



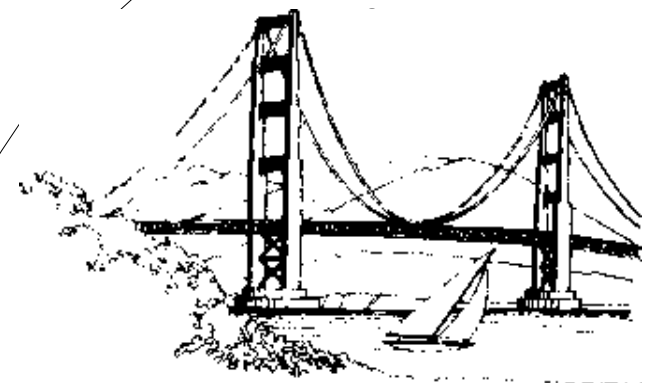
San Francisco Communications Society

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# Technology Perspectives on the Regulatory Pipeline

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CEO, Strategic Advisory Group

May 16, 2006





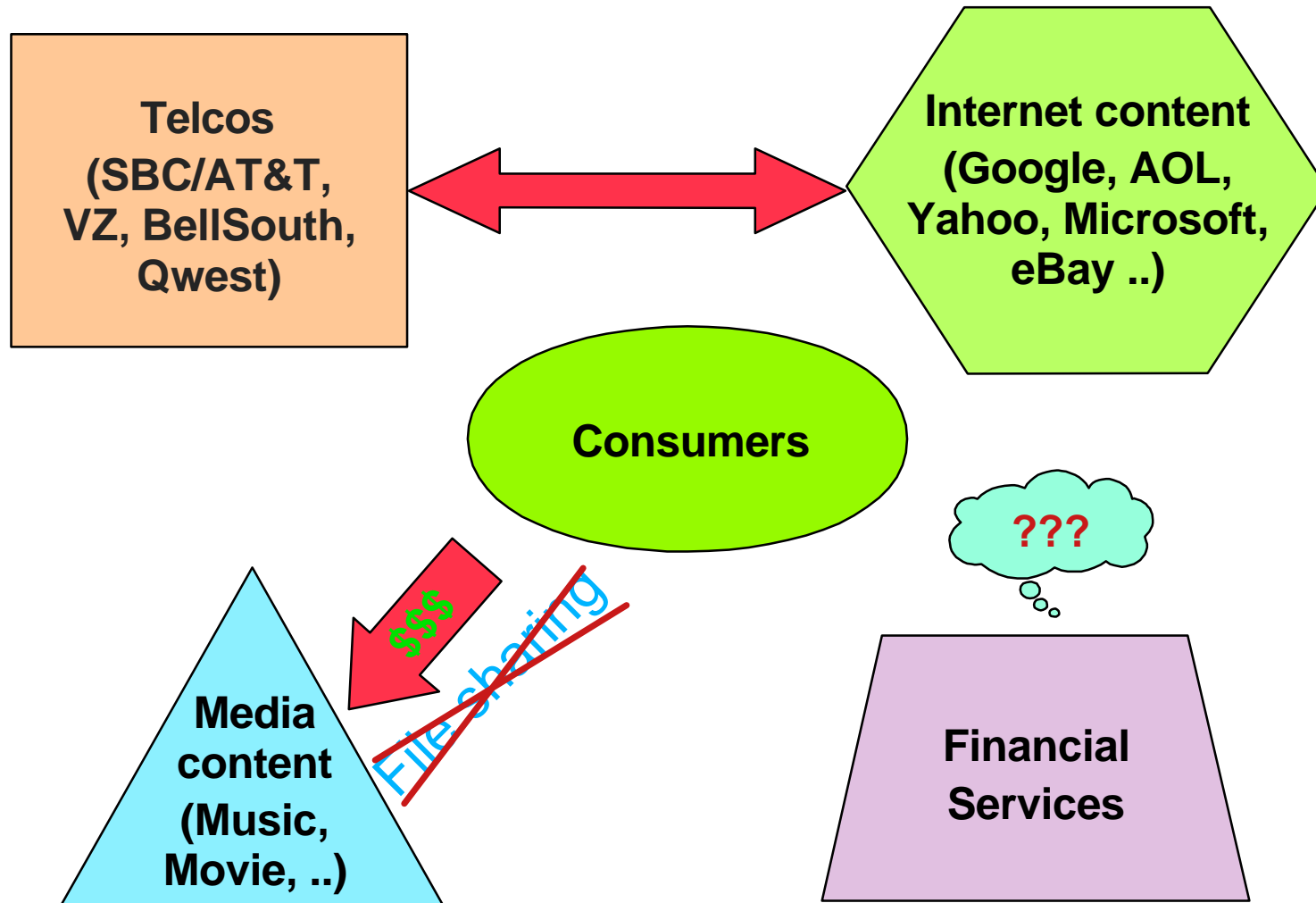
# Agenda

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- Background
- Current directions
- Policy gaps
- A new policy framework
- Discussion



# Stakeholder Groups





# Regulatory Directions

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- Uniform regulations
- "Net neutrality"
- "Digital rights"
- "Free market"
- "Competition"



# Missing Pieces

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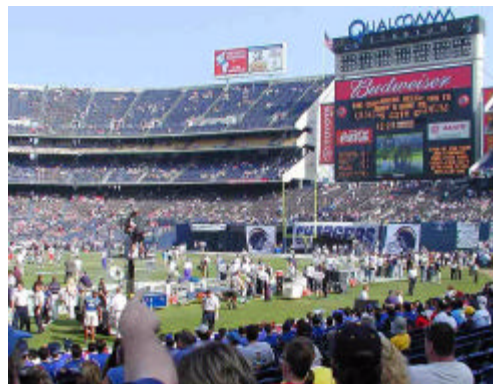
## Current drafts

- Do not take into account technology constraints/limitations
- Do not take advantage of technology potential
- Do not have technology driven vision for future



# Example of Planned Development

(with regulations)



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# Provider Strengths/Weakness

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## Current technology/infrastructure capabilities

### ■ Telco

- ▲ Excellent voice, good Internet, poor video

### ■ Cable

- ▲ Excellent video, good Internet, poor voice

### ■ Wireless

- ▲ Mobility, acceptable voice, poor data (except SMS)



