

GOALS FOR A HIGH- PERFORMANCE AMERICA

CHAPTER 2

THE MISSION OF THIS PLAN is to create a high-performance America—a more productive, creative, efficient America in which affordable broadband is available everywhere and everyone has the means and skills to use valuable broadband applications.

The importance of broadband continues to grow around the world. High-performing companies, countries and citizens are using broadband in new, more effective ways. Some countries have recognized this already and are trying to get ahead of the curve. South Korea, Japan, Australia, Sweden, Finland and Germany, among others, have already developed broadband plans.

A high-performance America cannot stand by as other countries charge into the digital era. In the country where the Internet was born, we cannot watch passively while other nations lead the world in its utilization. We should be the leading exporter of broadband technology—high-value goods and services that drive enduring economic growth and job creation. And we should be the leading user of broadband-enabled technologies that help businesses increase their productivity, help government improve its openness and efficiency, and give consumers new ways to communicate, work and entertain themselves.

To ensure we lead the world, this plan addresses the troubling gaps and unrealized opportunities in broadband in America by recommending ways federal, state and local governments can unleash private investment, innovation, lower prices and better options for consumers. Its recommendations fall into four general categories:

- Design policies to ensure robust competition and, as a result, maximize consumer welfare, innovation and investment.
- Ensure efficient allocation and management of assets government controls or influences, such as spectrum, poles, and rights-of-way, to encourage network upgrades and competitive entry.
- Reform current universal service mechanisms to support deployment of broadband and voice in high-cost areas; and ensure that low-income Americans can afford broadband; and in addition, support efforts to boost adoption and utilization.
- Reform laws, policies, standards and incentives to maximize the benefits of broadband in sectors government influences significantly, such as public education, health care and government operations.

Across these categories, this plan offers recommendations for the Federal Communications Commission (FCC), the Executive Branch, Congress, states and other parties. But to ensure we are on the right path, the country should set long-term goals and benchmarks to chart our progress. The plan recommends that the country set the following six goals for 2020 to serve as a compass over the next decade.

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.

The United States must lead the world in the number of homes and people with access to affordable, world-class broadband connections. As such, 100 million U.S. homes should have affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps by 2020. This will create the world's most attractive market for broadband applications, devices and infrastructure.

The plan has recommendations to foster competition, drive demand for increased network performance and lower the cost of deploying infrastructure. These recommendations include providing consumers with information about the actual performance of broadband services, reviewing wholesale access policies and conducting more thorough data collection to monitor and benchmark competitive behavior. Reforming access to rights-of-way can lower the cost of upgrades and entry for all firms. Increased spectrum availability and use for backhaul can enable more capable wireless networks that will drive wired providers to improve network performance and ensure service is affordable.

Government can also help create demand for more broadband by enabling new applications across our most important national priorities, including health care, education and energy, and by ensuring consumers have full control of their personal data.

As a milestone, by 2015, 100 million U.S. homes should have affordable access to actual download speeds of 50 Mbps and actual upload speeds of 20 Mbps.

GOAL NO. 2: The United States should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.

Mobile broadband is growing at unprecedented rates. From smartphones to app stores to e-book readers to remote patient monitoring to tracking goods in transit and more, mobile services and technologies are driving innovation and playing an increasingly important role in our lives and our economy. Mobile broadband is the next great challenge and opportunity for the United States. It is a nascent market in which the United States should lead.

Spectrum policy is the most important lever government has to help ensure wireless and mobile broadband thrive. Efficient

allocation of spectrum consistent with the public interest will maximize its value to society. It will lower network deployment costs, making it easier for new companies to compete and enabling lower prices, more investment and better performance.

Today, the FCC has only 50 megahertz of spectrum in the pipeline that it can assign for broadband use, just a fraction of the amount that will be necessary to match growing demand. As a result, companies representing 5% of the U.S. economy asked the FCC to make more spectrum available for mobile broadband, saying that “without more spectrum, America’s global leadership in innovation and technology is threatened.”¹

To achieve this goal of leading the world in mobile broadband, the plan recommends making 500 megahertz of spectrum newly available for broadband by 2020, with a benchmark of making 300 megahertz available by 2015. In addition, we should ensure greater transparency in spectrum allocation and utilization, reserve spectrum for unlicensed use and make more spectrum available for opportunistic and secondary uses.

