount Interactive's Media Kitchen, a multimedia production studio in Palo Alto, Calif. —MB

***"There will be two separate displays in the home for a while, one for the television and the other for the personal computer.... We will develop content for both, but consumers' interaction will be very different on each of the displays."***



case of a PC, consumers often invest thousands of dollars in hardware and then buy software that meets their specific interests. However, in the case of adding interactive devices, such as game players or digital set-top converters to existing TVs, there is greater price sensitivity, and Horowitz believes the price ceiling on these devices is \$350 or less.

Viacom is in the process of gauging consumer interest in interactive television services in its Castro Valley, Calif., trial with AT&T. The services being developed for the trial are still in the early stages, and Horowitz concedes it will be several years before most Americans have access to interactive television.

### **Focus on the growing PC market**

Although the narrowband online market over existing telephone lines and relatively slow speed modems is not yet a big business, Horowitz says, it is growing quickly, having eclipsed the 5-million-subscriber mark. It likely will grow into a viable consumer market in the next few years as more personal computers with modems and compelling services come onto the market.

The migration of online services to broadband-based networks, by contrast, will take several years. From the perspective of a content producer like Viacom, the amount of resources it will devote to these future networks de-

pends on how quickly the telcos and cable operators build them.

Horowitz says there really are no broadband systems available on a widespread basis and that there won't be for some time. The trials in Castro Valley and elsewhere around the country serve more as a guide for consumer research than a real-market experience.

The reason for participating in the early interactive television experiments, he says, is to "learn how to create the content for interactive television." But Horowitz adds that developing numerous hours of programming for the interactive television trials can get very expensive. "The value added for creating programming for interactive television is far greater than anybody has any idea of," he says.

Those getting into the trials, he says, need to be "realistic about their expectations" and must put caps on some of the costs, especially when they are often for only 5,000-10,000 homes.

"I wouldn't spend \$220 million to get into it," Horowitz says. Nevertheless, he believes it is "important to invest in the changing consumer dynamic" and to recognize there is value in creating new products for emerging markets.

Horowitz thinks the growth of those markets will be evolutionary, a series of steps that may take longer than many people expect.

In the first stage, which is under way,

navigation tools are being developed to help consumers find their way through a menu of interactive choices. Viacom has an equity position in Star-Sight Telecast, which has developed a proprietary electronic programming guide enabling viewers to effectively create a customized TV guide (see box, page TK).

Horowitz emphasizes the importance of simple, menu-driven access to a wealth of programming alternatives. As more video content is residing on servers, he says, it will be crucial to have easy access to the video-on-demand library.

In the second stage, Horowitz sees a bona fide business in time-shifting: providing customers with the convenience of viewing what they want, when they want it. Time-shifting will begin to address the issues associated with consumer interest in on-demand

video programming, whether movies, past programming or other videos.

Before television programmers will begin to create new services to run on these as-yet-undefined systems, Horowitz says new technology, such as video servers and digital set-top boxes, will need to be deployed on a wide scale.

During the third stage, Horowitz expects multiplayer networked games will grow in popularity. He also sees the CD-ROM applications now being developed for the personal computer as the seeds of the interactive television services of the future.

Horowitz says content will "no longer be linear," and producers and developers will be "able to be scalable both up and down." Thus, an application may have one level of sophistication for the CD-ROM on the personal computer, while another application could be developed for interactive television over a high-speed broadband network.

Even though Horowitz sees a logical migration to interactive television over the next several years, he says that Viacom and Paramount's existing television and film production businesses will remain at the core of the company's activities. He holds out the possibility of Viacom's interactive media ventures becoming a core business, but thinks it will not be until well into the next century.

**THW**

# INTERACTIVE SHOPPING

## Retailing dream come true or just a dream?

*Opinions are divided on how consumers will react to home purchasing directly through TV*

By Patrick Boyle, special correspondent

The image on the screen shows the names of more than three dozen automobile manufacturers—from Acura to Volvo. The viewer chooses to browse by type of car, and selects "Sport Utility Vehicles." The screen shows the names of a number of models, and the viewer, by pressing a button, selects Jeep Cherokee. The viewer then sees a film of a Jeep being driven on unpaved, bumpy roads, kicking up dust while a voice-over describes the vehicle's handling characteristics. After the short film, the viewer clicks a button and asks to see a list of options. Choosing a certain color changes the hue of the vehicle on the screen. Finally, the viewer selects an option asking for a test ride. A salesman stops by later in the day with a Cherokee, and the home shopper can take it for a spin.

Pie in the sky? A revolution in the way Americans shop? It depends on whom you ask. This description of an electronic auto mall is from an informational film prepared by Time Warner Cable, depicting a feature planned for its full-service network in Orlando, Fla. But although Time Warner expects home shopping for cars, clothes and other items to be a centerpiece of its interactive cable system, some of the companies selling the products aren't so sure how consumers will react to shopping from the couch.

"We've been in a lot of discussions with Time Warner, but their film makes it sound farther along than it really is," says Larry Dale, a marketing specialist with Ford Motor Co. "Conceptually, everything it shows is possible. But practically, it probably won't occur for some time."

Ford isn't alone in its skepticism. Interviews with more than a dozen retailers and direct marketers found that most of them are at the window-shopping stage when it comes to interactive television—checking out what might be available, doing some tests, but continuing to put their faith in the department store and the glossy catalogues they send to the nation's mailboxes. Such

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Home shopping is getting a tryout in five markets through Catalog 1, a joint venture of Time Warner and Spiegel

reservations on the part of the people selling the goods, while not universal, certainly reflect different assumptions about the potential of interactive home shopping from those of the people involved in the cable businesses.

A survey of direct-marketing companies found a broad difference of opinion between retailers and the cable television industry about the short-term potential of interactive home shopping. The study, by the New York investment banking firm Vos, Grupp & Capell, found direct-marketing companies expect interactive shopping sales to reach \$8 billion by 1998, well below the \$20 billion estimate put forth by some cable companies. Ten years from now, direct marketers anticipate \$28 billion in sales from interactive media, compared with \$110 billion predicted by various people in the television industry.

"I think a lot of the hype and overselling is related to the fact that the cable companies have to be strongly optimistic in order to keep the investments flowing, whether at the operational level for R&D or at the corporate

level where they have to bolster the stock price," says Michael Petsky, senior vice president and director of research for Vos, Grupp & Capell.

The banking firm, which specializes in mergers and acquisitions in the direct-marketing industry, defines interactive shopping as an activity in which the customer controls what is being presented and the pace of the presentation. The viewer also can order the product through the medium. It includes screen-based telephones, personal computer networks and interactive television, but does not include CD-ROM systems or conventional home shopping, which require the buyer to call a toll-free number to place an order.

The firm estimates that the cable and telephone industries will have to invest \$200 billion-\$300 billion to create the infrastructure needed to reach every household in the United States with interactive capability.

Thayer Bigelow, president of Time Warner Cable Programming, has said his company will recover part of the \$5 billion it will invest during the next five

years by taking a share of the \$2 billion-a-year home shopping business and the \$50 billion mail-order business. The company's theory is that direct marketers will pay the cable company a share of every sale made on an interactive network, money now presumably going for mailing catalogues and other advertising.

