



Joan Marsh
Director
AT&T Federal Government Affairs

Suite 1000
1120 20th St. NW
Washington, DC 20036
202 457-3120
FAX 202 457-3110

December 22, 1999

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DEC 22 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, SW, Room TWB-204
Washington, D.C. 20554

RE: Notice of Oral Ex Parte
In the Matter of Applications for Transfer of Control to AT&T Corp. ("AT&T") of
Licenses and Authorizations Held by MediaOne Group, Inc. ("Media One")
CS Docket No. 99-251

Dear Ms. Salas:

On December 21, 1999, Joel Horowitz, Joy Johnson, and the undersigned of AT&T, and Susan Eid and Sean Lindsay of MediaOne, met with Jennifer Fabian and Quindi Franco of the Office of Plans and Policy and Darryl Cooper, Sunil Daluvoy, Royce Dickens, Imani Ellis-Cheek, Carl Kandutsch, Anne Levine, To-Quyen Truong, and Andrew Wise of the Cable Services Bureau at the AT&T Technology Center. At the meeting, AT&T representatives made a presentation entitled "Broadband Technology and the Effects of Broadband Deployment on US Consumers", a copy of which is attached to this submission.

Two copies of this Notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206 of the Commission's rules.

Sincerely,

Joan Marsh

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List ABCDE

***Broadband Technology
and the
Effects of Broadband
Deployment on US
Consumers***

The Traditional Information Industry

FORMS

		Images	Text	Voice	Data	Audio/ Visual
FUNCTIONS	Create (Content)					
	Distribute (Transport)	PHOTOGRAPHY	PUBLISHING	TELECOMMUNICATIONS	COMPUTING	ENTERTAINMENT
	Process (Applications)					
	Store (Memory)					
	Display (Devices)					

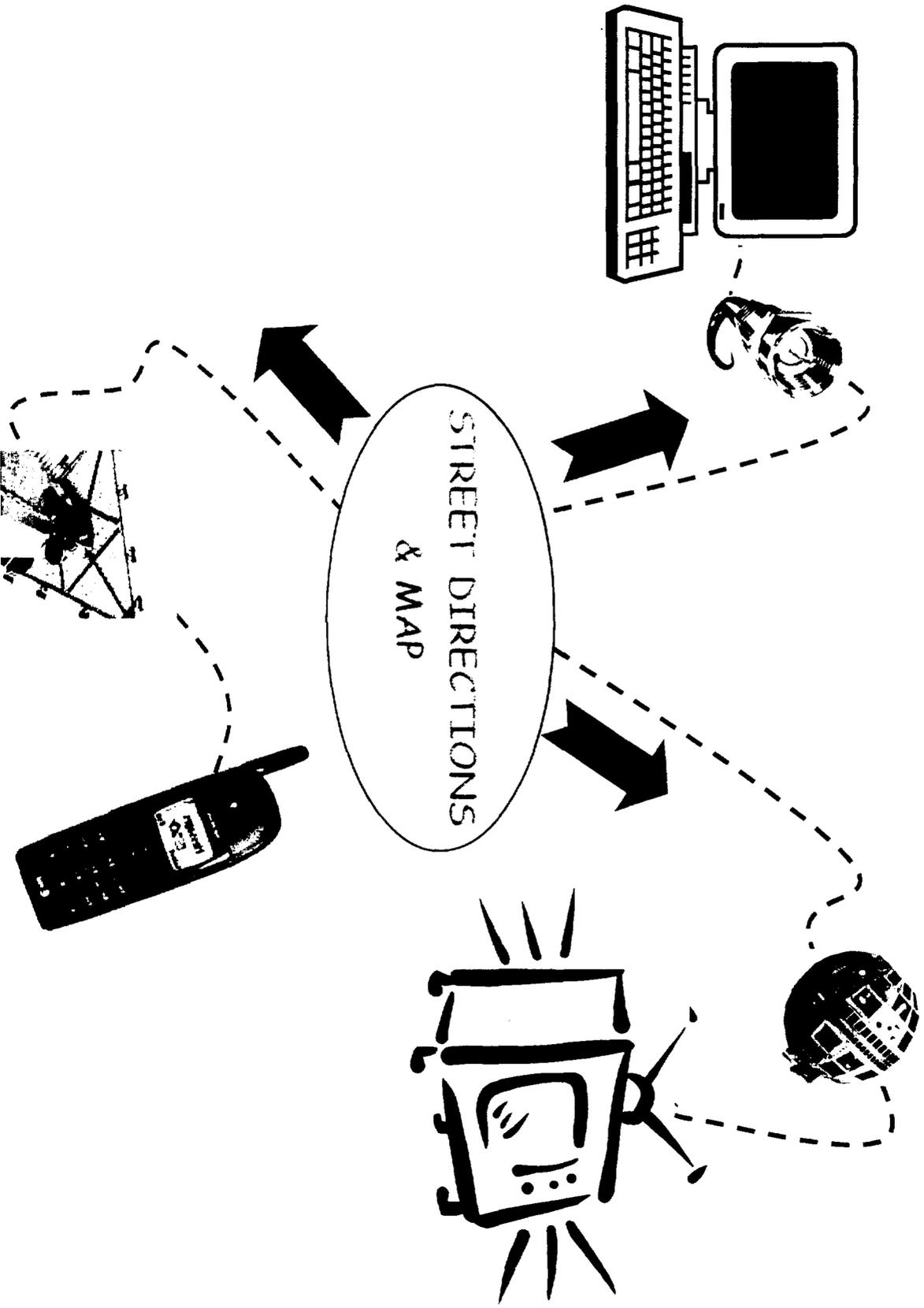
Horizontal Convergence

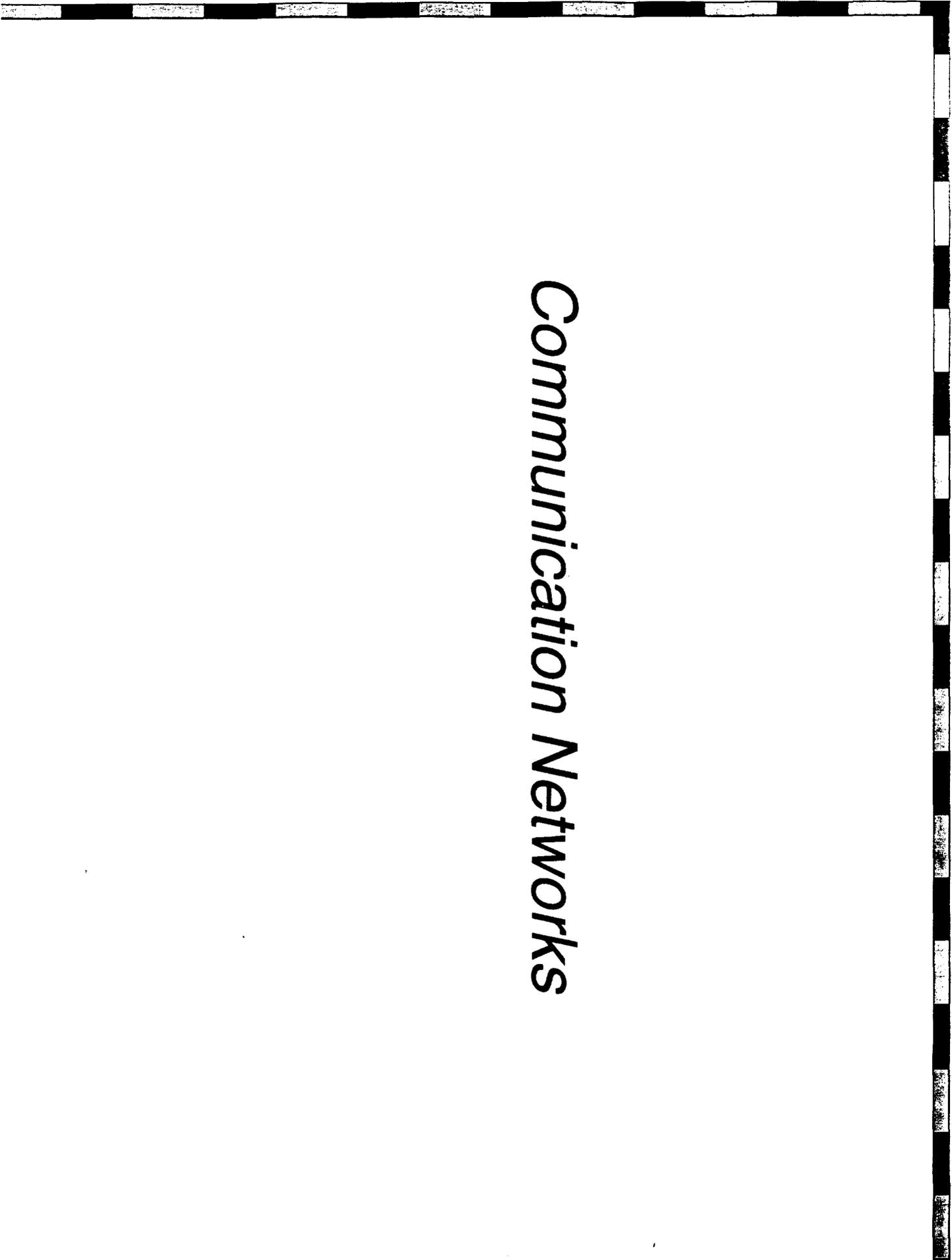
FORMS

	Images	Text	Voice	Data	Audio/Visual
FUNCTIONS	Create (Content)	INFORMATION RESOURCES			
	Distribute (Transport)	COMMUNICATION NETWORKS			
	Process (Applications)				
	Store (Memory)	INFORMATION APPLIANCES			
	Display (Devices)				

Convergence of the Sectors

(content, networks and appliances)



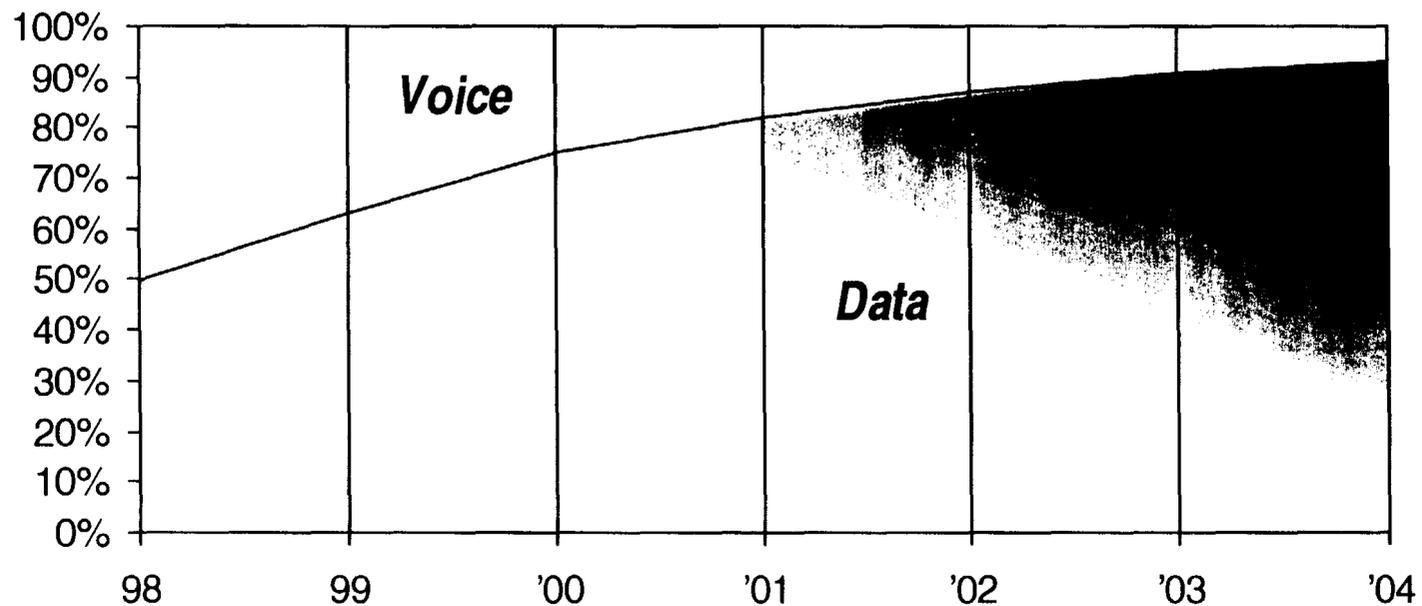


Communication Networks

An Industry in Transition

*Data is the "Sweet Spot" of
Telecommunications*

Network Traffic - Data vs. Voice
1998 - 2004 (est.)