GOAL NO. 3: Every American should have affordable access to robust broadband service, and the means and skills to subscribe if they so choose.

Not having access to broadband applications limits an individual’s ability to participate in 21st century American life. Health care, education and other important aspects of American life are moving online. What’s more, government services and democratic participation are shifting to digital platforms. This plan recommends government use the Internet to increase its own transparency and make more of its data available online. Getting everyone online will improve civic engagement—a topic this plan also addresses by recommending a more robust digital public ecosystem.

Three requirements must be satisfied to ensure every American can take advantage of broadband. First, every American home must have access to network services. Second, every household should be able to afford that service. Third, every American should have the opportunity to develop digital skills.

The plan recommends reforming existing support mechanisms to foster deployment of broadband in high-cost areas: specifically, the Universal Service Fund and intercarrier compensation. The plan outlines a 10-year, three-stage course of action to transform these programs to connect those who do not have access to adequate broadband infrastructure.² Rather than add new burdens to the already strained contribution base, we must make the tough choice to shift existing support that is not advancing public policy goals in order to directly focus those resources on communities unserved by broadband.

To promote affordability, this plan also proposes extending the Lifeline and Link-Up programs to support broadband. To promote digital skills, we need to ensure every American has

access to relevant, age-appropriate digital literacy education, for free, in whatever language they speak, and we need to create a Digital Literacy Corps.

Achieving this goal will likely lead to an adoption rate higher than 90% by 2020 and reduced differences in broadband adoption among demographic groups.

To the end, government can make broadband more accessible to people with disabilities. It can also work with Tribal governments to finally improve broadband deployment and adoption on Tribal lands.³ And it can ensure small businesses—many of which are owned by women and minorities—have the opportunity to purchase broadband service at reasonable rates.

GOAL NO. 4: Every American community should have affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals and government buildings.

Schools, libraries and health care facilities must all have the connectivity they need to achieve their purposes. This connectivity can unleash innovation that improves the way we learn, stay healthy and interact with government.

If this plan succeeds, every American community will have affordable access to far better broadband performance than they enjoy today. To do so, the plan makes recommendations about reforming the E-rate and the Rural Health Care support programs. Second, non-profit and public institutions should be able to find efficient alternatives for greater connectivity through aggregated efforts.

What’s more, unleashing the power of new broadband applications to solve previously intractable problems will drive new connectivity demands. The plan makes numerous recommendations, including reforming incentive structures, licensing and data interoperability, to ensure public priorities take advantage of the benefits broadband networks, applications and devices offer. If they are implemented, demand for connectivity in hospitals, schools, libraries and government buildings will soar.

In some communities, gigabit connectivity may not be limited to anchor institutions. Certain applications could also require ultra-high-speed connectivity at home. And once community anchors are connected to gigabit speeds, it would presumably become less expensive and more practical to get the same speeds to homes.

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.

In June 2004, the 9/11 Commission released its final report about events of September 11, 2001. The report found that “the inability to communicate was a critical element” at each of the

“crash sites, where multiple agencies and multiple jurisdictions responded.” They concluded: “Compatible and adequate communications among public safety organizations at the local, state, and federal levels remains an important problem.”⁴

It remains a problem more than five years later. Often, first responders from different jurisdictions cannot communicate at the scene of an emergency. Federal officials can rarely communicate with state and local officials. Officials from different towns and cities have difficulties communicating with each other. What’s more, with few exceptions, current networks do not take advantage of broadband capability, limiting their capacity to transmit data and hindering potential innovations in public safety that could save lives.

The country should create a nationwide, wireless, interoperable broadband public safety network by 2020. The network should be robust enough to maintain performance in the aftermath of a disaster, and should allow every first responder, regardless of jurisdiction or agency, to communicate with each other and share real-time data over high-speed connections. Chapter 16 outlines recommendations to make this goal a reality.

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.

America can no longer rely on fossil fuels and imported oil. To improve national security, reduce pollution and increase national competitiveness, the United States must lead, not follow, in the clean energy economy. Encouraging renewable power, grid storage and vehicle electrification are important steps to improve American energy independence and energy efficiency; to enable these technologies at scale, the country will need to modernize the electric grid with broadband and advanced communications.

