



# FCC & The Internet



My Office

Robert Cannon

Senior Counsel for Internet Issues

Office of Strategic Planning and Policy Analysis

Federal Communications Commission

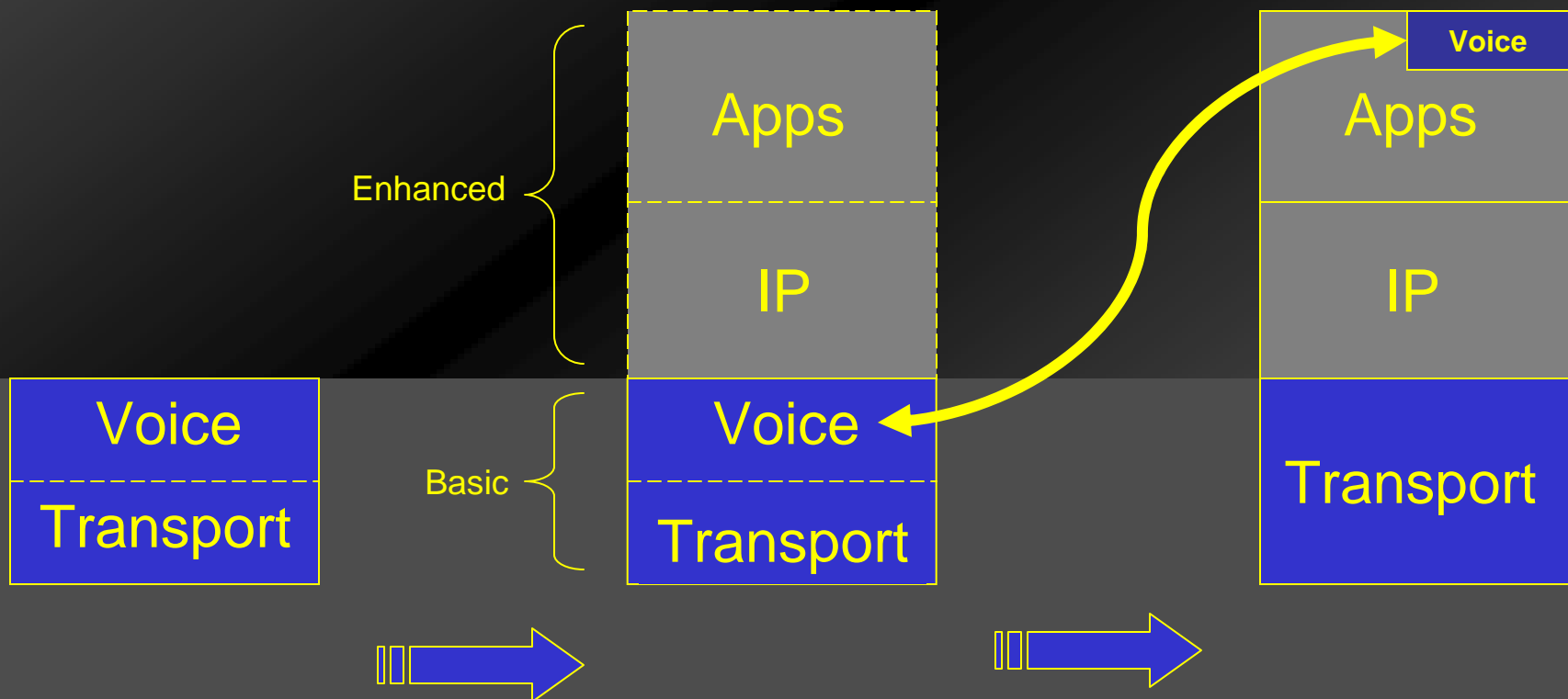


The views expressed are perhaps my own but certainly do not necessarily represent those of the FCC, any Commissioner, or my dog.

# *Consider This...*

- The bumper sticker expression “The FCC does not regulate the Internet” fails to comprehend 35 years of jurisprudence.
- Layered Model of Regulation
  - Content
  - Application
  - Logical Network
  - Physical Network
- These are market based regulations - technologically neutral.

# Internet Telephony...



# FCC 101



The Federal Communications Commission (FCC) is an independent United States government agency, directly responsible to Congress. The FCC was established by the Communications Act of 1934 and is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. The FCC's jurisdiction covers the 50 states, the District of Columbia, and U.S. possessions.

The FCC is directed by five Commissioners appointed by the President and confirmed by the Senate for 5-year terms, except when filling an unexpired term. The President designates one of the Commissioners to serve as Chairperson. Only three Commissioners may be members of the same political party. None of them can have a financial interest in any Commission-related business.

# The Commission



Kathleen Abernathy  
Republican



Kevin Martin  
Republican



Michael Powell  
Republican  
Chairman



Jonathan Adelstein  
Democrat



Michael Copps  
Democrat

## Commissioners

Michael K. Powell, Chairman  
Kathleen Q. Abernathy    Michael J. Copps    Kevin J. Martin    Jonathan S. Adelstein

## Office of Inspector General

### Office of Engineering & Technology

Electromagnetic Compatibility Div.  
Laboratory Div.  
Network Technology Div.  
Policy & Rules Div.  
Administrative Staff

### Office of General Counsel

Administrative Law Div.  
Litigation Div.

### Office of Managing Director

Human Resources Management  
Information Technology Center  
Financial Operations  
Administrative Operations  
Performance Eval. & Records Mgmt  
Secretary

### Office of Media Relations

Media Services Staff  
Internet Services Staff

### Office of Administrative Law Judges

### Office of Strategic Planning & Policy Analysis

### Office of Communications Business Opportunities

### Office of Workplace Diversity

### Office of Legislative Affairs

### Wireline Competition Bureau

Admin. & Mgmt. Office  
Competition Policy Div.  
Pricing Policy Div.  
Telecommunications Access Policy Div.  
Industry Analysis & Technology Div.

### Enforcement Bureau

Office of Management & Resources  
Telecommunications Consumers Div.  
Technical & Public Safety Div.  
Market Disputes Resolution Div.  
Investigations & Hearings Div.  
Regional & Field Offices

### Wireless Telecommunications Bureau

Management & Planning Staff  
Auctions & Industry Analysis Div.  
Commercial Wireless Div.  
Policy Div.  
Public Safety & Private Wireless Div.  
Data Management Div.

### Media Bureau

Mgmt. & Resources Staff  
Office of Com. & Industry Info.  
Policy Div.  
Industry Analysis Div.  
Engineering Div.  
Office of Broadcast License Policy  
Audio Div.  
Video Div.

### Consumer & Governmental Affairs Bureau

Admin. & Mgmt. Office  
Systems Support Office  
Information Access & Privacy Office  
Consumer Inquiries & Complaints Div.  
Policy Div.  
Disabilities Rights Office  
Consumer Affairs & Outreach Div.  
Reference Information Center

### International Bureau

Admin. & Mgmt. Office  
Policy Div.  
Satellite Div.  
Strategic Analysis & Negotiations Div.

# The Communications Act

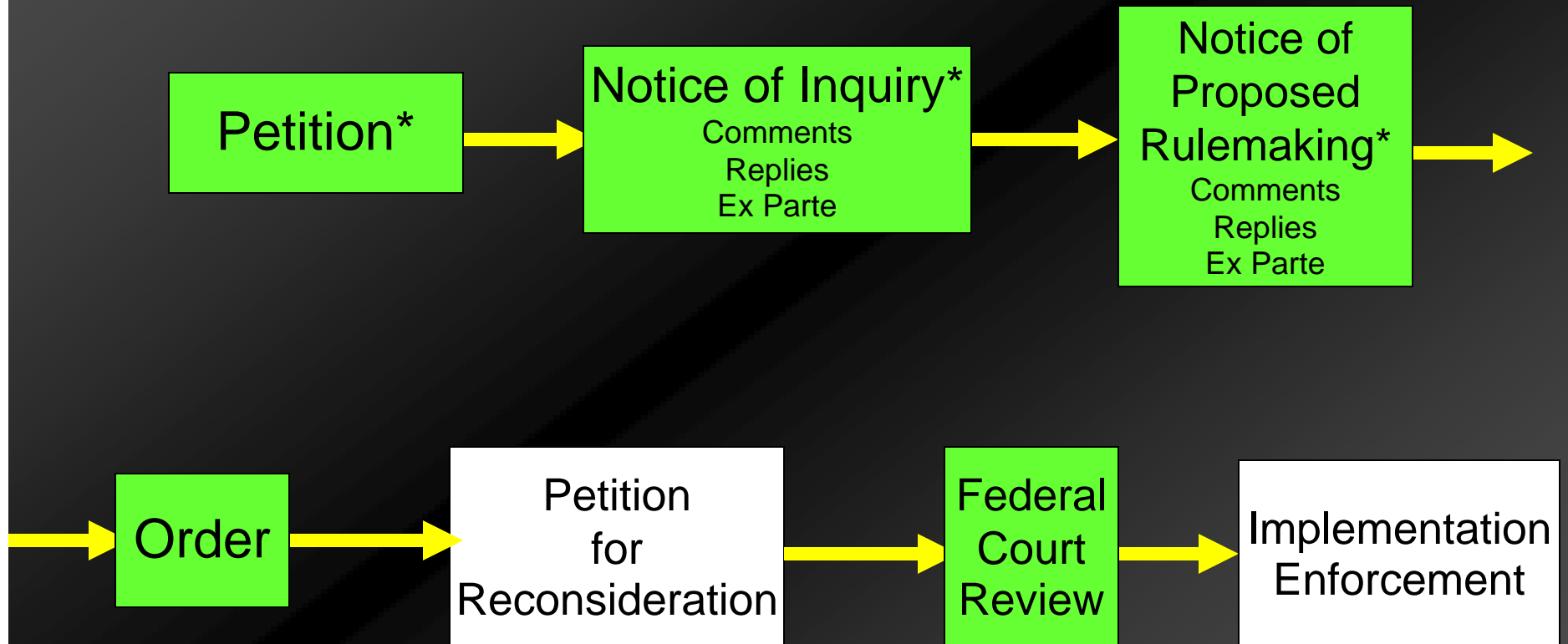
- Title I – General Provisions
  - Created FCC “[f]or the purpose of regulating interstate and foreign commerce in communications by wire and radio so as to make available . . . to all the people of the United States, without discrimination . . . a rapid efficient, Nation-wide . . . wire and radio communications service . . . at reasonable rates. . .”
  - Act applies “to all *interstate and foreign* communications by wire or radio” but generally *not* to “intrastate communications” by wire.

# The Communications Act (Silos)

- Title II –Common Carriers
  - Gives FCC jurisdiction over “common carriers” “engaged in interstate or foreign communications by wire or radio...”
- Title III –Radio
  - Gives FCC jurisdiction over radio stations, television stations, satellite operators, wireless communications companies, and private wireless providers.
- Title VI – Cable Communications
  - Defines the regulatory authority of the FCC and local franchise authorities respectively over cable television companies.

# Regulatory Process

# Regulatory Process



\* Possible Starting Points

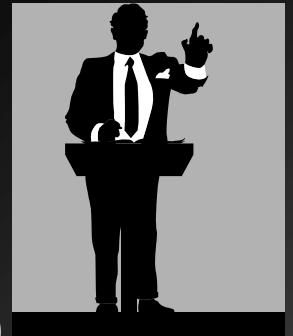
# Administrative Procedures Act

- Notice and Comment
  - Notice of Inquiry
  - Notice of Proposed rulemaking
- Notice
  - Federal Register
  - Websites
  - Public Notices (ie., FCC Daily Digest)
  - Trade associations and other groups

# Administrative Procedures Act

- Comment

- Every Interested Party
- Comments can take any form (very informal)
  - Meet Deadlines
  - Include Docket Number (or other identification)
- Filing: Electronic vs. Paper
- After Comment Period Closes
  - *Ex Parte* Presentations





## Electronic Comment File Submission

**Sending your comment is a 2-step process. The first step is to complete and send the coversheet below. After you send the coversheet you'll need to choose one of the two transmittal methods: sending a file, or sending a short message that you type directly on this page.**

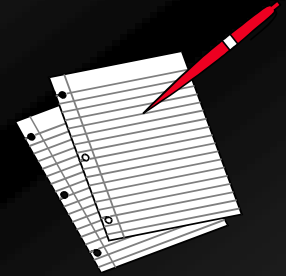
Cover Sheet			
1. <u>Proceeding</u> (required)	<input type="text"/>		
2. Mail Correspondence To: (required)	<input type="radio"/> Name	<input type="radio"/> Law Firm	<input type="radio"/> Attorney
3. Name of Applicant/Petitioner (required)	<input type="text"/>		
4. Law Firm Name (optional)	<input type="text"/>		
5. Attorney Name (optional)	<input type="text"/>		
6. Email Id (optional)	<input type="text"/>		
7. Mailing Address For Correspondence (required)	<input type="text"/> <input type="text"/> <input type="text"/>		
8. City (required)	9. State (required)	10. Zip Code (required)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
11. Ex-Parte/Late Filed (optional)	12. Document Type (required)		
<input type="checkbox"/>	<input type="text"/>		
<input type="button" value="Send Cover Sheet to the FCC"/>			

Send Comment Files to FCC (Attachments)	
File Description: <input type="text"/>	File: <input type="text"/> <input type="button" value="Browse..."/>
Select one of these file types or convert your file to one of these types:	
<input type="text"/>	

# You Too Can Be a Washington Lobbyist



# Comments: Style Points



- Be Succinct
- Answer the questions asked (but do not feel limited by them)
- Assume the reader is *unfamiliar* with what you are talking about
- Allegations are ok - but provide as much evidence as possible
- Be professional and courteous

# Administrative Procedures Act

- Public Record
  - Available in public reference rooms or online
- Subject to the Freedom of Information Act
- Can Request Confidentiality



# Administrative Procedures Act

- Agency's Decision
  - Must review and consider all comments
  - Must provide rational explanation why accept or reject all comments
  - Agency's love industry consensus

Running Code and Rough Consensus?

# Administrative Procedures Act

- Judicial Review
  - *Chevron* Doctrine
    - Discretion granted to expert agency
    - Standard of review: Arbitrary and Capricious
      - Example: Failed to consider comments and provide rational explanation
  - Recent Decisions



# Legacy of the Computer Inquiries

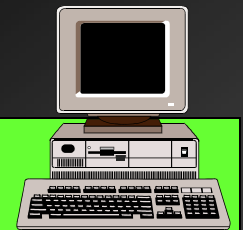
# Today's Questions

Computer III		Internet over Cable NPRM	Internet over DSL NPRM
Enhanced	Applications	Applications	Applications
	ISPs	Cable Modem Service (Info Service)	DSL ISPs
Basic	Dial Up	Cable (Telecom not Telecom Service)	DSL (Telecom?)

