Policies that Fuel New Technology Adoption

Eric Stark

Associate Administrator, Office of Policy Analysis and Development

National Telecommunications and Information Administration

U.S. Department of Commerce

Seattle, Washington

July 24, 2008

www.ntia.doc.gov

National Telecommunications and Information Administration

- Principal adviser to the President on telecommunications and information policy issues
- Manage Federal Government use of frequency spectrum
- Represent the Executive Branch in international & domestic telecommunications policy activities
- Enhance the public interest by generating, articulating, and advocating telecommunications and information policies and programs

Overview

- Policies that Fuel New Technology Adoption
  - Broadband Deployment
  - Spectrum Management
  - Digital Television (DTV) Transition

President's Broadband Strategy

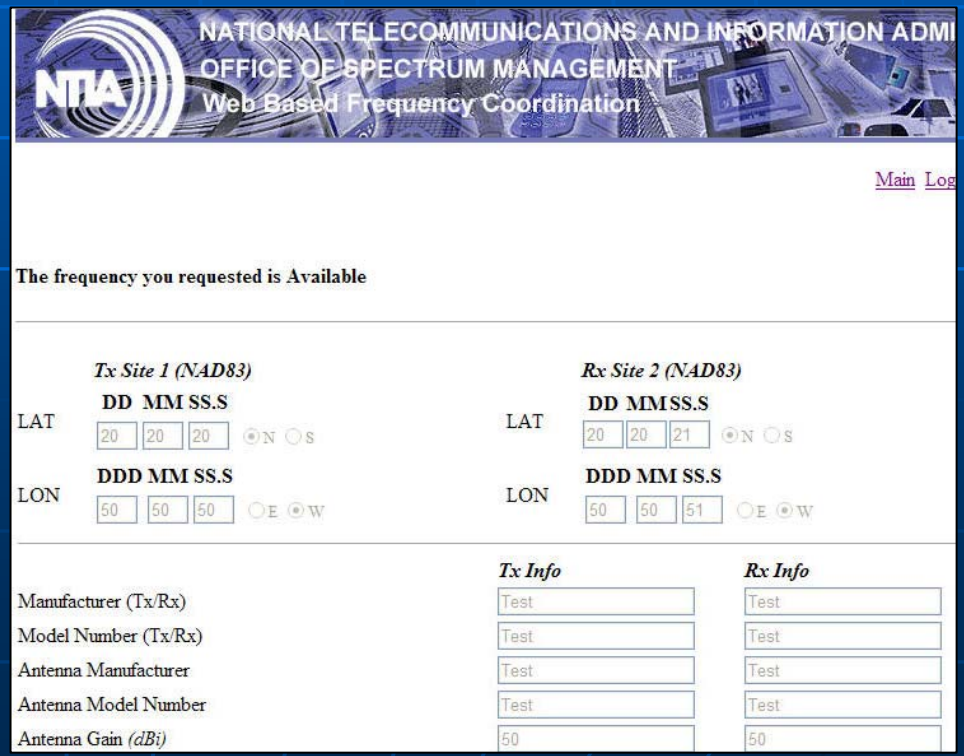
- Premise:
  - Private sector action – not government mandates or intervention
  - Regulatory environment to foster capital investment, technical innovation, and competition
- Framework: Integrated Set of Mutually-Reinforcing Policies
  - Fiscal
  - Regulatory
  - Technology

Wireless Broadband and New Technologies

"The other promising new broadband technology is wireless. The spectrum that allows for wireless technology is a limited resource . . . [a]nd a wise use of that spectrum is to help our economy grow, and help with the quality of life of our people." -- President George W. Bush, June 24, 2004

