
The National Broadband Plan

Congress's charge in the Recovery Act led to the creation of the National Broadband Plan

Congress said that the plan should:

- "Ensure that all people of the United States have access to broadband capability and establish benchmarks for meeting that goal."
- "[I]nclude . . . a detailed strategy for achieving affordability . . . and maximum utilization of broadband infrastructure and service"
- "[I]nclude . . . an evaluation of the status of deployment of broadband service"
- "[I]nclude . . . a plan for use of broadband . . . in advancing consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes."



CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN

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Gaps in the broadband ecosystem today

Availability gap

- 14-24 million Americans do not have access to broadband infrastructure that can support today's and tomorrow's applications

Adoption gap

- 93 million Americans do not have broadband at home

Digital skills gap

- Many Americans lack digital skills, even as many job openings are posted exclusively online

National purposes gap

- The U.S. ranks in the bottom half of comparable countries on nearly every metric used to measure the adoption of health information technology
- Most of the U.S. electric grid is not connected to broadband

Goals of the National Broadband Plan: By 2020

- **Goal No. 1:** At least 100 million U.S. homes should have affordable access to actual download speeds of at least 100 megabits per second and actual upload speeds of at least 50 megabits per second.
- **Goal No. 2:** The United States should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.
- **Goal No. 3:** Every American should have affordable access to robust broadband service and the means and skills to subscribe if they so choose.
- **Goal No. 4:** Every American community should have affordable access to service of at least 1 gigabit per second to anchor institutions such as schools, hospitals and government buildings.
- **Goal No. 5:** To ensure the safety of the American people, every first responder should have access to a nationwide, wireless, interoperable broadband public safety network.
- **Goal No. 6:** To ensure that America leads in the clean energy economy, every American should be able to use broadband to track and manage their real-time energy consumption by 2020.

Infrastructure

Framework for recommendations

1

Lower costs of access to utility-owned poles, ducts, conduits, and rights-of-way

- FCC to establish low rental rates for pole attachments that are as uniform as possible, consistent with Section 224 of the Comm's Act
- FCC to lower "make-ready" costs by allowing cost-saving techniques and processes
- Suggest Congress re-examine Section 224 to provide more consistency among utilities and broadband services

2

Speed the process of accessing and using infrastructure for broadband

- FCC to follow states like NY and UT and establish timelines for accessing utility-owned infrastructure like poles
- FCC to improve collection and availability of utility owned infrastructure
- Create Task Force of federal, state, local, and Tribal ROW experts to catalog ROW policies, identify ROW policies that are consistent and inconsistent with broadband deployment, and recommend guidelines and cost-lowering processes

3

Plan for broadband in infrastructure projects

- Dep't of Transportation should make federal financing of highway, road and bridge projects contingent on allowing for joint deployment of broadband conduit alongside
- Congress should consider "dig once" legislation that would apply to all future federally funded projects