# A Problem:

- Enhancement to basic service
- Dependent upon communications facility - potential bottleneck
- Competitive market
- Innovative
- Accounts for economic expansion

Enhancement



Conduit

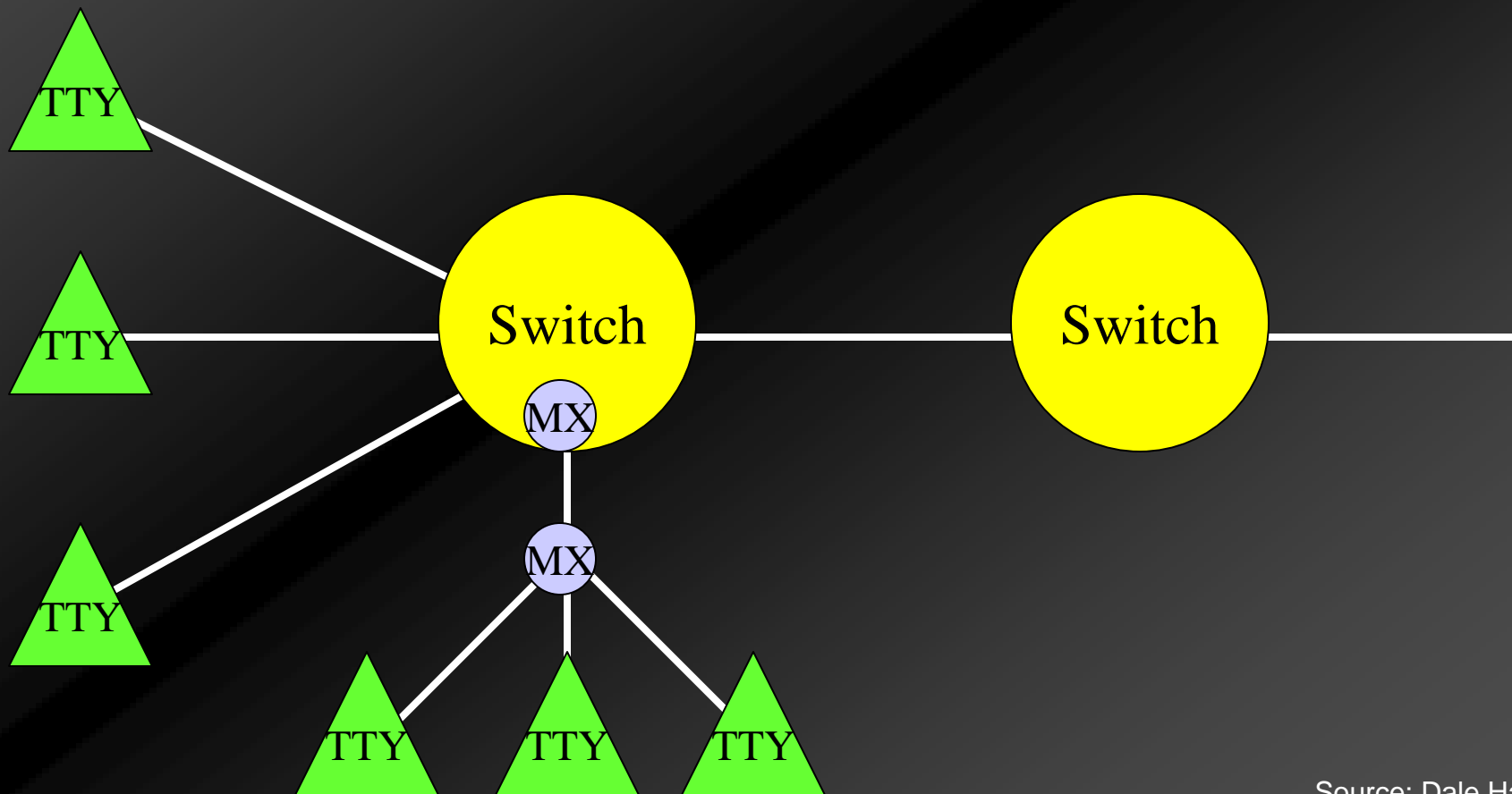


- Communication facility
- Incumbent monopoly
- Traditionally regulated
- Built based on regulatory sanctioned monopoly, rate payer fees
- Provide basic service

1960s

# Historical Context

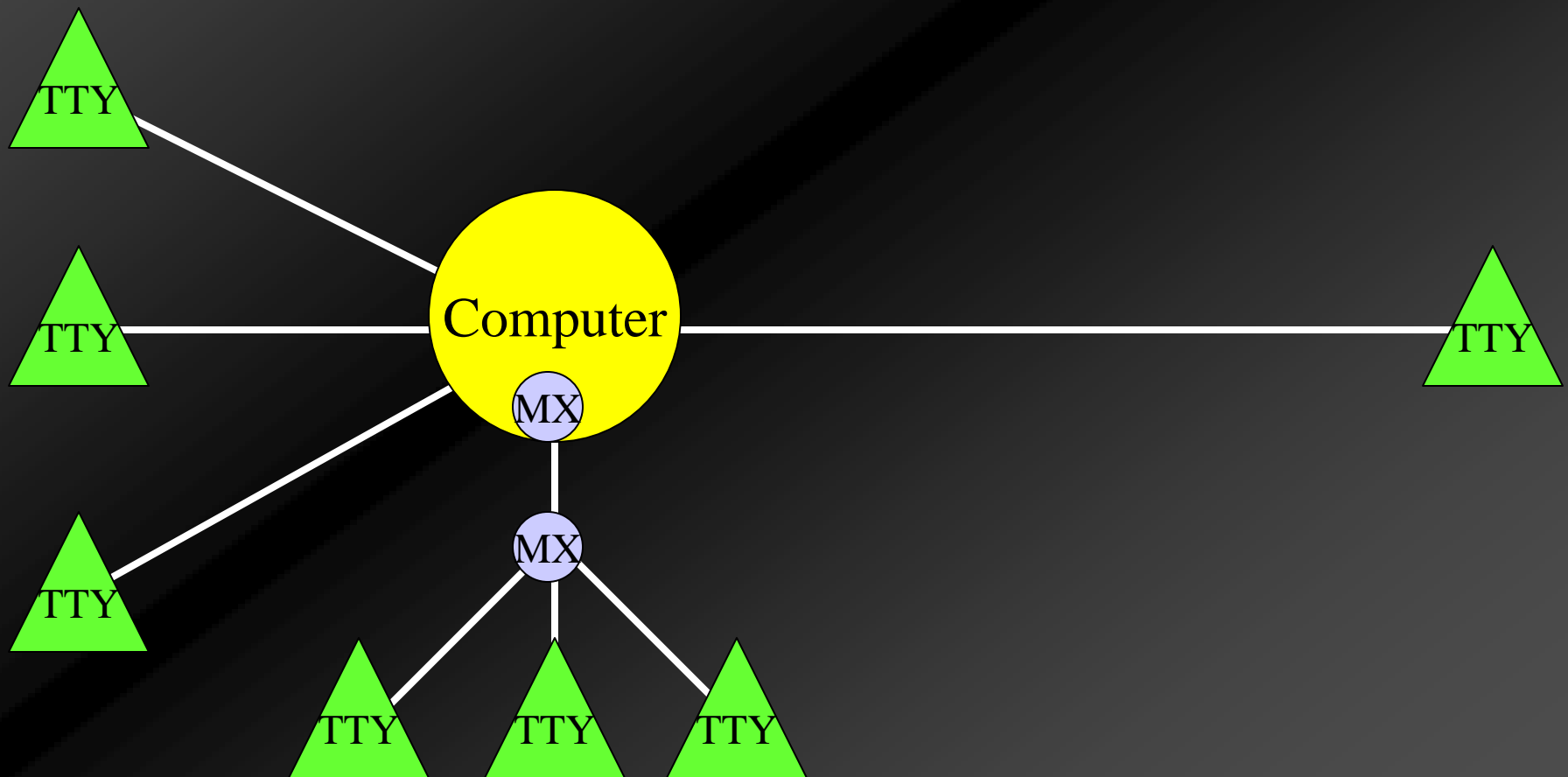
Message Switched Network (Store and Forward)  
(i.e., Western Union)



Source: Dale Hatfield

# Historical Context

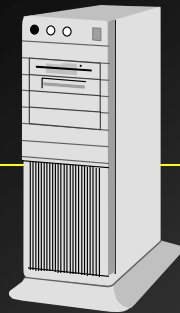
Automatic Data Processing (Store and Forward)  
(i.e., IBM)



# FCC and the Internet: The Computer Inquiries

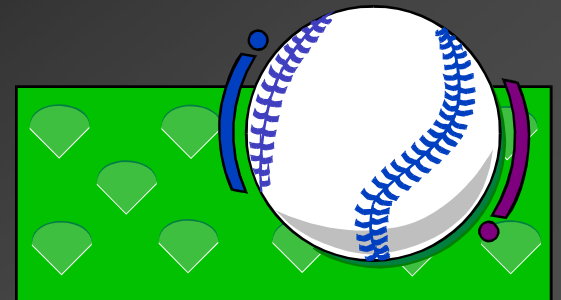
# In the Beginning...

- Computers that facilitate communications *versus* computers with which users interact?
- *Computer I* Notice of Proposed Rulemaking



# Goals Computer Inquiries

- Promote and protect a vibrant, nascent, innovative, and competitive market
- Create level playing field when BOC enters ESP market
- Prohibit discrimination and cross subsidization



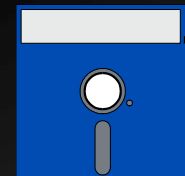
# Remote Computer Access

4



Content

3



Application

2

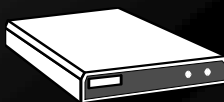


Dumb Terminal



IBM System 360 - 1964

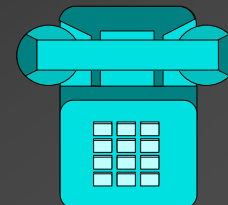
1



Logical Network



Physical Transmission Network



# Computer / 1966



- Data Processing Industry
  - Major and expanding force in American economy
  - Market competitive
  - Dramatic innovation
  - Dependent upon communications network
  - substitutability of computer networks for regulated communications networks

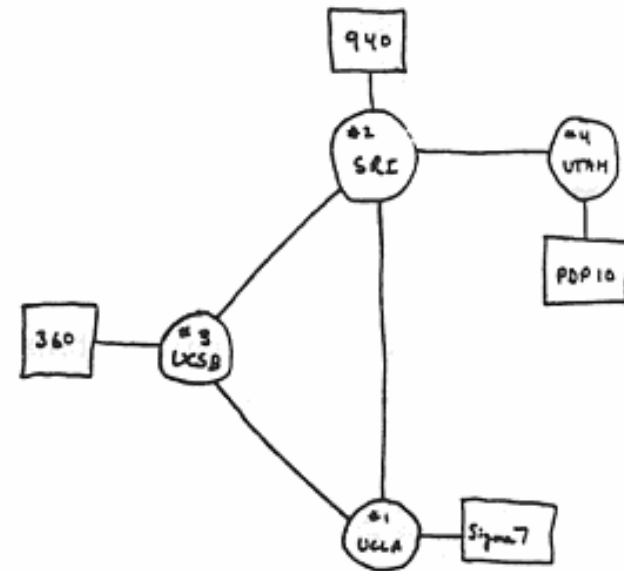
First packets sent on ARPANet Oct 29, 1969.  
First crash of ARPANet Oct 29, 1969

# Issues Before the FCC...

- Computers that facilitate communications *versus* computers with which users interact?
- Jurisdiction of FCC
- Entrance of Carriers into data processing market
- Regulatory treatment of data processing
- Communication needs of data processing industries
- Problem: Carrier as both a supplier and a competitor.

# In the Beginning...

29 Oct 69	2100	LOADED OP. PROGRAM	CSK
		FOR BEN BARKER	
		BBV	
	22:30	Talked to SRI	CSK
		Host to Host	
		Left op. program	CSK
		running after sending	
		a host dead message	
		to imp.	



THE ARPA NETWORK

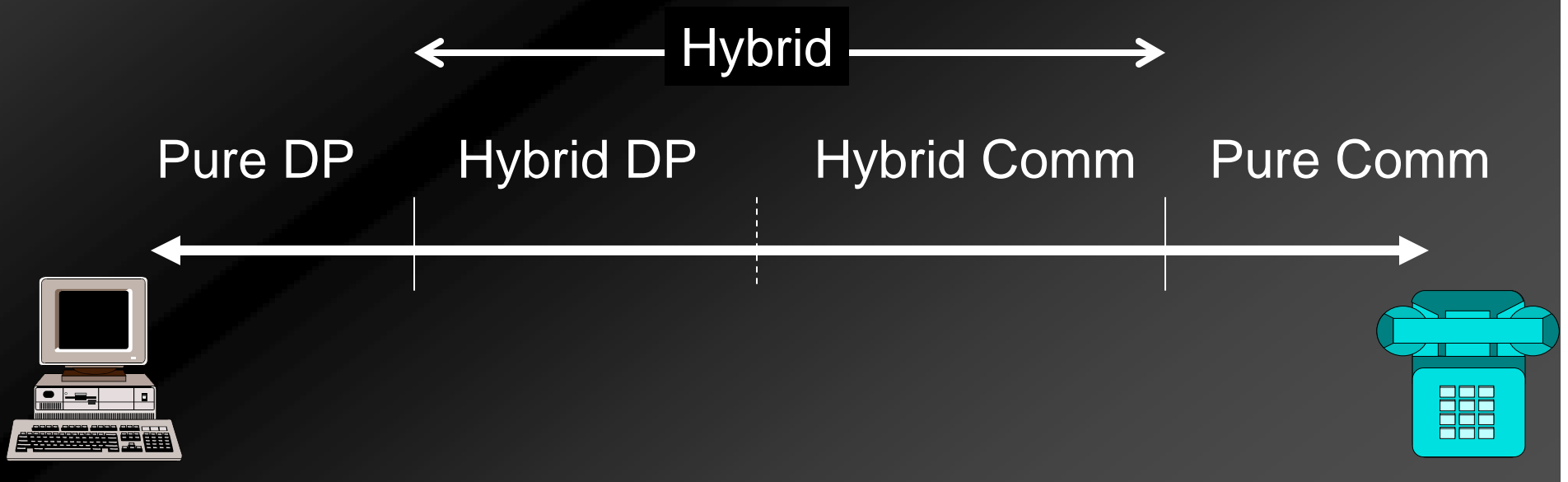
DEC 1969

4 NODES

FIGURE 6.2 Drawing of 4 Node Network  
(Courtesy of Alex McKenzie)

# The Great Fudge....

- Communications
- Data Processing
- Hybrid



# Data Processing Services



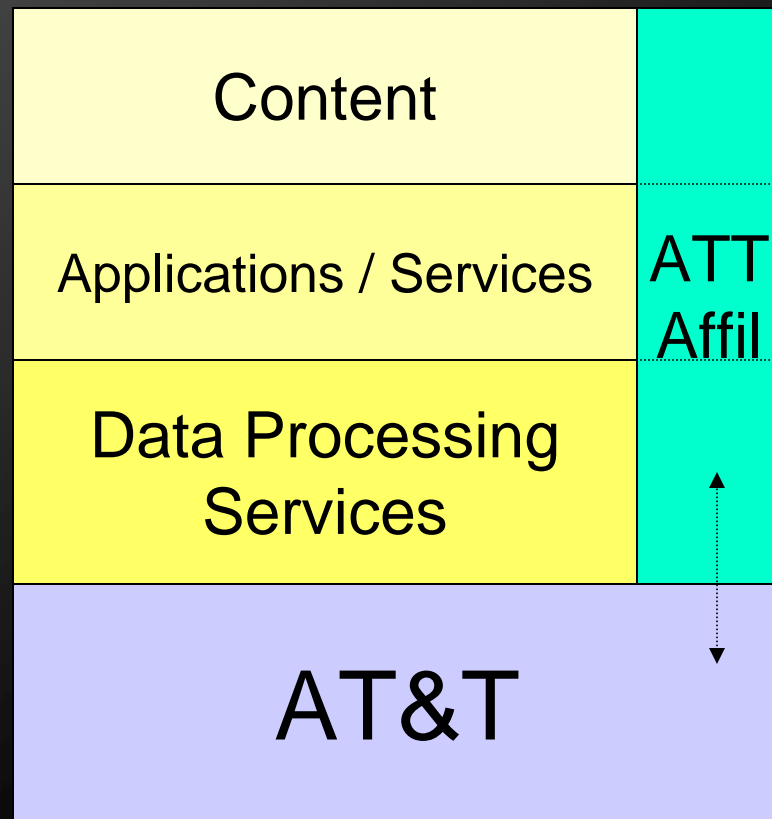
- Find market to be competitive
  - no natural or economic barriers to free entry into the market for these services
  - no indications that any of these markets are threatened with monopolization
- In view of all of the foregoing evidence, we see no need to assert regulatory authority over data processing services

# Communications Services



- Concerns
  - Cross subsidization of data processing services with communications revenue
    - Bad for data processing competition
    - Unfair to rate payers
    - Impair provision of communications service by carriers
  - Potential for Discrimination and anti competitive behavior
  - Simultaneously essential supplier and competitor

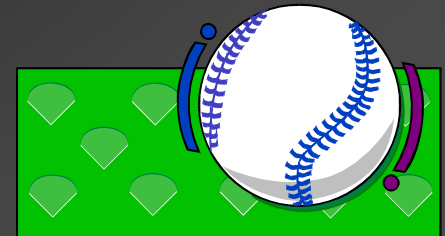
# Solution: Maximum Separation



- Separate Subsidiary Requirements (47 CFR 64.702).
  - all services pursuant to tariff
  - No discrimination
  - Operate independently
  - No joint marketing
- Applies to carriers > \$1M
- AT&T Prohibited by Consent Decree