However, retailers and direct marketers generally expect to see no decline in what they now spend on catalogues and retailing. And they cite a number of reasons for their doubt that interactive shopping ever will make much of a dent in the conventional shopping patterns:

- People go to retail stores for entertainment and other reasons that have little relationship to buying a specific product. "Shopping is a social activity," says Patrick Adkisson of Seattle-based Nordstrom. "Mothers and daughters go for relaxation to the mall, shop together and have lunch. You can't duplicate that with interactivity."

- Direct marketers view their customers as the type of shopper who likes to buy through catalogues and who is unlikely to switch to an air mouse and a TV set. "We never see the printed catalogue outliving its usefulness because there are a large number of people who prefer to receive information that way," says Catherine Hartnett of L.L. Bean in Freeport, Me.

- Cable television is many years away from being able to reach all of the customers that a catalogue can today. "We don't even have cable television here yet," says Pat Theodoros of The Orvis Co., a fly-fishing equipment and

clothing retailer in Manchester, Vt., that mails 40 million catalogues a year and has a dozen retail stores. "A lot of our customers in rural areas may have satellite, but that hardly has the penetration broadcast does."

- With extensive testing just beginning, no one yet knows how consumers will respond to interactive shopping or what the timetable will be for using the new medium. "The biggest hurdle, more so than building the electronic pipeline, is finding that which consumers will respond to," says Willie Doyle of Lands' End in Dodgeville, Wis.

What isn't known—but is often guessed at—is whether the expense of producing such video material and delivering it to the customer via expensive digital electronics can be paid for with increased sales.

Another unknown is who will lose a sale when the customer orders merchandise with an air mouse. Will catalogue sales decline? Will fewer people go to stores? Will conventional home shopping channels lose customers?

Time Warner is pushing the development of interactive shopping with its ongoing Catalog 1 trials in Rochester, N.Y.; Pittsburgh; Milwaukee; Nashua, N.H., and Columbus, Ohio. The trials feature nine direct-marketing firms consecutively running half-hour spots.

The Catalog 1 lineup includes Spiegel and its Eddie Bauer subsidiary, Sharper Image, Crate & Barrel, the Nature Company, Williams-Sonoma, the Horchow Collection, the Bombay Company and Neiman Marcus. The Catalog 1 venture is designed to give the participants information on which

selling techniques work best, in preparation for taking part in Time Warner's Orlando, Fla., experiment and other interactive ventures.

Davia Kimmey, corporate vice president of advertising for Chicago-based Spiegel Inc., says her company is optimistic about the potential of interactive media: "Our belief is that the customer likes to shop in a lot of different ways, so we are a multichannel retailer. Our goal is to be available—to be omnipresent to the customer."

Spiegel mails 313 million catalogues and other direct-mail pieces each year for its Spiegel and Eddie Bauer lines of clothing. In 1993, 65% of its \$2.34 billion in net sales came from catalogues. The company operates 299 Eddie Bauer stores and 10 Spiegel "outlet" centers.

Kimmey thinks that interactive shopping will include long "infomercials" such as those seen on Catalog 1 as well as a viewer-controlled approach that makes shopping on television more like flipping pages in a catalogue to find the boat shoes. She thinks research will show that some customers prefer to sit through half-hour spots and passively learn about products before buying anything, a sort of electronic window-shopping. Other customers will know what they want and go directly to it.

Another optimist about interactive shopping is Sydney Klevatt, senior vice president of marketing for Sharper Image in San Francisco. The company expects to mail about 28 million catalogues this year and also operates 75 retail stores that sell a range of travel, electronic and high-tech consumer products. Klevatt says the company's

## Stores test video catalogue shopping

While the world waits for full-blown interactive TV shopping with full-motion video, a number of less ambitious efforts are under way to test shopper response to still pictures on the screen.

In a suburb of Dallas, the IT Network last February began to offer items from an electronic J.C. Penney catalogue. The cable operator, Sammons Communications, has 150 homes participating in the test by way of coaxial cable and regular telephone lines.

The IT Network viewer, after selecting "shopping" from the range of choices on the screen, moves through a series of menus to examine particular items. The customer places an order with the remote control and at the end of the day the set-top box automatically calls in the order via telephone line to a J.C. Penney fulfillment center.

A J.C. Penney spokesman says the company has no firm indication yet of how well the system is working. "People are gradually becoming aware they have the service," he says.

"There's been some ordering, but it's too early to tell whether it's really going to take off."

A different approach is scheduled for full testing in a suburb of Fort Lauderdale, Fla., where Schertz Communications operates Coral Springs Cable. The Interaxx Television Network will employ a set-top 486-based computer configured with a CD-ROM player that will interface with the signal coming down the coaxial cable.

The customer will insert the shopping CD in the player and view items from 75 retailers and direct marketers, including Hanover House, Domestications and Hammacher Schlemmer. The signal from the cable will update information on the CD, telling the customer about color availability, price changes or sale items. Each customer will receive a new CD, updated with seasonal items, every three months.

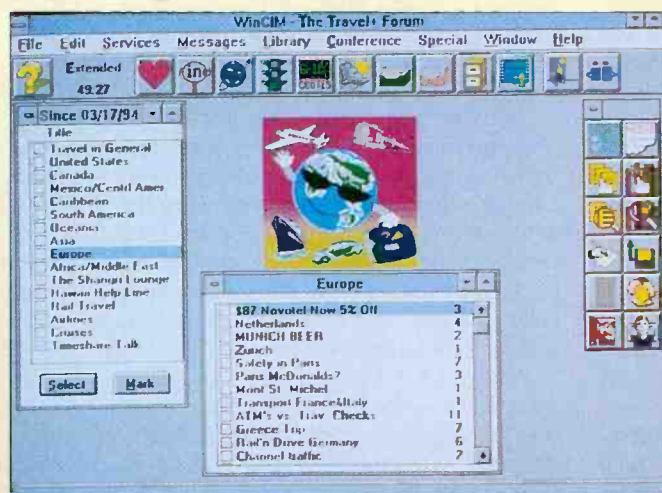
The images on the CD will be still photos, generally from the company's catalogue. Ordering will again be over the telephone line connected to the machine atop the television. —PB

## Shopping in black and white

While interactive shopping on television still is in its experimental stage, subscribers to computer networks have been able to buy products with the click of a mouse for several years.

The big online networks—CompuServe, Prodigy, America Online and Genie—have “electronic malls” that allow users to browse through various merchants’ “stores.” Many of the merchants sell computer hardware and software, which appeal to the high-tech mindset of those most likely to use an online computer service. But the number of other types of specialty stores has been growing and now includes firms such as Brooks Brothers, Lands’ End, Book-of-the-Month Club, Hammacher Schlemmer, Patagonia, the Metropolitan Museum of Art and dozens of others.