4

Reform federal facilities and ROW policies

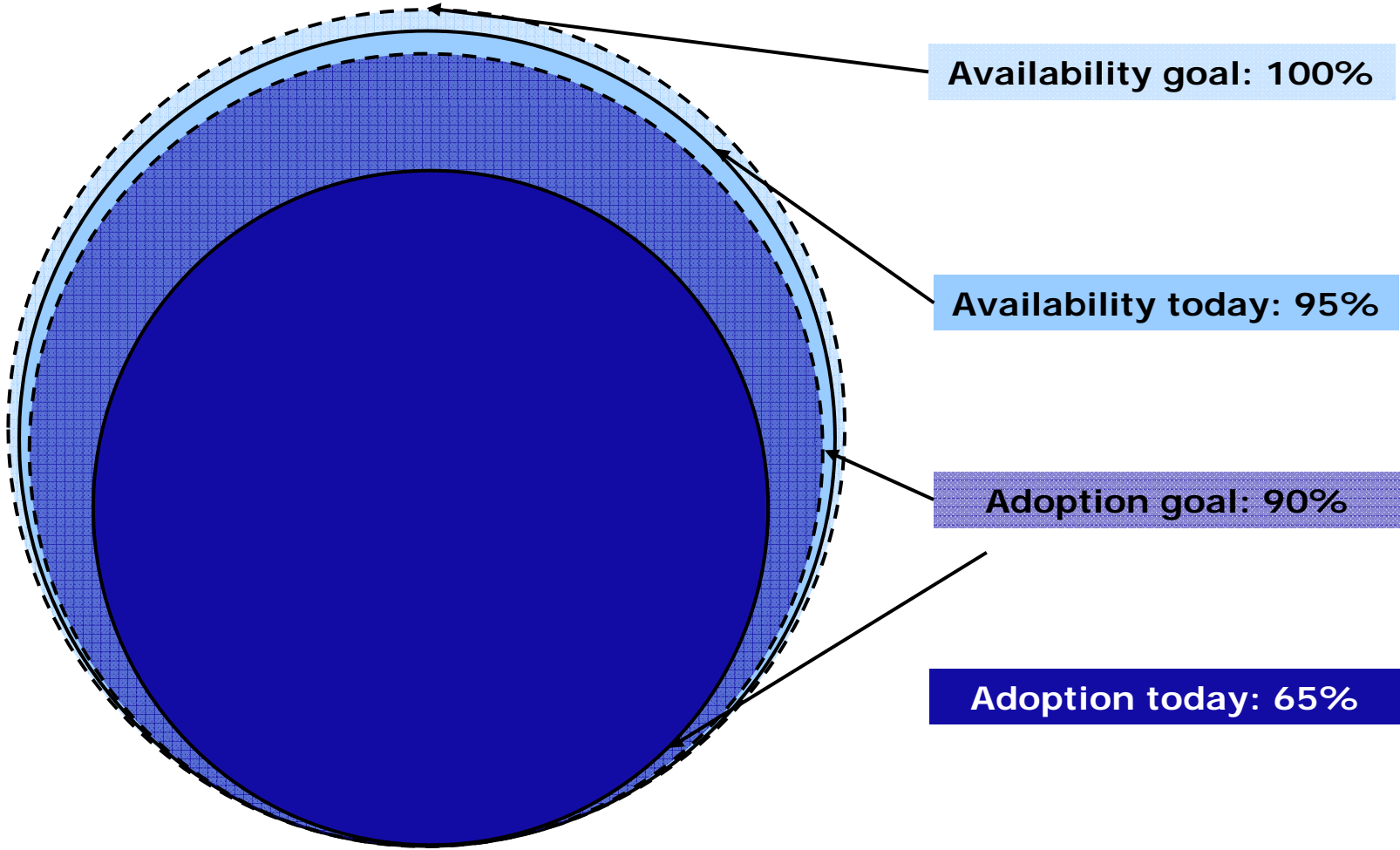
- Suggest Congress allow federal agencies to set fees for access to ROW on federal lands on a management and cost basis
- Executive Branch should develop master contracts to expedite placement of wireless towers on federal government property and buildings

INCLUSION

Driving inclusion in the broadband ecosystem

Availability and adoption of broadband among the U.S. population

Percent (100% = 306 million Americans)



Universal Service/ICC

USF has ensured universal voice service over the last century, but needs to be modernized to advance broadband

Gaps

14-24 million people unserved

Significantly lower adoption rates for low-income people

Anchor institutions require greater connectivity

Lack of data and information

Issues

- Solutions that focus on one segment of the industry will not close the availability gap
- The objective is to make broadband available to all without increasing contribution burden on consumers across America
- Almost half of low-income non-adopters cite cost as the main reason for not having broadband at home
- Programs need to be modernized to support broadband, improve participation, and protect against waste, fraud and abuse
- While existing programs have provided significant support for broadband over the last decade, programs need to be modernized to meet health care and education needs of the future
- USF does not have outcome-oriented performance goals

Framework for recommendations

1

Making broadband available

- Make broadband available to more than 99% of all American households by 2020
- Create a new Connect America Fund
- Create a new Mobility Fund
- Reform intercarrier compensation

2

Making broadband more affordable for low income households

- Expand the existing FCC Low Income program to broadband
- Consider use of spectrum for a free or very low cost wireless service

3

Ensuring that schools and libraries have access to affordable broadband

- Modernize the E-rate program

4

Ensuring health care providers have access to affordable broadband

- Transform the Rural Health Care program

1 Making broadband available

Create a new Connect America Fund

- Support universal availability of broadband and high-quality voice grade service with at least 4 Mbps actual download/1 Mbps upload speeds
- Develop expedited process to target funding to unserved areas, shifting funds from legacy programs
- Provide support where there is no private sector business case to offer affordable service
- Encourage innovation with a technology- and provider-neutral program

Create a new Mobility Fund

- Target funding to states that are significantly lagging national average for 3G coverage

