Survey results: The use of Broadband and demand for iFiber among CAIs

Community Anchor Institutions in northwestern Illinois are anxious to take advantage of the increased speeds the Illinois Fiber Resources Group (iFiber) project will make possible, according to a 2012 survey conducted by CTC Technology and Energy (CTC). Click here to download the complete report.

The most critical survey finding involves respondents' opinions about current broadband services: CAIs are only moderately satisfied with each of six aspects of Internet service asked about (connection speed, customer service, meeting technical standards, price paid, reliability, and security). CAIs include libraries, schools, community colleges, municipalities, public safety and healthcare agencies, as well as community organizations.

The survey was engaged by Northern Illinois University (NIU). For years, NIU and its Regional Development Institute have played a leading role in advancing broadband connectivity throughout Illinois. One of NIU's initiatives includes active involvement in two Broadband Technology Opportunities Program (BTOP) grants—iFiber and the DeKalb Advancement of Technology Authority (DATA).

The iFiber project includes nine counties in northwest Illinois and the grant was received by NIU with Illinois Fiber Resources Group (iFiber) being a sub-recipient.

The DATA grant was received by DeKalb County, but NIU information technology network design staff members were involved in the development of the proposal and in the implementation of the project. DATA will result in a broadband network in DeKalb County.

The geographic scope of the survey included 10 counties: Boone, Carroll, DeKalb, Jo Daviess, LaSalle, Lee, Ogle, Stephenson, Whiteside, and Winnebago. CTC sent surveys to all CAIs for which NIU had itself compiled mailing addresses and for which NIU had received mailing addresses from Partnership for a Connected Illinois. PCI is a non-profit organization authorized by the Illinois Department of Commerce and Economic Opportunity (DCEO) to implement statewide high-speed internet strategy. PCI is Illinois' designated agent to NTIA under the State Broadband Data and Development grant program.

In addition to a range of questions that were applicable to all respondents, CTC included questions tailored for respondents in five key CAI sectors: Education, healthcare, government, libraries and community organizations.

Survey recipients were asked to describe their organization. Approximately 40 percent of respondents were educational organizations, including K-12 schools, community colleges, four-year colleges, and other education-related entities. Over one-third of respondents were government entities, 12.8 percent were libraries, 8.5 percent were in the health care industry, 1.8 percent were community service organizations, and 3.0 percent were some other type of CAI organization.

"The final survey response rate was 14.4 percent (164 out of 1,141), which is higher than the response rate to most business surveys," according to John L. Lewis, chairman of the iFiber Board of Directors.

Project Background

Lewis said the survey was undertaken in order "to maximize the benefit of the iFiber and DATA infrastructure in terms of both regional economic growth and improved connectivity for individual organizations. Through the survey, we hoped to understand how CAIs in northwestern Illinois currently use their Internet connections, and how CAIs can be better served over broadband networks."

On NIU's behalf, CTC conducted a survey of CAIs in northwestern Illinois to determine customer satisfaction with current Internet service providers and the services offered. The survey aimed to collect data that would allow NIU to understand both the potential unmet broadband needs among CAIs and ways in which improved communications services could benefit the organizations.

Summary of Survey Findings

Key findings from the survey include the following:

- 100 percent of responding CAIs purchase some form of Internet access.

- Respondents rated reliability (uptime) as the most important Internet service aspect, followed by online security and connection speed. The price paid ranks below these aspects, but is still important to respondents.

- Respondents in the health care and education sectors tended to be more willing to pay for very high speed Internet than were government entities or libraries.

- Respondents who currently pay more for high-speed Internet service report being more willing to pay more for faster Internet service. Respondents who are currently paying the least for Internet service were the least willing to pay more.

- Connection speed is the area with the largest gap between respondents' rating of the *importance* of an aspect of their service and their *satisfaction* with that aspect; connection speed could thus be a key selling point for improved Internet services.

- Almost one-third of respondents report experiencing Internet downtime daily, weekly, or monthly; 3.7 percent of respondents report that they experience Internet downtime on a daily basis.

- Respondents in the western region (Carroll, Jo Daviess, and Whiteside counties) placed higher importance on many Internet activities compared to other regions.

- Respondents in the western region were more willing to pay more for a very fast Internet connection. Combined with high level of importance placed on many Internet aspects, the western region appears to be a key focal area for improved Internet service.

- The vast majority of CAIs make Internet service decisions locally (within the 10-county region). This insight may be helpful for coordinating potential service improvements.

- Cable represents the most prevalent connection type, with approximately 34 percent market share, followed by leased line (20 percent), DSL (17 percent), and fiber-optics (11 percent).