But the success of online shopping has been limited, partly by the relatively small number of online network subscribers, but also



CompuServe offers many options on its Electronic Mall.

because the presentation of items for sale has all the appeal of a black-and-white classified newspaper ad.

The shopper sees no photos or other likenesses of the items for sale, only a short description in the same typeface as other information on the screen. The shopper uses a mouse to select the “buy” option when he or she wants to order merchandise. The product is charged to the

same credit card that the online services firm uses for billing.

Of the 22 million U.S. households with a computer, 4.6 million subscribed to an online service at the end of 1993, up 31% from 1992. Although no exact figures are available, analysts estimate that the services accounted for less than one-tenth of 1% of the \$63 billion in mail-order sales in 1993. The online PC industry

expects its subscriber base to reach 20 million by 1998. However, reaching that goal would require a 34% compounded annual growth rate, a pace considered unlikely given the much slower growth in the number of home computers.

Although individual companies decline to release figures for their online sales volume, figures provided by CompuServe give some indication of the success of the medium in reaching customers. A spokeswoman for CompuServe, a subsidiary of H&R Block Inc., says 11 million users “visited” the electronic mall in 1993 and 3.8% of the visits, or 418,000, resulted in a sale. The average sale was \$71, the spokeswoman says, indicating that total sales for the year were \$29.7 million. The company also says the number of orders increased by 80% in 1993 over the prior year, indicating that more subscribers are becoming familiar with the services offered.

—PB

research has shown that many customers shop at its stores—but never by mail—after being prompted by the catalogue. “And now we’ll have a third class, people who maybe only buy by television,” he says.

But outside the circle of companies actively participating in preliminary tests such as Catalog 1, the mood is distinctly less optimistic. Nordstrom’s Adkisson says the department store chain is continuing to build new stores at the rate of five or six a year as it expands nationwide, irrespective of any trends in interactive shopping. The company launched its first catalogue in January.

Adkisson says Nordstrom has been in discussion with all major participants developing interactive TV. Nordstrom has made a niche for itself by providing “personal shoppers” and other highly personal services for its customers and doesn’t want to give that up in the move to the infohighway. “You can have personal shoppers who come on your screen and show you items and have that personal aspect, but

that’s a ways down the road,” he says. “It will take some time to get there.”

Nordstrom also worries about the degree to which television can reproduce the quality of pictures in a catalogue, or the reality of items in the store.

Nordstrom, along with Lands’ End and J.C. Penney, agreed in August to take part in the Stargazer video service trial planned by Bell Atlantic for suburban Washington this winter.

Lands’ End’s Doyle says his company will closely follow the interactivity testing once it gets under way, but it isn’t expecting a sudden shift in buying from catalogues to television. “All the soothsayers have changed their opinions about three times in the last year about how soon this will develop,” Doyle says.

With the exception of sales from three outlet stores near its Wisconsin headquarters, Lands’ End gets all \$870 million of its annual sales from catalogues. Doyle says one concern of the company is that the audience that shops on television may not be the best cus-

tomers prospects for the mail-order firm.

The potential of interactive shopping may be greater for local or regional retailers than it is for the national retailers and mail-order companies. Two regional retailers to sign up on Time Warner Cable’s network in Orlando, Fla., are Winn-Dixie Stores Inc., a large supermarket chain, and Eckerd Drug Co., which operates a chain of pharmacies in the Southeast. Both companies intend to let customers use their televisions to browse store shelves and select items they want to buy. The items will be delivered to their homes within one day—for the same price the shopper would pay at the store.

Vos, Gruppo & Capell’s Petsky says that advertisers in the past decade have worked harder and harder to learn when, where, how and why a customer makes a purchase. Interactive shopping will offer the potential to answer all those questions at once, and also will give companies selling products clearer knowledge about which advertising approaches work and which don’t. **TW**

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# VDT battle heats up at the FCC

*Since Congress failed to pass telecommunications bill, pressure is now on commission to resolve issue of cable-telco competition*

By Christopher Stern

**T**he already fierce battle over video dialtone got hotter in September when Congress failed to pass sweeping telecommunications legislation allowing telcos and cable companies into each other's businesses.

Now the FCC's already controversial VDT reconsideration becomes the main front in the fight over telco entry into video. In the absence of new laws, telcos can provide video services through VDT, but cable is still effectively blocked from providing telephone service.

Cable says it's not afraid of the competition, it just wants a level battlefield. The telcos fired a significant warning shot last July. In the only VDT system approved for a commercial rollout, Bell Atlantic promised to undercut the incumbent cable operator's prices by 20%.

With announcements like that, there is little surprise that the cable industry has opposed almost every one of the 28 VDT applications now on file at the FCC.

Times Mirror Cable Television President Larry Wangberg described the cable industry's fears in a speech to a group of Washington area cable executives:

"These applications are little more than an attempt by the phone companies to enter the cable business outright, without any of the safeguards and competitive provisions that would be provided by the legislation pending in Congress."

Although telcos and cable cannot even agree on how long some of the VDT applications have been sitting at the FCC, two issues rise above all others in the debate: cost allocation and programing.

Cable's stand is simple. It does not want the telcos to offer any of their own programing on the common-carrier platforms. And it says before telcos even build VDT systems, comprehensive cost-allocation rules must be in place.

Telcos say federal courts in Virginia and Alabama have already given them the right to offer programing through



*Now that the infohighway bill is dead, House Telecommunications Subcommittee Chairman Ed Markey (D-Mass.) has called on the FCC to exercise care in its upcoming video dialtone decision. Markey said last week that the FCC should make sure the VDT decision does "not in any way inhibit the competitive environment that was in the House bill." The bill, sponsored by Markey, allowed cable and telephone companies into each other's businesses. VDT allows telcos into the video business as a common carrier. Markey also blasted the regional Bell companies for their "greed" and "hypocrisy." Markey said the telcos wanted to get into the cable and long-distance business while protecting their own monopolies. The House Government Operations Subcommittee plans to hold hearings on VDT with the goal of speeding up the application process at the FCC.*

wholly owned subsidiaries. (Those court fights continue to be waged in every federal circuit where a telco plans to build a VDT system.)

The telcos also say the FCC already has in place rules and regulations that bar any improper cross-subsidy of their entry into the video business.

The contentious debate has been heated up by recent indications that several telcos intend to mimic the look

and feel of current cable providers. The telcos "want to seem as close as possible to a cable system; that's the only way they say they can compete," said one FCC staffer recently.

Pacific Bell, BellSouth and GTE are pushing the FCC to adopt their "anchor programer" concept. Under the proposal, telcos will give a single programer advantages similar to those given by a developer of a large mall to anchor tenants, such as larger retail spaces and choice locations.

While the telcos anticipate that digital technology will eventually allow them to offer hundreds of channels, most VDT applicants plan to launch with analog systems of 110 channels or fewer. Under the anchor programer proposal, a single video provider would be allowed to occupy almost all of that initial analog capacity.

The cable industry says anchor programing would be a clear violation of the telcos' common-carrier obligations and more. "If approved, the anchor programer approach would enable the local telephone company—under the guise of VDT—to select the programing to be offered on analog channels, and to use all of its capacity for such programing," said National Cable Television Association President Decker Anstrom in a letter to FCC Chairman Reed Hundt.