Intercarrier compensation reform

- Eliminate inefficient and irrational economic behavior
- Encourage transition to IP-to-IP interconnection
- Staged transition away from per minute rates to allow companies and investors to prepare
- Provide opportunity for adequate cost recovery

2 Making broadband more affordable for low-income households

Modernize the existing program to promote choice and participation

- Allow existing voice subsidy to apply to any voice and data bundle that includes basic voice service
- Incorporate into other e-gov initiatives
- Identify best practices for enrollment, eligibility verification and outreach

Facilitate pilots to determine the most cost-effective support mechanisms

- Obtain academic input on program design and evaluation of pilot
- Test different subsidy levels and types of subsidies (monthly cost, installation, CPE)

Consider use of spectrum for a free or very low cost wireless service

- Consider licensing a block of spectrum with a condition to offer a free (or very low cost) wireless service
- Advertiser-supported service would be similar to the approach for universal access to video services (free TV)
- Would be a complement to broadband Lifeline program

3 Modernizing the E-rate program to ensure that schools and libraries have access to affordable broadband

Increase flexibility and bandwidth

- Permit off-hours community use
- Set goals for school and library connectivity
- Support more flexibility in infrastructure development
- Support more internal connections

Improve program efficiency

- Streamline application process
- Improve cost efficiency and data collection
- Index cap to inflation
- Remove barriers to sharing bandwidth with other community institutions

Foster innovation with pilot programs

- Support wireless connectivity to devices on and off-campus
- Award some funds competitively

4 Transforming the Rural Health Care program to ensure that health care providers have access to affordable broadband

Increase flexibility and bandwidth

- Subsidize ongoing connectivity costs
- Subsidize broadband network deployment where infrastructure not available
- Expand eligibility

Improve program efficiency

- Remove barriers to sharing bandwidth with other community institutions

Monitor and measure

- Require institutions to meet outcomes-based performance measures

Energy and the Environment

As a platform for innovation, broadband can help promote energy independence and efficiency

1

Integrate broadband into the smart grid

- Commercial networks
 - Investigate reliability and resiliency of commercial networks as part of a smart grid
 - Reduce impediments and financial disincentives to use
- Public safety networks
 - Enable utilities to partner with proposed public safety broadband network
- Private networks
 - Consider smart grid requirements in identifying new uses for spectrum

2

Expand consumer access to energy information

- Ensure customers have access to and privacy of their digital energy information
 - Real-time information from smart meters
 - Historical consumption, price, and bill data over the Internet
- Enable energy innovation in smart homes and buildings
 - With best practices of privacy and cybersecurity, allow customer-authorized 3rd party access

3

Accelerate sustainable information and communications technology

- Focus on the energy efficiency and environmental impact of the communications industry
- Set energy efficiency goals for federal data centers
 - Meter to get baseline data on energy use
 - Incorporate ENERGY STAR rating program

4

Transition to a safer, cleaner, and more efficient transportation sector

- Focus on methods to reduce distracted driving
 - Consumer outreach
 - Work with industry on next generation of in-vehicle communications technology
- Enable broadband to vehicles and mass-transit to ease navigation, increase mobility and improve the environment
- Deploy vehicle-to-vehicle intelligent transportation technology to help prevent accidents