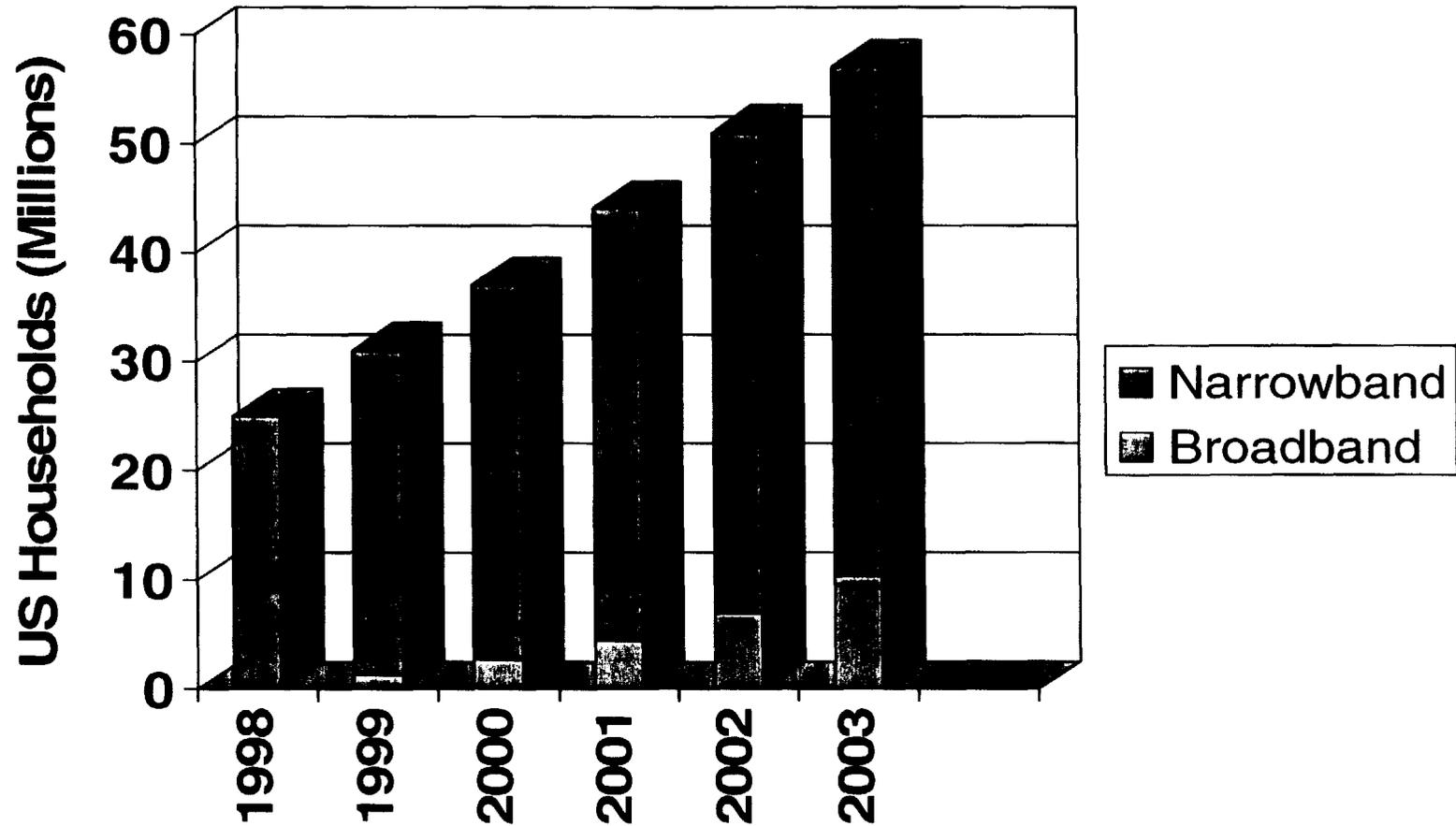


Source: Telcordia Technologies, May 1999

The On-Line Market

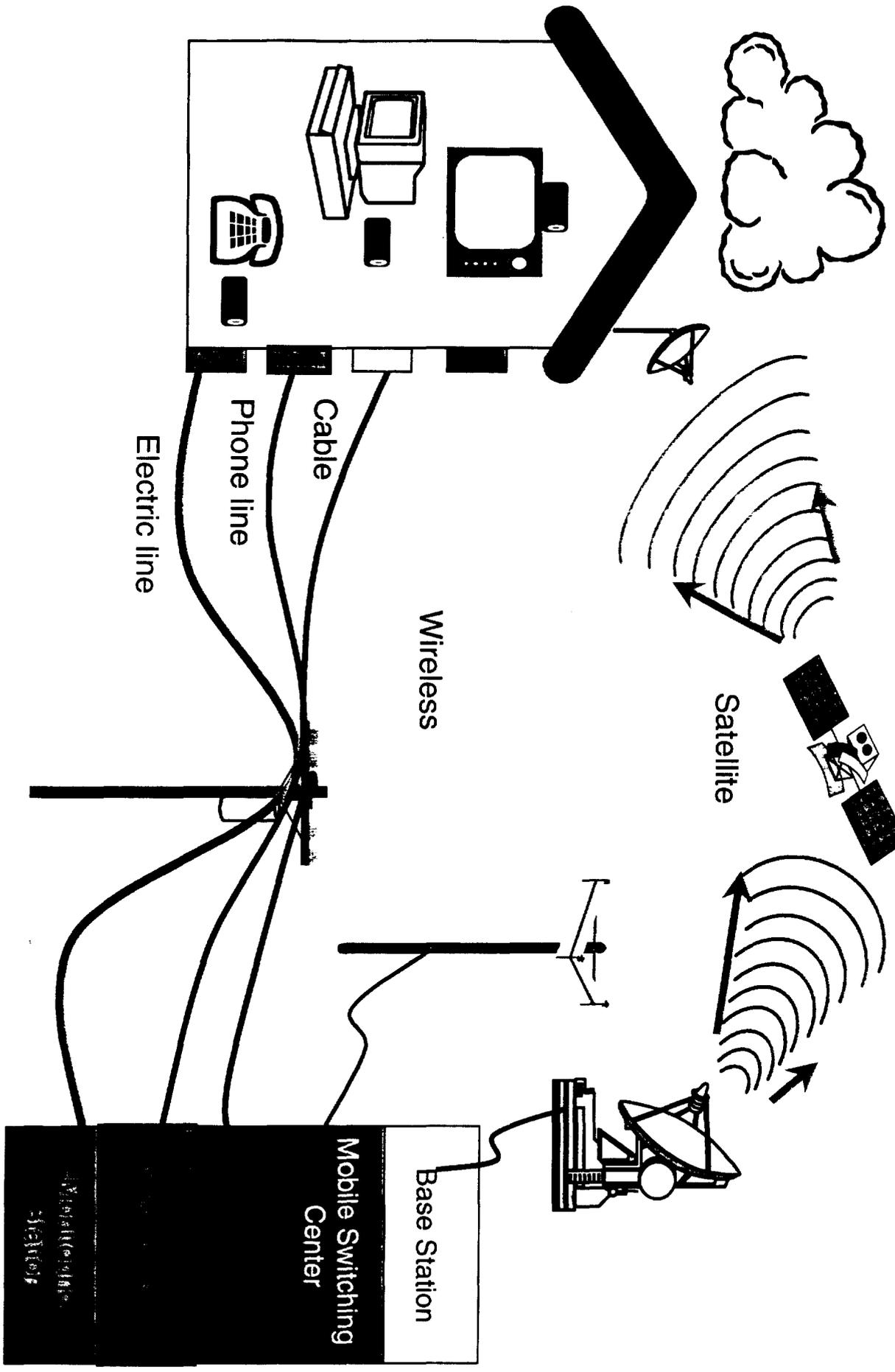
Broadband - A Small, Growing Portion

Narrowband (Dial-Up) - A Large, Growing Portion



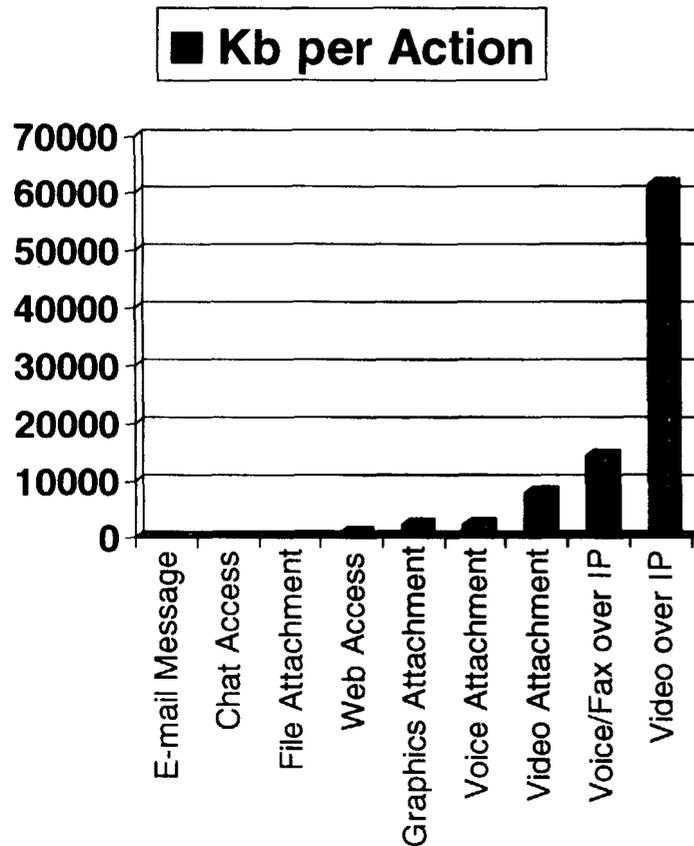
Source: Yankee Group

Broadband Options to the Home



Broadband Moves Data Faster

More Bandwidth



Application	Dial-up Modem (56 Kbps)	Cable or DSL Modem (1544 Kbps)
	File Attachment	3.6 sec
Graphics Attachment	43 sec	2 sec
Video Attachment	2.4 min	5 sec
Voice/Fax over IP	4.3 min	9 sec
Video over IP	18.3 min	40 sec

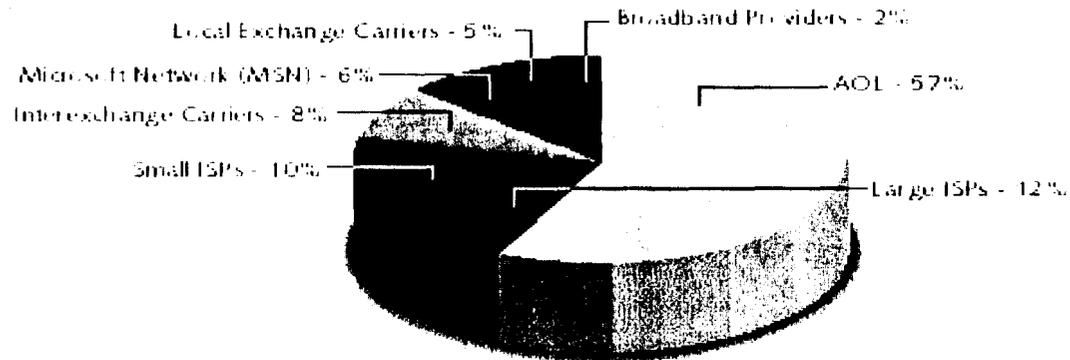
Broadband

Narrowband

Source: Merrill Lynch

Online/Internet Service Providers

<u>OSP/ISP</u>	Jan'99	Jan '99	Sept '99
	<u>Subscribers</u>	<u>Market Share</u>	<u>Subscribers</u>
America Online	15,000,000	57%	18,000,000
Microsoft	1,700,000	6%	1,800,000
AT&T	1,500,000	5%	2,500,000
Mindspring & Earthlink	1,070,000	4%	3,000,000
NetZero			1,700,000



Source: Yankee Group, "The Internet Market: A Global Perspective," 9/24/99

Sources: Washington Post 9/24/99 and the Yankee Group

Recent Commercial Partnerships

AMERICA ONLINE

- DSL deals with SBC, Bell Atlantic, Ameritech and GTE give AOL broadband coverage for 65% of the United States.

