

### FCC calls for Gigabit broadband in every state by 2015

Federal Communications Commission Chair Julius Genachowski is calling for broadband speeds of at least one gigabit in all 50 states by 2015. He issued the challenge during remarks at the U.S. Conference of Mayors Winter Meeting Jan. 18.

According to a report by Nathan Eddy posted on eWeek Jan. 21, 2013 ([www.eweek.com](http://www.eweek.com)), Genachowski said establishing gigabit communities nationwide would accelerate the creation of a critical mass of markets and innovation hubs with ultra-fast Internet speeds.

He challenged broadband providers, and state and municipal community leaders to work together to meet what the FCC is calling the "Gigabit City Challenge."

The iFiber project is already meeting that challenge in the nine counties it serves in northwest Illinois. iFiber connection offers speeds from 100 megabits to 10 gigabits. Some 533 Community Anchor Institutions are partnering with iFiber in the BTOP project. It will be complete by August.

Genachowski also proposed creating an online clearinghouse of best practices to collect and disseminate information, working jointly with the U.S. Mayors Conference.



At left, Sandwich CUSD 430 Superintendent of Schools Rick Schmitt (right) and Director of Technology Glen Bloemker review records related to the fiber optic project bringing high-speed connectivity to all schools in the district. Above, Bloemker trouble-shoots a connectivity issue. (Photos by Kathy Siebrasse)

### Fiber optics vital to Sandwich School District

Fiber optics will play a huge role in future education opportunities for students in Sandwich School District 430.

Distance learning and video-conferencing are just two of the applications causing district-wide excitement, according to Superintendent of Schools Rick Schmitt and Director of Technology Glen Bloemker.

"It means that all six of our district school buildings are internally connected using fiber optics. It brings our district together and consolidates operations.

It opens up an unlimited amount of possibilities for us," added Schmitt.

Sandwich CUSD 430 is part of the DATA project—DeKalb Advancement of Technology Authority, serving the DeKalb County region. It works with Northern Illinois University (NIU) for the development of new educational programs. It also allows Sandwich to connect to Internet 2 through NIU for grant programs directed to K-12 schools, and through the Illinois Century Network (ICN).

Schmitt has been with the district for 21 years, and Bloemker for nearly seven.

The district's 2,266 students are taught in three pre-K-3 grade schools, one intermediate school for grades 4-5, one middle school for grades 6-8, and the high school.

"DATA finished its work in November, and by mid-December we had connectivity in all school buildings," said Bloemker. "Ultimately, fiber optics and the high-speed broadband connectivity also will produce savings in funds and resources for the district. We will be able to consolidate servers and gives us new disaster recovery options; we could

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### iFiber's Team

iFiber's Outreach Team is a collaboration of Northern Illinois University, LaSalle County, North Central Illinois Council of Governments, the City of Rockford, Boone County and Blackhawk Hills Regional Council.



## Winter work continues on iFiber project

Crews from PirTano Construction Company have been working to lay fiber cable through rock and frozen ground between Scales Mound and Elizabeth. This picture and those on page 3 were taken Jan. 31, on Scales Mound Road, south of Rawlins Road. The construction company is using special equipment to break through the rock. See page 3 for more details.



## Sandwich School District looks to the future with fiber optics

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do something with DeKalb or Sycamore school districts to put a server off-site in another location. Or we could store data on the Illini Cloud. It makes our system more secure and disaster proof," he said.

Schmitt added, "High-speed broadband makes it possible to strengthen and support engaged learning. We realize not every student has connectivity at home. We plan to examine partnerships with the Sandwich Public Library to make connectivity possible while students are there." The district is examining a long-range goal to provide all students with laptops, which could eliminate the need for textbooks, Schmitt said, adding it also is looking at a Bring Your Own Device (BYOD) policy. Most students third grade and older now have their own phones or notebook devices.

Sandwich CUSD has a strong partnership with nearby Illinois Valley Vocational Center, which also will be connecting with fiber. IVVC has taken the initiative to possibly expand its sports management and health occupation programs with KishHealth System's Valley West Hospital, Schmitt said. "It's my understanding the fiber IVVC will be using is the same the hospital will be using. In terms of connecting and utilizing those resources, it could be a great educational tool in the future," said Schmitt.

About 50 percent of Sandwich CUSD classrooms have "Smart Boards," with a higher percentage using LCD projectors providing Internet lessons. Bloemker said he has already talked to tech coordinators at various surrounding school districts about the concept of distance learning. "We could set up a hosting center and all the schools could tap into that with the backbone of the fiber," he said.

Schmitt said "The Board of Education has been very committed to enhancing and upgrading our technology, moving from a part-time tech coordinator to a full-time tech director. IT support is critical. Technology has even been enhanced during Board meetings. Board members no longer receive thick packets of paper documents; it's now provided electronically and has been a cost saver," Schmitt said.

