

FTTH Prism Columns

Eight Bold Steps To A National Broadband Strategy

Recent Developments Underscore the Need
for A National Broadband Strategy

By Jim Baller and Casey Lide

In our article in the October issue of *FiberPrism*, we showed that the United States has squandered its position of global leadership in broadband deployment and must act quickly and forcefully to reverse this trend.¹ We provided extensive evidence of America's need for far more bandwidth capacity than our major established communications providers are planning to develop in the foreseeable future, and we argued that the United States must rapidly deploy robust high-capacity broadband networks if it is to remain competitive in the emerging information-based world economy. We suggested that, at a minimum, the United States must keep pace with Japan, South Korea, France, and other leading nations that are developing next generation networks with bandwidth capacity of at least 100 Mbps. Toward this end, we recommended that the President appoint a broadly representative blue-ribbon task force to take the lead in developing a National Broadband Strategy.

Since the publication of our article, the need for a National Broadband Strategy has continued to grow, and so has the momentum for establishing one. In this paper, we begin by reviewing the relevant new developments, and then we propose a specific eight-step plan for turning calls for a National Broadband Strategy into action.

Recent Developments Underscore the Need for a National Broadband Strategy

In an article published in the *Washington Post* on November 8, 2006, Federal Communications Commissioner Michael Copps succinctly summarized the sorry state of broadband deployment in the United States and the stakes involved for all Americans:

America's record in expanding broadband communication is so poor that it should be viewed as an outrage by every consumer and businessperson in the country. Too few of us have broadband connections, and those who do pay too much for service that is too slow. It's hurting our economy, and things are only going to get worse if we don't do something about it.

Commissioner Copps then cited the absence of a national broadband strategy as a significant part of the problem:

We need a broadband strategy for America. Other industrialized countries have developed national broadband strategies. In the United States we have a campaign promise of universal broadband access by 2007, but no strategy for getting there. With less than two months to go, we aren't even within shouting distance.²

Our suggestion that a high-level task force be appointed to facilitate development of a National Broadband Strategy received a boost on November 30, when California Governor Arnold Schwarzenegger announced the formation of such a task force for California. In his press release, Governor Schwarzenegger explained that his task force “will bring together public and private stakeholders to remove barriers to broadband access, identify opportunities for increased broadband adoption and enable the creation and deployment of new advanced communication technologies. . . . The Golden State must remain competitive in the telecommunication revolution so that we can continue to attract the best, the brightest and the most creative workforce in the world. Broadband will help build California so we can grow our economy, create great jobs and stay ahead in the global marketplace.”³ The same is true on a national level.

Recognizing the need for national planning, on December 14, Cisco's chief technology officer, Charles Giancarlo, threw Cisco's weight behind the development of a National Broadband Strategy. In an article in the *San Francisco Chronicle*, he wrote that the development of “[ubiquitous and affordable, high quality broadband connections] is arguably ***America's most important infrastructure issue for global competitiveness***. The massive productivity gains made possible by the first wave of Internet advances in this country will not be replicated with a second wave without universal, high-speed broadband access. This will benefit both the consumer and industry alike. The first wave of Internet technology was developed by U.S. companies because of our large domestic market demand. In the global marketplace, if we don't drive the buildout of Internet 2.0 here in the United States, the vendors who benefit from international buildouts, will likely not be

here, reducing U.S. competitiveness. ... *The time for a national broadband plan is now. We need to set national goals and hold our service providers, regulators and legislators accountable for meeting these goals.*"⁴

Similarly, on January 7, 2006, Benton Foundation founder and CEO Charles Benton sent a letter to President Bush, urging the President to establish a national broadband strategy.⁵ Benton noted that the United States had fallen short on multiple measures of progress and that a national strategy should, among other things, include "set benchmarks, deployment timetables, a commitment to demand drivers, and measurable thresholds."