William Blair & Co., L.L.C. , July 28, 1999

- Deal with Hughes' DirecTV, the #1 satellite TV service with 7M subscribers, to combine DirecTV programming with AOL features like e-mail, buddy lists and online shopping.

Reuters, May 11, 1999

MINDSPRING

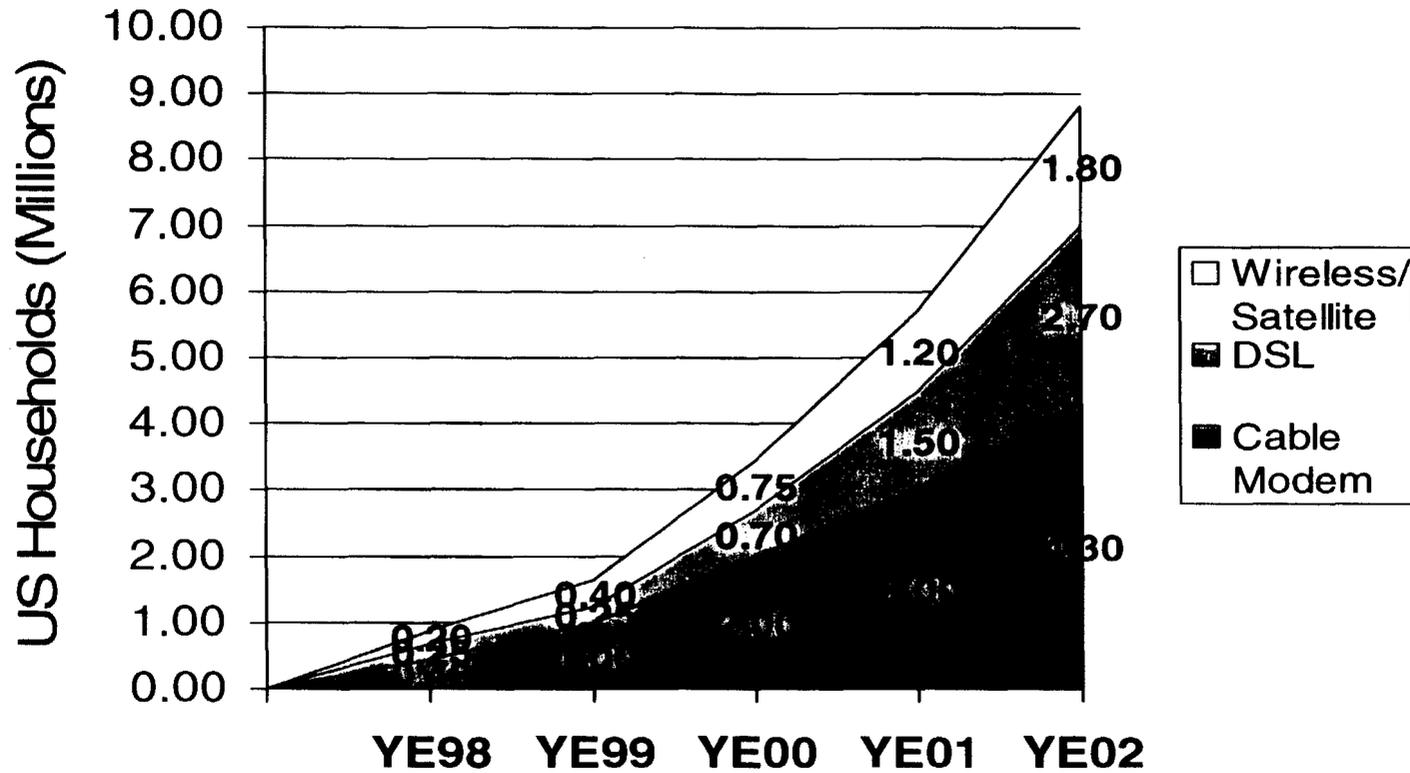
- Offers high-speed cable modem Internet access in Montgomery, AL area. ... Plans to initiate cable modem service in Augusta, GA, Charleston, SC, Columbus, GA, and Panama City, FL.

Reuters, March 8, 1999

- Agreement with BellSouth to provide high-speed ADSL service to MindSpring subscribers in BellSouth's 9 states.

Cox News Service, May 5, 1999

US Households with High Speed Access



Cable:DSL 17:1 4:1 3:1 2:1 1.6:1

Source: Yankee Group, Merrill Lynch

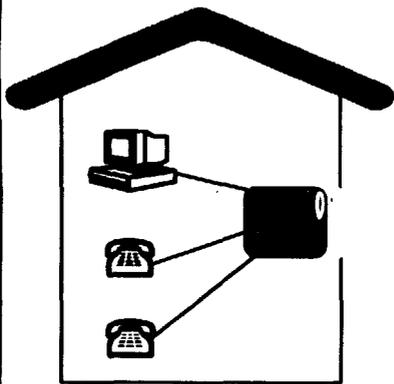
What Does the Consumer Pay?

	Dial-up to AOL	AOL BYOA via Mindspring	DSL to AOL via SBC	DSL to ISP via SBC	Cable to @Home via AT&T/TCI	AOL BYOA via AT&T/TCI @Home
Internet Access	avg. \$17 to LEC	avg. \$17 to LEC & \$19.95 to Mindspring	\$20 to AOL	\$39 to SBC	\$39.95 to TCI@Home	\$39.95 to TCI@Home \$30
Internet Services, E-mail, etc.	\$21.95 to AOL	\$9.95 to AOL	\$21.95 to AOL	avg. \$20 to ISP	\$0 to TCI@Home	\$9.95 to AOL
Consumer's TOTAL MONTHLY COST	\$ 38.95	\$ 46.90	\$ 41.95	\$ 59.00	\$ 39.95	\$ 49.90 \$ 39.95

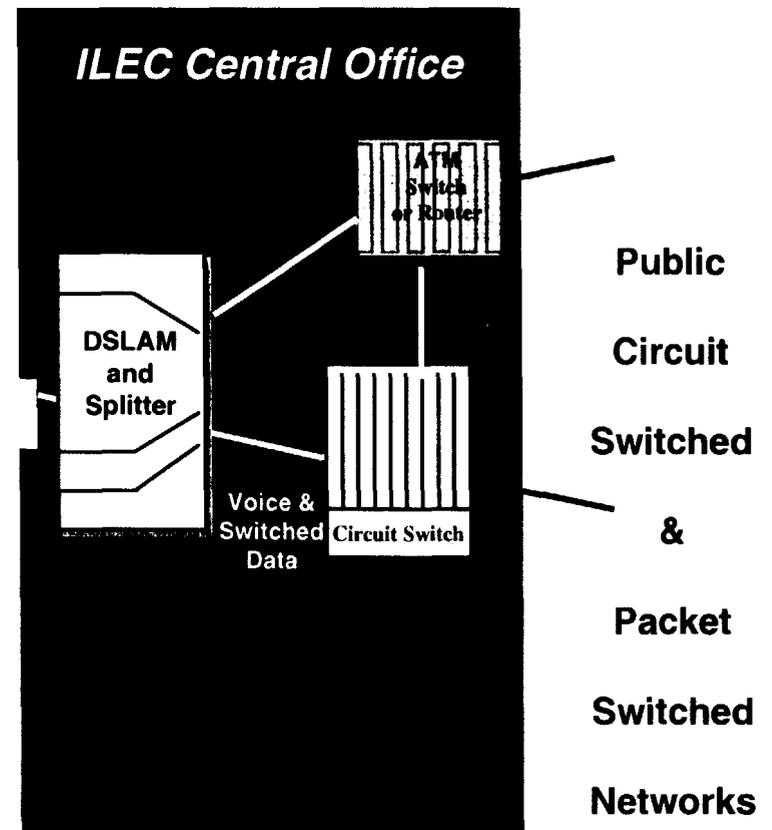
Note: Costs are monthly; AOL BYOA discount via @Home is a 1999 special promotion through the AT&T and Cox cable systems