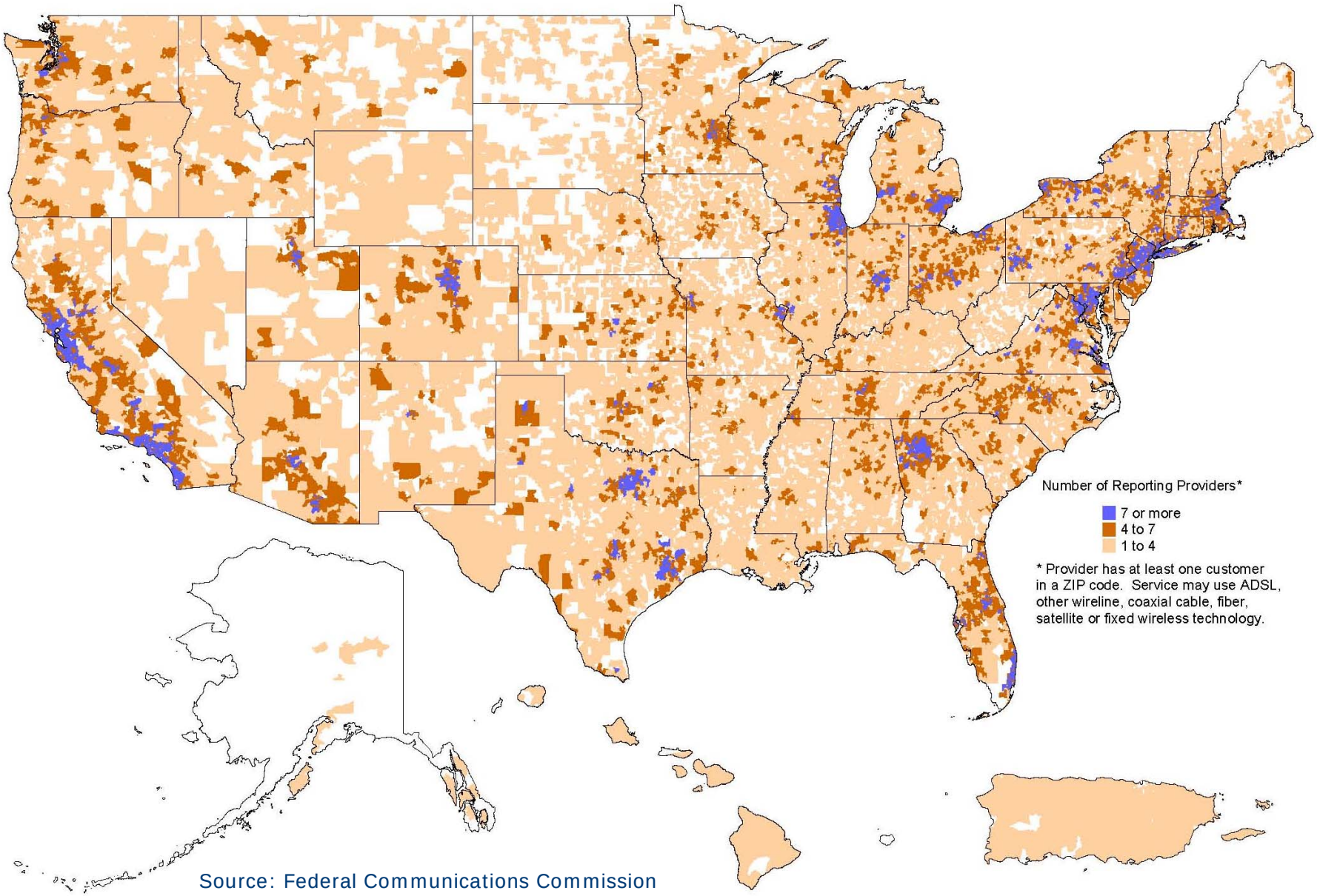
The Administration has made more radio spectrum available for wireless broadband technologies:

- Advanced Wireless Services ("3G")
- Ultra-wideband
- 5 GHz Spectrum
- 70/80/90 GHz



