

**Statement of Joseph Savage, President
Fiber-to-the-Home Council North America
Senate Committee on Commerce, Science and Transportation
Hearing on State of Broadband in the United States
April 24, 2007**

Mr. Chairman, members of the committee, thank you for the opportunity to submit this statement on the state of broadband in the United States.

The Fiber-to-the-Home Council is a non-profit organization consisting of manufacturers, service providers and public entities. Its mission is to educate the public and government officials about fiber-to-the-home (FTTH) solutions and to promote and accelerate FTTH and the resulting quality of life enhancements such networks make possible. By that, we seek to ensure that all of America's homes are connected directly into fiber optic networks, which have the superior broadband capabilities of fiber.

Recent improvements in the technology now make it possible to deliver very high bandwidth fiber cable, at reasonable cost, directly to the nation's homes and businesses – thereby vastly increasing bandwidth over what is commonly available today. This is a solution to what is commonly known as the “last mile problem” – that is, the limitations on bandwidth that are imposed by our reliance on the current copper-based network that presently connects most American homes.

FTTH networks today are capable of delivering transmission speeds of up to 100 megabits per second downstream – and almost as much upstream. That's 20 times faster than the fastest download speeds available today via copper-based DSL or cable modem systems. And one of the great things about fiber is that it's “future proof” – that is, the technology keeps improving and enabling vast increases in bandwidth over the same fiber.

We often refer to FTTH as “next-generation” broadband. But, in reality, this technology has already arrived. There's no “next” about it. Our members are busy building equipment for, deploying and providing video, data and voice services over direct fiber optic connections to homes across the United States.

As of March 2007, about 1.2% of U.S households – a total of 1.34 million homes – were receiving video, data and voice services over direct fiber optic connections. The number of fiber-to-the-home subscribers has doubled over each of the last two years. And we have every reason to believe that this growth will continue.

The key public policy decision facilitating this growth was the FCC's 2003 Triennial Review decision lifting unbundling requirements on FTTH deployed by Incumbent Local Exchange Carriers (ILECs). Even with the market pressure of cable companies moving into voice service, it made little sense for telephone companies to invest

in major network upgrades if they could not be assured of capturing the profits that might come from those investments.

Following this decision by the FCC, FTTH deployment took off in earnest, moving from just 180,000 homes passed in September 2003 to almost eight million by March 2007.

Some have assumed that Verizon's aggressive investments in fiber-to-the-home – via its FiOS service – are responsible for all this growth. While we are delighted in Verizon's leadership, let me dispel the notion that Verizon is the only significant FTTH provider in the United States. Actually, about one-third of all fiber-to-the-home subscribers – 430,000 homes – get their service from municipalities, small rural telephone companies, medium-sized telephone service providers, cable companies and competitive local exchange carriers. In fact, small rural telephone companies are actually leading the way in terms of penetration, with three percent of their combined customer base now connected via fiber-to-the-home.

More than three dozen municipalities and local public utilities across the U.S. have built their own fiber networks. Another dozen or so are moving toward this step. These are communities that envision strong linkages between widely-available, very high-speed broadband services and a future of job growth, economic development and educational advancement that their residents want and need.

In addition, as installation costs have come down, an increasing number of developers of new residential communities are wiring up their developments with fiber as they build them. They know that having a fiber-enabled home adds to its value on the market. One study that we commissioned – a survey of home buyers and home developers – estimated that a direct fiber connection adds about \$5,000 to the price of a home.

The market is telling us something. It is saying that consumers understand that what is commonly recognized as “broadband” today – three to five megabits per second through copper-based systems – is just not going to be enough to handle the Internet of tomorrow. Nor will it be able to provide the range of high-value video and data services that is coming over the horizon.

The Internet is growing up too quickly for us to stand pat.

Think about it. A little more than two years ago, You Tube did not even exist. Today, You Tube users download 100 million video clips a day. This was made possible, of course, by our graduation from dial-up to the higher level of bandwidth provided through DSL and cable modem services – which even today are present in only about half of U.S. homes.