The Bell Company Response

Upgrade the Existing Phone line for high speed service - ADSL

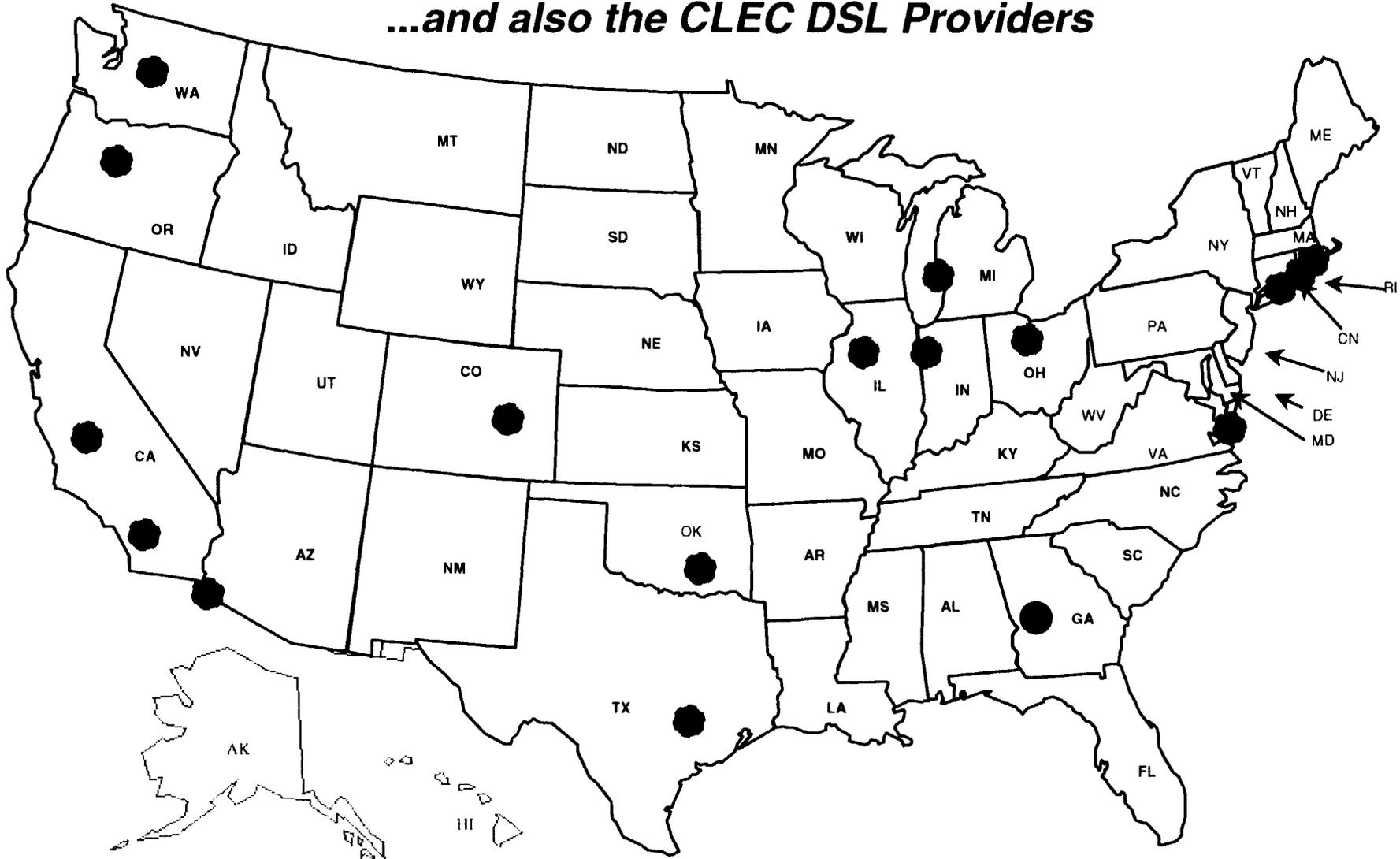


**Add DSL modems in
Central Office and in the
customer premises**



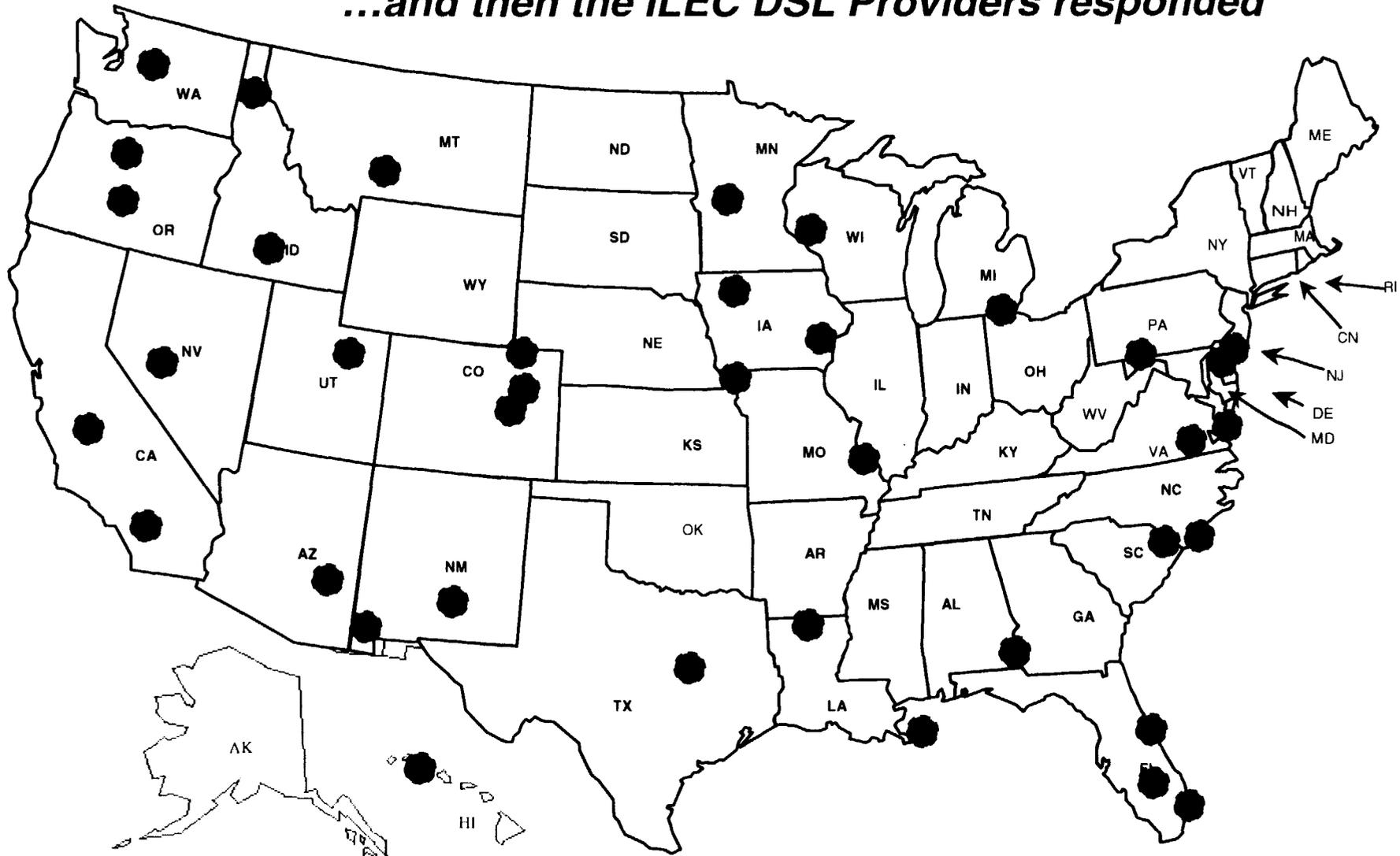
ADSL - Asymmetric Digital Subscriber Line

What Competition Does to Broadband Deployment *...and also the CLEC DSL Providers*



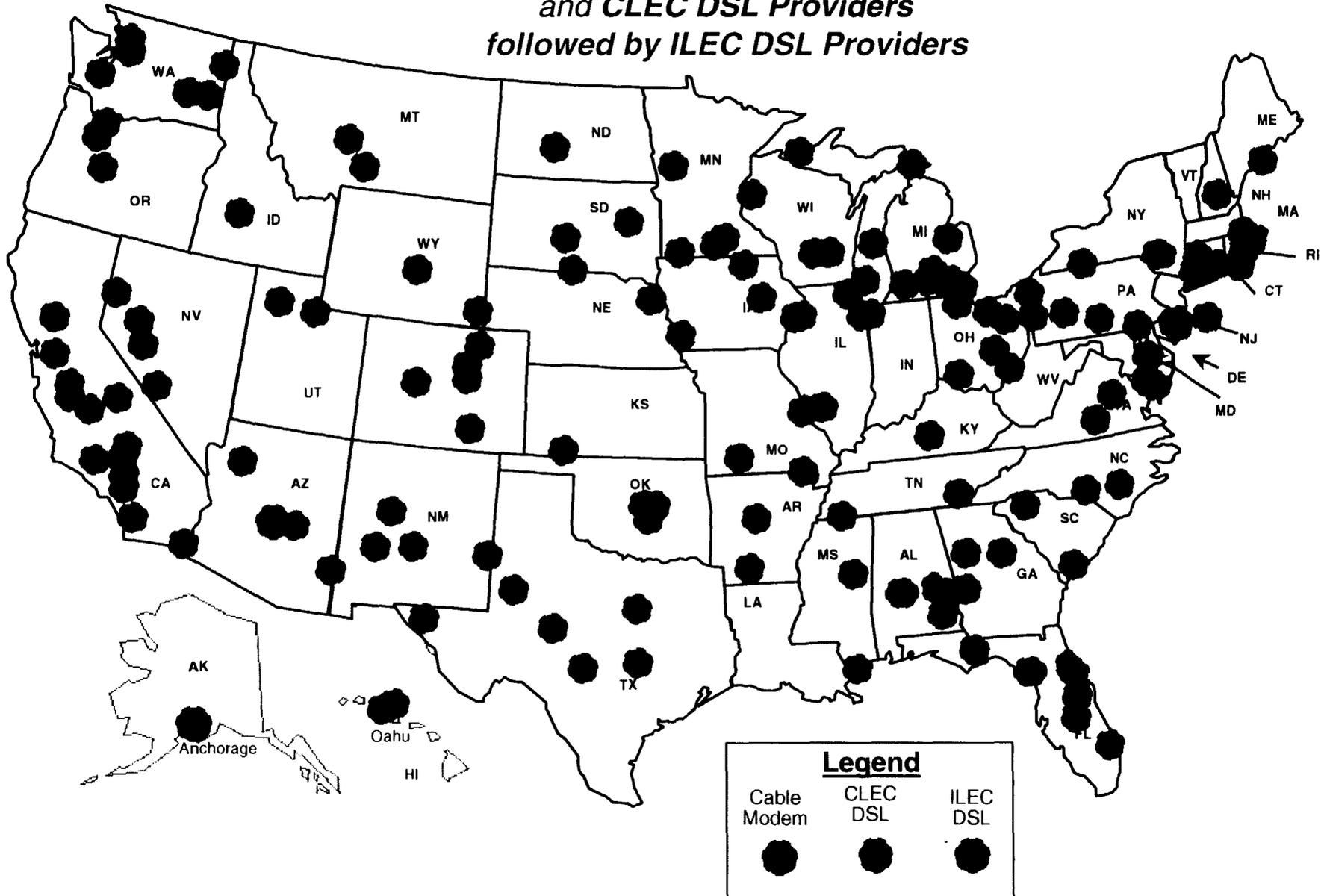
What Competition Does to Broadband Deployment

...and then the ILEC DSL Providers responded



What Competition Does to Broadband Deployment

*Cable Modem Providers
and CLEC DSL Providers
followed by ILEC DSL Providers*



Bell and GTE DSL Announcements

SBC

- 10M customers by YE 99
- 21M lines by mid-01

BellSouth

- 7M customers by YE99

US West

- 3M homes by YE99

Bell Atlantic

- 17M homes by YE99

GTE

- 6M customers by YE99

Ameritech

- 3M homes by YE99
- 8M homes by YE01

TOTAL DSL REACH: 46M LINES by YE99

Ameritech - 3M figure cited by TR Daily, 7/21/99

Bell Atlantic - company press release, 7/28/99 (<http://www.ba.com/nr/1999/Jul/19990728001.html>)

BellSouth - *Telecommunications Reports*, November 15, 1999

SBC - company Investor Briefing, 7/20/99 (<http://www.sbc.com/Articles/1999q2.pdf>)

US West - J.P. Morgan, 3/12/99 (takes 5.5 M lines and assess # of homes that will qualify for ADSL)

GTE - company publication, "GTE Data Strategy" (copyright 1999, <http://www.gte.com/AboutGTE/Investor/invest.pdf>)

Economics Underlying DSL Deployment

- SBC's Project Pronto:
 - \$6B initiative
 - Reach 77M customers, 80% of SBC's base by YE02
 - 1.5 Mbps downstream; 60% will be able to get 6Mbps
 - Pays for itself
 - “Expense and capital savings alone are expected to offset the cost of the entire initiative.” *SBC press release, 10/18/99*
 - SBC estimates \$1.5B in annual expense and capital savings by '04. *SBC press release, 11/3/99*