- Larger operations are more likely to have fiber-optics or leased line Internet connections, while most small CAIs use cable or DSL, which are less costly.

- Government entities more frequently had DSL Internet connections, libraries more frequently had cable connections, and health care facilities more frequently had fiber optic connections.

Key Survey Insights

The most critical survey finding involves respondents' opinions about current broadband services, Lewis said. "CAIs are only moderately satisfied with each of the six aspects of Internet service about which we inquired—connection speed, customer service, meeting technical standards, price paid, reliability, and security."

With just two exceptions, the survey results indicate a statistically significant satisfaction gap for each of these six parameters—not just for the entire respondent pool, but in every county grouping individually.

"The largest gap is in connection speed—which the iFiber and DATA infrastructure would, from a purely technological standpoint, be able to address for any customer need," said Lewis.

The importance respondents placed on each of these parameters of Internet service exceeded their satisfaction with their current providers' service delivery. Thus, the existing providers in this market are underperforming relative to the existing needs of CAIs, Lewis said.

CAIs Are Only Moderately Satisfied with ISP Performance in All Categories
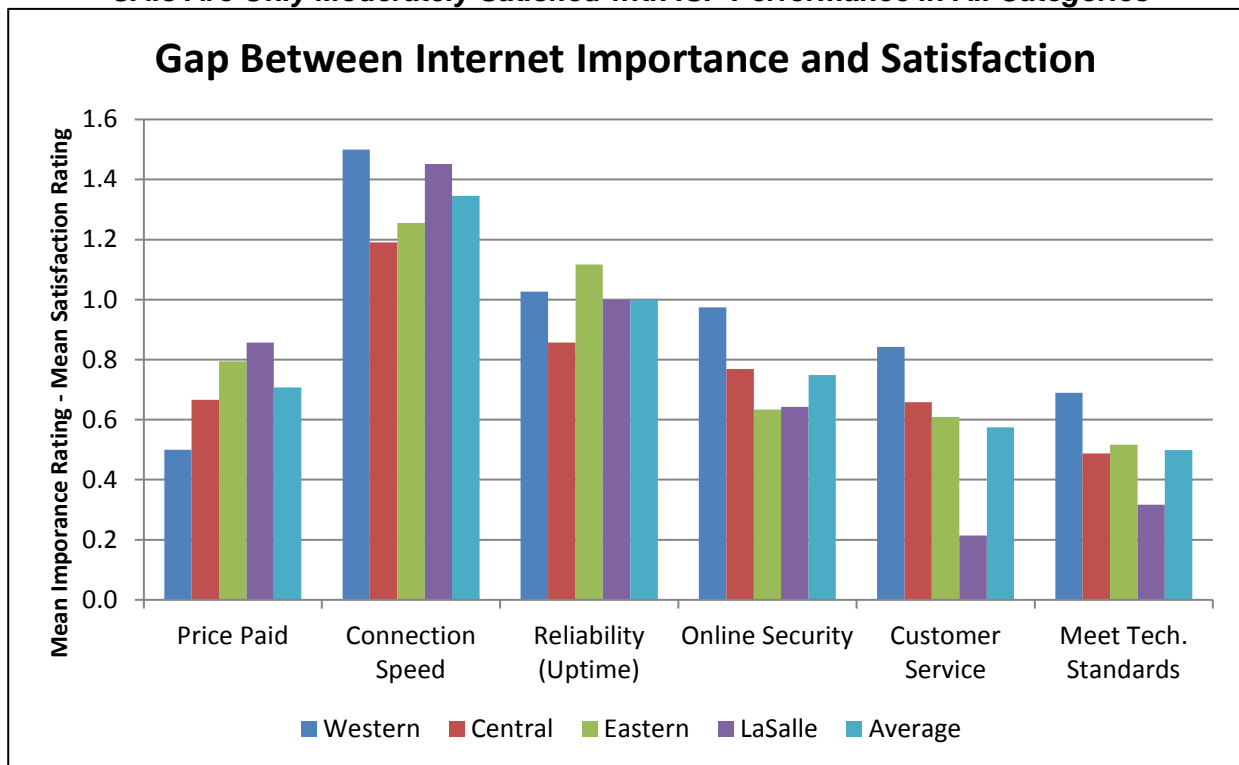

So, while 100 percent of respondents reported having Internet access, they were, almost uniformly, less than completely satisfied in many aspects of their service that are important to them. Interestingly, while it is widely believed there is better service available in the eastern counties, the survey results indicate that the satisfaction gap is just as significant there as it is in the central and western counties, which surveyers believed to be less well served.