High-Speed Providers by ZIP Code

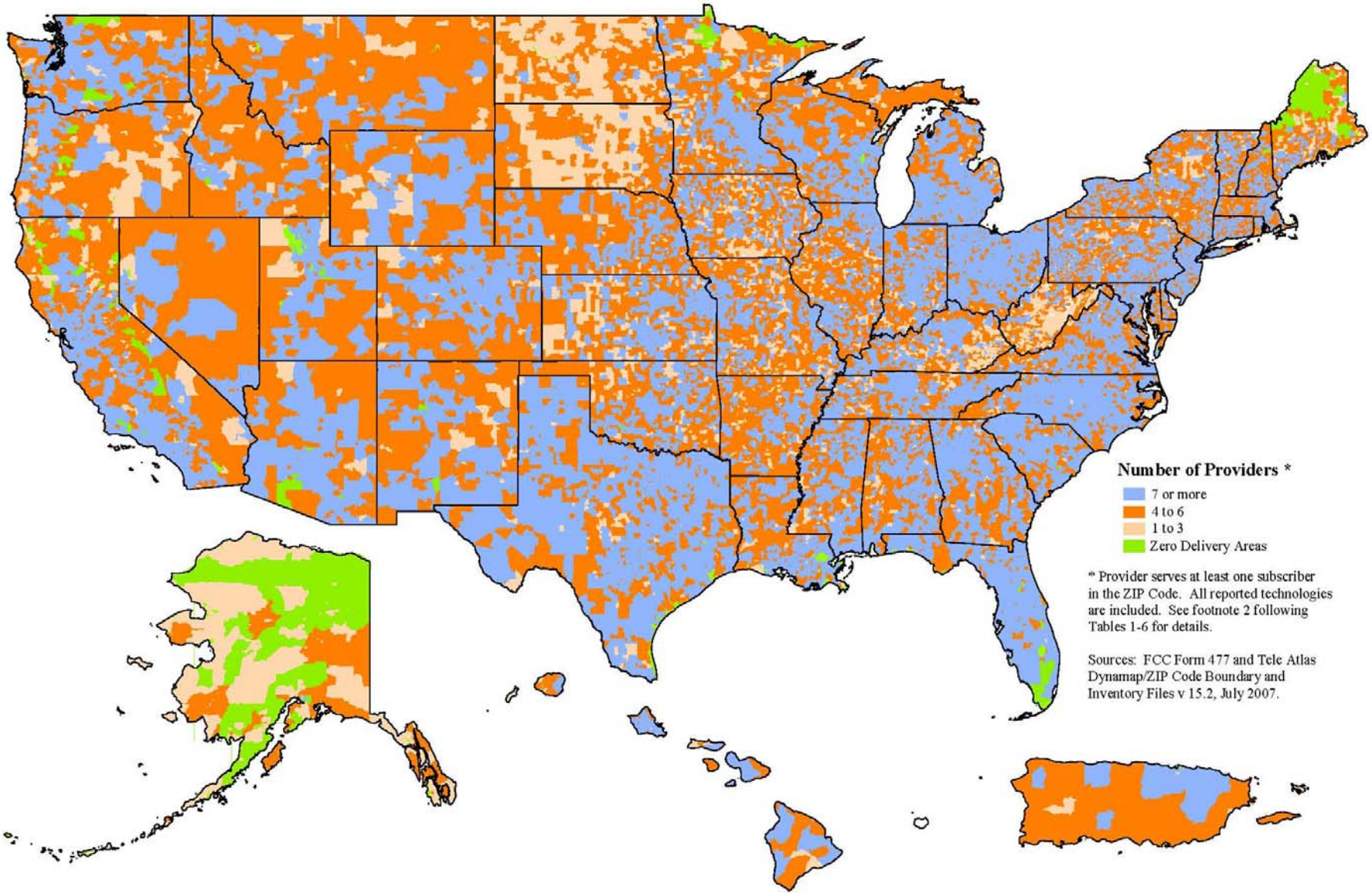
(As of June 30, 2001)



Source: Federal Communications Commission

High-Speed Providers by 5-Digit Geographical ZIP Code

(As of June 30, 2007)