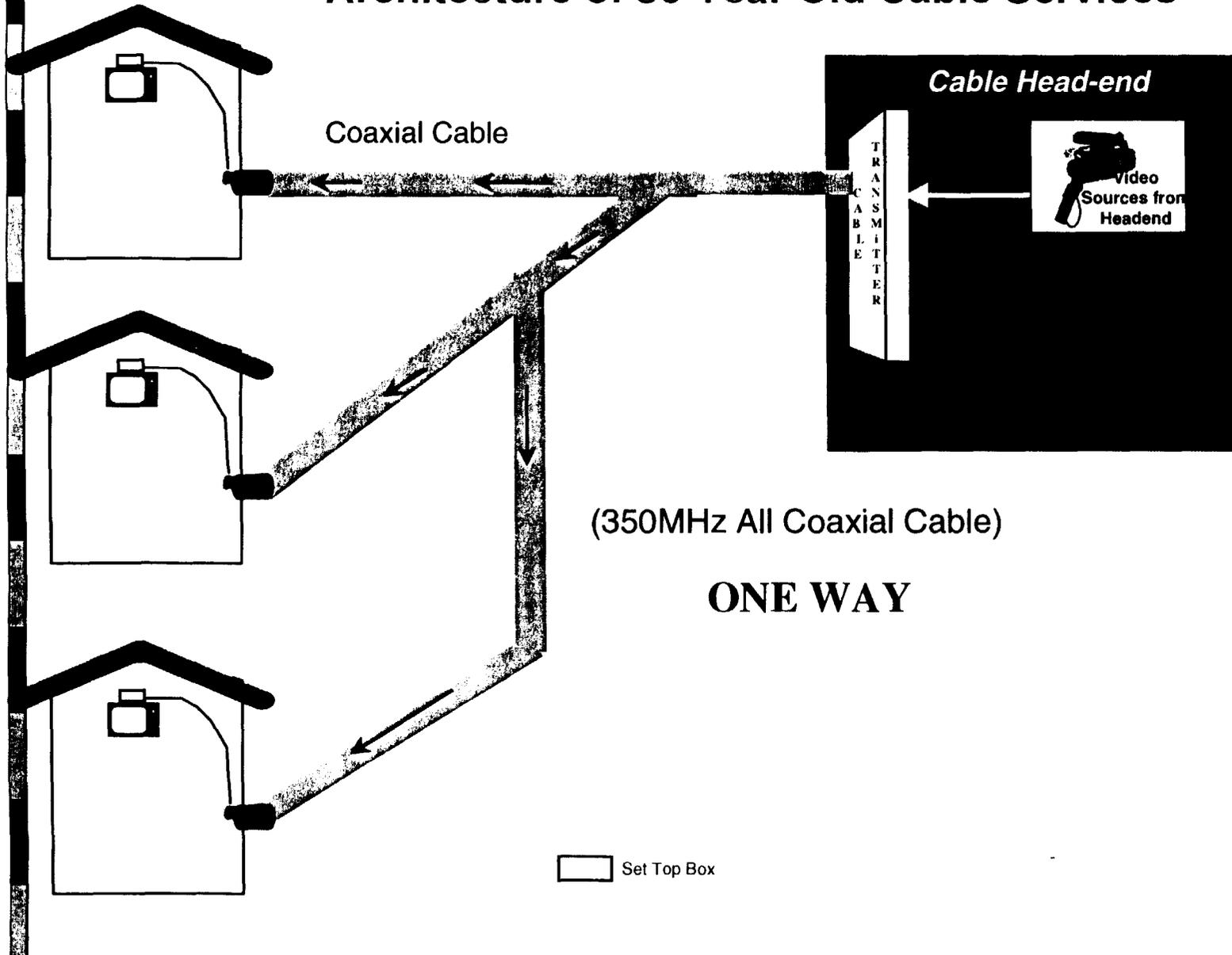
AT&T Cable

- Access to the Internet -
3 Choices via one Cable into the Home!
 - Competitively priced cable phone line
 - e.g. \$5/mo. for a second phone line and \$10/mo. for a regional ISP like Erols
 - TV set top box
 - e.g. \$10/mo. for box rental and \$10/mo. for Internet access
 - High speed cable modem
 - e.g. \$40/mo. for modem rental and Internet access

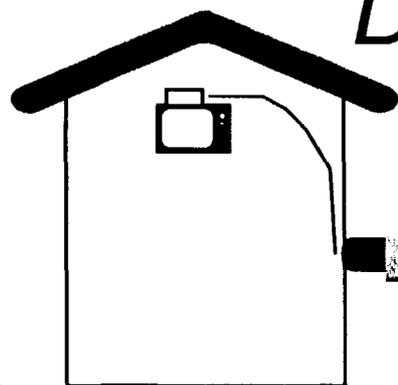
Note: examples are illustrative only

Upgrading the Cable

Architecture of 30 Year Old Cable Services



Digital Television Capability



Coaxial Cable

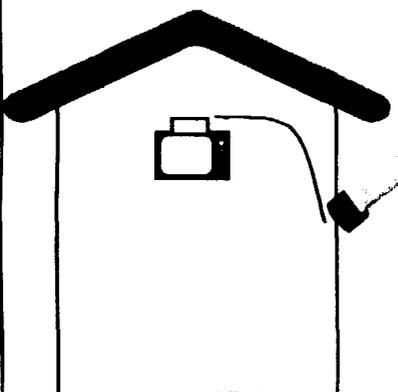
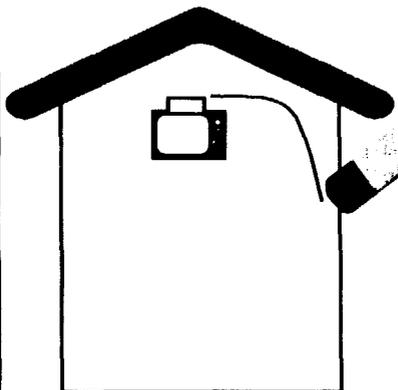
Fiber Node

Fiber

Cable Head-end

T
R
A
N
S
M
I
T
T
E
R

Video Sources from Headend



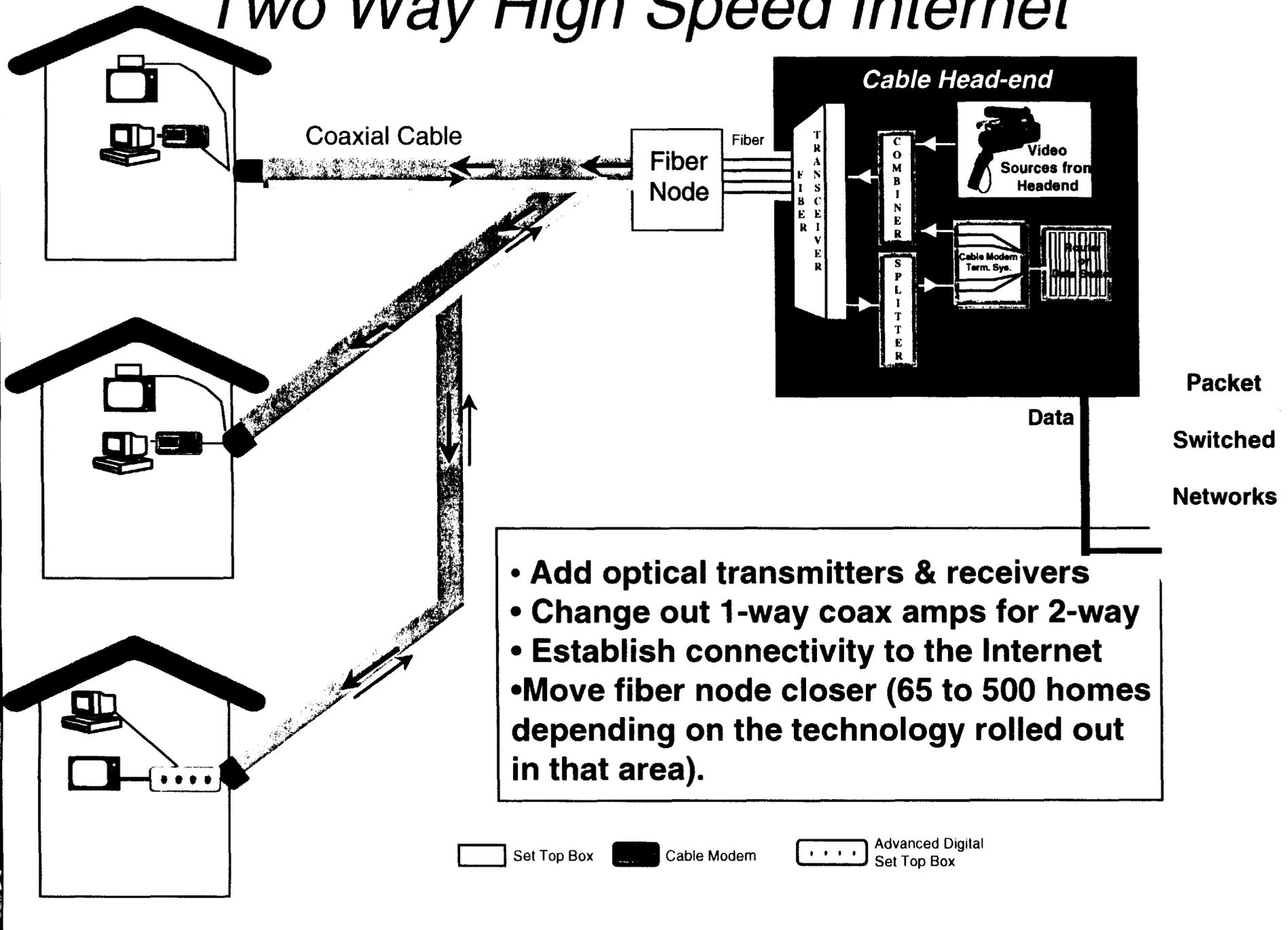
(750MHz Hybrid Fiber Coax)



- Deploy Fiber Nodes
 - Older technology - 500 homes / node
 - LightWire™ - 65 homes / node
- Remove all the old coax amplifiers
- Install high bandwidth coax amplifiers

