



# One Gigabit or Bust Roundtable

November 15<sup>th</sup> and 16<sup>th</sup>, 2004

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# Trends

**FTTH deployments continue strong,  
“Telecom Act of 2006” on the horizon?  
Wireless ready for prime time?  
Miscellaneous**

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# 217 Fiber-Connected Communities and Counting

## **FTTH Council Counts 217 Fiber-Connected Communities in U.S.**

**There are now 217 communities in 37 U.S. states with fiber-to-the-home projects underway, according to the latest survey by Render, Vanderslice & Associates and TeleChoice. Eighty-nine communities were added to the list - an increase of 70% since the last update in May. The Fiber-to-the-Home (FTTH) Council and the Telecommunications Industry Association (TIA) said the list shows that FTTH deployments continue to be driven by municipalities, competitive local exchange carriers (CLECs) and new residential developments.**

<http://www.ftthcouncil.org>

<http://www.tiaonline.org>

# NTT FTTH Investment

**NTT Group (NYSE: NTT - message board) is planning to invest ¥5 trillion (US\$47 billion) in extending its FTTH (fiber to the home) network to about half the Japanese population,**

**NTT is currently installing FTTH at a rate of nearly 100,000 households/month, 9.5 percent (=1.6 million) of the broadband connections in Japan are via FTTH**

**The expansion would involve running fiber to 30 million houses and office buildings by 2010.**

## **The target**

- **The subscriber of next generation network in 2010 will be 30M**
- **The total CAPEX of fixed line network in 2005-2010 will be ¥5trillion.**
- **The yearly CAPEX is as same as one in 2002-2004.**

## **The strategy for metro core network and access.**

- **NTT will make their metro core network the mesh topology with OXC and WDM.**
- **The edge node will be based on full IP network.**

# Fiber Optic Communities of the United States (FOCUS)

**With the number of communities linked with fiber-to-the-home rapidly growing, a new coalition has been formed to educate consumers about the benefits of optical access networks. Max R. Kipfer, founder and president of Fiber Optic Communities of the United States (FOCUS), said the group would "unite fiber-optic communities from urban, rural, and suburban settings with the aim of propelling America into the next generation of communication."**

**During a press briefing in Washington, FOCUS General Counsel Lawrence Freedman said one of the group's missions would be to promote the sharing of information and dissemination of strategies among communities seeking to connect homes and businesses with fiber-optic networks. "All of the best technology will be of no use if there's not the transactional structure and operative environment" that's needed, he said.**

# Wireless Happenings

- Intel, the world's largest maker of computer chips, will team with cell-phone pioneer Craig McCaw to create a global WiMax Internet access system -- a long-range wireless alternative to phone, cable and Wi-Fi. The chipmaker will invest an undisclosed amount in Clearwire, a wireless broadband company founded by McCaw.
- Could the 800MHz relocation force deadlines for spectrum reallocation?

# Opportunity Iowa

**Iowa communities team to install own high-speed lines Telecom millionaire McLeod, former governors spearhead effort By Leslie Cauley USA TODAY**

**More than 80 communities across Iowa have banded to create Opportunity Iowa. The goal: to wire the state for advanced voice, data and video services. The communities represent about 25% of the state's homes and businesses, and more are expected to join later.**

**Under the plan, communities would install — on their own dime — high-speed fiber lines. Then they would invite outside vendors such as AT&T to use the lines. The lines could be used to provide voice, data and video services to homes and businesses. Vendors would pay towns “access” fees to use their fiber lines.**

**The initiative is being spearheaded by a Who's Who of the state, including telecom millionaire Clark McLeod, former Iowa governors Terry Branstad and Robert Ray, and former Iowa attorney general Bonnie Campbell.**

**“We want Iowa to be No. 1 in the country” in terms of its broadband infrastructure, says McLeod, a native Iowan.**

**McLeod shares the same concern. He thinks the broadband movement in Iowa will have a big influence on other states. That, in turn, could speed fiber deployment everywhere.**

**McLeod says he decided to put his telecom muscle, as well as his millions, to work for the state after it became clear that the big carriers weren't going to show up. “We believe we can fiberize this entire state in 10 years,” says McLeod, who is contributing his own money and time to help make it happen.**



## “Telecom Act of 2006”?

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# Rumbles of the upcoming “Telecom Act of 2006”

## CHAMBER OF COMMERCE REPORT CALLS FOR END TO UNBUNDLING

Reforms in telecom regulation could create 212,000 new jobs and add \$634 billion in goods and services to the domestic economy over the next five years, according to a report from the U.S. Chamber of Commerce.