As one respondent noted, "[Broadband] is essential for our library to operate. Unfortunately our choices are between slow, too slow for our needs DSL and unreliable cable Internet."

CAI use of the Internet

CAIs use the Internet for a variety of purposes. More than one-half of CAIs use the Internet for video-conferencing and/or downloading high-quality video, the most common of the Internet uses solicited in the survey. More than one-third of CAIs use the Internet for on-line data storage and backup, large data transfers, connecting with other sites within the organization, streaming high-quality video, and/or some form of cloud-based application.

Organization Uses Internet For…
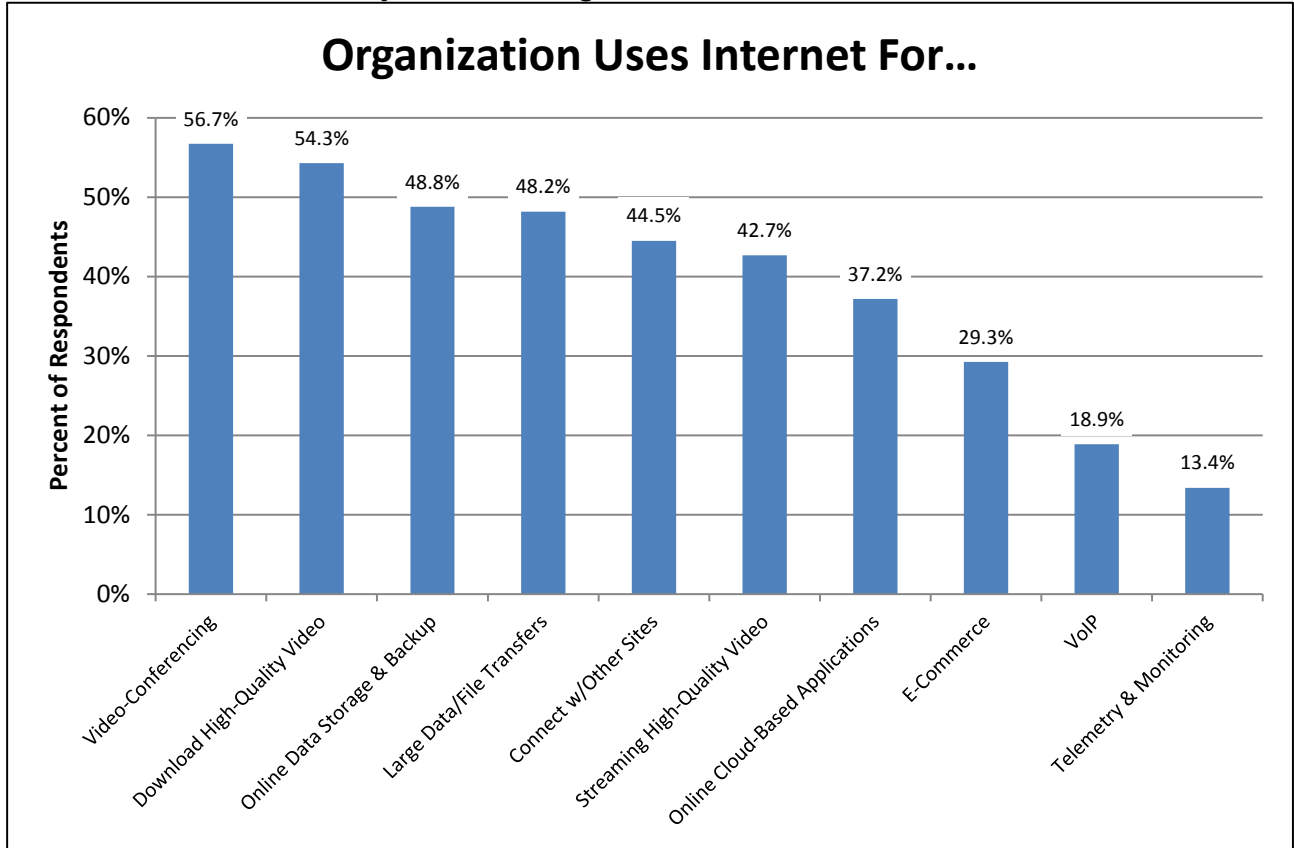
A comparison of the importance of Internet activities across geographic regions reveals that respondents in the western region rank several Internet activities as more important than do counterparts in other regions. Western respondents placed greater importance on video conferencing, data transfer, downloading high-speed video, streaming high-speed video, and online cloud-based applications compared to respondents in other regions, although most of the responses are within statistical uncertainty ranges of other regions due to the relatively small sample sizes within the sub-regions (see graph below).

Importance of Internet Activities