In the meanwhile, unlike the United States, the more progressive nations have continued to press forward with national broadband planning. For example, on October 23, Sweden's IT Strategy Policy Group issued a comprehensive report entitled "Broadband for Growth, Innovation and Competitiveness."⁶ The report contains an extensive and thoughtful discussion of what Sweden must do to establish "an efficient and future-proof infrastructure with high transfer capacity in both directions."⁷ Among other things, the Group recommends, "continuing broadband subsidy, an investment in 'broadband in the home,' fibre-cabling, coordination of du cts, labeling of services, a predictable spectrum policy, and a number of other measures..."

On December 7, Australia's Communications Minister, Senator Helen Coonan, released a "Broadband Blueprint of Australia." In her press release, Senator Coonan stated: "It is essential for all levels of government and industry to adopt a strategic and coordinated approach to the rollout of scalable broadband infrastructure. With a number of commercial rollouts underway and several more proposed, and the Australian Government poised to make its largest ever investment in broadband infrastructure, it is timely that Australia adopts a clearly defined national approach to broadband."⁸



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One day later, Japan's Ministry of Internal Affairs and Communications (MIC) issued a publication entitled "Approaches to Nationwide Installation of Broadband (Next-Generation Broadband Strategy 2010)."⁹ In this document, the MIC reported that broadband is now available to 94 percent of all households in Japan, and fiber-to-the-home is available to 80 percent. By 2010, Japan intends to remove the remaining gap in broadband coverage and to make ultra-high speed broadband available to at least 90 percent of households. It will do this through a combination of "investment incentives" to the private sector and "financial support, human resources support, information and know-how, etc." to local governments. According to the MIC, "[i]t is expected that future broadband installation, especially installation in areas where conditions are disadvantageous, will see operators, local governments, municipalities and the state each playing their own part suitably through a division of roles."

Likewise, in recent weeks, recognizing the critical importance of high-capacity fiber networks to their countries and to themselves, both Korea Telecom and France Telecom announced massive new investments to join the ranks of major telecommunications providers that are migrating to fiber-to-the-home technology.¹⁰ In stark contrast, AT&T, on the verge of becoming America's largest communications company, has repeatedly insisted that it is going to stick to its plan to deploy fiber only as deep as neighborhood nodes.¹¹ Similarly, Qwest has smugly reiterated its satisfaction with its modest network development plans, which will at most include fiber to neighborhoods.¹² These choices will effectively limit AT&T and Qwest to bandwidth capacity of 20-25 Mbps downstream and to a puny 1-3 Mbps upstream – amounts that cannot support the fundamental economic advances that nations with widespread and affordable access to vastly greater broadband capabilities will enjoy. While AT&T's and Qwest's strategies may meet their short-term profit objectives and please Wall Street, they could well cause significant long-term harm to the communities that they serve and to America as whole.

Where, as here, the free market provides incentives that are far out of line with the Nation's best interests, a compelling need exists to act promptly to understand why this is happening and to fix the problem. The best way to do this, we submit, is to build consensus on a national broadband strategy that will work for all major stakeholders to the maximum extent possible.

An Eight-Step Plan For Developing a National Broadband Strategy

On March 26, 2004, President Bush declared that "This country needs a national goal for...the spread of broadband technology. We ought to have...universal, affordable access for broadband technology by the year 2007, and then we ought to make sure as soon as possible thereafter, consumers have got plenty of choices when it comes to [their] broadband carrier."¹³ As Commissioner Copps noted in the op-ed piece quoted above, America is nowhere near to achieving President Bush's stated goals because the United States has failed to develop an implementation plan to achieve them. In the remainder of this paper, we outline eight key steps that will lead to the development of *both* a national broadband strategy and a concrete action plan to give it effect.

Step 1: Create a Critical Mass of Support for a National Broadband Strategy

Developing an ambitious and workable National Broadband Strategy will take a major commitment of time, effort and money. It will require a strong national consensus on the need for such a strategy – and on the dangers of failing to develop one. The process will require support at all levels of government and from all major stakeholders, including the established communications service providers. The project must also have access to substantial financial and other resources.