 Set Top Box with more channels

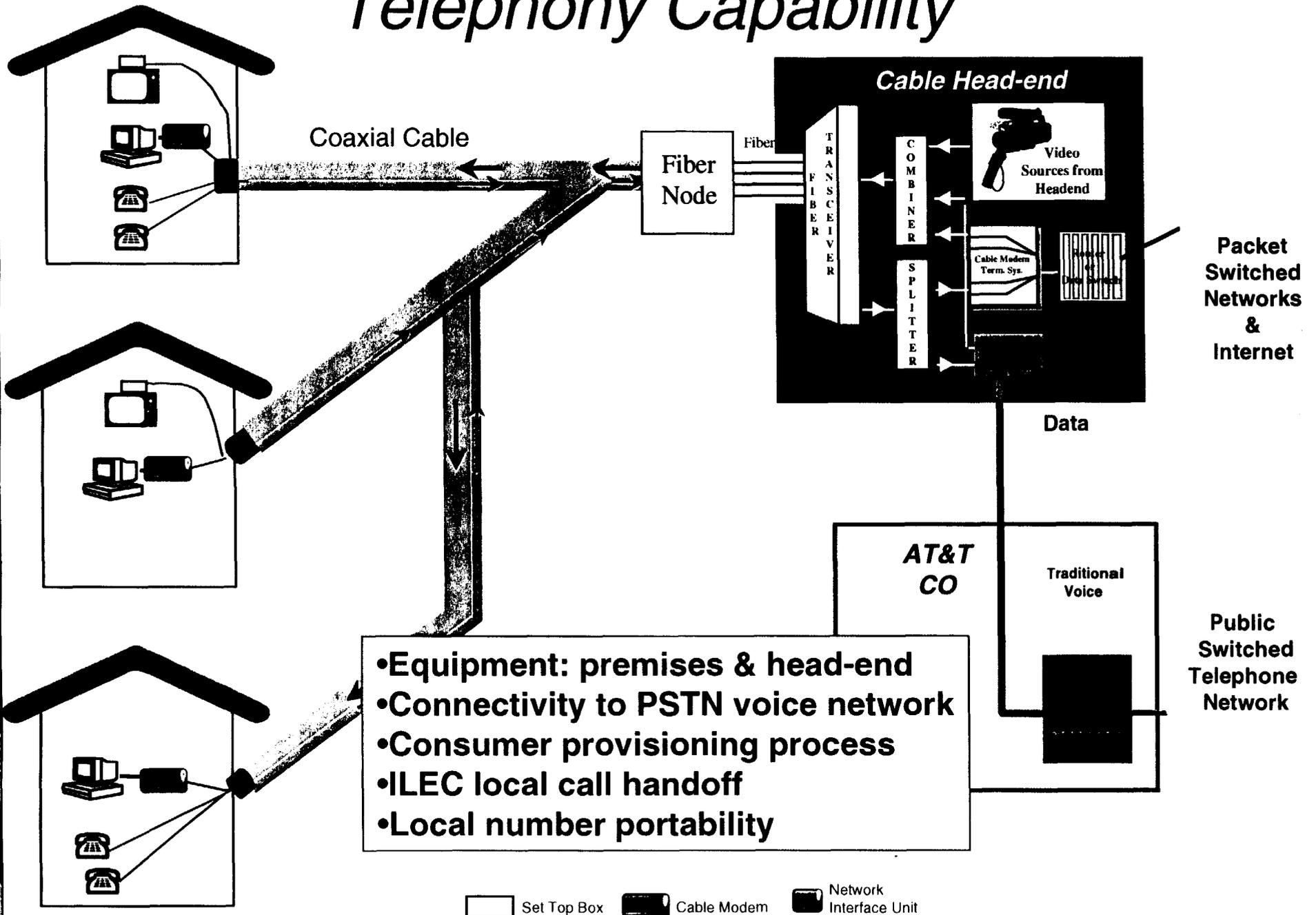
Two Way High Speed Internet



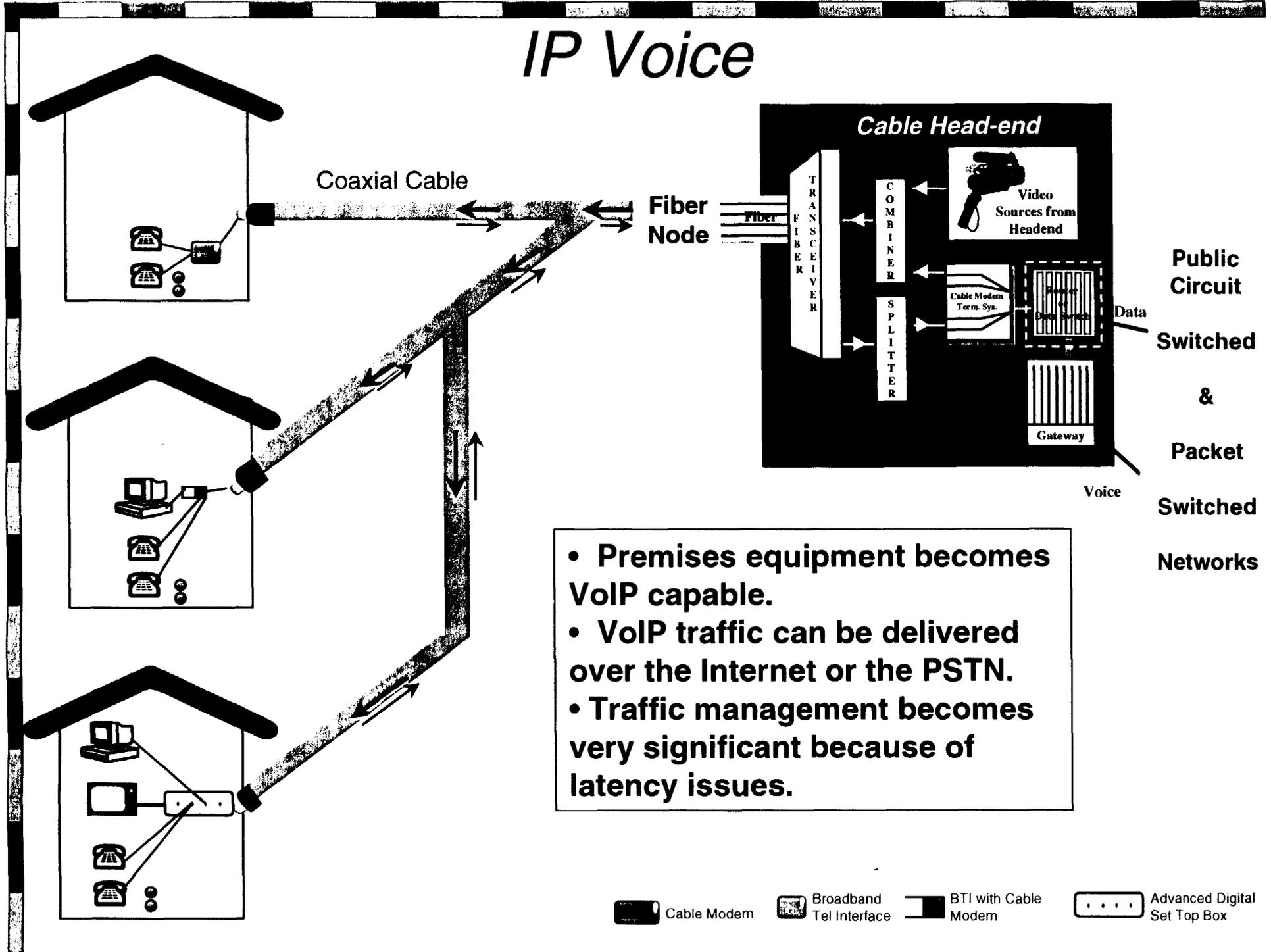
- Add optical transmitters & receivers
- Change out 1-way coax amps for 2-way
- Establish connectivity to the Internet
- Move fiber node closer (65 to 500 homes depending on the technology rolled out in that area).

Set Top Box
 Cable Modem
 Advanced Digital Set Top Box

Telephony Capability



IP Voice



- Premises equipment becomes VoIP capable.
- VoIP traffic can be delivered over the Internet or the PSTN.
- Traffic management becomes very significant because of latency issues.



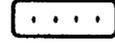
Cable Modem



Broadband Tel Interface



BTI with Cable Modem



Advanced Digital Set Top Box

AT&T Cable Services Deployment

YE 1999

- **Telephony**
 - 8 area market trials
 - 13 cities now marketing/selling
 - **Bay Area:** Fremont, Pleasanton, San Ramon, Dublin, Livermore
 - **Chicago:** Arlington Hts, Schaumburg, Streamwood, Hanover Park, Prospect Hts, Park Ridge
 - **Dallas:** Carrollton
 - **Denver:** Aurora
- **Plant**
 - 50% of TCI cable plant 2-way upgraded
 - Telephone upgrade & rollout TBD

Deployment of Cable

- Basic cable plant upgrade
 - install fiber nodes, replace electronics and aging cable
- Two-way capability for Internet and phone
 - install equipment, 2 way lasers & amps, standby power, monitoring, E911 capability, back office functions
- System Availability Certification
 - ensure the system supports phone and Internet
- Operational Readiness Testing
 - testing of switching, transport, dial tone and features
- Service Readiness Testing
 - back office and network functions coordinated
- Market Readiness Testing
 - marketing channels, customer care and network functions coordinated

Deployment of Cable

- Basic cable plant upgrade
- Two-way capability for internet and phone
- System Availability Verification
- Operational Business Testing
- Service Business Testing
- Market Readiness Testing

COMMERCIAL AVAILABILITY

Prioritization of Markets

- PRIMARY CRITERIA FOR TELEPHONY
 - Size of the market
 - Availability of local phone switches
- PRIMARY CRITERIA FOR PLANT UPGRADE
 - Franchise upgrade requirements
- SECONDARY CRITERIA FOR BOTH
 - Labor market
 - Permit and municipal regulations
 - Competitive situations
 - Capacity and condition of existing cable plant
 - Geographic proximity to adjacent upgrades

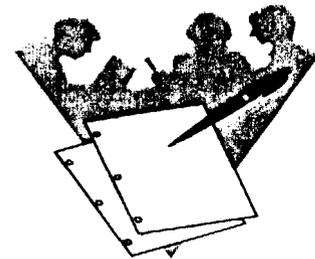
Factors Affecting Rollout within a Market

- Timeframes for utility and municipal permits
- Onerous municipal ordinances or expanded regulation
- Labor availability
- Changes in franchise requirements
- Aged cable plant
- Switch availability and capacity
- Access to Multi-Dwelling Units for installation
- Number portability from LEC over weekends

The DC Market

DC's Franchise Agreement

- Charter: to serve everyone in the District
- Pay 5% of revenues to the city annually for franchise fees
- Pay 1% of revenues for Public Access Television
- Franchise expires March 2000; Renewal negotiations pending. Committed to upgrading system to 750 MHz



Planning for the City



KEY OF SYMBOLS

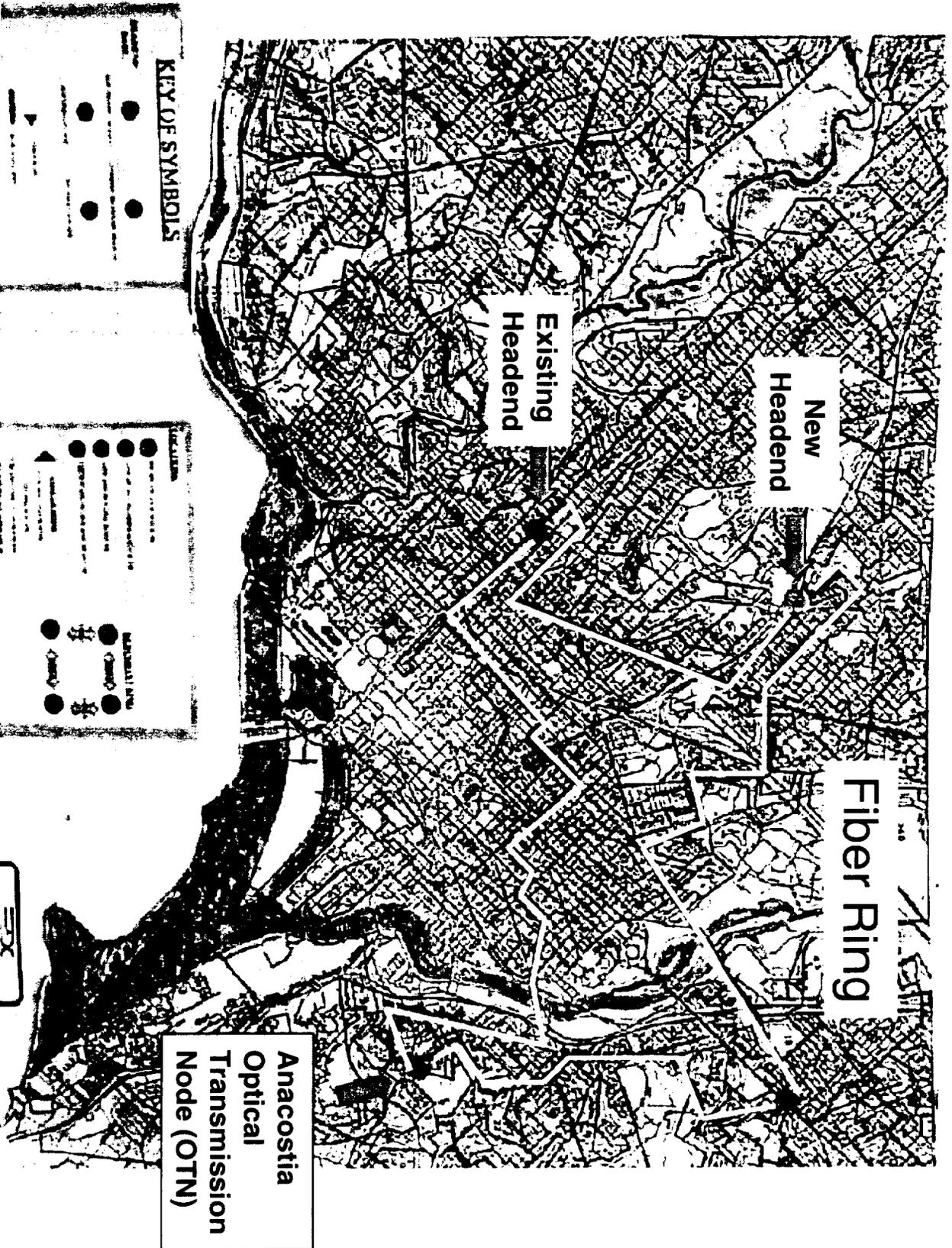
●	City Center
○	City Edge
▲	City Core

LEGEND

●	City Center
○	City Edge
▲	City Core
■	City Periphery
□	City Suburb
△	City Fringe