In Bell Atlantic's Dover VDT, the FCC dispensed with the issue by, in effect, ordering the system to launch with 384 channels instead of 64 as originally planned.

But Bell Atlantic has come up with a programing concept of its own that has also angered cable. The "will carry" proposal would give broadcasters and government-operated channels priority on VDT systems. Bell Atlantic is pitching the proposal to the FCC as a way to insure universal coverage of over-the-air television, along with the public interest-related PEG channels.

Cable says the proposal discriminates against programers and is another example of a telco attempt to violate common-carrier obligations. "It is inherently discriminatory because [Bell Atlantic is] favoring one service over another," said John Seiver of Cole, Raywid & Braverman.

The issue will become more contentious if the FCC determines that telephone companies may own programing on their VDT systems. Bell Atlantic has already said it plans to provide programing through its Bell Atlantic Video Systems.

If the FCC is to allow the telcos to

provide programing, it at least wants the opportunity to consider safeguards, said Kathy Levitz, deputy chief of the Common Carrier Bureau. That's why the FCC specifically barred the telco from offering its own programing in Dover.

Among the safeguards the FCC could consider are limits on Bell Atlantic's ability to jointly market its video dialtone service with its own program offerings. Another possibility is that the FCC could impose network disclosure rules, suggested Levitz. Those rules would insure that telcos do not take advantage of or discriminate against other programers through proprietary technologies.

While programing ownership is a central issue of the video dialtone controversy, the longest-running fight has been over cost allocation. Cable maintains that the telcos will quickly lose their interest in VDT if the FCC bars them from cross-subsidizing construction with telephone revenue.

Video dialtone is not the first instance of the Bell companies' branching out from their core business. The

FCC can use its experience regulating so-called enhanced services as it formulates its VDT reconsideration, said Levitz. "Video is really the ultimate enhanced service, and we have rules covering entrance into new services," she said.

One of the decisions involved in regulating enhanced service is cost allocation. And the economics of VDT are significant. Sprint says it will cost \$5 million to build a 110-channel VDT system passing 1,000 homes in North Carolina. PacTel says it will cost \$16 billion to rebuild its wired infrastructure with the ability to provide interactive video services.

The cost allocation rulemaking is complicated because many of the telcos plan to use the same facilities to provide both video and telephone service. The FCC must devise rules for separating the construction costs and the operation costs of video and telephone.

In California, PacTel claims only 10% of its new infrastructure will be allocated to video capabilities, with the

remaining 90% attributed to telephone use. But the California Cable Television Association hotly disputes those figures. Citing its own study, the group says telephony will account for only 2.5% of the new infrastructure's use.

"We believe, but for video, that this network would never be under construction," said Alan Gardiner, CCTA's vice president of regulatory and legal affairs.

It's hard to imagine two more diametrically opposed positions. But the differences between PacTel and CCTA are an accurate barometer of telco/cable differences on the issue generally.

Both industries have been anticipating a video dialtone decision since June. Now that Congress has failed to act on telecommunications legislation, the pressure has increased on the FCC to issue a decision.

The usually open FCC has been reluctant to comment on its direction on the VDT reconsideration. The commission could rule as early as Oct. 20, but several observers expect the FCC to take longer.

TNW

## Video dialtone applications at the FCC

Applicant	Location	Homes	Status	Proposed service
Bell Atlantic	Arlington, Va.	2,000	granted	tech trial
Nynex	New York City	2,500	granted	tech trial
SNET	West Hartford, Ct.	1,500	granted	tech/market trial
US West	Omaha, Neb.	62,500	granted	tech/market trial
Rochester Telephone	Rochester	120	granted	tech trial
Bell Atlantic	Dover Township, NJ	38,000	granted	commercial
Bell Atlantic	Florham Park, NJ	11,700	pending	commercial
Bell Atlantic	Md. & Va. suburbs	1,200,000	pending	commercial
Pacific Bell	Orange County, Ca.	210,00	pending	commercial
Pacific Bell	South San Francisco	490,000	pending	commercial
Pacific Bell	San Diego	360,000	pending	commercial
US West	Denver	300,000	pending	commercial
US West	Portland, Ore.	132,000	pending	commercial
US West	Minneapolis-St. Paul	292,000	pending	commercial
Ameritech	Detroit	232,000	pending	commercial
Ameritech	Columbus, Cleveland	262,000	pending	commercial
Ameritech	Chicago	501,000	pending	commercial
Ameritech	Milwaukee	146,000	pending	commercial
US West	Boise, Idaho	90,000	pending	commercial
US West	Salt Lake City, Utah	160,000	pending	commercial
Puerto Rico Telco	Puerto Rico	380	pending	tech trial
Contel	Manassas, Va.	90,000	pending	commercial
GTE	Pinellas & Paso counties, Fla.	476,000	pending	commercial
GTE	Ventura, Ca.	122,000	pending	commercial
GTE	Honolulu	296,000	pending	commercial
Bell Atlantic	Baltimore, Northern NJ, Philadelphia, Pittsburgh, Virginia Beach, Va.	2 million	pending	commercial
BellSouth	Chamblee, Ga.	12,000	pending	tech/market trial
Nynex	Warwick, Warren, RI	63,000	pending	commercial
Nynex	Suburban Boston	334,000	pending	commercial
Sprint	Wake Forest, NC	1,000	pending	tech/market trial

# Telemedia Timeline

# NEWS HIGHLIGHTS FROM

## THE SLOW DEMISE OF THE INFO-HIGHWAY BILL

4/18

### Hill may not get into infohighway this year

The collapse of the Bell Atlantic/TCI and Southwestern Bell/Cox deals took some of the pressure off legislators to push through an information superhighway bill, and passage during the current Congress began to appear doubtful. The Senate version of the bill was further hindered by opposition from the big telephone companies, who wanted a modification to allow entry into long-distance services. Competing House bills took opposing positions on the question of telco entry into long-distance.

5/9

### Gore to the rescue

Vice President Al Gore tried to resuscitate the beleaguered information superhighway bill by urging local

and long-distance telephone companies to put aside their complaints and work toward passage.

5/9

### Hollings stands firm on superhighway bill

Senate Commerce Committee Chairman Ernest Hollings told the regional Bell operating companies at hearings that he had no intention

4/18

### Searching for an info highway timetable

At "The Big Picture" conference in New York in April, communications industry leaders mapped out their companies' strategies for navigating the information superhighway.

Viacom International President Frank Biondi predicted that 60% of U.S. homes will have access to the infohighway in seven to 10 years.

Bell Atlantic Chairman Raymond Smith said that by 1996 the telco will deliver broadband networks to more than 1 million customers within its service area.

Comcast President Brian Roberts pegged the cost of delivering video on demand at \$20-\$40 per home, which would add up to a \$1 billion investment for Comcast.