# Computer / Legacy

- Concern over markets
- Separation of facility from enhancement
  - *Unregulation* of data processing
  - Affirmative regulation of carriers
    - to meet the needs of data processing
    - to promote innovation and competition in the data processing market
    - to assure equal access for computer service to essential communications services
- Open communications platform



Level Playing Field

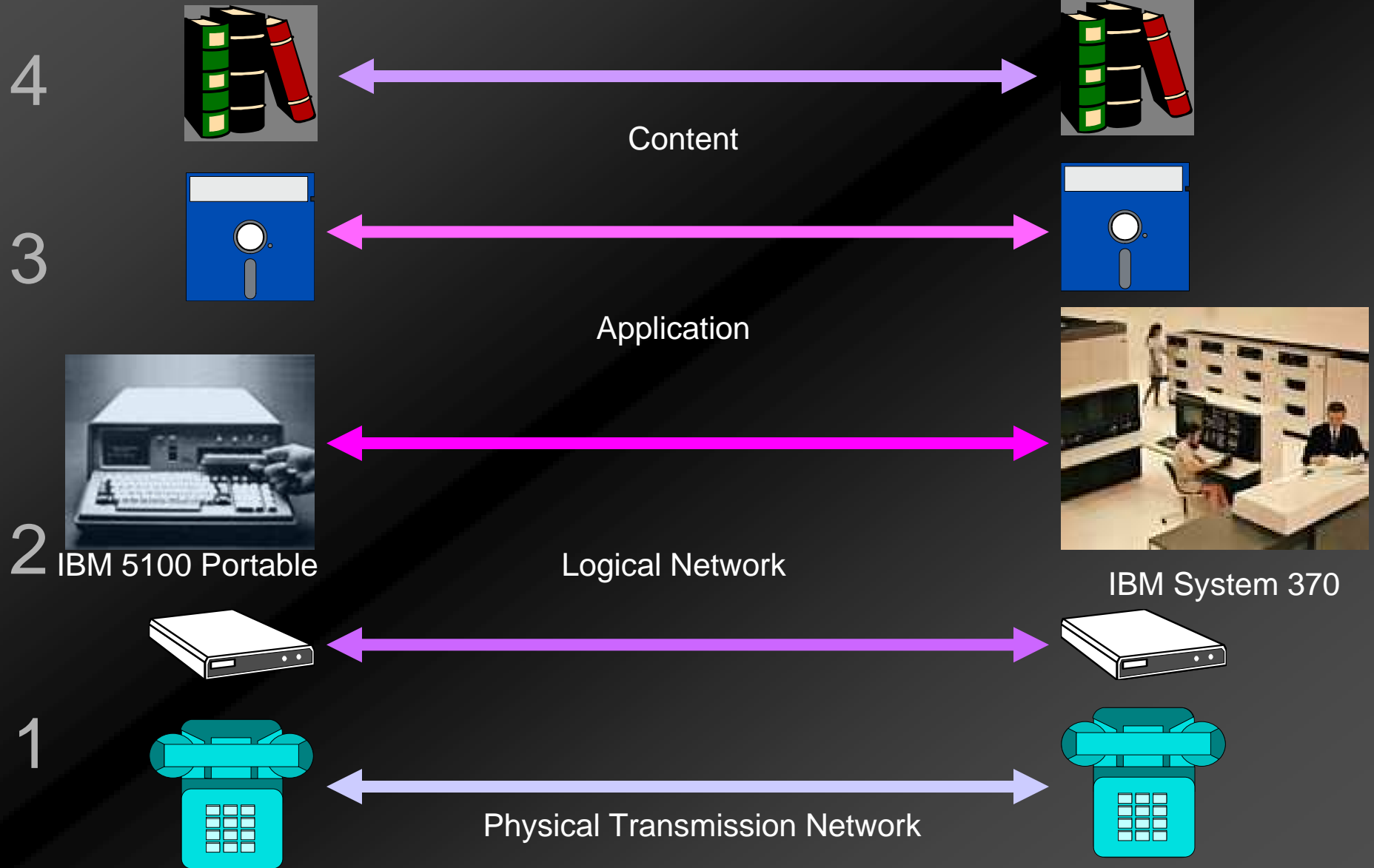
# *Computer II 1976*

- **Rise of microprocessor technology and distributed computing**
- Introduction of packet switching
- Trouble with the categories
  - FCC burdened by case-by-case analysis of hybrid situations



Vint Cerf and Bob Kahn publish "A Protocol for Packet Network Interconnection" which specified in detail the design of a Transmission Control Program (TCP). 1974

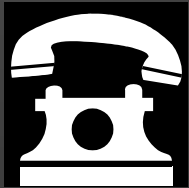
# Distributed Computing



# Issues

- Clarify definitions
- Continued concern for
  - Dependence of computer services on communications
  - Potential anti-competitive behavior
- Revisit Maximum Separation

# Computer II (1980)



## Basic Service

the offering of a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information

## Enhanced Service

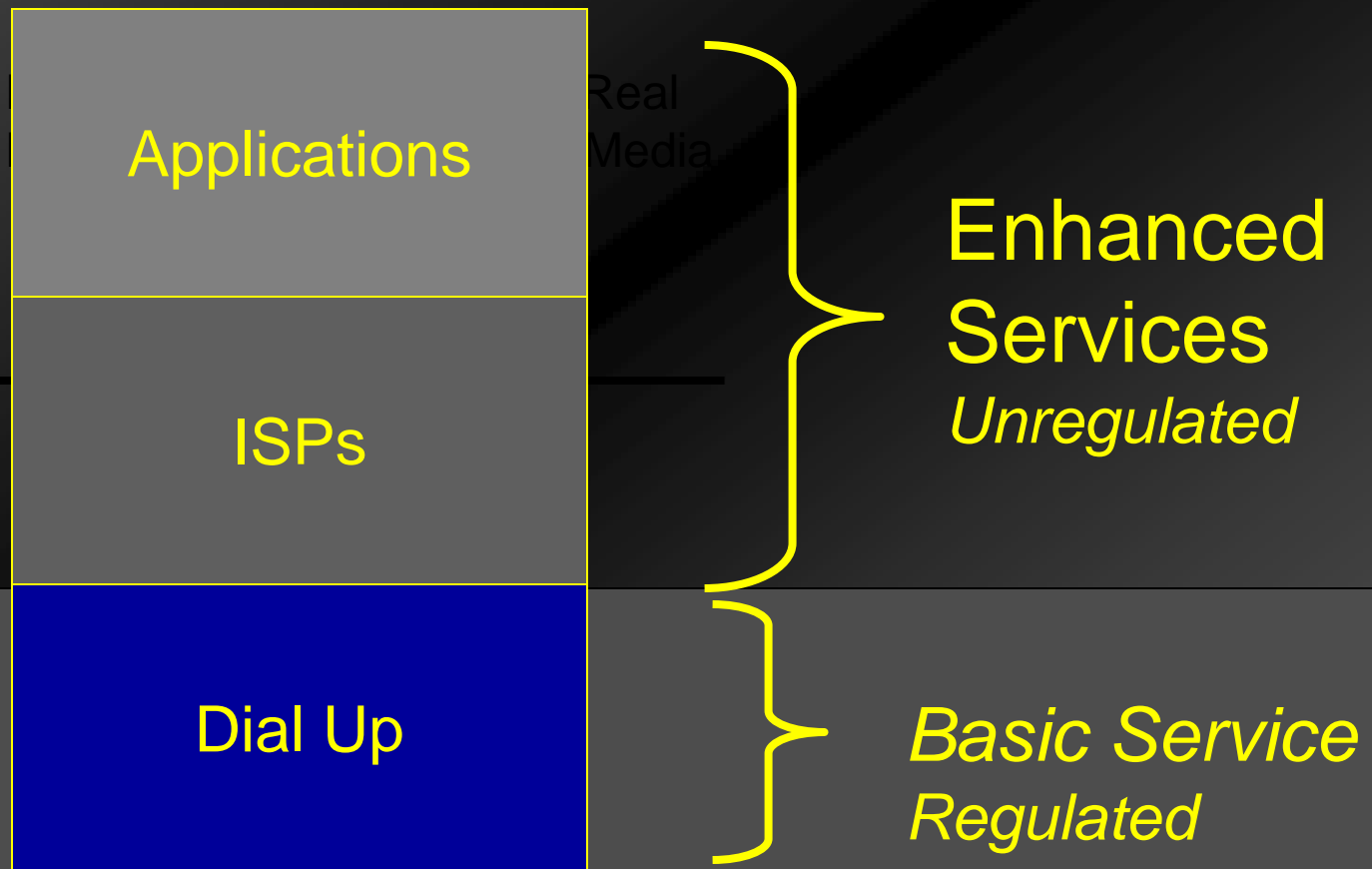
services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information

USENET Established 1979  
Term "Internet" coined 1982

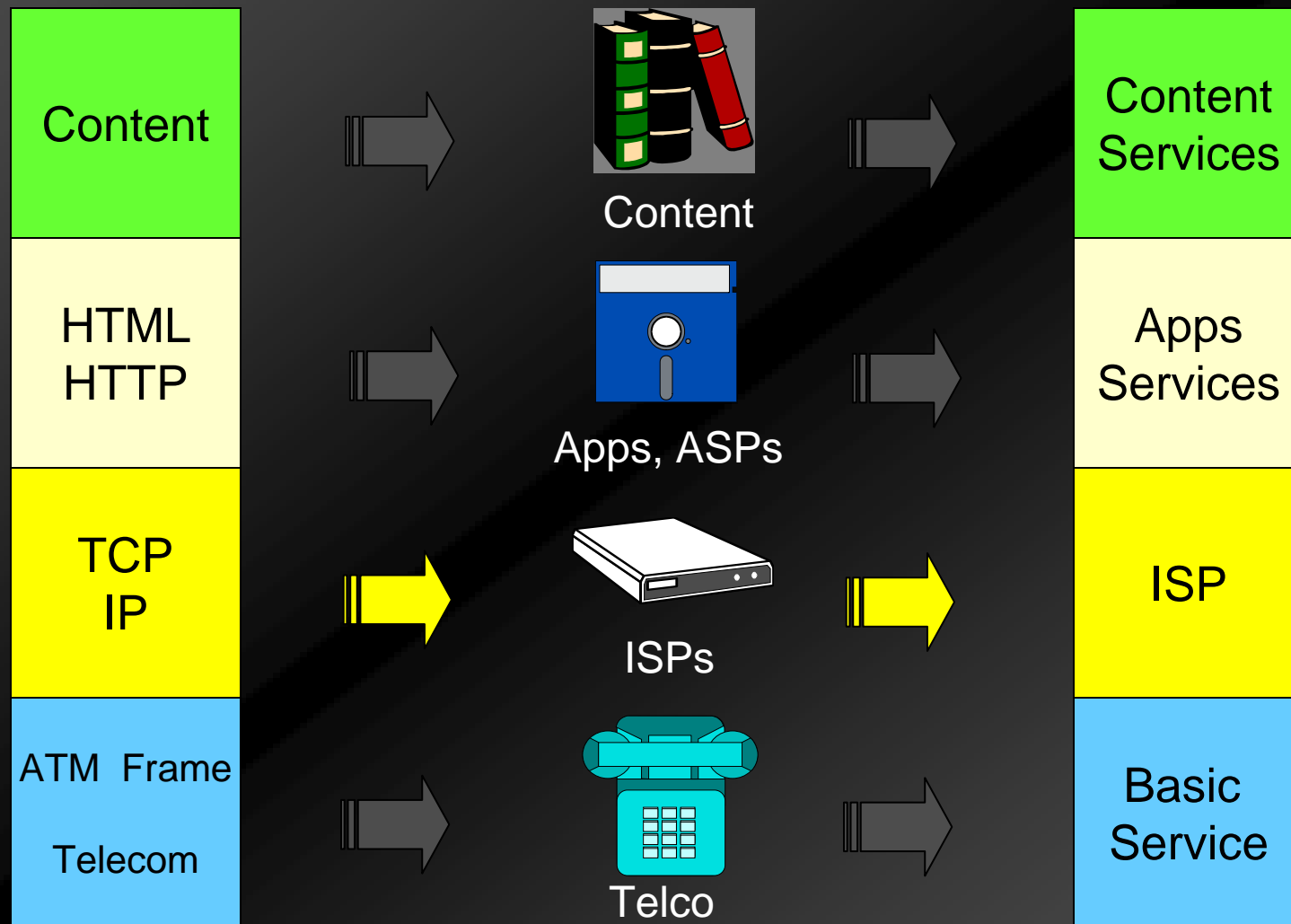
1980

# A Layered Model

Service Layers, Not Technology



# Layered Model of Regulation



Source: Werbach, Sicker, Lessig

# Layered Model Applied

# Protocol Processing

Protocol in the Network is converted 2 or more times, however, content received at the edge remains unchanged.

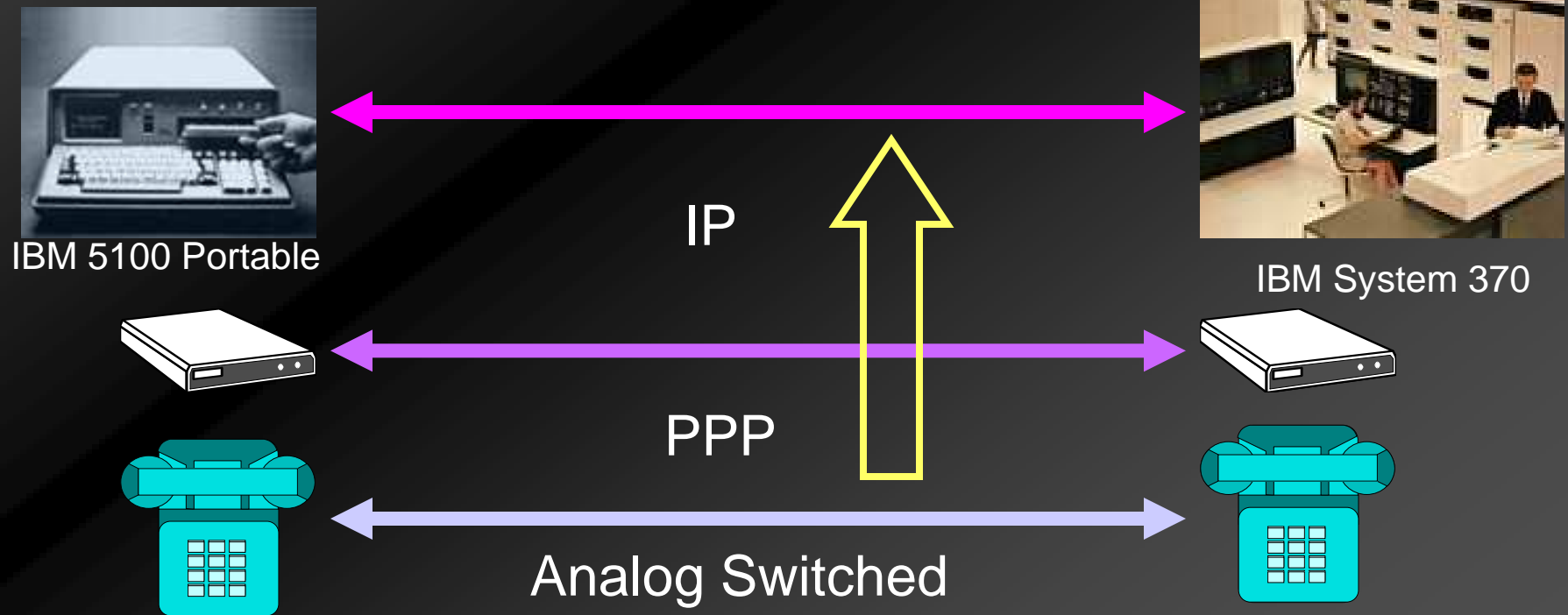
Protocol Processing is Basic.



# Protocol Processing

Network protocol used for basic transmission is converted to new protocol for the benefit of the edge user (not the network). Still may have data transmitted back and forth unchanged in form and content.