# Network Design Requirements

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## REALTIME

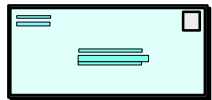


- ▲ Live signals
- ▲ Delay intolerant
- ▲ Circuit/TDM better

Circuit systems built for voice

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## NON-REALTIME

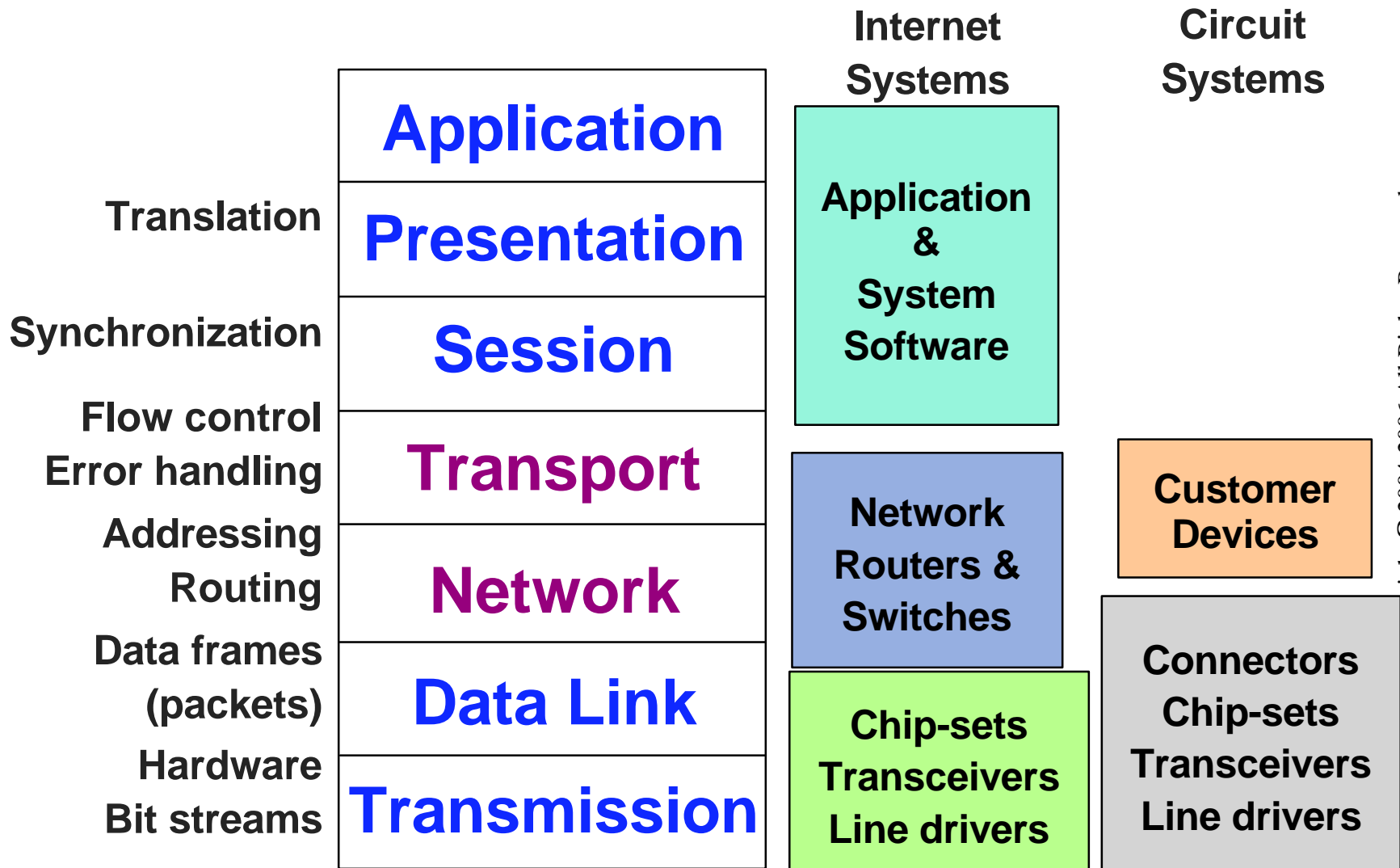


- ▲ Storable Data
- ▲ Delay tolerant
- ▲ Packet better

Internet built for computer-based data



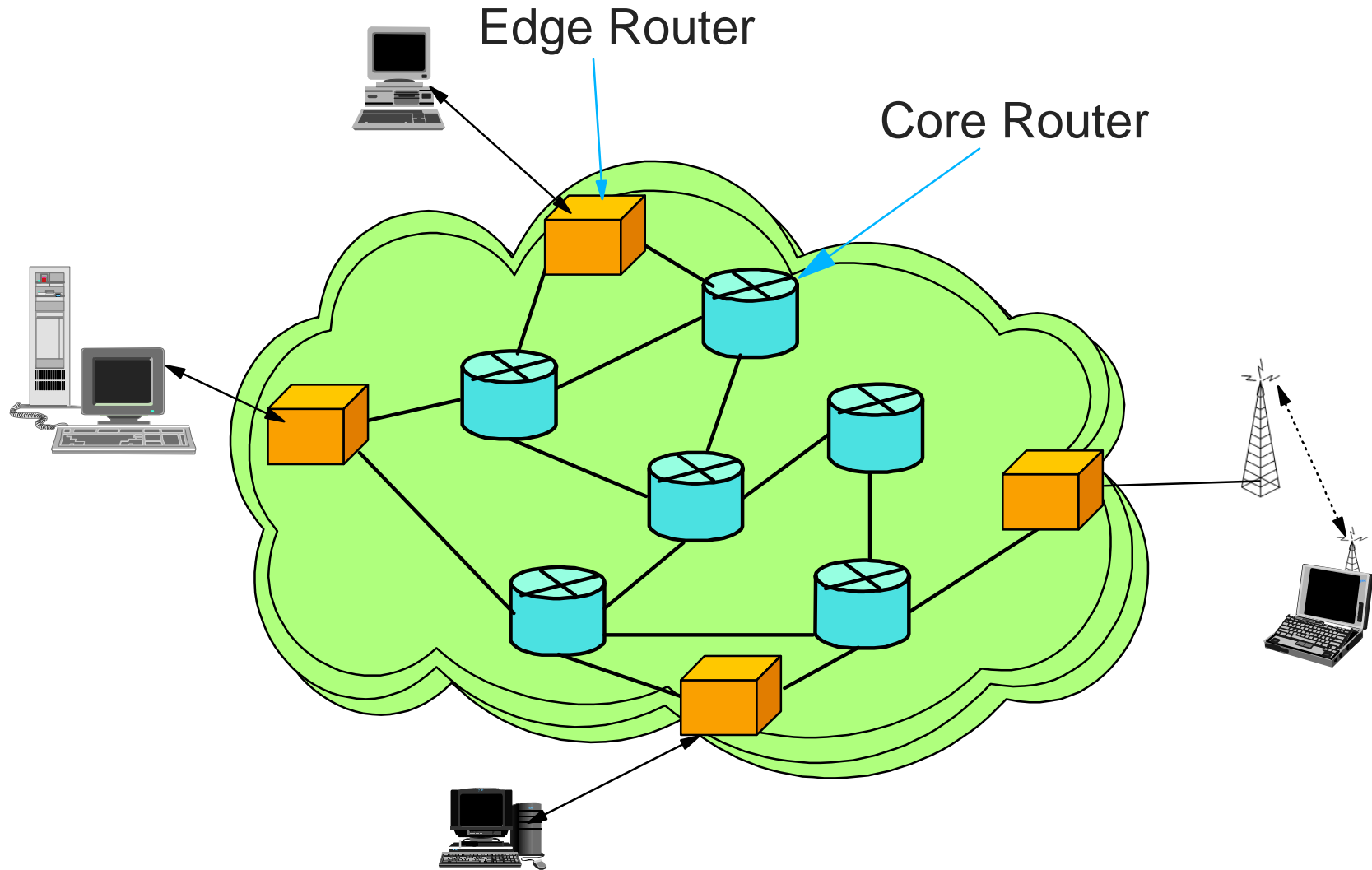
# OSI Model (Network Node)