Studies have repeatedly demonstrated that when people get feedback on their electricity usage, they make simple behavioral changes that save energy.⁵ Real-time data can also inform automated thermostats and appliances, allowing consumers to save energy and money while helping the country reduce the need for expensive new power plants.

Chapter 12 outlines specific recommendations to ensure that consumers can use broadband to gain access to and improve their control of their real-time energy information. With strong cybersecurity and privacy protections, consumers and their authorized third parties should be able to get access to real-time usage information from smart meters and historical billing information over the Internet.

Conclusion

To achieve these goals, it is not enough to simply state where we wish to be.* America needs a plan that creates a process to meet these targets and look beyond them. The chapters that follow offer specific recommendations to launch that process.

Part I of this plan makes recommendations to ensure that America has a world-leading broadband ecosystem for both fixed and mobile service. It discusses recommendations to maximize innovation, investment and consumer welfare, primarily through competition. It then recommends more efficient allocation and management of assets government controls or influences, such as spectrum, poles and rights-of-way, to maximize private sector investment and facilitate competition.

Part II makes recommendations to promote inclusion—to ensure that all Americans have access to the opportunities broadband can provide. These include reforming the Universal Service Fund and intercarrier compensation. It also makes recommendations to promote broadband affordability, adoption and digital literacy.

Part III makes recommendations to maximize the use of broadband to address national priorities. This includes reforming laws, policies and incentives to maximize the benefits of broadband in areas where government plays a significant role. This part makes recommendations to unleash innovation in health care, energy, education, government performance, civic engagement, job training, economic development and public safety.

Finally, the plan outlines an implementation strategy to ensure the country executes these recommendations, creates a dynamic process and meets each of the goals outlined here.

Before exploring any of these recommendations further, though, it is important to understand the current state of broadband in the United States, which is described in Chapter 3.

* In Shakespeare’s *Henry IV*, Welsh rebel Glendower tells his co-conspirator Hotspur: “I can call spirits from the vasty deep.” Hotspur responds, “Why, so can I, or so can any man; But will they come when you do call for them?” William Shakespeare, *Henry IV*, pt. I, act 3, sc. 1, 52–58.

CHAPTER 2 ENDNOTES

- 1 Letter from 21st Century Telecommunications et al., Members of the Consumer Electronic Association et al., to Chairman Julius Genachowski and Commissioners, FCC, GN Docket No. 09-51 (Dec. 2, 2009) at 1 (filed by Consumer Electronics Association on behalf of 115 parties).
- 2 OMNIBUS BROADBAND INITIATIVE, THE BROADBAND AVAILABILITY GAP (forthcoming).
- 3 For the purposes of the plan, “Tribal lands” is defined as any federally recognized Tribe’s reservation, pueblo, and colony, including former reservations in Oklahoma, Alaska Native regions established pursuant to the Alaska Native Claims Settlement Act, Pub. L. No. 92-203, 85 Stat. 688 (1971), and Indian allotments. The term “Tribe” means any American Indian or Alaska Native Tribe, Band, Nation, Pueblo, Village, or Community, which is acknowledged by the Federal government to have a government-to-government relationship with the United States and is eligible for the programs and services established by the United States. *See Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes*, Policy Statement, 16 FCC Rcd 4078, 4080 (2000). Thus, “Tribal lands” includes American Indian Reservations and Trust Lands, Tribal Jurisdiction Statistical Areas, Tribal Designated Statistical Areas, and Alaska Native Village Statistical Areas, as well as the communities situated on such lands. This would also include the lands of Native entities receiving Federal acknowledgement or recognition in the future.
- 4 9/11 COMM’N, THE 9/11 COMMISSION REPORT 39 (2004), available at <http://www.9-11commission.gov/report/911Report.pdf>.
- 5 Google Comments in re NBP PN #2 (*Comment Sought on the Implementation of Smart Grid Technology—NBP Public Notice #2*, GN Docket Nos. 09-47, 09-51, 09-137, Public Notice, 24 FCC Rcd 11747 (WCB 2009) (NBP PN #2)), filed Oct. 2, 2009, at 4.