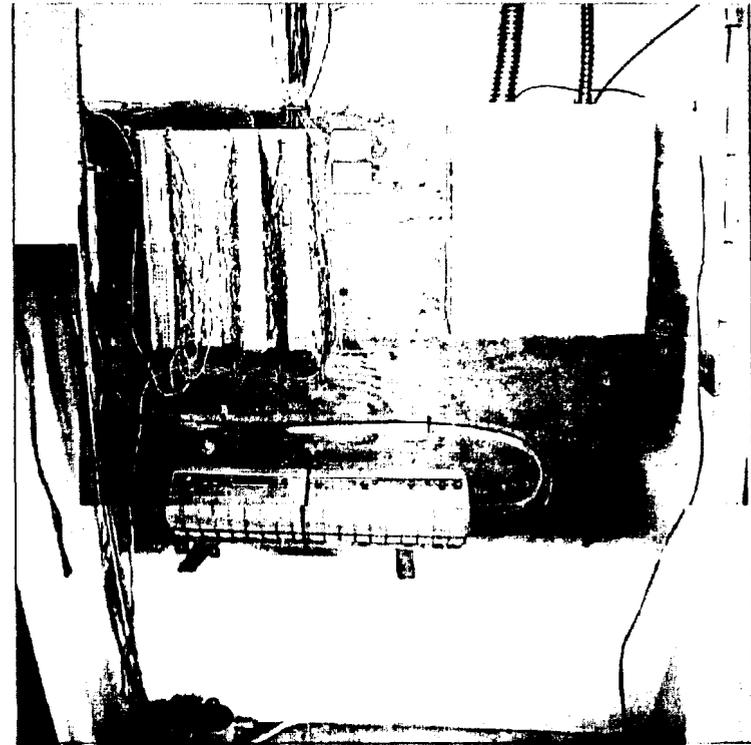
Scale: 1:100,000

Planning for the City



The Upgrade Process

- Step 1
 - Rewire the 7000 existing buildings
 - 70% are Multi-Dwelling Units
- Challenges:
 - Access to buildings
 - Getting pulled off schedule and out of footprint to answer competitive bids



The Upgrade Process

- Step 2
 - Move the cable headend
 - Extend the fiber
 - Install power on the poles
- Challenge:
 - City and power company permits
 - Fiber shortages
 - No space left in existing ducts



Existing Cable Headend

The Upgrade Process

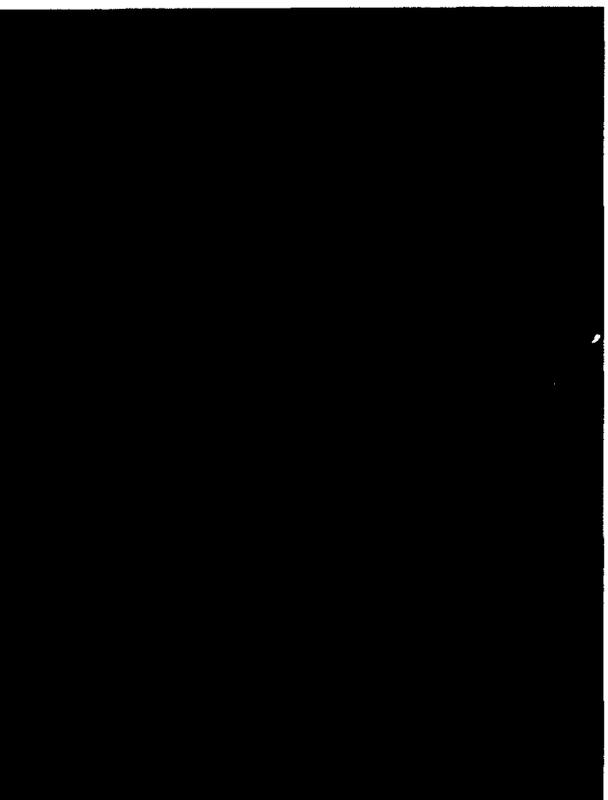
- Step 3
 - Certification
- Challenge:
 - Input time
 - Turnaround time
- Step 4
 - Same day retrofit of amplifiers, taps and filters
- Challenge
 - Trained technicians



Plant Upgrade Video

The Upgrade Process

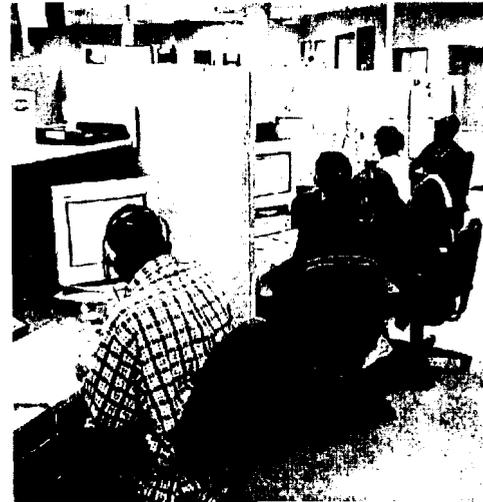
- Step 5
 - Turn up Cable Telephony and Internet service



Installation Video

The Upgrade Process

- Step 5
 - Turn up Internet service
- Challenges:
 - Availability of technicians and customer care representatives
 - On-going training of employees
 - Target marketing



Advantages to the DC Community

- New job skills
- Teacher training
- Training partnership with DC government
- Cable in the Classroom
- Advanced services to schools
- Internship programs



Benefits of AT&T's Cable Investments

- Upgrade Improves Cable Reliability
- Parental Program Viewing Control
- High Quality / Competitive Local Phone Service
- Internet Access - 3 ways!
 - Computer via phone line
 - Computer via cable modem
 - TV via set-top box
- Pure Internet Connectivity - supports multiple devices
- Consumer Chooses Content

AT&T - Consumer Champion



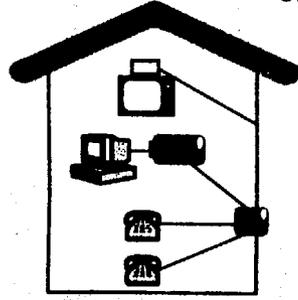
- Market Innovator in Consumer Pricing
 - Unlimited Internet usage for a flat monthly cost
 - Digital One Rate - no roaming charges, one low wireless rate
 - 7 cent/min. for LD
- Consumer Focused
 - Higher % of our market share is consumer based
 - High scores for customer service
- Investing in new technologies
 - Cable - LightWire
 - Fixed Wireless

Acronym List

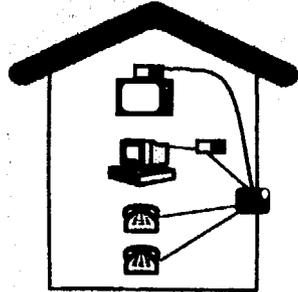
- ADSL - Asymmetric Digital Subscriber Line
- ATM - Asynchronous Transfer Mode
- CMTS - Cable Modem Terminal System
- DSLAM - Digital Subscriber Line Access Multiplexer
- HDT- Host Digital Terminal
- HFC - Hybrid Fiber Coax
- ISDN - Integrated Services Digital Network
- ISP - Internet Service Provider
- LMDS - Local Multipoint Distribution Services
- MMDS - Multichannel Multipoint Distribution System
- PCS - Personal Communications Service
- POTS - Plain Old Telephone Service
- TCP/IP - Transmission Control Protocol/Internet Protocol
- OTN - Optical Transmission Node

Bringing Choice to Local Service Markets

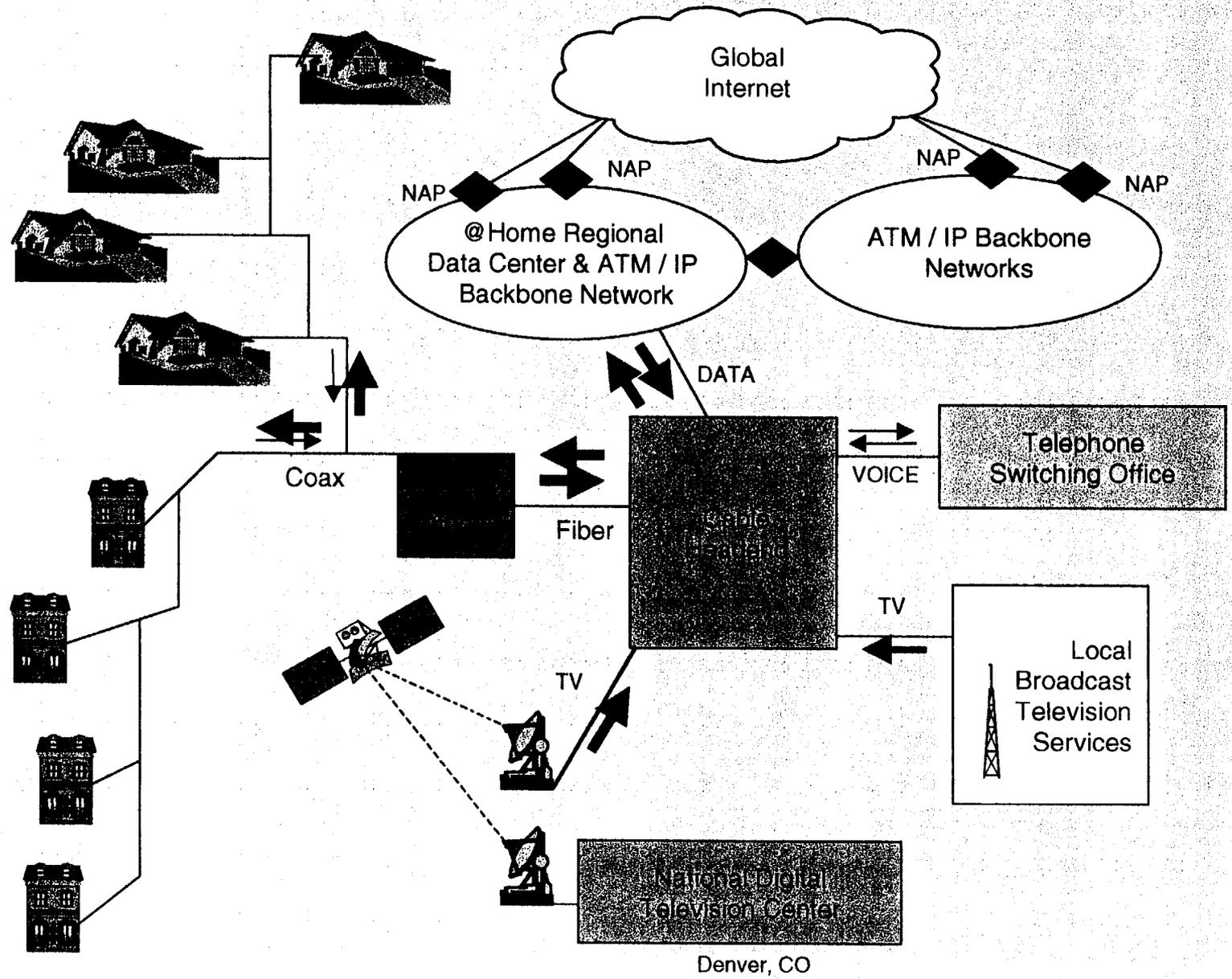
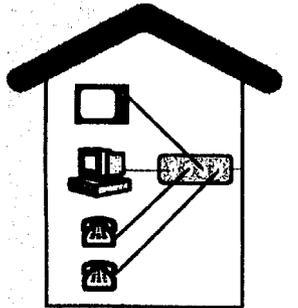
Current Technology