The district recently switched to a new vendor for its student management system, which supports things like grades, attendance, discipline issues, lunch accounts and fees. Schmitt said it provides better efficiency and accountability if parents pay student fees and lunch costs electronically.

Bloemker and Schmitt said they enjoyed working with the entire DATA support team throughout the process of bringing fiber to the Sandwich School District. "We simply cannot say thanks enough to DATA and its support team from NIU—from the first discussions we had about connecting the DeKalb County schools together to final connectivity," they said.

NIU provides regional and national leadership for design, construction, and utilization of high-speed broadband networks, including administration and/or consultation work with DATA, iFiber, NIUNet, Illinois Rural HealthNet and the Broadband Development Group. Working with more than 700 local anchor institutions across the region, NIU's Regional Development Institute and Information Technology Services are building more than 2,200 miles of fiber optic networks in Illinois.

DATA is a partnership between DeKalb County Government, NIU and DeKalb Fiber Optics LLC. It is deploying a 130-mile fiber network across DeKalb County and northern LaSalle County. The majority of funding for DATA (an \$11.8 million grant) comes from the economic stimulus bill passed in 2009 (the American Recovery and Reinvestment Act). The grant is administered by the National Telecommunications and Information Administration, which is a branch of the U.S. Department of Commerce. That agency's Broadband Technology Opportunities Program is spending about \$4.7 billion to deploy broadband infrastructure into un-served or underserved areas of the country.

Another \$1.3 million is being provided by the State of Illinois, with DeKalb Fiber Optic also contributing \$1.3 million in cash, services and materials. Other contributors include: NIU, \$150,000; Kishwaukee Community Hospital, \$100,000; and DeKalb County, \$75,000. For more details, visit <http://www.dekalbcounty.org/FiberOpticNetworkDATA.html>.



### Rock solid...

Crews from PirTano Construction Company have been working to lay fiber cable through rock and frozen ground between Scales Mound and Elizabeth as part of the iFiber project. Two machines equipped with rock wheels get through the rock and cobble (mostly rock). The 8550 is called a rubber tire machine, and the 1250 is a quad track. They both have a rock wheel attached to them and the quad track is newer and better in snowy conditions. Both machines work well in the soil conditions for that part of the build. (Photos courtesy of PirTano Construction Co.)

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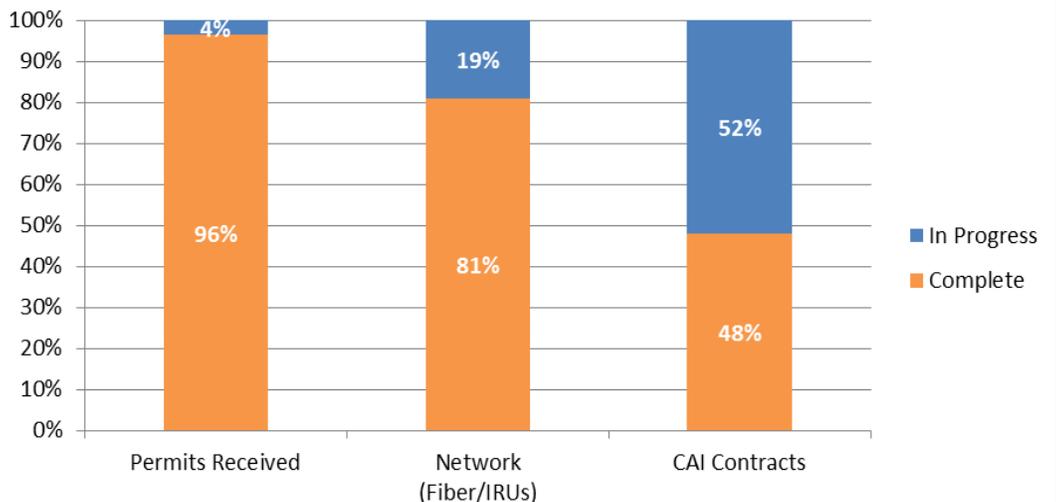
Thank you to the 450 Community Anchor Institutions that have made the commitment to the iFiber project, which will be complete by Summer 2013.

iFiber's CAI partners will enjoy the most advanced fiber optic technology available. The network will benefit schools, healthcare services, libraries, community colleges, municipalities and public safety agencies.

#### CONTACT US

E-mail: [info@ifiber.org](mailto:info@ifiber.org). See a map outlining iFiber's progress at [www.ifiber.org](http://www.ifiber.org), where issues of this newsletter are archived.

### Follow iFiber's progress...



[Please note: iFiber is reporting actual CAI contracts]