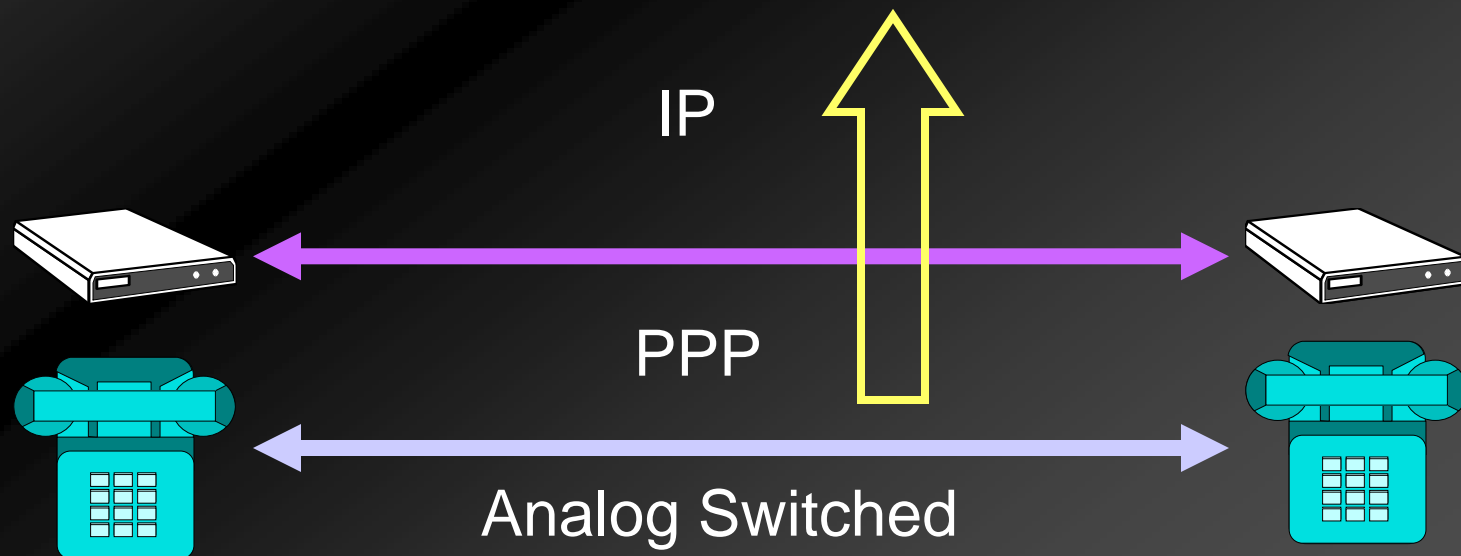
Protocol Conversion is Enhanced.



# Protocol Processing

**Rule:** Generally Protocol Processing is enhanced. This is where protocol processing is for the benefit of the edge users. Where protocol processing is for the benefit of the network, it is itself basic (ie, communications between user and network, different protocols across network giving edge user same content).

See In The Matter Of Independent Data Communications Manufacturers Association, Inc., Petition for Declaratory Ruling That AT&T's InterSpan Frame Relay Service Is a Basic Service; DA 95-2190, MO&O, 1995 WL 613619, 10 F.C.C.R. 13,717, 10 FCC Rcd. 13,717, 1 Communications Reg. (P&F) 409, ¶ 14-16 (October 18, 1995)

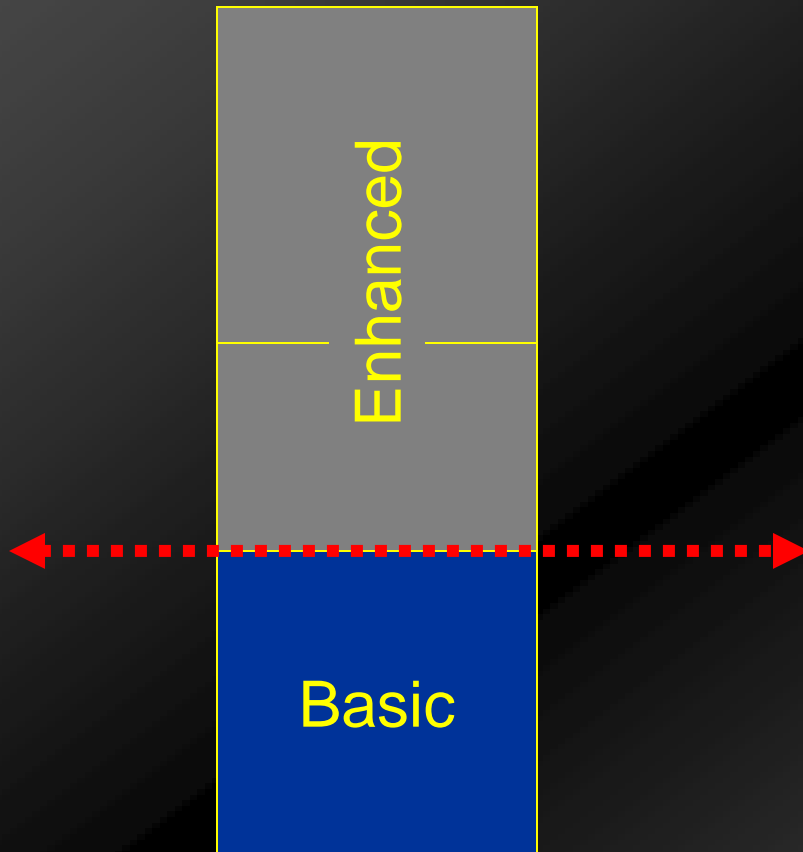


# Bundling

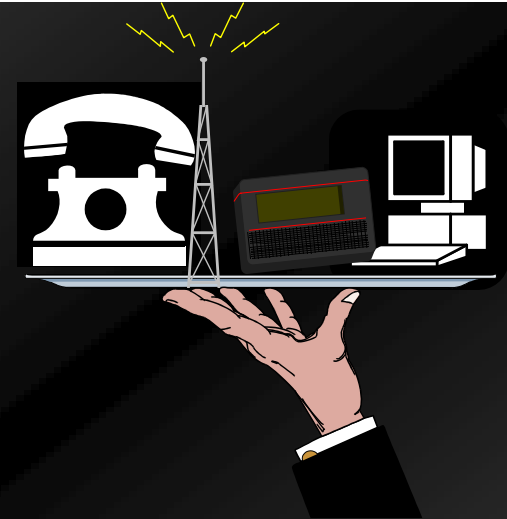


## Enhanced Services

- All facilities based carriers that offer enhanced services
- must unbundle basic from enhanced service and offer basic telecommunications service to other ISPs on same tariffed basis



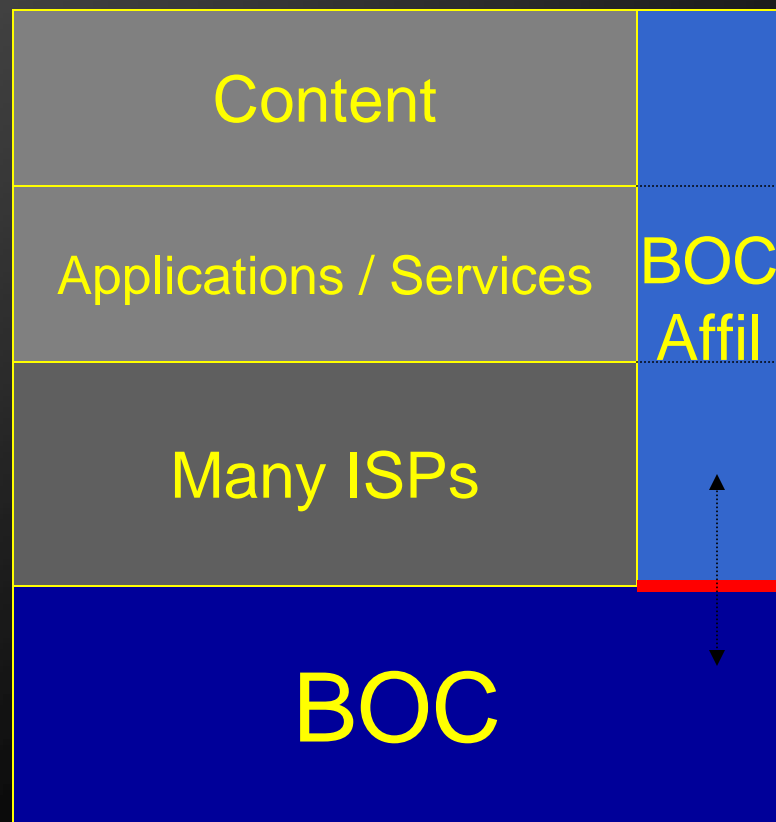
# Bundling



- CPE & Basic Service
  - Prohibit *carriers* from bundling telecom service and CPE
  - No packaged discounts
  - 47 C.F.R. § 64.702(e)
  - Bundling Rules currently under review
  - Restriction removed in 2001

# Computer II

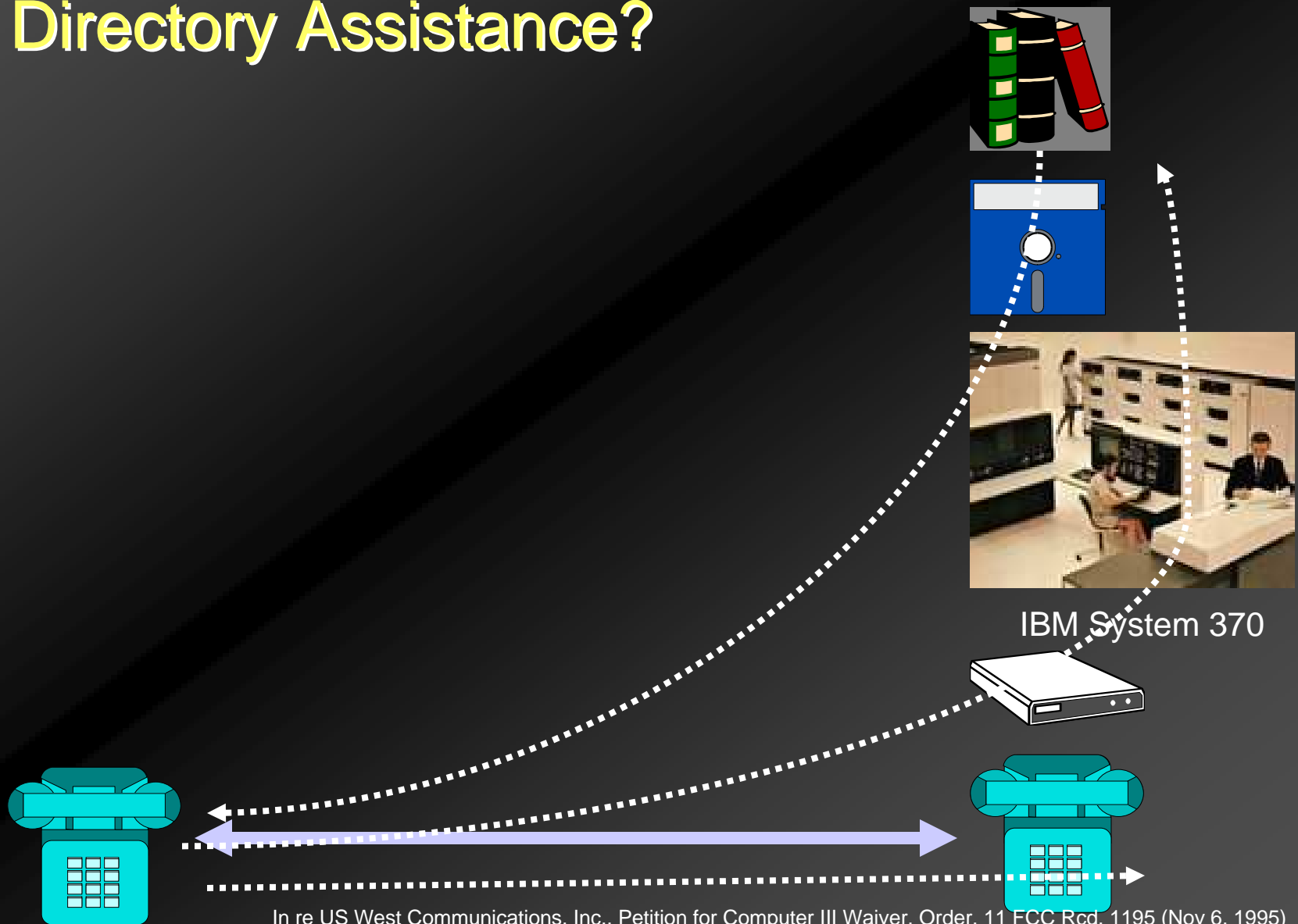
## Structural Separation



- Separate Subsidiary Requirements (47 CFR 64.702).
  - Sep sub must
    - obtain all services pursuant to tariff
    - Operate independently
  - Carrier shall not engage in joint marketing
  - Must receive FCC approval of Cap plan

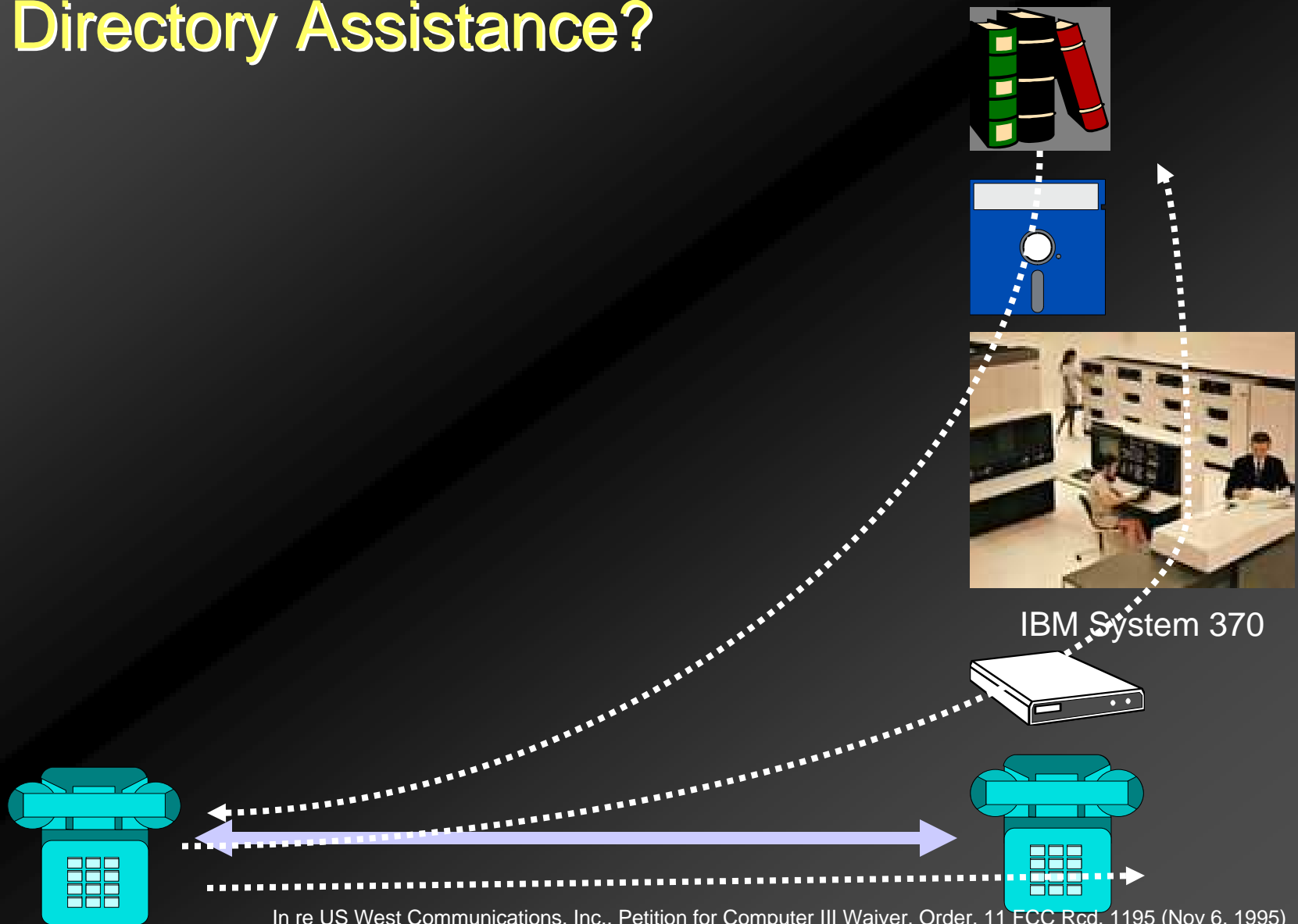
# Adjunct Services

## Directory Assistance?



# Adjunct Services

## Directory Assistance?



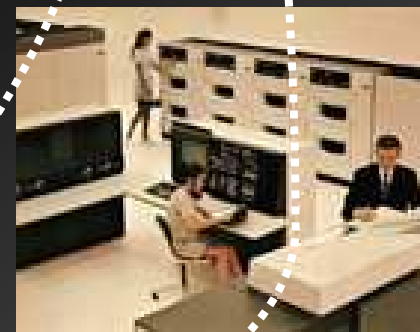
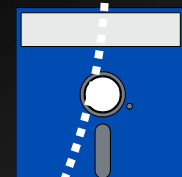
In re US West Communications, Inc., Petition for Computer III Waiver, Order, 11 FCC Rcd. 1195 (Nov 6, 1995)

# Adjunct Services

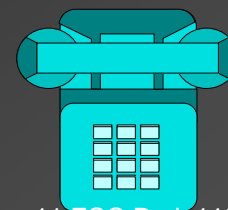
## Reverse Directory Assistance?