While a growing number of Americans use the internet to watch newscasts, television programs and sporting events, companies like Netflix, Amazon and even Wal Mart are developing services that will make feature length movies available over the internet. High-definition movies over the internet are sure to follow. And demand will be

high because consumers have proven over and over again that the convenience and quality of internet transactions are something they will want, use and pay for.

Now, think about the fact that one high definition movie takes up as much bandwidth as 35,000 web pages – and you get an idea of what we're in for.

And that's just one application. There are all kinds of high-bandwidth applications now in development – applications to aid distance learning, telemedicine, teleconferencing, and telecommuting.

To raise awareness of this impending deluge of data, the FTTH Council has prepared a short video on the subject. It can be viewed at the following URL: <http://www.ftthcouncil.org/?t=225>.

And how many applications have we not even dreamed of yet because consumers don't yet have the bandwidth to support them? I go back to the example of You Tube. It didn't exist – and couldn't exist – at a time when everyone had dial-up internet access. Only when higher transmission speeds became widely available could a venture like this be successful.

How many other ventures and innovations are waiting for our leap to a widely available 100MB broadband capability?

I can tell you who is not waiting, and that is the Japanese, the South Koreans and many of the European countries. Japan already has more than eight million fiber-to-the-home connections. Twenty-eight percent of households in Denmark have access to 100 megabit service. In Korea, six million households have access to 100 megabit service, and even more have access to 50 megabit service today.

It is promising that the U.S. leads all these other nations in annual growth of fiber-to-the-home connections – at about 100 percent a year for the past two years. But we are going to have to quickly accelerate even this level of growth if America is to become the **100 Megabit Nation** that we feel it must be if it is to remain a world leader in the Information Age.

By **100 Megabit Nation**, I mean that most Americans should be able to have access to these higher bandwidth connections within the next few years – and that there should be universal access by the year 2015. In March, the FTTH Council called on Congress and the Bush Administration to adopt a broadband strategy for the country that puts us on a path toward this goal.

We feel it can be done. As I mentioned, it's already beginning to happen.

What more will it take? Certainly, Congress could enact tax incentives for deployment of higher broadband networks, much the way it did so successfully back in 1986 to accelerate deployment of next-generation communications infrastructure.

Congress could also block states from prohibiting local governments from deploying high-bandwidth telecommunications networks – as many states now do that.

Local video franchising regulations often serve as an obstacle to deployment of fiber-to-the-home networks. States should be encouraged to streamline these processes so that fiber-to-the-home providers are not discouraged from entering new markets and bringing new, competitive choices to consumers with regard to video, voice and data services. About a dozen states have already done this and we are now seeing higher deployments of fiber-to-the-home networks where this streamlining has occurred.

We believe that rural areas will continue to need special attention to ensure those citizens get access to higher broadband networks. For the past several years, the Rural Utilities Service has administered a program providing loan guarantees for the deployment of broadband networks. This program should be reauthorized and additional incentives should be provided to foster the deployment of next-generation broadband networks in rural areas. In addition, up to \$500 million of funds in the universal service fund should be used annually for the same purpose.

These and other suggestions are included in a policy brief that the FTTH Council has assembled to support our call for a **100 Megabit Nation**. I have enclosed a copy of it and would ask permission that it be included in the hearing record.

Moreover, the FTTH Council congratulates Senator Rockefeller on his resolution to establish a 100 megabit goal for the nation. We believe this kind of leadership in the Congress will help focus Americans on the need to build high-capacity networks, and we look forward to working with Senator Rockefeller and other Members of Congress to further this goal.

Mr. Chairman, America is fully capable of leading the world in the race to the next level of broadband. We cannot afford to stick with the status quo. The broadband that most Americans have access to right now is too slow. Other nations have recognized this and are moving forward.

To compete, to lead, to excel – American needs speed.

We have the technology at hand to take broadband to the next level – far beyond what most networks can provide consumers today. We know how to build it. We are already building it. And consumers want it.

We are asking you, Mr. Chairman, and your colleagues in the Senate to help clear the road ahead of any obstacles that would slow us down.

Thank you.