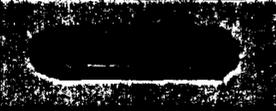
Next Generation



Future Generation



Residential Access Technologies

Medium	Characteristics	Market Entrants
HFC Cable Modem	 Up to 27 Mbps down, Up to 2 Mbps up (both shared) Cable plant needs fiber build-out, digitization and 2-way upgrade	> @Home > RoadRunner > Mindspring and others
ADSL	 1.5 to 9Mbps down, 16 Kbps to 640 Kbps up DSL capable copper loops. Distance limit from Central Office is 18k feet.	>ILECs - BellSouth, BA, US West, SBC, GTE >CLECs - Covad, Northpoint, Rhythm Networks
ADSL - Lite (G. Lite)	 1.5 Mbps down, 512 Kbps up DSL capable copper loops Plug and play option for the consumer.	BellSouth announced rollout post 3Q99 ITU standard finalized June 99
Fixed Wireless	 MMDS: 30 Miles radius Same up/down rates as HFC LMDS: 6 Mile radius Greater up/down rates than HFC PCS: 512 kbps bi-directional	Airnet, ATI, CAI Wireless, CFW, DirectNet, NextLink, People's Choice TV, SkyLynx, Teligent, Winstar
Satellite-Present	 400 Kbps down, 56Kbps up over POTS	Hughes DirecPC - Ubiquitous
Satellite-Future	 Up to 64 Mbps down, Up to 2 Mbps up	Low Earth Orbit: Hughes Spaceway, Loral Cyberstar, Lockheed Martin AstroLink, Telediscic
Electric Utilities	 1.5Mbps bi-directional Potential is much greater	Fiber Optics using EU's right-of-way DC - RCN Starpower Boston & CA - RCN True Local Network
POTS	 Up to 56 Kbps, Bi-directional	Ubiquitous Over 103 M Households

* Note: theoretical throughputs

Wall Street Sees Competition Driving RBOC Broadband Deployment

Morgan Stanley

"WHY THE ACCELERATION? Investors frequently ask us why we expect RBOC [Regional Bell Operating Company] deployments of DSL to be faster than their infamously slow deployments of ISDN. Our answer has been (1) that competition from cable companies, particularly AT&T/TCI... will force the RBOCs to offer a bundle of internet and voice services, and (2) that Internet Service Providers (ISPs) will market DSL effectively for the RBOCs. (*Technology: Bell Atlantic Accelerated Capex and DSL Rollout*, July 28, 1999)

"Our industry checks indicate that xDSL rollout by the RBOCs and GTE is proceeding faster than expected. We believe that the key drivers of xDSL deployment are strengthening, particularly perceived competition from cable operators for bundled data and telephony services... We believe that AT&T's announced acquisitions of TCI and Media One have considerably increased pressure on the RBOCs." (*Technology: XDSL Speeding Up*, May 17, 1999)

J.P. Morgan

"We detect a dramatic change in the attitude of the local phone companies toward DSL deployment. ...[T]here are several forces driving the local phone companies to accelerate their DSL deployment. Most notable is the rollout of cable modems by cable companies..." (*DSL: The Bells Get Serious; 1999 Promises to Be the Year of DSL Deployment*, March 19, 1999)

"The prospects of cable modems, and ultimately cable telephony, have clearly spurred Bell Atlantic into action. The company has accelerated its DSL rollout, is lower pricing, is signing wholesale agreement (most notably with AOL...), with the goal not only of generating new revenue, but of protecting its local customer base." (*Bell Atlantic: Meetings With Management Reinforce Positive Outlook*, April 8, 1999)

BT Alex. Brown

"Aggressive moves by competitors such as AT&T, which plans to enter four of US West's major markets...by the end of 1999 apparently forced US West to increase its planned spending to deploy network enhancements." (*Is The Big Cap Telco Win/Win Stock Performance Over - US West lowers 1999 EPS Guidance Citing Competition From AT&T*, February 24, 1999)

Prudential Securities

"Certainly, the explosive demand for high-bandwidth services is motivation enough for the large LECs to deploy ADSL quickly. Another important motivating factor is the threat of competition. Other players are taking dead aim at the high-speed Internet access market. These competitors include cable companies, CLECs using both

wireline and wireless technologies and satellite companies.” (*ADSL Has The Potential To Solve The Bandwidth Bottleneck...*, August 27, 1998)

S.G. Cowen

“If recent activity is any indication, 1999 could be a strong year for broadband last-mile technologies – cable and x DSL... Cable operators have stepped up the pace of deploying high-speed data services, forcing the incumbent LECs to draw up ADSL plans.” (*Data Networking Industry*, February 1999)

Warburg Dillon Read

“We note that the market, not regulatory pressures appear to have significantly expanded the ADSL deployment plans among the large telcos since the August 1998 initial NPRM... Market, not regulatory pressures will continue to provide the key incentives for the LECs to expand its DSL rollout plans as we have seen from SBC, BEL with meaningful subscriber numbers likely to be visible in late 1999/2000 and beyond...” (*Upcoming FCC Agenda Heavy on Key Issues*, January 25, 1999)

Montgomery Securities

“[T]here has been relatively little incentive for the RBOCs to upgrade their local loops for broadband access in the form of ADSL, as cable modems had not (until recently) seen deployment momentum and CLECs network buildouts had not become a real threat. As a result, the RBOCs have responded slowly, causing ADSL companies to push out expectations for years. However... the RBOCs have finally begun to feel the competitive pressure from both CLECs and cable modem providers...” (*ADSL Beginning to Gain Momentum*, March 30, 1999)

RBOCs are Accelerating Deployment and Dropping Prices In Response to Competition

Approximately 45 million RBOC and GTE lines*
will be capable of providing ADSL service before the end of this year.
At the same time that deployment goals are increasing, DSL prices are dropping:

Deployment Goals Are Increasing

Bell Atlantic	6/3/98	7 M lines YE 99
	1/13/99	7.5 M homes YE 99; 14 M homes YE 00
	3/31/99	8 M homes YE 99
	5/26/99	10 M lines YE 99; 16 M homes YE 00
	7/28/99	17 M lines YE 99; 21 M lines 1Q00
BellSouth	2/17/99	5 M lines by YE 99
	5/3/99	6 M lines by Sept. 99
SBC	11/98	10 M lines by 2001
	1/12/99	10 M lines by 1999
	6/16/99	21 M lines by 2001
	8/10/99	77 M lines by 2002

Prices Are Dropping

Company	Date	DSL price/month (w/ Internet access)
Bell Atlantic (640 Kbps)	6/3/98	\$69.95
	10/5/98	\$59.95
	3/31/99	\$49.95
SBC (384 Kbps)	5/27/98	\$89
	1/12/99	\$49
US West (256 Kbps)	10/28/97	\$59.95**
	5/4/98	\$59.95
	5/11/99	\$47.90
	7/7/99	\$37.90***

Source: Company press releases.

* some RBOCs use the term "homes" or "customers" as opposed to "lines."

** U.S. West's original DSL offering was 192 kbps downstream. On 5/4/98 US West increased the download speed to 256 Kbps.

*** Price with dial-up access, limit 2 hours online per session.

CLEC Broadband Deployment

Covad

Covad rapidly extended its DSL deployment in 1998, aiming to reach **over 9 million business and residential customers in 22 regions nationwide, where roughly 20% of the US population lives**. Over 1.9 million customers in California can already choose Covad's ADSL service, plus another 4 million customers in New York and Boston. Covad is currently deploying service to 1.8 million customers in Washington, DC and 1.5 million customers in the Seattle/Puget Sound area. (Sources: news releases on 3/16/98, 8/17/98, 11/23/98, 2/8/99)

Electric Lightwave

Electric Lightwave already provides **high-speed data and Internet access services in eight cities over its fiber optic facilities**. In February 1999, the company announced that San Diego and Dallas customers would also have access to the service. Electric Lightwave plans to add five more cities to its fiber optic network by the end of 1999. (Source: news release, *Electric Lightwave Enters San Diego and Dallas Markets With High-Speed Data and Internet Access Services*, 2/9/99)

e.spire

On January 6, 1999, e.spire announced that it **plans to offer high-speed DSL service in New York, Atlanta and Florida**, among other major markets. (Source: news release, *e.spire Announces Plans To Expand Dial-Up Internet Service in 25 Markets and Will Offer High-Speed Dedicated "DSL" Access in New York City, Atlanta and Florida*, 1/6/99)

ICG

ICG announced that it would **deploy DSL service by the end of 1998 to 100 central offices** in Colorado, California, the Ohio Valley and parts of the Southeastern US. (Source: news release, *ICG Offers High-Speed Data Services*, 3/25/98)

Level 3 Communications

By the end of 1998, Level 3 Communications was offering an array of **IP-based communications services in 15 cities**, including Philadelphia, Washington DC, Atlanta, Houston, Dallas, Chicago, Los Angeles, San Francisco and New York City. The company ultimately plans to offer local service capabilities in 50 US cities over fiber facilities. (Sources: news release, *Level 3 Communications Reports Fourth Quarter 1998 Results*, 2/18/99; news release, *Level 3 Reaches Agreement with IXC for Additional Network Capacity, Citing Strong Demand for IP-Based Services*, 12/18/98)

NorthPoint

By the third quarter of 1999, NorthPoint expects to offer DSL service to **40% of all businesses in the US, and more than 20% of all residences, in 25 metropolitan areas**. (Source: news release, *NorthPoint Communications Will Surpass Combined Bells' DSL Deployment*, 12/15/98)

Rhythms

In 1998, Rhythms deployed DSL services in 11 markets, three more than originally planned. Rhythms expects to offer service in the 35 largest US metropolitan areas by the end of 1999. The company plans to expand to **50 cities by the end of 2000, offering 60% of all Local Area Network (LAN) users connectivity to Rhythms' high-speed network.** (Source: news release, *Rhythms Deploys DSL-Based Solutions in 11 Markets in First Year: Expands to 35 by End of 1999*, 12/16/98)

Teligent

Teligent offers small and medium-sized businesses access to its broadband wireless network at **speeds up to 45 Mbps in 19 markets, comprised of more than 375 cities and towns with a combined population of more than 60 million people.** Teligent plans to expand its service to 40 markets by the end of 1999. (Source: news release, *Teligent Introduces Revolutionary, Lower-Cost Communications Services in Atlanta, Boston, Philadelphia and Wilmington*, 1/20/99)

WinStar

WinStar announced on October 22, 1998 that it would **complete its 40-market buildout ahead of schedule, before the end of 1999.** The company plans to expand its wireless broadband network into the top 50 domestic markets and reach top international markets as well. As a special incentive, WinStar's "Project Millenium" offers new business broadband subscribers up to a year of free local phone service. (Sources: news release, *\$2 Billion WinStar/Lucnet Strategic Agreement to Expand WinStar's Broadband Network*, 10/22/98; news release, *WinStar's Project Millenium Marketing Campaign Sharply Accelerates "On-Net" Customer Growth*, 12/17/99)

Wall Street Responds to the Portland Decision and Warns Against Cable Unbundling

Salomon Smith Barney (June 8, 1999)

“Should cable slow its rollout of high speed cable modems, the RBOCs might also opt for a slower rollout of DSL from phone companies ...With slower cable modem rollout and the possibility that RBOCs might not have the same incentive to push out DSL as quickly, high-speed advertising will not develop as fast....”

Credit Suisse First Boston (June 7, 1999)

“If this (Portland) ruling were to escalate to a national level, the deployment of broadband Internet access is likely to stall on both the cable and ADSL side...Under this scenario, the biggest loser would be the average consumer, as the national deployment of broadband Internet access could be delayed by many years.”

“...Cable companies are not likely to be eager to invest billions of dollars to upgrade their networks if they are forced to share the fruits of their labor with their competitors who assume none of the risks of technological and financial failure.”

“Unlike the public telephone networks, the cable infrastructure has been built with private investment from day one and has never benefited from government price protection/guarantees. It is our belief that this is one of the key factors that challenge ISPs' assertion that the Telecom Act of 1996 must be applied to the cable infrastructure as it is to the telco infrastructure.”

Goldman Sachs (June 7, 1999)

“...Many have already reviewed their options and concluded either that they did not have the legal authority to impose this condition (*Portland decision*), or that its imposition might result in a significant slowing down of the availability of cable modem service rollouts in their communities, or both.”

Prudential Securities (June 7, 1999)

“The FCC...contemplated the morass of technical difficulties inherent in attempting to superimpose common carrier rules on the cable network and declined to impose any new regulations in the hope that this forbearance would speed broadband deployment and prompt a competitive response from the BOCs.”