5/16

### S-A launches Press Movies

Cable operators worried about video competition from DBS and telcos, but still not ready to launch video-on-demand digital systems, may find a near-term answer in Scientific-Atlanta's Press Movies, a near-video-on-demand and enhanced pay-per-view system that uses an analog-based set-top box. Such a system would afford viewers access to video titles at regular intervals (every 15 minutes, for example), rather than instantly.

5/16

### GI, Scala offer home satellite guidance

General Instrument in May chose Scala Computer Television to develop an interactive program guide for use by viewers of the Primestar DBS service. The system will allow viewers to scroll through program offerings by date, channel or category.

5/23

### ESPN gets into interactive game

ESPN "is leveraging its sports programming assets into new and profitable businesses," says ESPN Enterprises' Dick Glover of the network's efforts to grow into online, CD-ROM and video games. It has launched the sports information network ESPNET, available on Prodigy, expects to have an inventory of nine videogame titles by the end of 1995



and is creating a series of instructional sports CD-ROMs.

5/23

### Microsoft unleashes a Tiger

Computer software giant Microsoft introduced Tiger, a scalable media server for cable and telco networks as well as personal and business systems. The system will allow cable and telco networks to offer video on demand, video messaging and interactive services to as many or as few customers as is cost-effective.

5/23

### Oracle answers Tiger

In an effort to get a jump on Microsoft's

**ORACLE**

Tiger, Oracle announced that its software server product would be available on Hewlett-Packard's Interactive Video Server. Bell Atlantic, US West and British Telecom have said they plan to use the Oracle system for two-way, digital interactive service experiments.

5/23

### Zenith, CLI, Philips set to tap set-top market

In a challenge to market giants General Instrument and Scientific-Atlanta, Zenith Electronics, Compression Labs and Philips Consumer Electronics have signed an agreement to design a line of set-top boxes for analog and hybrid networks as well as future digital systems.

5/23

### Hearst opens digital production center

The Hearst Corp. in May unveiled a new production center, dubbed the Hearst New Media Center, that will provide in-house training and development for new digital products and services.

5/30

### Time Warner upgrades with Philips

Time Warner has contracted with Philips for a two-way, interactive upgrade of its Charlotte, N.C., cable system. The \$4.7 million project calls for the installation of more than 1,800 miles of 750 mhz RF distribution equipment. It also marks a breakthrough for Philips into the cable market.

6/6

### The Gate set to open in Bay Area

The Bay Area's two leading daily newspapers, Hearst's San Francisco Examiner and Chronicle Publishing's San Francisco

Dates refer to when item appeared in BROADCASTING & CABLE's Telemedia Week department

# THE PAST SIX MONTHS

# Telemedia Timeline

Chronicle, expect to have a joint electronic version of their newspapers up and running by the end of the year. The service will offer electronic forums on local topics, bulletin boards, local news, classifieds, entertainment guides and access to Internet for about \$10 a month.

6/6

## Portland stations team with InTouch

The four network affiliates in Portland, Ore.—KGW-TV, KATU(TV), KOIN(TV) and KPDX(TV)—have signed with Interactive Systems for a six-month, 1,500-home test of InTouch, which sends targeted information to households for purchases at local retailers. The stations will transmit the imbedded InTouch signal to set-top boxes in the test homes, and a telephone modem lets viewers contact the retailer.

6/6

## Interaxx plans trials in Florida, Washington

Interaxx Television Network in June announced plans for a test of its CD-ROM-



based interactive TV system in 2,000 homes served by Schurz Cable in Coral Springs, Fla., this summer. Subscribers will receive a set-top box with a CD-ROM player and four start-up disks that provide the interface for interactive services. The cable system provides the two-way connection. The full array of services costs \$9.95 a month.

6/13

## Southwestern Bell picks vendors for Texas trial

Southwestern Bell last June signed with AT&T and Broadband Technologies to build a fiber-to-the-curb voice, data and video service to 47,000 homes in Richardson, Tex. Dismissing assessments that fiber-to-the-curb architecture is too expensive to be deployed on a large scale, the company predicted that the cost of a digital system will be cheaper over the long term.

6/13

## Viacom creates Interactive Media Group

Viacom last June created Interactive Media, a new corporate unit that will combine the new media, interactive television, radio, consumer products, technology, network operations and corporate information systems of both Viacom and Paramount.

Edward D. Horowitz, Viacom's senior vice president for technology, will serve as the group's chairman/CEO. It will have two divisions: Viacom New Media will focus on interactive software, and Viacom Interactive Services will be responsible for interactive television and online services.

6/13

## MTV goes Online for summer

America Online launched an MTV area in its computer online service this summer, offering MTV programming information, allowing users to communicate with the network's "Beach House" and providing a link to an "online jockey" promoting the summer's traveling Lollapalooza alternative music tour.

6/13

## TV Guide going online

TV Guide plans an interactive online listings and chat service that will be available this fall over co-owned computer service Delphi Internet. Called TV Guide Online, the service will generate revenue through online forums on soaps, sports, movies, kids shows and other program categories.

6/13

## TV Guide off-screen in Orlando

In an apparent disagreement over concept, Time Warner and TV Guide On Screen dropped plans to jointly develop a program guide for Time Warner's Full Service Network, now being tested in Orlando, Fla. Evolving plans by TV Guide executives to develop a full-blown interactive guide, rather than a basic program menu, ran headlong into Time Warner's development of its own interactive program "navigator," executives for both companies said.

6/20

## Sega Channel readies for debut

The Sega Channel, a joint venture of Sega of America, Time Warner and TCI, plans to launch its video games on cable in late October or early November. The MSO co-owners likely will be the first to roll out the service, says Stan Thomas, the channel's president/CEO. Because it is supplied via the FM band portion of the cable spectrum, the videogame service does not require a channel. Operators get to keep half of the anticipated \$12-\$20-per-month subscriber charge.



of modifying the Senate version of the information superhighway bill to satisfy their desires to offer long-distance service. "You all can block the bill," Hollings told the telco representatives. "We will be around next year and the next year."



5/23

## Amendments complicate Senate superhighway bill

Hurdles continued to confront the information superhighway bill as Commerce Committee members threatened to pile on amendments, and an alternative—which would grant the regional Bell operating companies quick access to long-distance services—began to pick up support.

6/13

## Broadcast, cable unite behind Senate bill

An unusual coalition of broadcasters and cable operators began making joint calls on senators to urge passage of information superhighway bill S. 1822, sponsored by Senator Ernest Hollings. Both have found something to like in the bill.

6/20

## Gore stumps for superhighway bill

Vice President Al Gore promised members of the Communications Workers of America that passage of the information superhighway bill would provide a \$10 billion boost to the econo-

## Telemedia Timeline

my over the next 10 years and create 500,000 new jobs by the end of 1996. In spite of the holdup in the Senate, Gore predicted passage in the current session.

7/4

### House bills would alter telecom landscape

Complementary information superhighway bills easily passed the House of Representatives. H.R. 3626, the Brooks-Dingell measure, would open up long-distance services to the regional Bell operating companies and set ground rules for electronic publishing. H.R. 3636, the Markey-Fields bill, would repeal the cable-telco cross-ownership ban and clear the way for cable to provide local phone service.

