



May 2008

# TELECOMMUNICATIONS GUIDE

## High-Speed Broadband: A Look at Rankings, Capacity *Where Things Stand in Minnesota and at the Legislature*

The Internet is a valuable tool in many people's lives. It's absolutely indispensable to our economy. If a study by Connected Nation is accurate, for example, an increase of just 7 percent in U.S. broadband adoption could create as many as 2.4 million jobs and add \$134 billion to the economy. And as we prepare for the future, one thing is certain: keeping up with the rest of the world in things like high-speed broadband is not just necessary, it's essential.

That's one reason why a bill earlier in the session proposed that Minnesota have a policy making Internet speeds of 1 Gb/s (one gigabit per second) available to all citizens by 2015. While that idea is no longer part of any proposed legislation, it certainly focused the discussion. A bill has been passed and signed by the governor that establishes a task force to study the subject.

Driving concerns about America's technological competitiveness, at least in part, are rankings that indicate the U.S. is not doing well compared to some other advanced nations in the high-speed broadband sweepstakes. But are we really behind? And what is the role government should play in high-speed broadband?

Here's a brief look at this important issue.

### Broadband Rankings

There are nearly 60 million broadband users in the U.S., more than twice as many as anywhere else in the world. Most Americans have high-speed connections and the adoption rate is growing. But the Organization for Economic Co-operation and Development (OECD) broadband rankings paint a different picture. According to its April, 2007 figures, the U.S. ranks 15<sup>th</sup> worldwide, three spots lower than OECD's previous study, in broadband-deployment penetration and 12<sup>th</sup> in broadband connections per capita. We're behind Japan, South Korea, much of Western Europe and even Iceland.

But is this an accurate portrait? Not if we consider other numbers. Because America is sparsely populated — we're 144<sup>th</sup> in the world in population density — it's almost impossible for us to rise in some rankings, in part because the cost to provide broadband in some areas is much higher than costs in countries like Iceland, where more than 60 percent of the population lives in one city Reykjavik. Despite being sparsely populated, 60 percent of rural U.S. residents use the Internet compared to 71 percent in cities. In Minnesota, 90 percent of rural telephone access lines have high-speed broadband capability and the state does well in other online rankings.

The OECD study didn't consider household broadband use (42 percent in the U.S. vs. 23 percent in Europe), or the fact that 43 states have higher household broadband rates than all but five European countries. The OECD also didn't take Wi-Fi (America has one-third of the world's hot spots) or other high-speed mobile wireless technologies into account.

If every country in the study had 100 percent broadband availability to all homes and businesses, the U.S. would still only rank 20<sup>th</sup>. FCC Commissioner Robert McDowell calls the OECD data "fundamentally flawed and misleading," adding that, "comparisons of actual — as opposed to advertised — bandwidth . . . reveal that broadband speeds in the U.S. are similar to most other advanced countries."

### 1 Gb/s

The 1 Gb/s (1,000 megabits per second) of broadband capacity is at least 150 times and as many as 667 times faster than the current high-speed services offered to residential customers. High-definition TV only requires 3 Mb/s, Wi-Fi networks about 10 Mb/s and the top business service pushes 50 Mb/s. Even proponents of higher speeds focus on 100 Mb/s, one-tenth as fast as 1 Gb/s. By setting bandwidth requirements too high, we risk excluding wireless technologies that might work best in some rural areas. And then there are the costs. The cost of bringing fiber optic cable to every Minnesota home is estimated at \$10.43 billion. Consumers' costs for additional

equipment would top \$1,400 and monthly bills, using today's broadband adoption rates, would be \$544, with many consumers paying for technology they don't want or won't use.

While people want to download videos faster and businesses will do things like more videoconferencing, and while more broadband speed could result in fuel and bricks-and-mortar savings, the costs and capacity are probably far beyond what most people will need by 2015, the date the original bill had set for a goal. The task force established by the bill and appointed by the governor may hold the promise of providing an answer, however.

## Minnesota High-Speed Broadband Task Force

Chapter 212 of the 2008 session laws included the creation of a high-speed broadband task force to examine this issue and report to the Legislature and the governor by November 2009. The bill requires the governor to appoint task force members representing education and public libraries (3), the communications union (1), healthcare institutions (2), phone companies (3), cable operators (2), wireless Internet providers (1), Minnesota counties and cities (1 each), and Internet users (2 business, 2 residential). The commissioners (or designees) of the departments of Commerce and Employment and Economic Development and the Office of Enterprise Technology would also be on the task force and rural and metro areas would be represented.

The task force's final report would have recommendations for the development of a comprehensive state-wide broadband deployment goal and plan. The report would be expected to identify the level of broadband service, focusing on receiving/sending data speeds, that citizens

are and what state areas lack the necessary infrastructure.

The task force would also examine where private and public sectors can cooperate, describe the economic development opportunities high-speed broadband offers, and evaluate what others states and countries are doing to support broadband deployment. How high-speed broadband can benefit educational, healthcare, government and community-based organizations, along with recommendations on what's necessary to ensure reliable high-speed broadband — plus, of course, cost estimates and who will bear them — would also be on the task force's plate.

### Government's Role?

The 1 Gb/s proposal forces telcos to spend their capital investment money a certain way, leaving little for anything else. And by dictating a level of technology, the state would be trying to create a market where none currently exists.

Most Americans agree that, in many cases, market forces work best. This seems to be one of those cases. Europe, with less competition in technological platforms than here, has a slowing broadband adoption rate. And the European Commission recognizes that broadband speeds in the European Union lag ours and that Europe's best performers have competing infrastructures.

We don't yet know what broadband capacity we will need in the future. But while a discussion needs to happen, it's premature to pick a winning "number" now. It's helpful to remember that, as Commissioner McDowell says, "consumers don't buy fat pipes; they buy applications

and content that require fat pipes.. As consumer demand for more bandwidth-intensive applications and content increases, so does the incentive for network owners to provide more bandwidth, provided the market is competitive . . ."

## The MTA Position

The Minnesota Telecom Alliance recognizes the importance of high-speed broadband as a gateway to ideas and as a tool to create jobs and healthcare and educational opportunities in Minnesota. MTA members, who have invested millions in fiber optic and other high-tech equipment, see themselves as partners in helping build the state's "broadband engine" so that the communities served by MTA companies can thrive.

To ensure that broadband and other technologies play their role in Minnesota's future, MTA believes that state policies encouraging private broadband investment should be strengthened. MTA also believes that customer demand will drive the marketplace.

The proper role for government, in the MTA's view, is to create economic development policies that ensure a level playing field so market forces can drive innovation and affordable access.

Minnesota Telecom Alliance is a not-for-profit professional association representing more than 85 small, medium and large telecommunication companies providing voice, data, wireless, and high-speed broadband services to Minnesota's metropolitan and rural communities. More information about MTA can be found on the Internet at [www.mnta.org](http://www.mnta.org)