RULE: An adjunct service takes on the character of the service to which it is adjunct. An adjunct service facilitates the operation of the service and does not alter the character of that service.

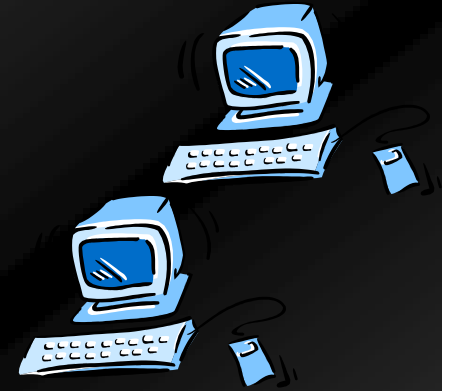
Directory service takes on the character of the telephone network. It facilitates its use. But directory service would never alter the classification of the telephone network.



IBM System 370



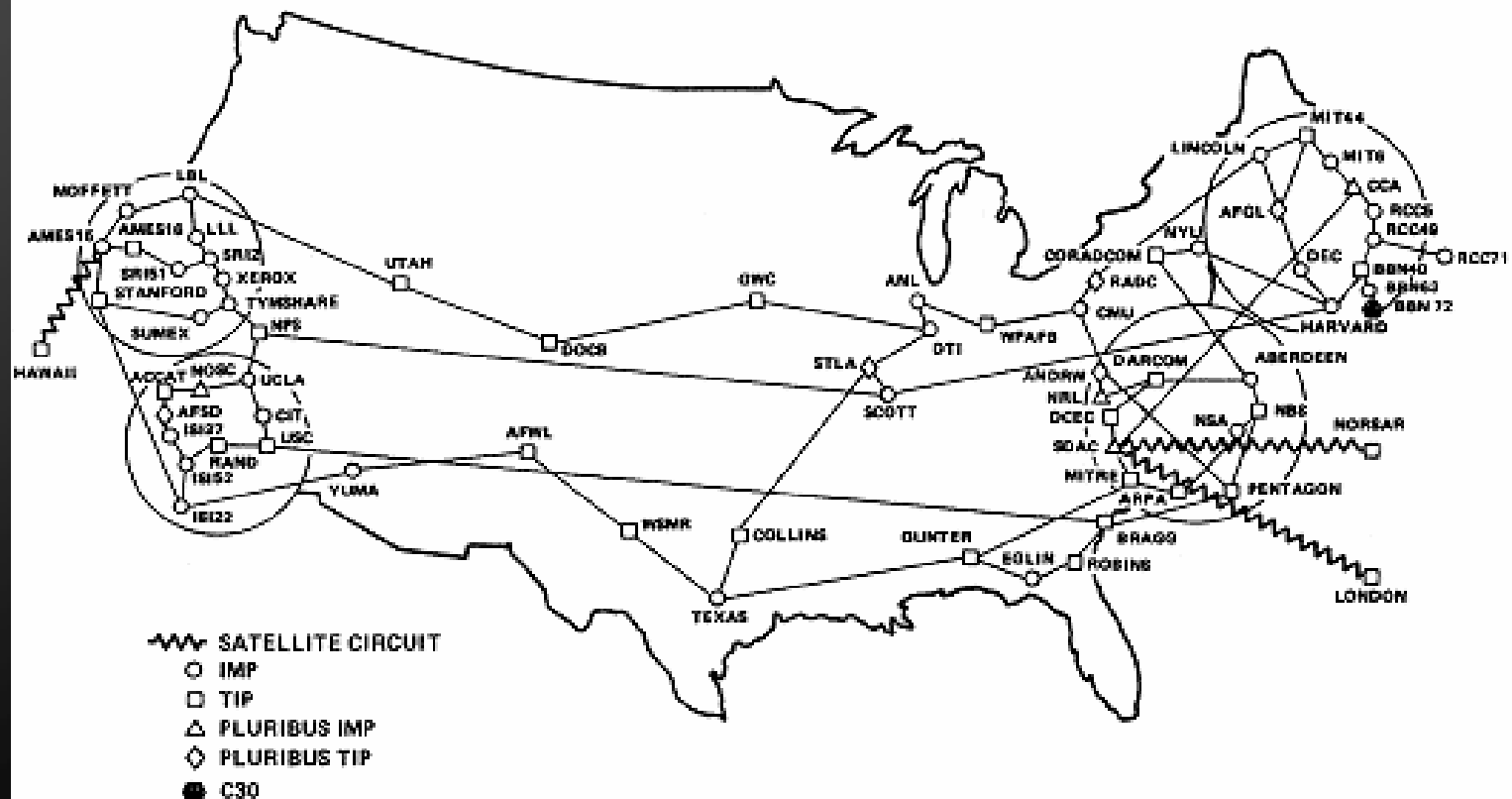
# Computer // Legacy



- Basic v. enhanced services dichotomy
  - Bright Line
  - Amplification of separation of communications transmission from enhancement
- Cost benefit analysis of structural separation
- Continued concern to promote enhanced services industry
- Affirm Open Communications Platform

# Safeguards

ARPANET GEOGRAPHIC MAP, OCTOBER 1980

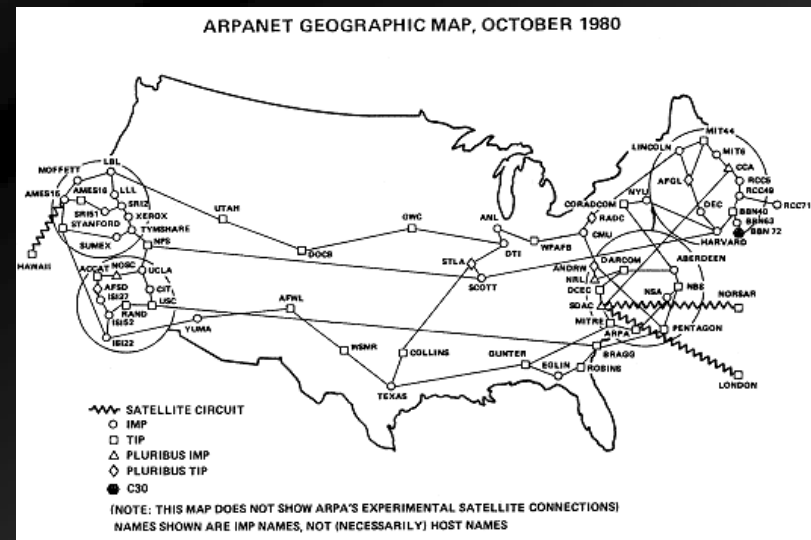


(NOTE: THIS MAP DOES NOT SHOW ARPA'S EXPERIMENTAL SATELLITE CONNECTIONS)  
 NAMES SHOWN ARE IMP NAMES, NOT (NECESSARILY) HOST NAMES

# Computer III 1985

## Background & Issues

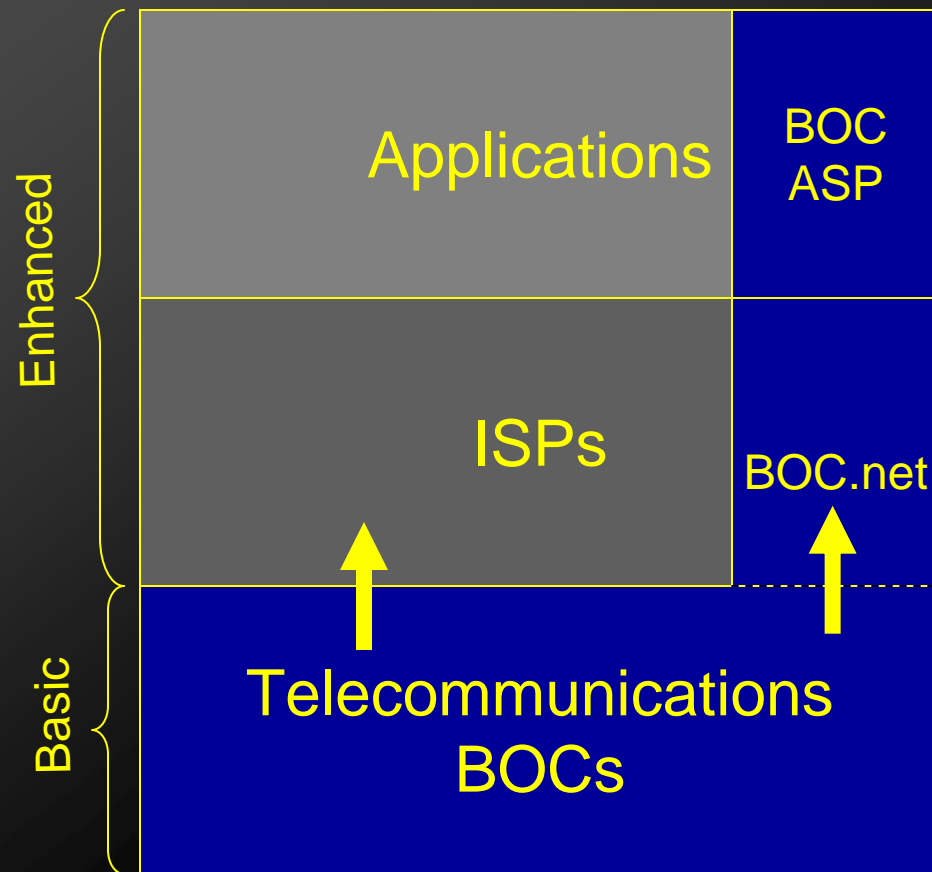
- AT&T divestiture of the BOCs
  - BOCs permitted to provision enhanced services in 1988
- Belief that cost structural separation outweighs benefit



1986  
NSFNET Created  
First IETF meeting  
Cleveland FreeNet created

# Computer III

## Non Structural Separation



- Integrated Offering
- Comparably Efficient Interconnection
- Open Network Architecture
- Appealed in 9<sup>th</sup> Circuit
- On Remand since 1994

# *Computer III*

## Comparatively Efficient Interconnection



- CEI Plan must be posted on BOC's websites
- 9 Parameters
  - Interface Functionality
  - Unbundling of Basic Services
  - Resale
  - Technical Characteristics
  - Installation, Maintenance and Repair
  - End User Access
  - CEI Availability
  - Minimization of Transport Costs
  - Recipients of CEI

# Computer III

## Open Network Architecture



- Basic Elements
  - Basic Service Elements
    - *i.e.*, Calling Number Identification
  - Basic Serving Arrangements
    - Fundamental tariffed switching and transport services
  - Complimentary Network Service
    - *i.e.*, stutter dial tone, call waiting, call forwarding, call forwarding on busy, hunting
  - Ancillary Network Service
    - *i.e.*, billing services, collection, protocol processing

# Computer III

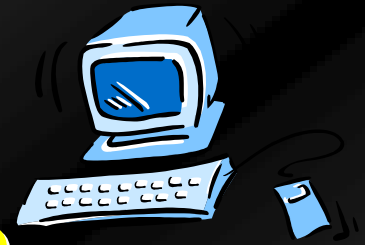
## Open Network Architecture



- New Services Not Specified in original ONA Plans
  - BOC - amend ONA plan
  - ISP
    - Request service directly from BOC through a 120-day process specified in our rules
    - Network Interconnection Interoperability Forum (NIIF) of the Alliance for Telecommunications Industry Solutions (ATIS)

# *Computer III*

## Open Network Architecture



- Discrimination
  - Letters of Authorization
  - Resale
  - Operations Support Systems
  - Nondiscrimination Reporting
- Remember 47 U.S.C. § 202

# Network Information Disclosure



- ILECs must provide public notice regarding network changes that affect competing service providers performance or ability to provide service.
- Must be disclosed non-discriminatorily
- 47 C.F.R. § 51.325

# Cross Subsidization & Accounting Safeguards

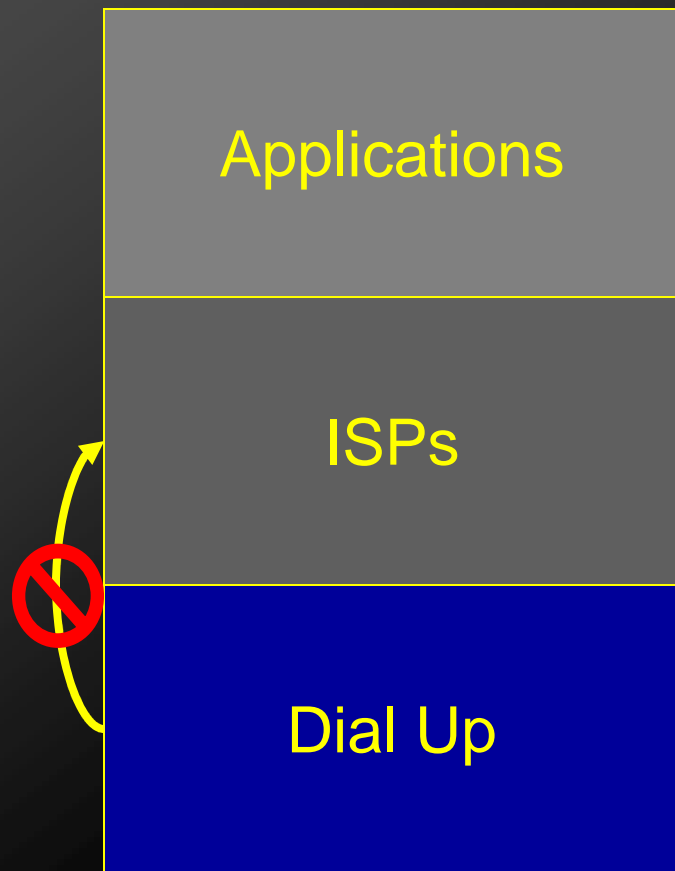


- Common carrier may not use services not subject to competition to subsidize services that are subject to competition.