 **Bell Atlantic**  
THE HEART OF COMMUNICATION

**BELLSOUTH**  
**NYNEX**

 **Southwestern Bell**

7/11

### RBOC filing may earn long-distance credit

Frustrated in their attempts to get access to the long-distance market written into the Senate's information superhighway bill, four regional Bell operating companies sought relief from the courts. Bell Atlantic, BellSouth, Nynex and Southwestern Bell asked U.S. District Court Judge Harold Greene to abolish his 1982 consent decree that bars the Baby Bells from providing such service. Some saw the

6/27

### US West ventures into cable territory

On the heels of a June court victory allowing it to offer cable television and enhanced services within its telephone service area, US West said it was ready to negotiate contracts directly with cable programmers and to price and package offerings for consumers.

6/27

### Silicon, AT&T venture into multimedia

AT&T Network Systems and Silicon Graphics announced the creation of a joint venture for



building interactive television systems. The new entity, Interactive Digital Solutions, will combine Silicon's high-speed media-server computers, known as Challenge, with AT&T's evolving broadband network systems for telcos and cable operators.

7/4

### Cablevision rolling out Optimum TV

Cablevision Systems' Yonkers, N.Y., system, newly rebuilt with 750 mhz cable capable of carrying 148 analog channels, will offer customers a la carte service in addition to a basic 38-channel package. Called Optimum, the service will use a modified version of Scientific-Atlanta's 8600X home communications terminal; it will contain an electronic program guide that allows subscribers to compile lists of favorite channels.

7/4

### Philips Media teams with major interactive software developers

Philips Media signaled its interest in producing software titles across a variety of hardware platforms with the formation of long-term, multititle alliances with InterPlay Productions, Virgin Interactive Entertainment and Full Moon Entertainment. Platforms to which the titles will be targeted include Philips' CD-1 player, IBM- and Apple-compatible CD-ROMs and video games.

7/11

### ABC online: from soaps to news

Impressed with its "very strong graphical look," Capital Cities/ABC signed with computer online service America Online to develop interactive news, entertainment and infor-

mation services. Among the services to be offered are an ABC News newswire, polls and trivia games from ABC Sports, play-along games from ABC's Multimedia Group, soap opera news and an online version of the *Good Morning America Extra* newsletter. The service was slated to be up and running in September.

7/11

### Geoworks developing set-top operating system

Geoworks, a small Silicon Valley software company, is holding discussions with set-top manufacturers General Instrument, Scientific-Atlanta and Hewlett-Packard on incorporating the company's Geos operating system into future set-top devices. Chairman/CEO Brian Dougherty says Geoworks will complete the design of its system in the next year, and the first boxes will be ready for shipping within two years.

7/11

### Silicon Graphics unveils new scalable media servers

Silicon Graphics plans to introduce two new media servers next year that combine video, graphics, voice and text information delivered by TV stations or broadband cable or telco networks. The company is also developing software to link the server, the network, and the home set-top box.

7/18

### Cox-Times Mirror revising upgrade strategy; Omaha trial delayed

While Cox Cable Communications takes a second look at its upgrade strategy in light of its consolidation with Times Mirror, it is moving forward with its Omaha interactive service trial, albeit a quarter behind. Senior Vice President Alex Best expects service to be turned on for employees in the fourth quarter of this year, rather than in the summer, followed by a rollout to commercial customers in first quarter 1995.

7/18

### Digital, GI to offer interactive video system

Digital Equipment Corp. and General Instrument, in a nonexclusive agreement, made a move to join Silicon Graphics/AT&T and Oracle/Hewlett-Packard in the potentially lucrative market of building telco and cable interactive networks. The deal combines DEC's server and delivery technology with GI's established market presence and new technologies such as the DigiCipher II encryption system, the DigiCable set-top terminal and the LinX interactive module.



7/25

**Microware creates de facto operating system for interactive TV**

Even though several major computer companies were pushing hard for the honor, Des Moines-based Microware Systems Corp. became the first company to develop a real-time multimedia operating system for use in set-top boxes for interactive TV applications. Its first customer: Bell Atlantic, which will use the system in its New Jersey video dialtone test, soon to be followed by Cox Cable, Nynex, Hong Kong Telecom, Italy's SIP, Korean Telecom and Telecom Australia.

7/25

**HBO, Warner Music form Inscape to produce multimedia CD-ROMs**

Home Box Office and Warner Music Group joined forces in July to form Inscape, a joint venture company that will produce and market CD-ROM titles. The next steps for the partnership are likely to be online services and interactive television delivery, says Michael Nash, who will head the venture.

7/25

**NBC Desktop Video to deliver news to PCs**

Beginning in September, NBC will take programming from NBC News, News Channel, CNBC and Private Financial Network and



meld it into NBC Desktop Video, a multimedia business news service delivered via computer to the financial services industry. Programming will include events not usually seen during regular programming.

7/25

**AT&T taking over ImagiNation**

AT&T announced plans to increase its stake in the ImagiNation Network, an online service featuring interactive games, chat forums, conferencing, bulletin boards, shopping and personal mail boxes.

8/1

**US West building an interactive mall**

US West will venture into home shopping territory with US Avenue, an interactive shopping mall offered through its programming subsidiary Interactive Video Enterprises. To be offered initially in the US West video dialtone test in Omaha, Neb., the service will stock the merchandise of Ford Motor Co., Hallmark Cards, Virgin Records, FTD,

Nordstrom and J.C. Penney. It will eventually be available in US West's recently acquired cable franchises in the Atlanta market, but its reliance on next-generation set-top boxes may delay rollouts on other telco or cable networks.

8/8

**Justice clears cable route for BellSouth**

The Justice Department gave the go-ahead in early August for BellSouth to offer cable television service outside its home region, with the proviso that the telco divest itself of Prime Cable systems in areas where it offers telephone service. The restructuring means that BellSouth will be able to own and operate Prime Cable systems in Las Vegas, Chicago, Houston and Anchorage, but must drop them in Atlanta and Hickory, N.C.

8/8

**WCCO-TV goes online**

CBS affiliate WCCO-TV Minneapolis is launching its own online service to connect viewers to its newscasts.

8/8

**Multimedia alliance eases software creation**

Macromedia, which creates multimedia software tools used to build CD-ROM titles, and Microware Systems, a leading supplier of operating systems for interactive TV set-top devices, reached an agreement in August that will allow software developers to create applications for both CD-ROM and interactive TV.

8/15

**Telco convergence goes Hollywood**

Six of the seven regional Bell operating companies made big jumps into next-generation television programming in August. Ameritech, BellSouth and Southwestern Bell signed a memorandum of understanding with Disney to create, market and transmit traditional and interactive video programming, including movies on demand, home shopping, interactive games, travel and information services and educational programming. A "navigator" would be developed to guide users through the system.

8/15

**Malone urges creation of bandwidth manager**

Tele-Communications Inc. President John Malone says that a key challenge for the telecommunications industry is the development of bandwidth managers to regulate the individual communications demands of each home served. Speaking at a news conference in New York, Malone called upon equipment and software manufactur-

telco strategy as a means to undercut the legislation, but said it may backfire if it serves as an incentive to the Senate to pass its restrictive bill.