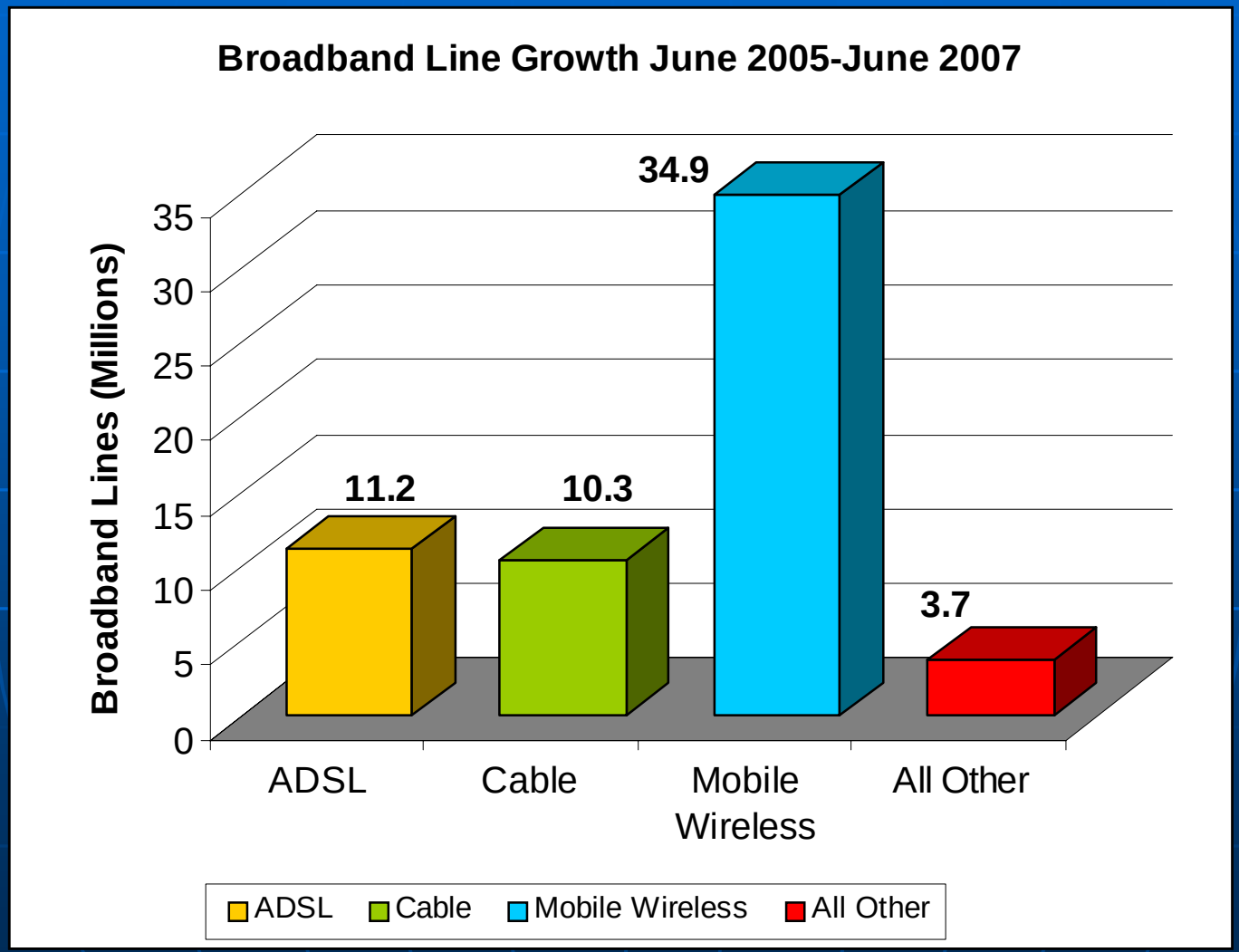


Prepared by the Federal Communications Commission,
Wireline Competition Bureau, Industry Analysis and Technology Division

Administration Principles on Network Management

- Transparency promotes competition; broadband providers should disclose network management practices
- Competitive pressures provides the most effective discipline on broadband providers
- Incentives must remain in place for new Internet capacity; ability of providers to price and/or manage networks should not be limited
- Avoid prescriptive regulation; defining “network management” will be overtaken by technology developments

Wireless: Fastest Growing Broadband Platform



Source: FCC *High-Speed Service for Internet Access: Status as of June 30, 2007*

Wireless Applications by Age Group

Anywhere, any time

2

Use of mobile phone or PDA to do the following
by age group, %, 2007

	18-29	30-49	50-64	65+
Send or receive text messages	85	65	38	11
Take a picture	82	64	42	22
Play a game	47	29	13	6
Play music	38	16	5	2
Record a video	34	19	8	3
Access the internet	31	22	10	6
Send or receive e-mail	28	21	12	6
Send or receive instant messages	26	18	11	7
Watch a video	19	11	4	2
At least one of these activities	96	85	63	36

Source: Pew Research Centre

President's 21st Century Spectrum Policy Initiative

"The existing legal and policy framework for spectrum management has not kept pace with the dramatic changes in technology and spectrum use."

- President George W. Bush
  Presidential Memorandum
  May 29, 2003

- Committed the Administration to develop a comprehensive U.S. spectrum policy for the 21st century
- The Secretary of Commerce was charged to lead this initiative