47 C.F.R. § 64.901

- Accounting Safeguard Rules 47 U.S.C. Part 64
  - Annual independent audit filed with FCC
  - Data can be found in FCC's ARMIS database
  - FCC Cost Allocation Manual

# Customer Proprietary Network Information

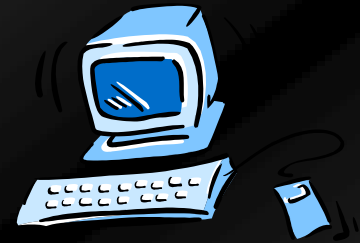


Except with approval of customer, carrier shall only use CPNI for provision of telecom service from which such info is derived, or services necessary to provision of such services. - 47 U.S.C. § 222

CPNI > List Information  
(information in phone book)

# Computer III

## Remanded by 9th Circuit 1994

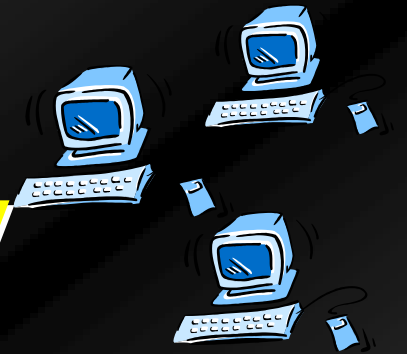


- FCC Releases Interim Order
  - Concludes only ONA rules vacated
  - BOCs & GTE Bound by ONA Plans
  - BOCs must create CEI Plans to enter ESP market
- Release Further Notice of Proposed Rulemaking (**pending**) CC Docket Nos. 95-20, 98-10  
<http://www.fcc.gov/ccb/ppp/Ciii/>
- Broadband NPRM (**pending**)

Open Proceeding

1994  
US Congress online  
Pizza Hut accepts online orders

# Computer III Legacy



- Movement from structural to non-structural separation
- Continued emphasis on communications an open platform
  - Unbundling building blocks (ONA & CEI)
  - Expanded safeguards
- Continued concern for anti-competitive behavior
- An enforcement problem

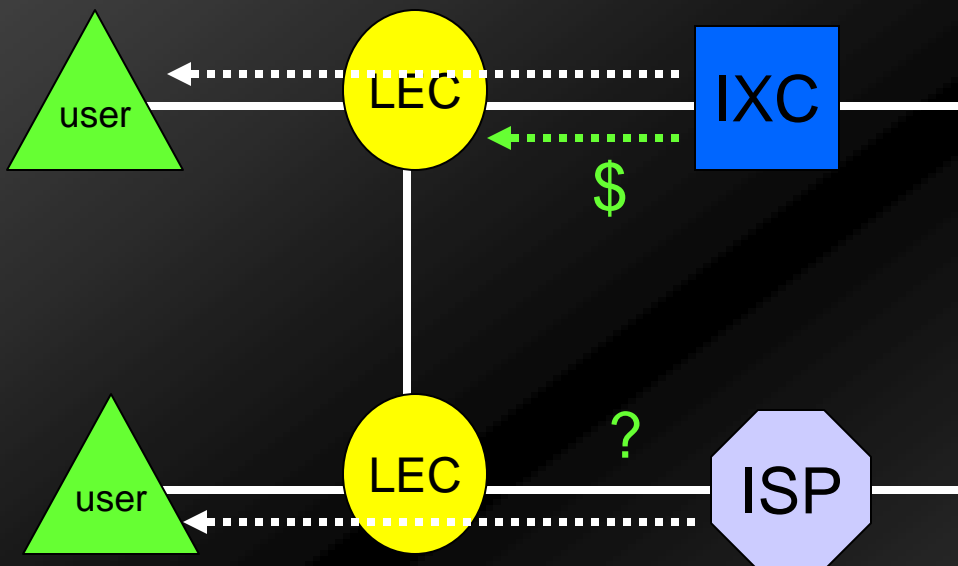
# Where are we today?

	All Carriers	BOCs	ESPs
Structural CII or Non Structural Separation CIII (CEI)		X	
Open Network Architecture		X	
Unbundling	Facilities Based	X	
CPNI	X	X	
Network Info Disclosure	X	X	
Cross Subsidization & Accounting	X	X	
Anti Discrimination	X	X	

# Conclusions

- “Internet” has been a part of FCC policy for 35 years.
  - Unregulation of enhanced service
  - Affirmative regulation of carriers
  - Open Communications Platform
- Layered Model to Regulation
  - Policy at different layers can be different
  - Market at different layers is different
  - Public interests at different layers can be different
- Policy is about markets
  - not technology
  - Worry about bottlenecks to innovation and markets

# Access Charges 1983

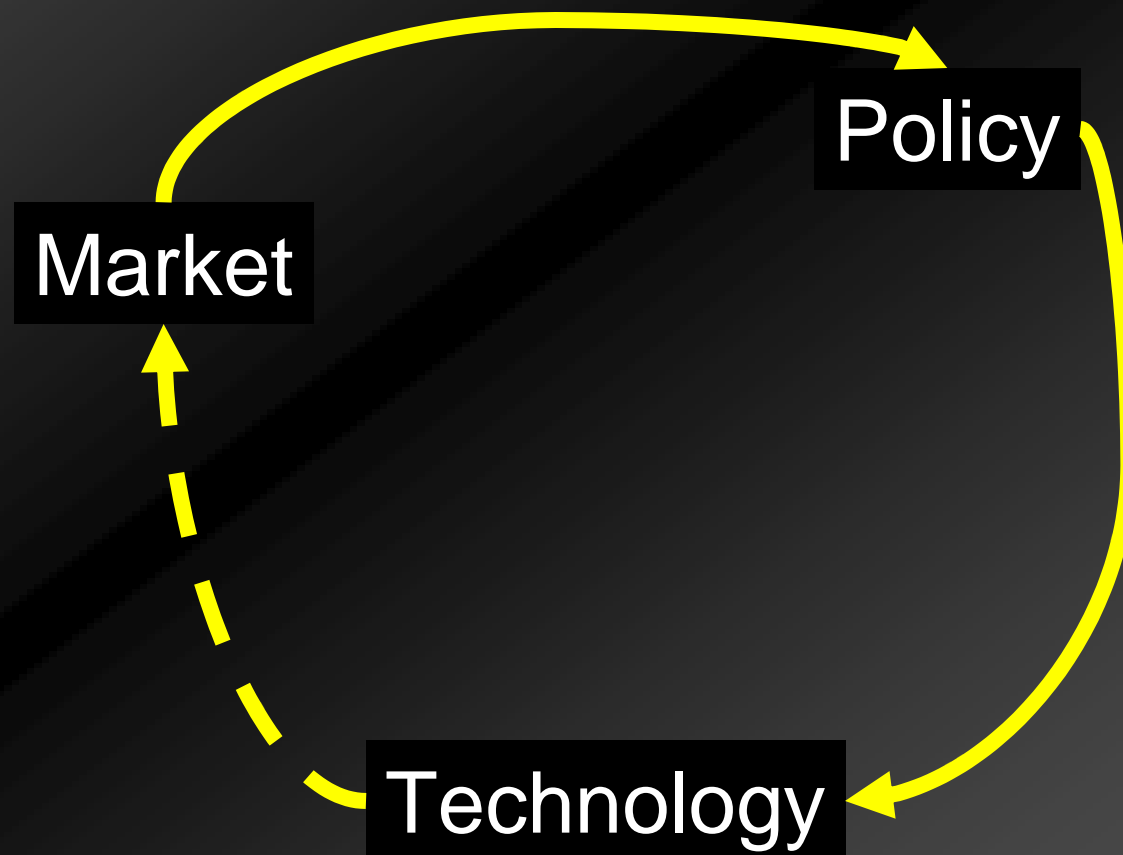


Network cutover from NCP to  
TCP/IP (1 January, 1983)

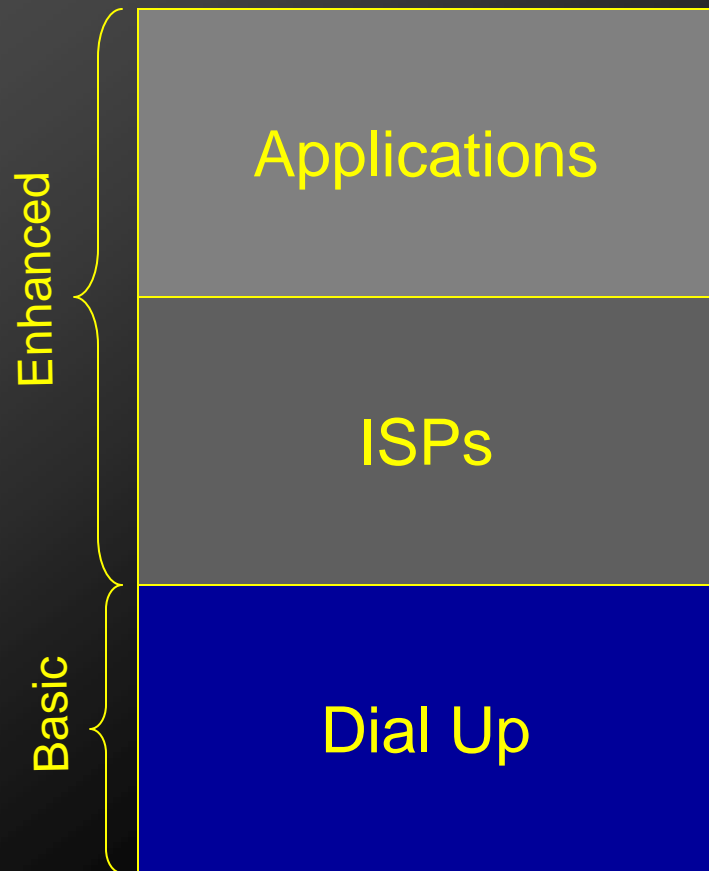
- ESPs exempt from metered access charges
  - *As if* local
  - *As if* end users
- End users and ESPs continue to pay flat rate subscriber line access charges.
  - End users purchase 2nd phone lines

Open Proceeding

# *Computer Inquiry* Legacy



# *A Word About Jurisdiction*

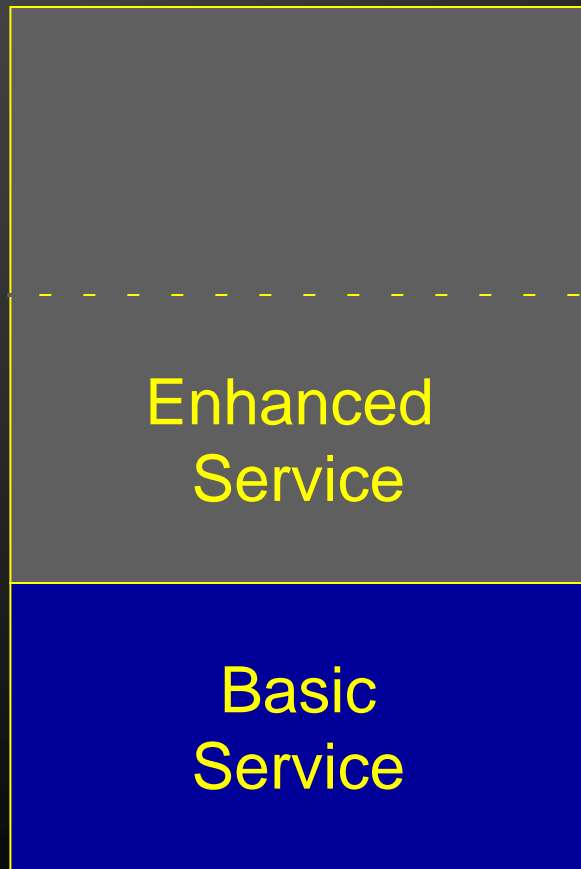


Title I  
(Ancillary Jurisdiction)

Title II  
(Common Carrier)

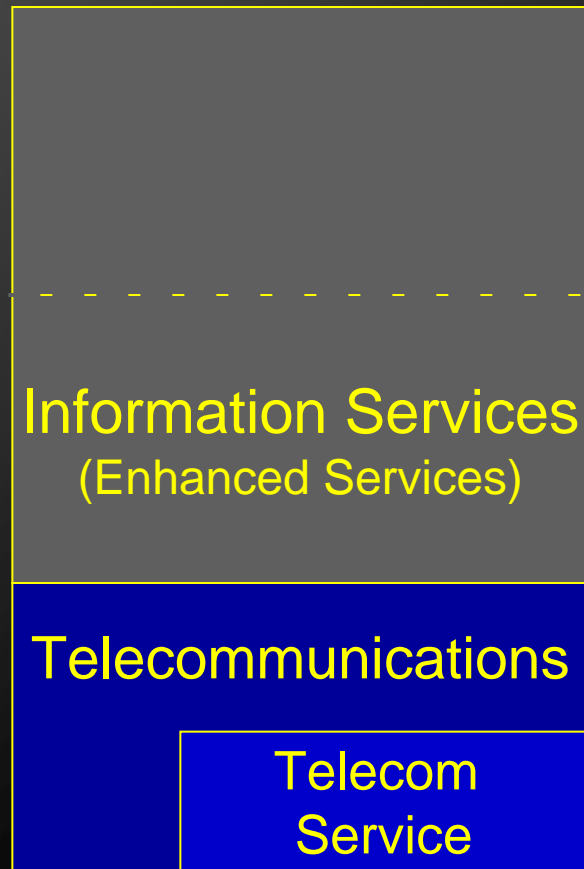
# *Definitions*

## *Computer Inquiries*

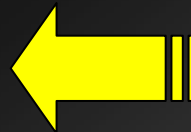


# Definitions

## Telecommunications Act



- Layered Model of Services broken
- Telecommunications Service  
47 U.S.C. § 153(46)
  - Telecommunications
  - Offered to the Public
  - For a Fee
  - “or to such classes of users as to be effectively available directly to the public”
  - Regardless of pipe used



# The Present

# Today's Questions

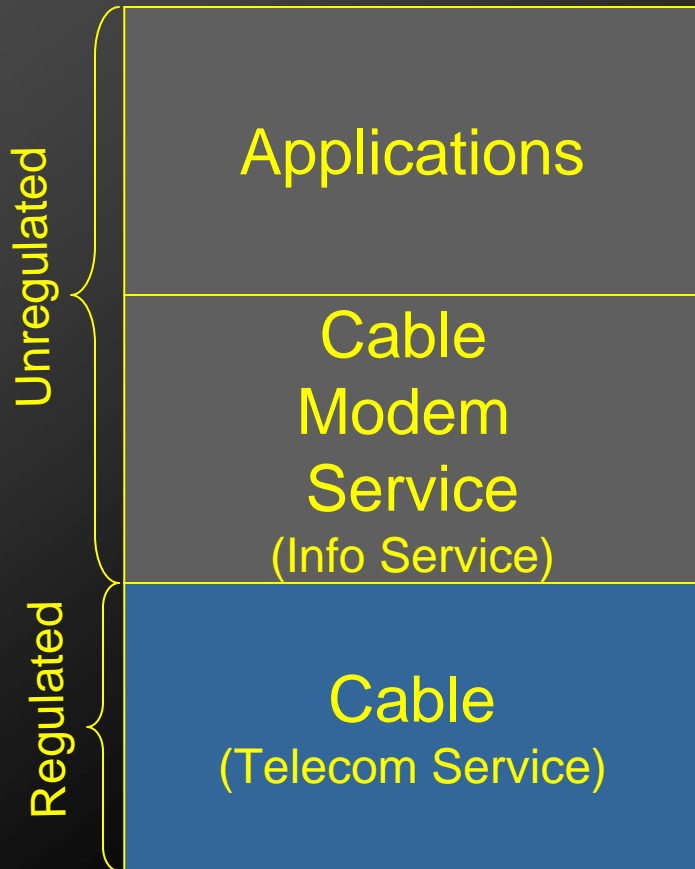
Computer III		Internet over Cable NPRM	Internet over DSL NPRM
Enhanced	Applications	Applications	Applications
	ISPs	Cable Modem Service (Info Service)	DSL ISPs (Info service)
Basic	Dial Up	Cable (Telecom not Telecom Service)	DSL (Telecom?)