8/1

**Lights dim for Senate highway bill**

With Senators Ernest Hollings and John Breaux still far apart on info highway legislation, prospects for Senate passage of a bill looked dim as the August recess neared.

8/15

**Commerce OKs info highway bill**

A compromise allowing the regional Bell operating companies some access to the long-distance market cleared the way for Senate Commerce Committee approval of an information superhighway bill. The lopsided 18-2 vote probably improved the odds of passage by the full Senate, but obstacles remained: Senator John McCain opposed a provision requiring the RBOCs to manufacture telecommunications equipment only in the U.S.; Senator Howard Metzenbaum objected to RBOC entry into long-distance, and Senate Minority Robert Dole considered the bill too regulatory.



8/29

**Infohighway bill's troubles continue to mount**

Opposition to the Senate's information superhighway bill spilled beyond the chamber

## Telemedia Timeline

soon after its passage by the Senate Commerce Committee. The U.S. Conference of Mayors, upset that the bill allows telco entry into video without a requirement for municipal fees or franchises, lined up against it, as did the computer industry, which fears that it may be required, along with other information service providers, to contribute to a universal service fund.



**9/19**  
**Clinton high on info-highway**  
In an exclusive interview in BROADCASTING & CABLE,

the President said he believed the superhighway bill would pass, despite what he called Republican leader Bob Dole's dedication to "destroying his presidency." Senate Commerce Committee Chairman Ernest Hollings met with Dole to try to accommodate the minority leader.

**9/26**

### End of the road

Citing the opposition of Minority Leader Bob Dole and the local telcos, Ernest Hollings conceded defeat on the infohighway bill, but vowed to try again next year. The telcos insisted they had tried to work out a compromise, while TCI's Bob Thompson had this assessment of their participation: "The fingerprints around the throat of this corpse belong to the RBOCs."

ers to come up with the residential gateway unit that would allow homes to manage the interactive applications delivered to televisions, telephones, computers and other devices. Motorola, Hewlett-Packard and AT&T are expected to move to create such a device, and Microsoft responded that it is likely to offer a software interface.

**8/15**

### Winner defaults on \$40 million worth of spectrum

Commercial Realty of St. Pete, the leading bidder in the FCC's auction of interactive video data service spectrum July 28-29, failed to meet the Aug. 8 deadline for its \$3.5 million deposit and could face federal criminal charges as a result. The 20 licenses for which the company successfully bid will have to be reauctioned this fall, exposing Commercial Realty to huge fines and making it liable for the difference between its original bid and the amount the FCC eventually receives. Criminal charges could include market manipulation and defrauding the federal government.

**8/15**

### Wussler gambling on Interactive Wagering Network

NTN Communications and former CBS executive Bob Wussler signed a letter of intent to jointly operate Interactive Wagering Network, which hopes to become a supplier of interactive applications and transaction services to the gaming, horse racing and casino industries. Wussler, who has raised \$10 million for the venture, will serve as chairman/CEO. Available initially via computer and telephone, the network will set up subscriber debit accounts, in which wins and losses will be electronically tabulated.

**8/15**

### Viacom Interactive pushes into CD-ROM, online

Viacom New Media, the entertainment giant's newly created software publishing arm, will release 17 interactive software titles by the end of the year and anticipates developing cross-platform titles next year, according to Michele DiLorenzo, the division's president. It is finding fertile ground for content in both MTV and Nickelodeon, and is leveraging the TV properties into CD-ROM applications, videogame software and online services.

**8/15**

### Hartley to sue FCC over IVDS licenses

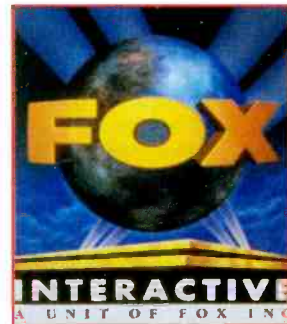
James Hartley, COO of Commercial Realty of St. Pete, which the FCC says is in default on down payments for IVDS licenses won at auction in July, plans to file suit against the FCC to delay the timetable for submis-

sion of the deposits. A spokesperson for Hartley said the suit will seek a delay until "at least two vendors are qualified by the FCC to produce documented engineering results and have products available" to license winners. So far, only one company—Eon Corp.—meets that criteria.

**9/19**

### Fox to offer video games, CD-ROMs

Fox Interactive will release its first two video games in November and has plans for a series of CD-ROMs; all are based on upcoming animated series or feature films. New entertainment may be tied in with Delphi Internet service, which, like Fox, is owned by Rupert Murdoch.



**9/19**

### QVC details "smart agent" plans

QVC says its Q Online Service will feature proprietary "smart agent" technology that will allow consumers to shop on the service. Using demographics and information supplied by the consumer, the smart agent will guide the consumer through thousands of available products. Subscription to the service is expected to cost \$40-\$50 per year, but will offer rebates, credits and coupons.



**9/26**

### Newsweek goes online

Newsweek, the magazine, will become Newsweek, the Prodigy online service, in a one-year deal that was being billed as the first general-interest

multimedia magazine to incorporate sound, photos, graphics and text. The move follows *Time* magazine's computer alliance with America Online.

**9/26**

### Sprint dials up video

Sprint became the first long-distance company to file an application with the FCC to test a video dialtone system when it asked the commission for permission to test a 110-channel system in Wake Forest, N.C. It hopes to have the \$5 million test up and running by early 1995.

—Compiled by Pat Watson

Welcome to **TELEMEDIA WEEK**, the only magazine devoted to the next generation of television. **TELEMEDIA WEEK** provides in-depth coverage, with features and articles on everything that's happening on the information highway from the TV point of view, including:

- Construction of broadband interactive networks by cable operators and telephone companies
- The cost and nature of building the technical plant
- The transition to digital technology and high-definition TV
- The definitive story on Washington, as its legislative and regulatory mandate shapes the information highway and its component industries

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#### Broadcast TV

- ☐ Broadcast TV Affiliate
- ☐ Broadcast TV Network
- ☐ Broadcast TV Independent
- ☐ TV Station Rep Firms

#### Cable TV

- ☐ Cable TV Independent
- ☐ Cable TV MSO
- ☐ Cable TV Network
- ☐ PPV
- ☐ Cable TV System Rep Firms

#### Satellite

- ☐ Direct Broadcast Service
- ☐ Manufacturers
- ☐ Dealers

#### Telecommunications

- ☐ Regional Bell Operating Co.
- ☐ Local Telephone
- ☐ Long Distance
- ☐ Cellular Service Provider
- ☐ Equipment Manufacturer

#### Content Developers/Providers

- ☐ Producers - TV Programming
- ☐ Producers - CD ROM
- ☐ Syndicators
- ☐ Publishing
- ☐ Other (please specify)

#### Computer

- ☐ Hardware Manufacturer
- ☐ Software Manufacturer
- ☐ Suppliers to the Industry
- ☐ Law Firms/Lawyers
- ☐ Financial Institutions

### 2. WHAT IS YOUR JOB TITLE?

☐ **Corporate Management**  
(Chairman/CEO/President/  
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☐ **Management**  
(VP/General Mgr./Business Mgr./  
System Dir./System Mgr./  
Station Manager)

☐ **Programming**  
(Program Directors/News Directors/  
VPs/Directors/Managers)

☐ **Advertising/Marketing**  
(VPs/Directors/Managers)

☐ **Engineering**  
(VPs/Directors/Managers)

☐ **Other (please specify)**

3. I recommend, specify, approve, supervise or influence the purchase of programming and equipment for the entertainment industry.