President's Spectrum Initiative Implementation Plan Projects

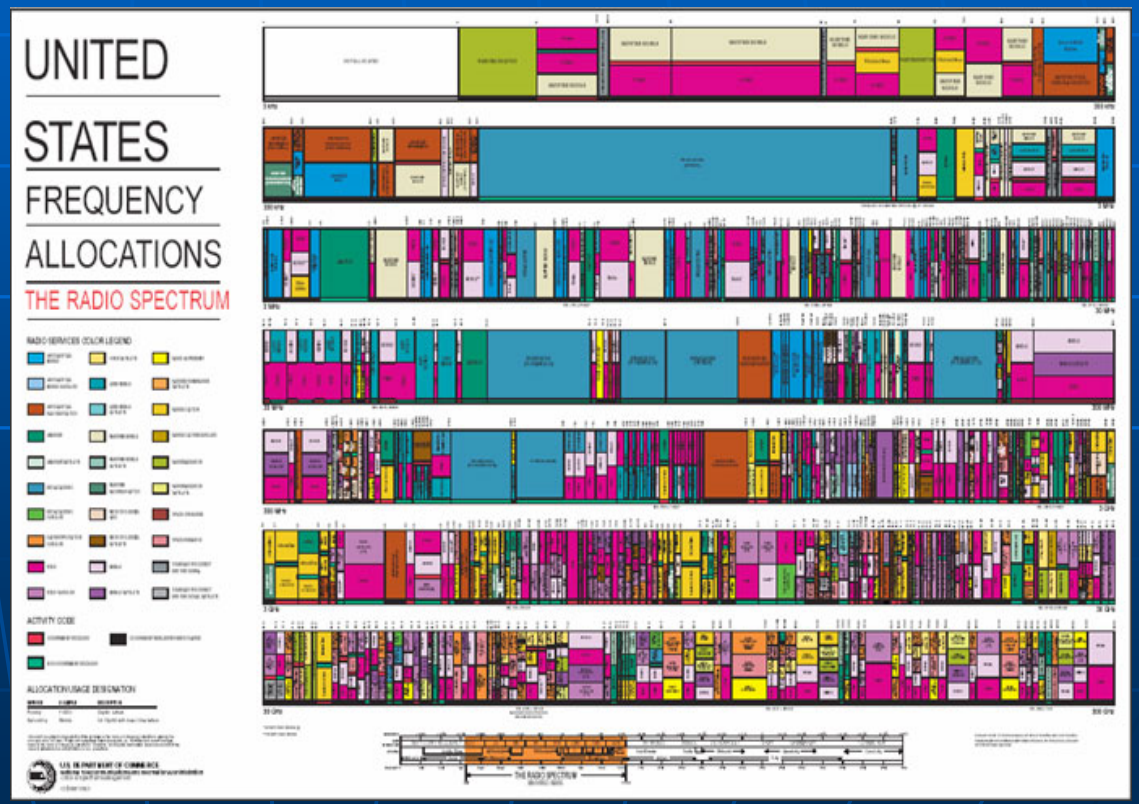
- ***Project A / Domestic Policies:*** Improve Stakeholder Participation and Maintain High Qualifications of Spectrum Managers
- ***Project B / International Policies:*** Reduce International Barriers to United States Technologies and Services
- ***Project C / Information Technology:*** Modernize Federal Spectrum Management Processes with Advanced Information Technology
- ***Project D / Public Safety:*** Satisfy Public Safety Communications Needs and Ensure Interoperability
- ***Project E / Engineering Analysis and Technology Assessment:*** Enhance Spectrum Engineering and Analytical Tools
- ***Project F / System Review and Spectrum Authorization:*** Promote Efficient and Effective Use of Spectrum
- ***Project G / Spectrum Planning and Reform:*** Improve Planning and Increase Use of Market-based Economic Mechanisms in Spectrum Management

Spectrum Policy Initiative Highlight: Plan for Identifying and Implementing Incentives

- Economic value of spectrum may be basis for incentives rather than mandates for improved spectrum efficiency
- Efficiency effects may be “technical” or “economic.”
- Need close look at applicability to Federal Government users.
- The approach:
  - Information Gathering
  - Spectrum Valuation
  - Studying Feasibility of Federal User Fees
  - Alternative Approaches
  - Sharing
  - User Rights & Secondary Markets

Spectrum Policy

- Federal Strategic Plan / National Strategic Plan
- Spectrum Test-bed
- Commerce Spectrum Management Advisory Committee (CSMAC)



Digital Television Transition

- NTIA TV Converter Box Coupon Program
  - For each analog television using “rabbit ears” or a rooftop antenna, consumers have a few simple choices:
    1. Subscribe to cable, satellite, or other pay TV service, *or*
    2. Buy a digital television, *or*
    3. Connect existing analog TV set to a converter box
  - A maximum of two $40 coupons may be requested per household
  - Can only be used for eligible converter boxes
  - Expires after 90 days by law

Digital Television Transition

- Public Safety Interoperable Communications
  - Nearly $1 billion in Grants to States & Territories
  - Interoperable Communications Projects
    - Equipment Acquisition
    - System Deployment
    - Training for Personnel

Policies that Fuel New Technology Adoption

- *"The role of government is not to create wealth; the role of our government is to create an environment in which the entrepreneur can flourish, in which minds can expand, in which technologies can reach new frontiers."*

  - President George W. Bush, Technology Agenda, November, 2002

Q & A

Eric Stark

Associate Administrator, Office of Policy
Analysis and Development
National Telecommunications & Information Administration
(202) 482-1880
estark@ntia.doc.gov