Tom Hazlett of the Manhattan Institute, Coleman Bazelon of Analysis Group, John Rutledge of Rutledge Capital Research, and Deborah Allen Hewitt of the College of William and Mary wrote the study, *"Sending the Right Signals: Promoting Competition Through Telecommunications Reform."*

The specific recommendations of the study include phasing out requirements for incumbent telcos to lease lines and network elements to competitors and, "more immediately," ending regulation of the prices at which those lines and elements are sold. It calls for making 438 megahertz of "prime" spectrum available for commercial services, exempting cable broadband and digital subscriber lines from common carrier regulations, and preempting state regulation of Internet services as telephone services.

Regarding universal service, the study recommended raising support funds from general tax revenues, rather than through mandatory carrier contributions, and distributing support directly to targeted consumers.



# FCC Grants FTTC Unbundling Relief

**ILEC FTTH Investment Begins in Earnest**

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**On 18 October 2004, the U.S. Federal Communications Commission (FCC) released its order granting incumbent Local Exchange Carriers (ILECs) relief from network unbundling requirements on hybrid fiber-to-the-curb (FTTC) loops. The unbundling relief applies when fiber is brought within 500 feet of customer premises. The FCC also clarified that ILECs are not obligated to unbundle network elements on loops if they install time-division multiplex technology to interface with customer premises equipment.**

**In a related matter, unbundling relief for ILECs with respect to broadband facilities to apartment buildings became effective on 12 October 2004. This grants ILECs the same relief for fiber loops to primarily residential multiple dwelling units (MDUs) as they already have for broadband facilities to single-family homes.**

# Gartner Predicts

- **The FCC's ruling will significantly spur FTTCurb build outs by 2005. (0.9 probability)**
- **The accelerated fiber build out will offer additional opportunity for vendors that enable and support advanced services. (0.8 probability)**
- **Customer premise equipment and home gateways will become increasingly important in delivering value added services over the new "NG broadband" platforms. Gateway manufacturers should look into tighter partnering opportunities.**
- **By 2007, a rising number of vendor partnerships and eco-systems between fiber networking, middleware gear and application providers will take place (0.7 probability)**

# ILEC FTTH Commitment

**Verizon Communications, Inc., plans to install fiber to the home in 100 central offices in nine states, passing 1 million homes, by year-end, and to pass 3 million by the end of 2005. Seven states have been confirmed as: Virginia, Delaware, Maryland, Massachusetts, New York, Texas and Pennsylvania. Verizon plans to hire about 5,000 employees as part of the expansion.**

**SBC said it will embark on Project Lightspeed- SBC has been reported to have committed \$4 billion to build a fiber-optic network that can carry voice, video and Internet services. Under its Project Lightspeed initiative, the telco plans to add enough capacity to begin selling TV services by late next year. SBC expects to connect 18 million homes to the fiber-optic system by the end of 2007. - "These aren't just ideas," SBC CEO Ed Whitacre said of Project Lightspeed last week. "They're real opportunities, and we're executing on them."**

# Alcatel FTTN Announcement

**Announced October 21: Alcatel and SBC signed a \$1.7B deal on fiber to the node.**

- **This will cover 18 million US homes.**

- **CAPEX per home will be \$94.4**

**So for less than \$200 or so per home you can deliver very high capacity to the home. Amortizing on 36 months, that is \$5.5 a month not including overhead, management and sales.**

# FTTH Impact

Table 1: Total US Fiber in the Loop Equipment Revenues

	2003	2004	2005	2006	2007	2008
<b>FTTH</b>	\$ 82.93	\$ 278.69	\$ 1,135.76	\$ 1,522.48	\$ 2,051.13	\$ 2,108.01
<b>HFC</b>	\$ 468.27	\$ 451.16	\$ 464.08	\$ 873.88	\$ 1,364.96	\$ 1,978.47
<b>FTTC</b>	\$ 43.43	\$ 51.75	\$ 203.57	\$ 314.25	\$ 494.79	\$ 752.98
<b>point to point</b>	\$ 44.50	\$ 46.87	\$ 61.88	\$ 192.77	\$ 389.99	\$ 692.46
<b>Total</b>	\$ 639.13	\$ 828.47	\$ 1,865.29	\$ 2,903.38	\$ 4,300.87	\$ 5,531.92

Source: Gartner Dataquest (October 2004)