☐ YES ☐ NO

NAME _____		
TITLE _____	COMPANY _____	
ADDRESS _____		
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## Telemedia *Week* FREE SUBSCRIPTION ORDER FORM

☐ **Yes** I want to receive Telemedia Week **FREE!**

☐ NO, I do not wish to receive TELEMEDIA WEEK.

### 1. WHAT BEST DESCRIBES YOUR BUSINESS OR INDUSTRY?

#### Broadcast TV

- ☐ Broadcast TV Affiliate
- ☐ Broadcast TV Network
- ☐ Broadcast TV Independent
- ☐ TV Station Rep Firms

#### Cable TV

- ☐ Cable TV Independent
- ☐ Cable TV MSO
- ☐ Cable TV Network
- ☐ PPV
- ☐ Cable TV System Rep Firms

#### Satellite

- ☐ Direct Broadcast Service
- ☐ Manufacturers
- ☐ Dealers

#### Telecommunications

- ☐ Regional Bell Operating Co.
- ☐ Local Telephone
- ☐ Long Distance
- ☐ Cellular Service Provider
- ☐ Equipment Manufacturer

#### Content Developers/Providers

- ☐ Producers - TV Programming
- ☐ Producers - CD ROM
- ☐ Syndicators
- ☐ Publishing
- ☐ Other (please specify)

#### Computer

- ☐ Hardware Manufacturer
- ☐ Software Manufacturer
- ☐ Suppliers to the Industry
- ☐ Law Firms/Lawyers
- ☐ Financial Institutions
- ☐ Advertising Agencies

### 2. WHAT IS YOUR JOB TITLE?

☐ **Corporate Management**  
(Chairman/CEO/President/  
Exec.VP/Sr. VP/Treasurer)

☐ **Management**  
(VP/General Mgr./Business Mgr./  
System Dir./System Mgr./  
Station Manager)

☐ **Programming**  
(Program Directors/News Directors/  
VPs/Directors/Managers)

☐ **Advertising/Marketing**  
(VPs/Directors/Managers)

☐ **Engineering**  
(VPs/Directors/Managers)

☐ **Other (please specify)**

3. I recommend, specify, approve, supervise or influence the purchase of programming and equipment for the entertainment industry.

☐ YES ☐ NO

NAME _____		
TITLE _____	COMPANY _____	
ADDRESS _____		
CITY _____	STATE _____	ZIP _____
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NEW YORK, NY 10011

# **Straighten Out The Curves On The Information Highway...**



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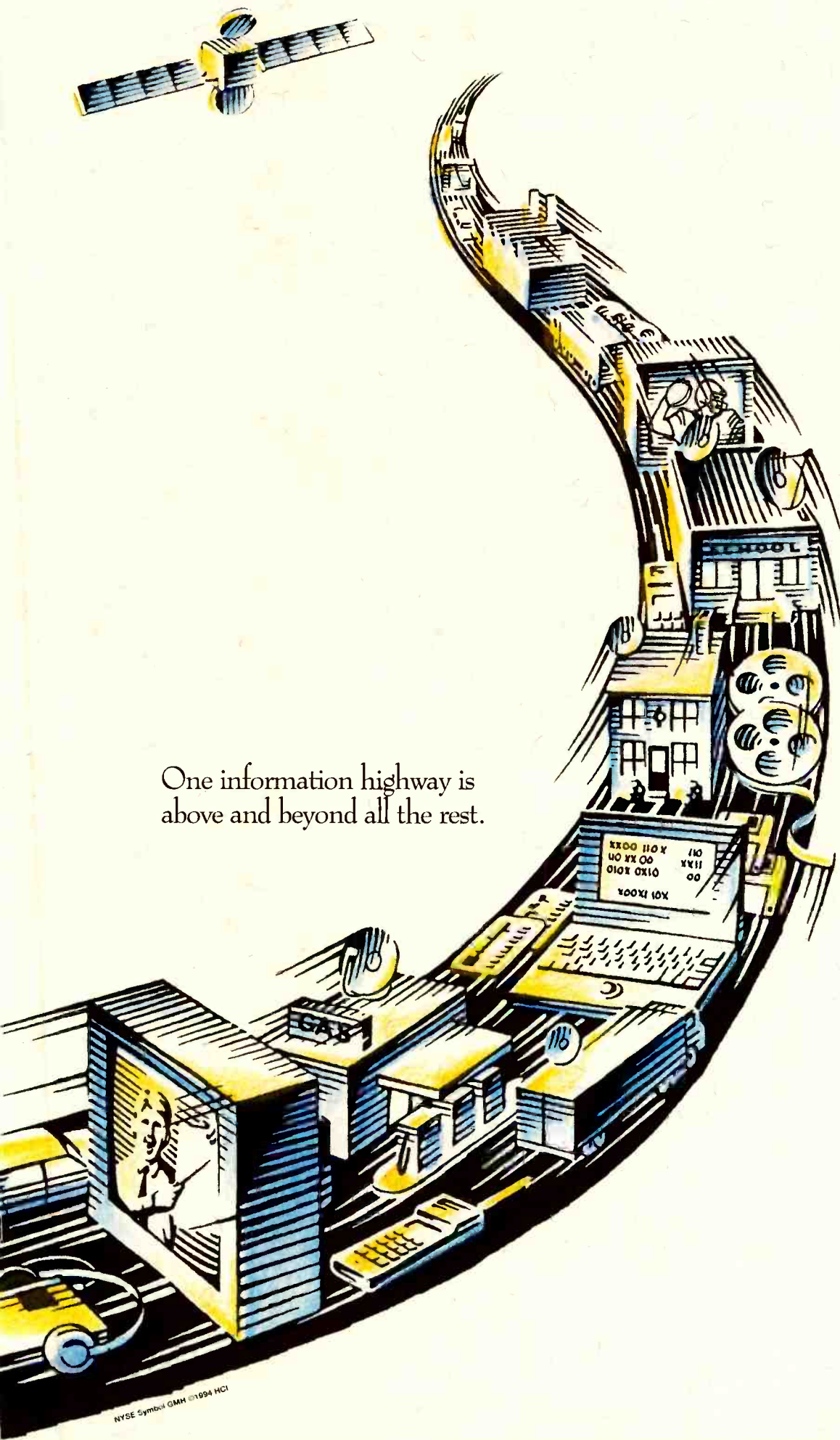
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