While support for a National Broadband Strategy is growing, much more support will be necessary to achieve lift-off. As a first step, advocates must use all means at their disposal to educate opinion leaders in government, business, academia, labor, consumer groups, the media, and the public, about America's pressing need for a National Broadband Strategy. Such activities can include networking with colleagues and organizations, writing detailed analyses, articles and op-ed pieces, holding conferences, making speeches, briefing journalists, and communicating with members of Congress.¹⁴ Champions in Congress, state legislatures and local governments should hold hearings on the key issues and propose resolutions to signal their support. Collectively, such activities should lead to a groundswell of support for a National Broadband Strategy.

Step 2: Enact Federal Legislation

Once support for the development of a National Broadband Strategy has reached critical mass, Congress and the President should ensure that the planning process moves forward in a timely and well-organized fashion. To do this, Congress and the President should prepare and enact legislation that articulates the nature of the challenge and the stakes involved for America, outlines the key steps to be taken, and provides a sufficient budget to do the job right.

Step 3: Appoint a Blue Ribbon Task Force

While Congress, the Federal Communications Commission, and other agencies can provide valuable assistance, we do not believe that they alone can develop a National Broadband Strategy. The Strategy that we envision will be based on the best information available, viewed in imaginative new ways that are not tied to legacy political and legal structures, and will be the product of negotiation among the key stakeholders, whose mission will be to find solutions that benefit all concerned to the maximum extent possible.

To achieve these ends, we recommend that the President and the leadership of Congress appoint a non-partisan, broadly representative blue-ribbon task force. The task force should include, at a minimum: representatives of federal, state and local governments; providers of communications services, including both established and competitive providers; commercial and residential consumers; developers of software, hardware, equipment, and appliances; utilities; the entertainment industry; the scientific, educational, and medical communities; manufacturers, including members of traditional and new industries; labor; the disadvantaged; the public safety, homeland security, and defense industries; and industries offering promising efficiencies from joint planning and development (transportation

systems, sewers, public works, etc.). The task force should also include experts in related areas of law, taxation, finance, public and private grants and loans, etc.

Appointees should be knowledgeable, hard-working, positive-minded, articulate, and charismatic. They should be able to obtain and effectively communicate information to and from the task force. They must also command sufficient respect from their constituencies to be able to represent them in negotiations among members of the task force.

Step 4: Establish Preliminary Goals

As one of its first undertakings, the task force should develop ambitious, but realistic, preliminary goals to help focus its information-gathering, information-exchange, and negotiations. Setting final goals would be premature at this stage, as the task force is likely to obtain information that requires refinements as the project proceeds.

For example, in 2002, TechNet, on behalf of the CEOs of more than 100 prominent American companies, sought to develop consensus on a national goal of 100 Mbps to 100 million homes and small businesses by 2010. Similarly, the CENIC organization in California developed a program entitled “One Gigabit or Bust” to promote the development of 1 Gbps broadband networks throughout the state by 2010.¹⁵

While TechNet and CENIC were ahead of their time for the United States, it is becoming increasingly clear that the America must now take such ambitious goals seriously. Japan has already exceeded the equivalent of TechNet’s target, and South Korea, France, and possibly some countries may do so as well.¹⁶ By 2012, Singapore plans to have infrastructure in place that will be capable of meeting even CENIC’s 1-Gbps target. With an aggressive National Broadband Strategy, it is possible that the United States could do so too – or at least come close.

At the same time, conditions vary so greatly across the United States that a “one-size-fits-all” strategy would surely fail. Fiber-to-the-home is clearly the best and most robust technology for high-capacity networks, but it is not economically feasible to deploy everywhere under today’s conditions. A significant challenge to the task force will be to find ways – tax incentives, grants, loans, public purchasing decisions, etc. -- to make fiber a viable option for as many Americans as possible – including those living in the most urban areas. At the same time, certain trade-offs among fiber, wireless and other technologies will inevitably be necessary. Making such tradeoffs will be extremely difficult, but the task force can help America make choices in a far better informed and constructive a manner than it is doing today.