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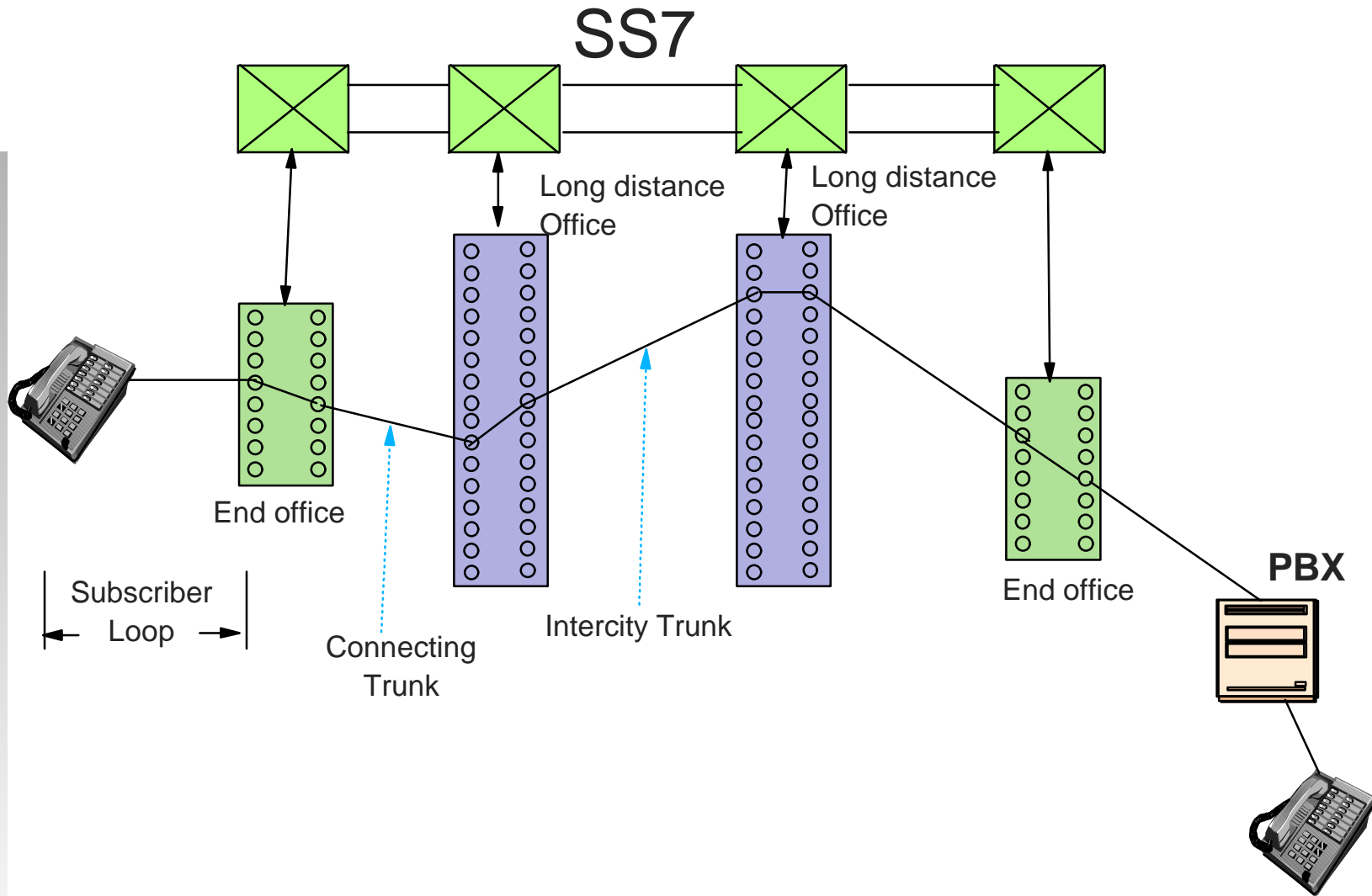
# Internet (packet) Network