# Internet Over Cable in the Wake of Brand X: The Perfect Broadband Policy Storm of '04





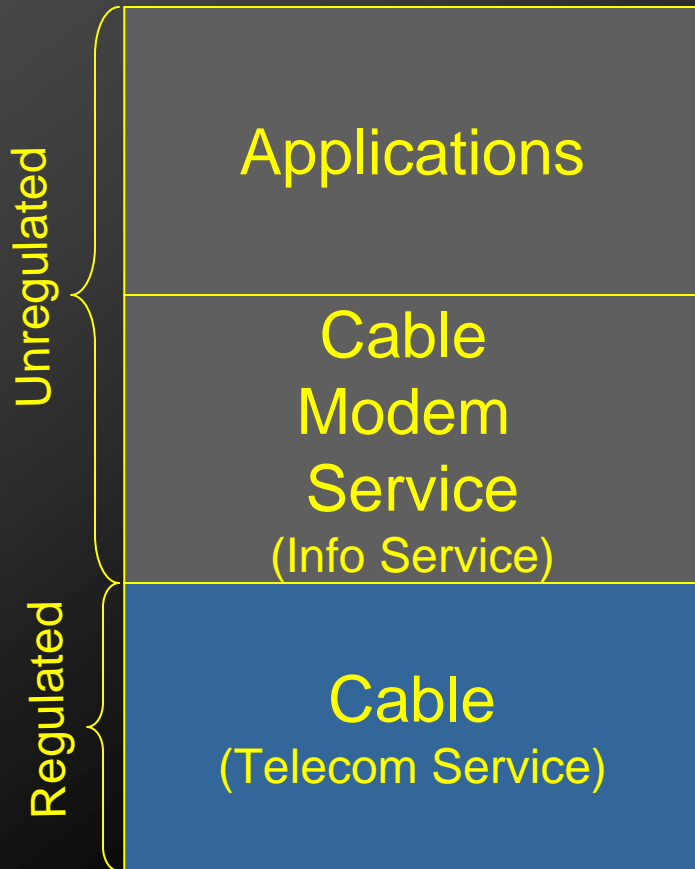
# Internet Over Cable



- 2000: *MediaOne v. Henrico County, VA* (4<sup>th</sup> Cir)
  - It's Cable
- 2000: *Gulf Power v. FCC* (11<sup>th</sup> Cir)
  - It's Neither
- 1999: *AT&T v City of Portland* (9<sup>th</sup> Cir)
  - It's a telecom Service
- 1998: AT&T TCI Merger (FCC)



# Internet Over Cable



- Telecommunications Service  
47 U.S.C. § 153(46)
  - Telecommunications
  - Offered to the Public
  - For a Fee
  - “or to such classes of users as to be effectively available directly to the public”
  - Regardless of pipe used



# Internet Over Cable

Unregulated?

Applications

Cable  
Modem  
Service

(Info Service)

Cable

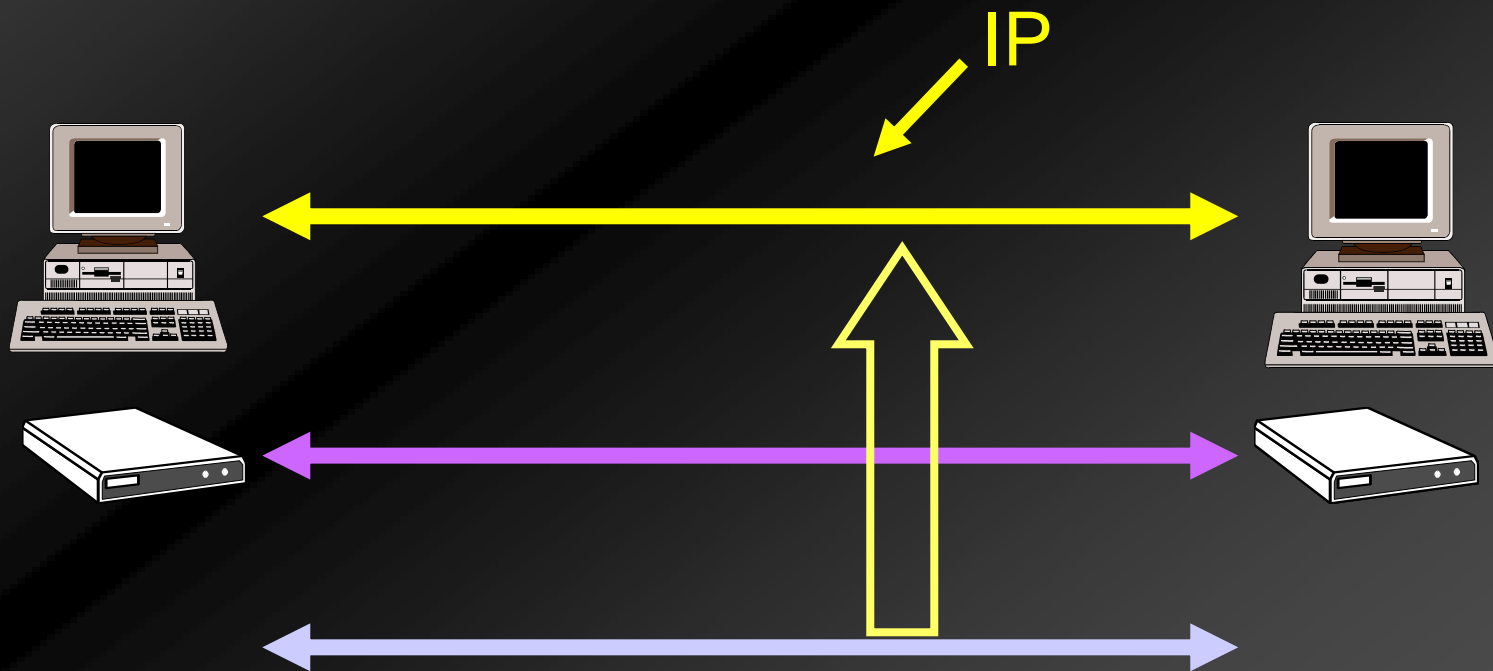
(Telecom *but not*  
Telecom Service)

- 2002: Declaratory Ruling & Further Notice
  - It's an Info Service
  - Regulatory Authority Title I
  - Not Title II
    - Not Common Carrier
    - Not Computer Inquiries
  - How Should CMS be Treated?
- 2000: FCC Notice of Inquiry



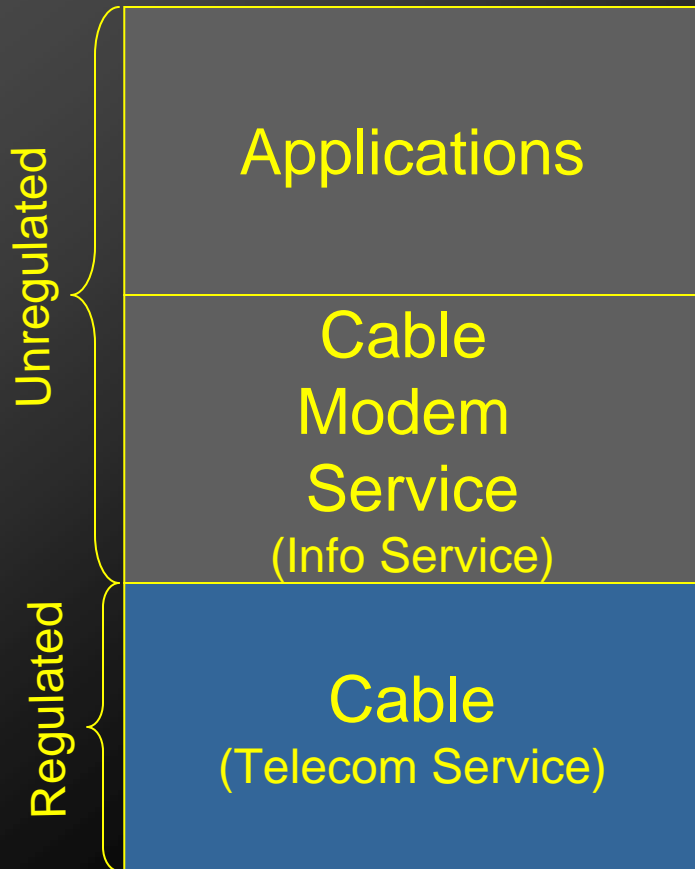
# Internet Over Cable

Protocol Processing?

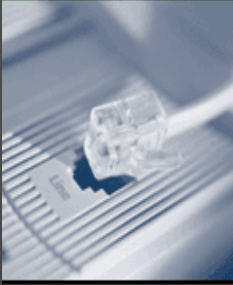




# Internet Over Cable



- BrandX v FCC (9<sup>th</sup> Cir)
  - *Stare Decisis* to Portland
  - Vacated and Remanded to FCC
  - No Analysis of Internet over Cable
  - Motion for Rehearing Denied
  - Motion for Stay Granted
  - Appeal?
    - Appeal What?
    - DOJ & CALEA
    - NCTA



# Internet Over DSL

Unregulated?

Applications

ISP

DSL

- Appropriate Framework for Broadband Access to the Internet over Wireline Facilities Docket 02-33 NPRM *Pending*
- "Tentatively concludes the wireline broadband Internet access services - whether provided over a third party's facilities or self-provisioned facilities - are information services, with a telecommunications component, rather than telecommunications services. Information services include such services as voice mail and e-mail, which ride over telecommunications facilities."

# Today's Questions

Computer III      Internet over Cable      Internet over DSL  
NPRM      NPRM

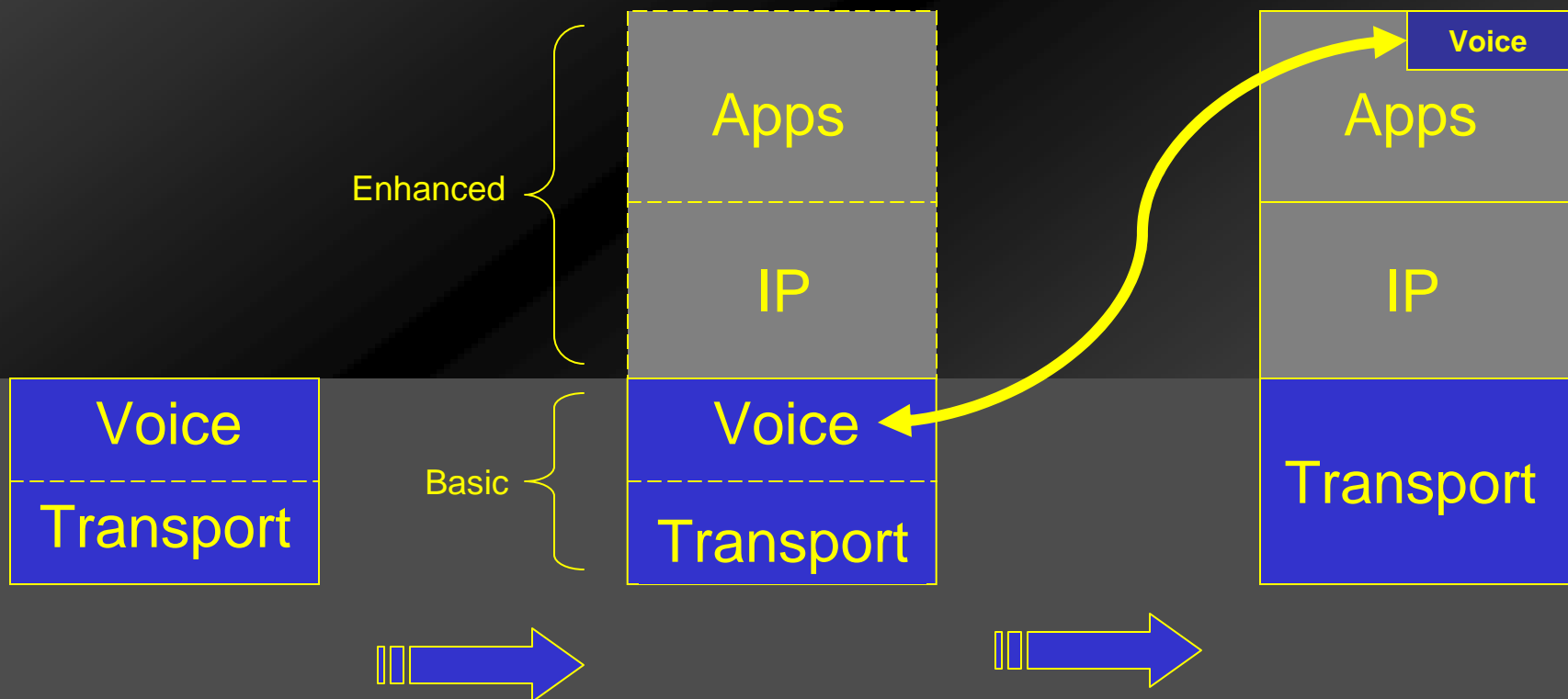
Applications	Applications	Applications
ISPs	Cable Modem Service (Info Service)	DSL ISPs (Info service)
Dial Up	Cable (Telecom not Telecom Service)	DSL (Telecom?)

# *The Future?*

Apps	Apps	Apps	Apps	Apps	Apps
ISPs	ISPs	ISPs	ISPs	ISPs	ISPs
Dial Up	DSL	Fiber	Cable	Powerline	Wireless (unlicensed)

# Pop Quiz!

# Internet Telephony...





# Functional Approach



## Verizon

- Black Phone
- PSTN
- NANP

## Vonage

- Black Phone
- PSTN
- NANP



# Market Approach



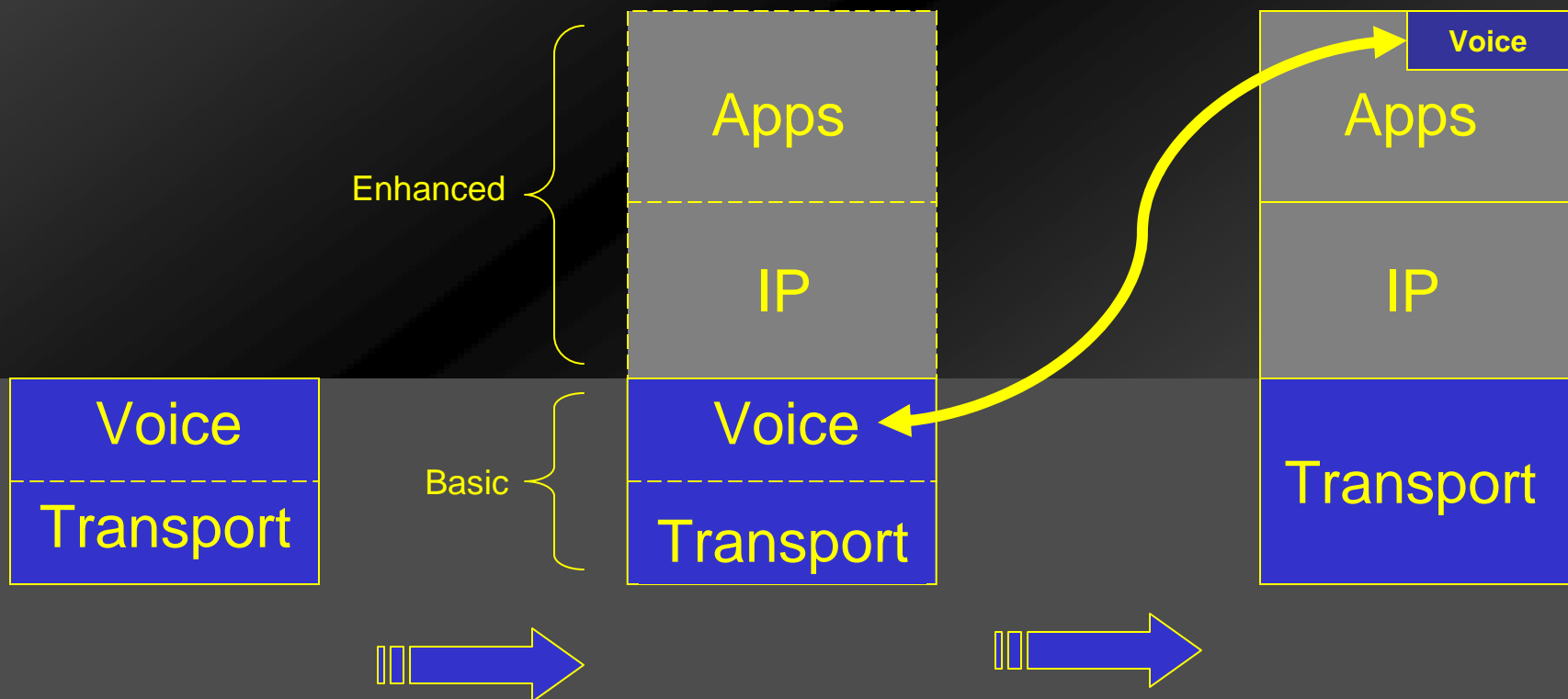
## Verizon

- Black Phone
- PSTN
- NANP
- Tied to Physical Network

## Vonage

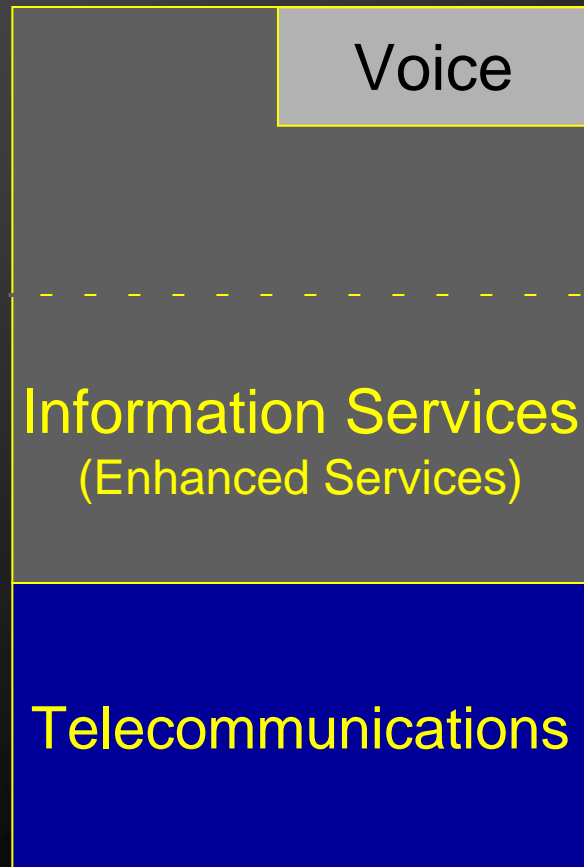
- Black Phone
- PSTN
- NANP
- Uncoupled from Physical Network
- Network Acquired from Third Party