Step 5: Gather Key Pertinent Information

Among the major problems that we have in the United States today is that we have relatively little reliable information about available and planned communications resources, usage patterns of our information networks, current and future needs, gaps that must be filled to meet such needs, and barriers to filling those gaps. In Step 5, the task force should

develop the statistical and factual bases necessary for each major sector of the American economy to identify and make informed decisions about the opportunities and challenges it faces.

With all major stakeholders represented, the task force will have a unique opportunity to understand how each sector sees the future; what each believes it will need to be successful in the years ahead; what the leading nations are doing in its field; what each is doing (or not doing) to ensure its success in the years ahead; and what barriers each faces.

In addition to gathering sector-specific information, the task force should also study the legal, technical, financial, tax, and other issues that can affect the deployment of broadband networks in a positive or negative direction. In addition, the task force should study in detail what the other leading nations have done, or are planning to do, to stimulate the deployment of high-capacity networks.

Step 6: Exchange and Refine Information

Step 6 could well be the most interesting of all. After the task force has gathered pertinent information about each individual sector in Step 5, it should then facilitate exchanges of information and imaginative interactions among the various sectors. This will enable participants to see their respective fields in new ways, unleashing a wave of creativity and excitement. Members of the task force should include their constituents in these discussions and encourage follow-up communications outside the task force. Step 6 should not be rushed, as the interactions that it spawns are likely to be of tremendous value to all concerned.

Step 7: Develop a Report and Recommendations

In Step 7, the task force will narrow the potential strategies to a manageable number, prepare a working draft of a report to the President and Congress, obtain feedback from their constituent groups, and develop a final document. If possible, the final document should reflect consensus among all major stakeholders. The task force should strive to avoid or minimize dissent by making reasonable compromises, if possible. At the same time, however, the report's value will depend entirely on whether its recommendations are meaningful, and will truly enable America to succeed in the global marketplace in the years and decades ahead. The task force should therefore reject compromises that would undermine this goal, and if reasonable efforts to compromise fail, should include dissenting views in the ultimate report.

Step 8: Obtain Legislation to Implement the National Broadband Strategy

After the task force has presented its final report and recommendations to the President and Congress, it will be their task to enact the legislation necessary to implement the task force's recommendations. This, too, is sure to be a complex and time-consuming process. Advocates of a National Broadband Strategy, including members of the task force, should be prepared to participate extensively in this process – to ensure that the fine print of the legislation will not undermine the major goals of the National Broadband Strategy.

Conclusion

In his trenchant article in *Foreign Affairs* analyzing how the United States “dropped the Internet leadership baton,” Thomas Bleha succinctly summarized the stakes involved for all Americans:

It is now clear that Japan and its neighbors will lead the charge in high-speed broadband over the next several years. South Korea already has the world’s greatest percentage of broadband users, and last year the absolute number of broadband users in urban China surpassed that in the United States. These countries’ progress will have serious economic implications. By dislodging the United States from the lead it commanded not so long ago, *Japan and its neighbors have positioned themselves to be the first states to reap the benefits of the broadband era: economic growth, increased productivity, technological innovation, and an improved quality of life.*¹⁷

Since the publication of this article, France, the Netherlands, and several other European nations have joined Japan and its neighbors in working toward a future based on affordable access to high-capacity next generation broadband networks. In contrast, the United States has stood pat, effectively ceding control of America’s future to a handful of self-serving giant communications providers and their nervous financiers on Wall Street. This must change.

The time is long overdue for us to recognize that every public and private entity and every resident in America will benefit from affordable access to world-class national communications infrastructure and that America’s failure to develop one promptly will seriously threaten our ability to remain the great nation to which we become accustomed. To be sure, the established communications providers have a significant role to play, but it would be folly for the United States to leave such a critical matter to them alone.

We must develop a National Broadband Strategy now. We have not a day to waste.

(Endnotes)

- 1 J. Baller and C. Lide, America Needs a Fiber-Based National Broadband Policy Now, if Not Sooner, *FiberPrism* (October 2006), http://www.baller.com/pdfs/baller-lide_fiberprism.pdf
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