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# Phone (circuit) Network

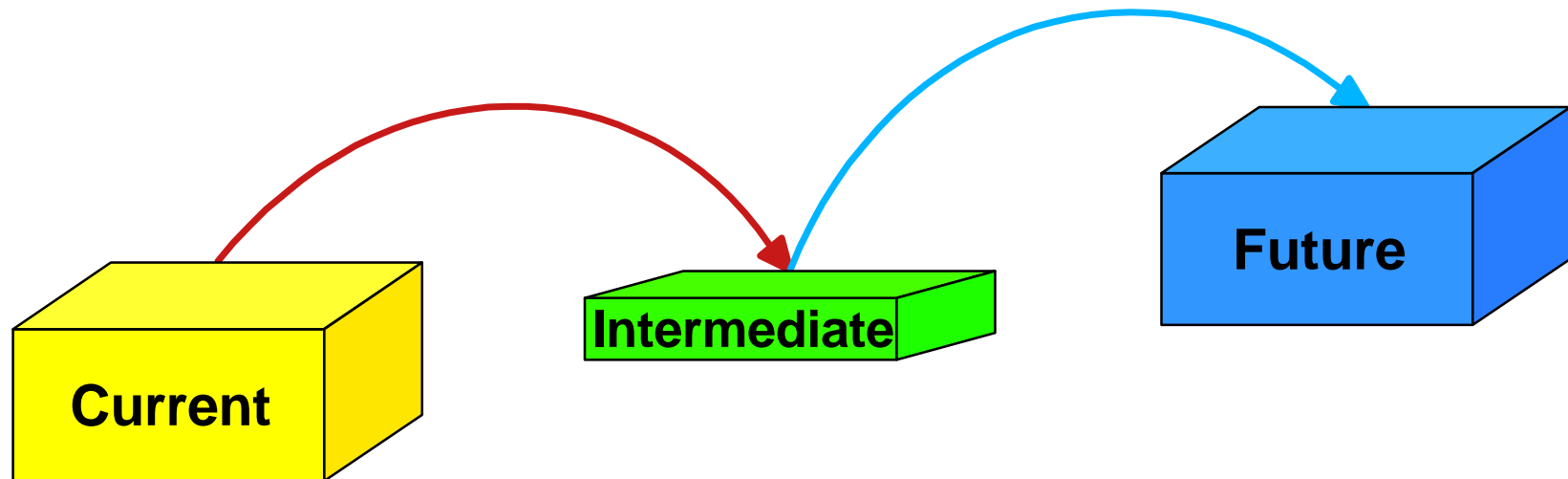




# Infrastructure Upgrade Plan

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Only staged upgrade is viable





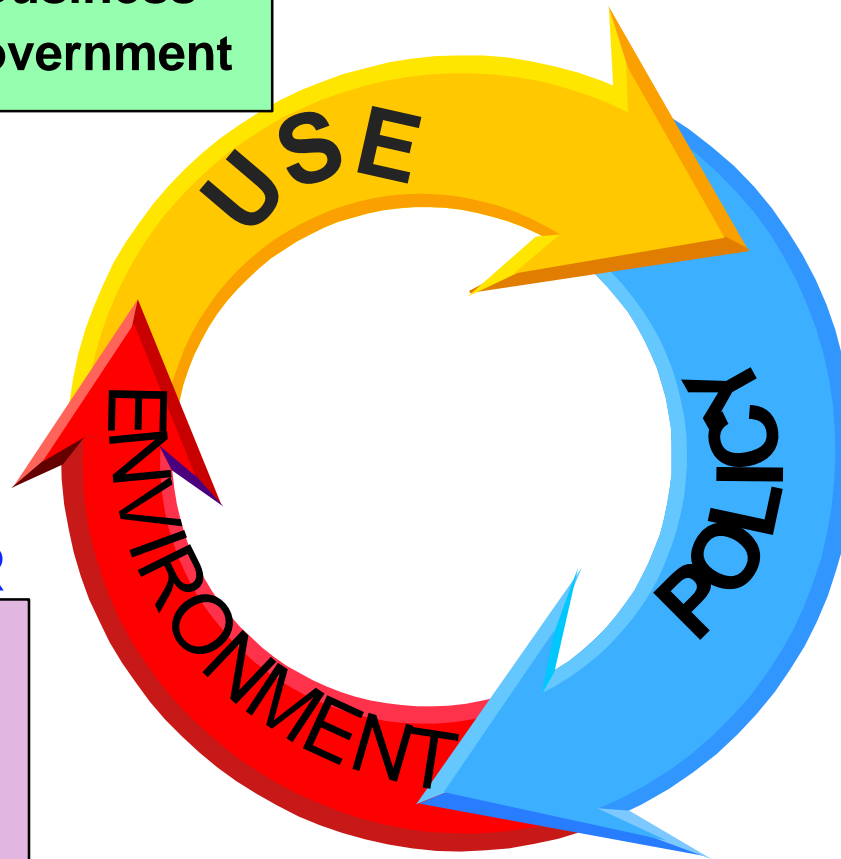
# A Regulatory Model

## PURPOSE

- Individual
- Business
- Government

## MONITOR

- Capability
- Availability
- Access
- Cost



## REFINE

- Infrastructure investment
- Market power
- Public interest
- Capital gap



# Technology Anchored Policies

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- Increasing network functionality by factoring in generic technology capabilities
- Promote network service variety
- Establish service coverage goals
- Promote technology-neutral functionality



# Net Neutrality

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- No content and/or protocol based
    - ▲ routing, and/or
    - ▲ traffic prioritization, and/or
    - ▲ traffic blocking, and/or
    - ▲ traffic filtering
- shall be used in a given Service Class



# Net Policy

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- Policy bias to promote technology adoption that increase consumer utility
- Mandatory Minimal Service Classes - gradually phased out
  - ▲ Similar to the planned termination of analog TV broadcasts



# Contact information

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