# Internet Telephony...





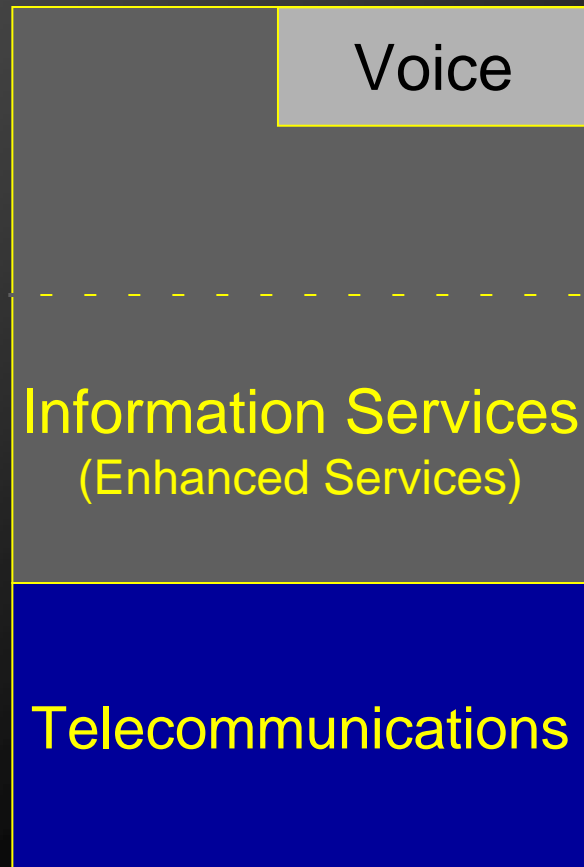
# *Telecom Service*



- Telecommunications Service  
47 U.S.C. § 153(46)
  - Telecommunications
  - Offered to the Public
  - For a Fee
  - “or to such classes of users as to be effectively available directly to the public”
  - Regardless of pipe used



# *Telecom Service*



## Telecom

- The transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.
- 47 U.S.C. § 153(43)



# VoIP Before the FCC

## Steven's Report

1998

- Spectrum
  - Computer to Computer VoIP: Info Service
  - Phone to Phone VoIP: Looks like a duck
- Steven's Criteria
  - Holds itself out as offering telephony
  - No special CPE
  - NANP
  - Transmission w/o change in form or content
- But we decide nothing here
  - Leave it to case by case analysis.





# VoIP

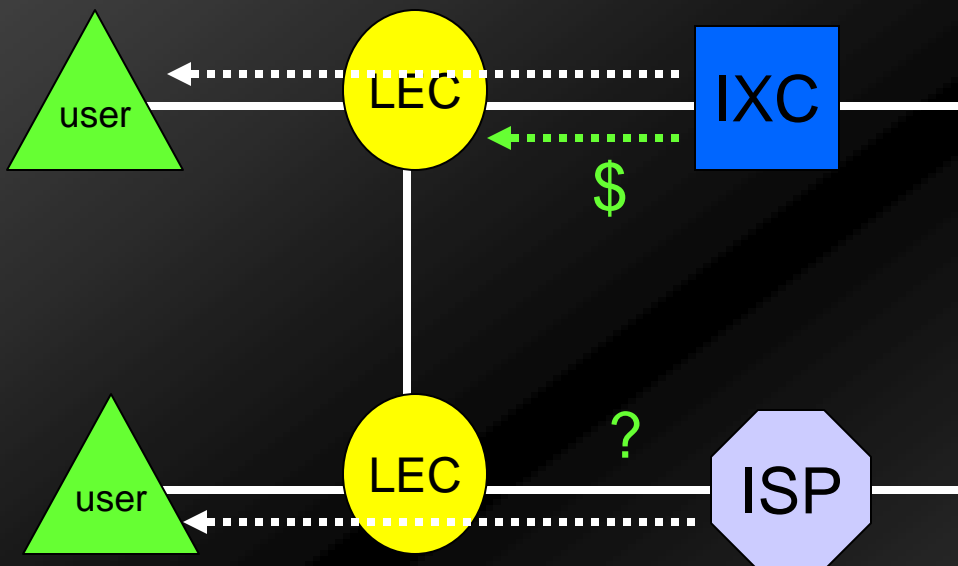
## Traditional Regulatory Concerns

- Market Power
- Anti Competitive Behavior
- Market Failure
  - Universal Service
- Essential Facilities

## Social Regulatory Concerns

- Lifeline – 911
- Power
- CALEA
- Disability Access

# Access Charges 1983



- ESPs exempt from metered access charges
  - *As if* local
  - *As if* end users
- End users and ESPs continue to pay flat rate subscriber line access charges.
  - End users purchase 2nd phone lines

Network cutover from NCP to TCP/IP (1 January, 1983)

Open Proceeding



# VoIP Before the States

## 16 States Acting Total

- **California** – Letter to VoIP service providers directing certification
- **Minnesota** – Vonage (VoIP) is a telecom service (reversed in Fed Court)
- **Wisconsin** – Letter to VoIP service providers directing certification
- **Workshops**
  - Florida
  - Illinois
- **Investigations**
  - Pennsylvania
  - Ohio
  - South Carolina
  - Utah
  - Alabama
  - Colorado



# VoIP Before the FCC

- Vonage Petition re Minnesota
- Pulver Petition that Free World Dial Up is an Info Service
- AT&T Petition that its IP Long Distance is an Info Service
- E911 Proceeding
- Universal Service Reform
- FCC Section 255 Notice of Inquiry
- CALEA
- Inflexion Petition



# Pulver Petition Free World Dial Up

- Sip Service
- Does not touch the PSTN
- Does not offer infrastructure network
- But CALEA!

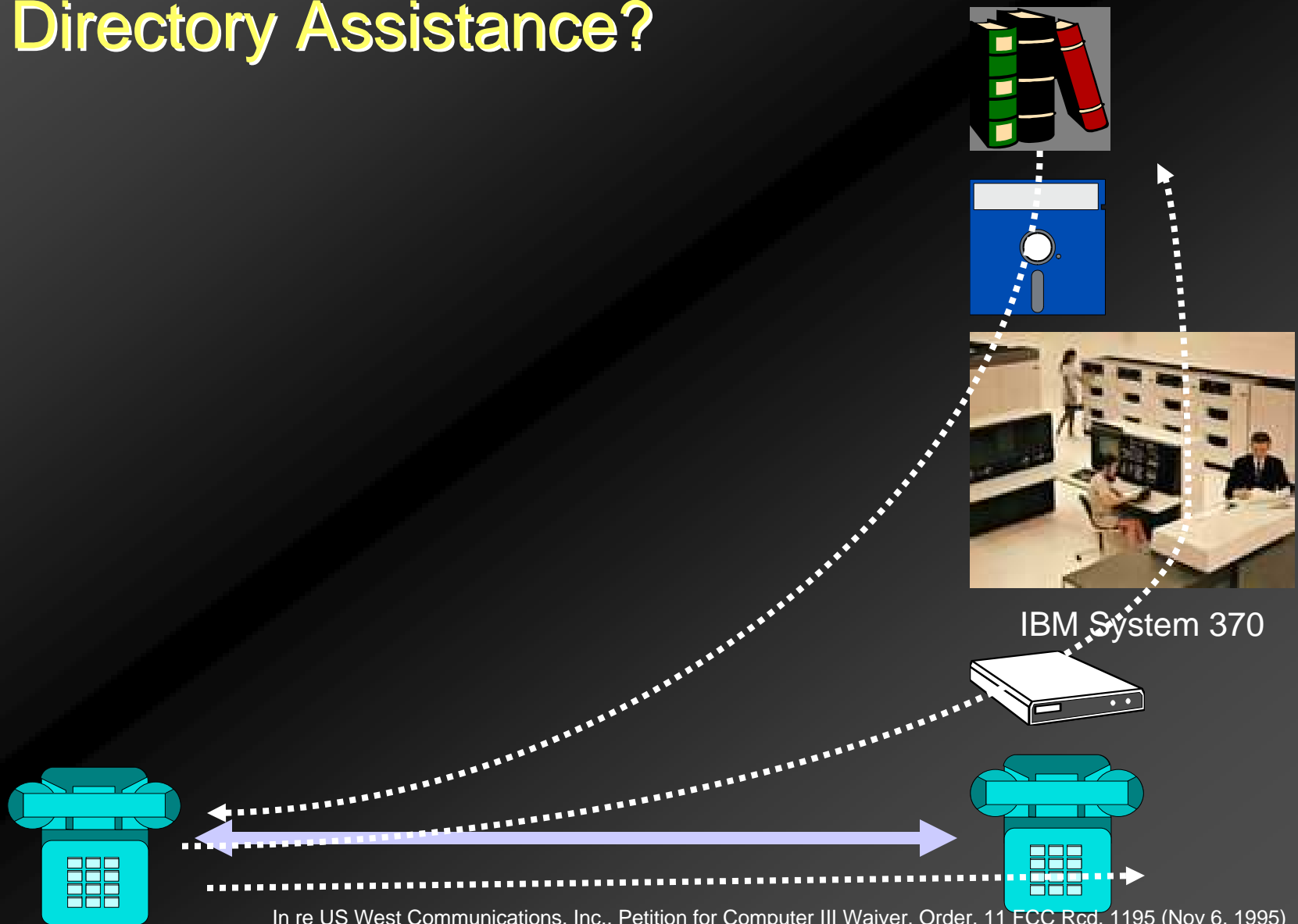


# CALEA

- It's not Wiretap Authority (ECPA or Title II)
- It is
  - A Pre installed black box
  - Cost Shifting
- FBI CALEA Petition RM-10865
  - Comments due April 12
  - Replies due April 27
  - CALEA Applied to all broadband access services and to applications
- 47 U.S.C. § 1001

# Adjunct Services

## Directory Assistance?

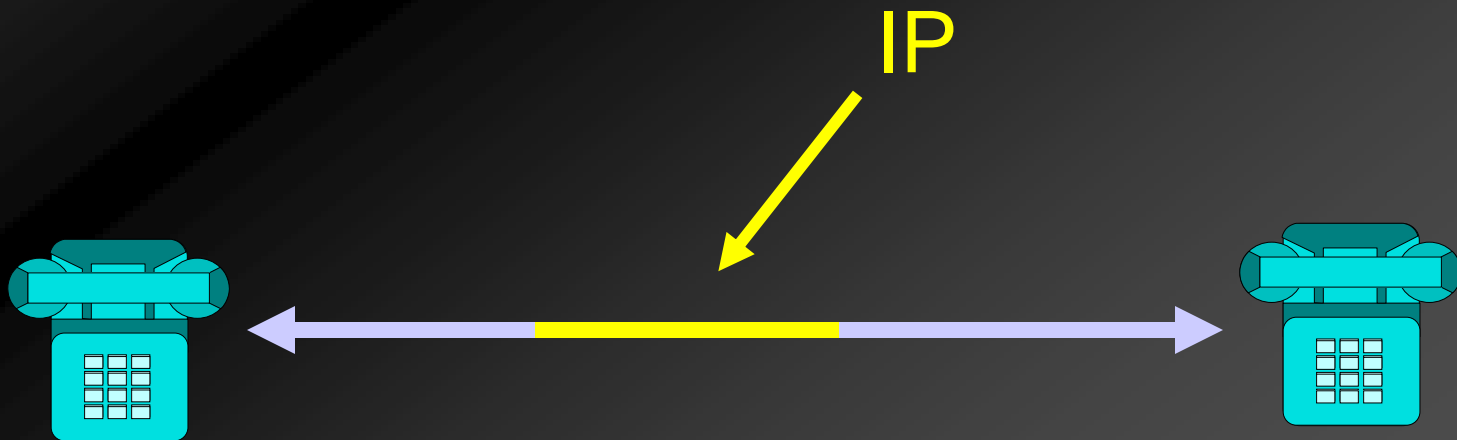




# AT&T Petition

Protocol Processing?

- Phone to Phone
- PSTN
- Over AT&T IP Backbone



# Other Issues

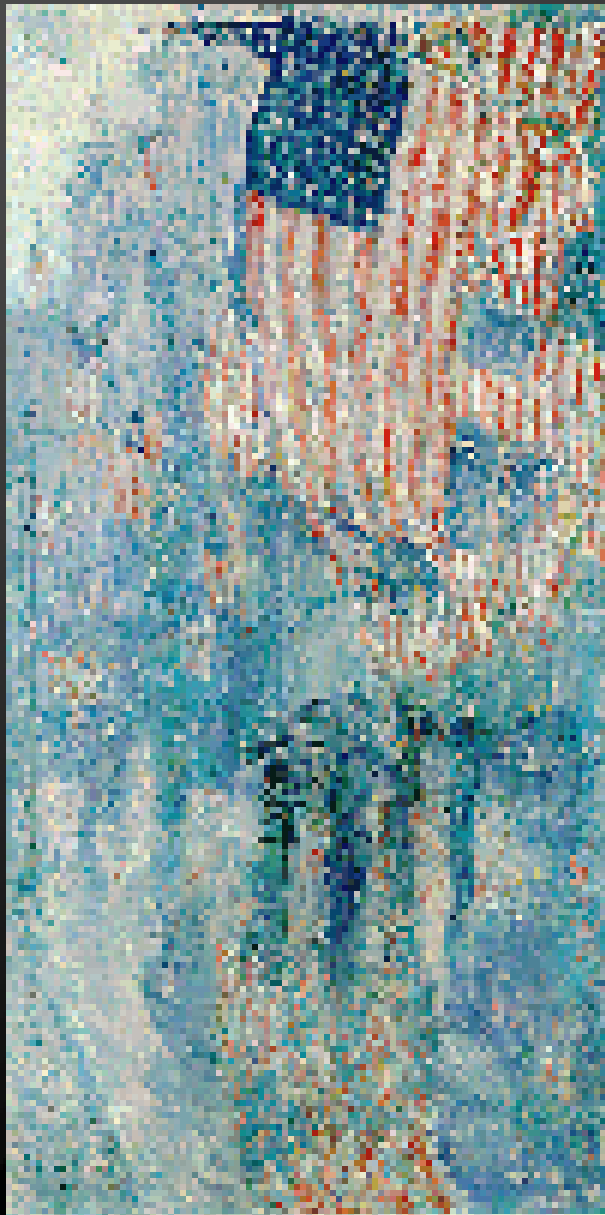
- Network Reliability
- SPAM
- Disability Rights
- Backbones
- ENUM

# Washington Internet Project

Your source for  
information on  
regulatory and  
legislative initiatives  
that impact the  
Internet.



[www.cybertelecom.org](http://www.cybertelecom.org)



*Thanks....*

Robert Cannon  
Senior Counsel for Internet Issues  
Office of Strategic Planning  
and Policy Analysis  
[robert.cannon@fcc.gov](mailto:robert.cannon@fcc.gov)