IMPLEMENTATION AND BENCHMARKS

Proposed 2010 Key Broadband Action Agenda Items*

	Q2 2010 (CY)	Q3 2010 (CY)	Q4 2010 (CY)
Promote World-Leading Mobile Broadband Infrastructure and Innovation	Mobile Roaming Order and FNPRM (WTB)	AWS Bands Analysis (WTB, OET)	AWS Potential Order (WTB, OET)
		D Block Order/NPRM (WTB, PSHSB) [Also in Public Safety]	Secondary Markets Internal Review (WTB)
	Launch Strategic Spectrum Plan and Triennial Assessment (WTB, OET, OSP)	Spectrum Sharing/Wireless Backhaul NPRM/NOI (WTB, OET)	Spectrum Dashboard 2.0 (WTB, OET, PSHSB, MB, IB)
	2.3 GHz WCS/SDARS Order (OET, WTB, IB)	Oppor. Use of Spectrum NPRM (OET, WTB, IB, MB, PSHSB)	Recommendation re: Contiguous Unlicensed Spectrum Proceeding (OET, WTB)
		TV White Spaces Opinion & Order (OET, MB, WTB)	Experimental Licensing NPRM (OET)
		MSS NPRM (OET, IB, WTB)	
		Broadcast TV Spectrum Innovation NPRM (OET, MB, WTB)	
Accelerate Universal Broadband Access and Adoption	USF Reform NPRM and NOI (WCB, WTB)		Mobility Fund NPRM (WTB, WCB)
	Lifeline/Low-Income Joint Board Referral Order (WCB, WTB)	Hearing Aid Compat. Second Report & Order/FNPRM (WTB, OET, CGB)	Spectrum on Tribal Lands NPRM (WTB, CGB)
	E-Rate FY2011 NPRM (WCB)		E-Rate FY2011 Order (WCB)
	USF Merger Commitments Order (WCB, WTB)	Rural Health Care Reform NPRM (WCB)	USF Transformation NPRM (WCB, WTB)
	Lifeline Pilot Roundtable (WCB, WTB)	Lifeline Flexibility NPRM (WCB, WTB)	Intercarrier Compensation NPRM (WCB, WTB)
	FCC/FDA Workshop and PN on Converged Devices (OET)	Establish Accessibility and Innovation Forum (CGB, WCB, WTB)	USF Contributions NPRM (WCB, WTB)
	Launch FCC Office of Native American Affairs (CGB)	Real-Time Text NOI (CGB, WCB, WTB, OET)	Real-Time Text NPRM (CGB, WCB, WTB, OET)
	FCC-Native Nations Broadband Task Force (CGB)		Internet Video and Device Accessibility NOI (CGB, WCB, WTB, MB)
Foster Competition and Maximize Consumer Benefits Across the Broadband Ecosystem	Mobile Wireless Competition Report (WTB, OSP)	Interconnection Clarification Order (WCB)	
	Pole Attachments Order and FNPRM (WCB)	Rights-of-Way Task Force (CGB, WCB)	Small Business Broadband & Wholesale Comp. NOI (WCB)
	Small Business Broadband & Wholesale Comp. PN (WCB)		
		Special Access Workshop (WCB, WTB, OSP)	Special Access NPRM (WCB, WTB, OSP)
	CableCARD NPRM (MB, OET)		
	Smart Video Devices NOI (MB, OET)		Smart Video Devices NPRM (MB, OET)
	Launch Tech. Adv. Grp. on Speed & Perf. (CGB, OET, WCB)		Transparency & Disclosure NPRM (CGB, WCB, WTB, OET)
Launch Speed and Performance Measurement Program (CGB, WTB, WCB, OET)		Broadband Data NPRM (WCB, WTB, OSP)	
Advance Robust and Secure Public Safety Communications Networks		Public Safety Roaming & Priority Access NPRM (WTB, PSHSB)	NG 911 NOI (PSHSB, OET, WCB, WTB)
		D Block Order/NPRM (WTB, PSHSB) [Also in Mobile]	Back-Up Power NOI (PSHSB, OET, WTB)
		700 MHz Waiver Petitions (PSHSB, WTB, OET)	Serv. Outage & Homeland Security NPRM (PSHSB, OET, WCB, WTB, IB)
	ERIC Public Safety Interoperability Order (PSHSB)	700 MHz Public Safety Order/FNPRM (PSHSB, WTB, OET)	
	Cybersecurity Certification NOI (PSHSB, WTB, OET, WCB)	Location Accuracy FNPRM (PSHSB, OET, WTB)	
	Survivability NOI (PSHSB, OET, WTB, WCB)		
	Serv. Outage & Homeland Security Workshop (PSHSB, OET, WCB, WTB, IB)		

Wireless Telecommunications Bureau (WTB)
 Wireline Competition Bureau (WCB)
 Office of Engineering and Technology (OET)
 Media Bureau (MB)
 Consumer & Governmental Affairs Bureau (CGB)
 Public Safety & Homeland Security Bureau (PSHSB)

* This document reflects only proposed FCC actions, not those of other government agencies, and is not exhaustive of all 2010 FCC actions. The location and timing of actions in this document represents a series of targets that may be adjusted to respond to changing conditions as appropriate; items that span quarters are expected to occur late in the earlier quarter, or early in the later quarter. Does not include initiatives discussed in Agenda from Q1 2010 and earlier (E-rate Community Use Order, Rural Health Care Pilot Program Extension Order, Spectrum Dashboard Beta, and Tower Siting Declaratory Ruling).