

# First US Gigabit-to-the-Premise Network

North Kansas City lights the first municipal broadband network in Missouri – and it's no gamble

*BBP Staff Report*

**T**he first municipal Ethernet network in Missouri is a fast one – in fact, it provides residential subscribers with the first Gigabit to the premise services in the United States. World Wide Packets built the system, which was beginning to go live at press time. Ground was broken in November 2005; first burn-in was scheduled for late April followed by beta testing in late May. Casino revenues provided startup funding, about \$10 million.

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World Wide Packets' LightningEdge allows delivery of simultaneous triple play services using Ethernet over fiber and copper media. Its design scales in line with subscriber acquisition and allows open-access delivery of multiple service offerings over a single network, increasing revenue generation and accelerating the payback period on infrastructure investments.

The city council decided that the need for high-speed Internet access in the city is not a nice-to have, it is a must-have to ensure the success of those businesses and to draw new businesses to the area.

Why a municipal system? A river separates part of North Kansas City from the area's main Internet Service Provider, Time-Warner. City officials and residents

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were unable to convince the provider to pull the appropriate fiber across the river, so half the city was deprived of high speed Internet access.

The city's government quickly realized it would have to get creative, and laid plans starting in 2003 to provide retail services such as e-mail, basic high-speed Internet access, Storage Area Networking and virus protection through its new network.

Time Warner Cable, as might be expected, took the city to federal court in an attempt to stop the project. The case was dismissed by the federal district court last April and thrown out on appeal by the 8<sup>th</sup> Circuit Court of Appeals in December. Time Warner had argued that state law (Mo. Rev. Stat. § 71.970) requires a city vote for such plans; the courts said the law, however, only applies to cable service. As a result, the city has opted not to carry video applications, but in the future may pur-

chase a headend to allow such services.

Officials admit that video would require approval through a citywide vote. But, with all the fiber completed and the system operating, the only extra cost that might be passed on to taxpayers would be the cost of the headend and modification of the billing system. As Time Warner noted in its suit, city voters would have little or no reason to reject better, cheaper video service at that point.

North Kansas City's Director of Communication Utilities, Paul Rader, was determined to take the problem head on despite Time-Warner opposition. "I had heard of other cities in our situation that developed their own network with great success. This seemed like the best solution for North Kansas City, because we already had two fiber rings installed for internal use and we knew building off of those would provide an easy, yet effective solution."

After a detailed review of proposals, North Kansas City selected World Wide Packets. "LightningEdge is a proven solution, which has seen many successful deployments in other municipalities," said Rader. "Once we saw its ability to scale to meet increased demands on bandwidth, it was the obvious choice for North Kansas City, as the community's bandwidth-hungry base of businesses continues to grow steadily each year."

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Website at [www.linkcity.org](http://www.linkcity.org) invites subscribers to sign up now. Rates are slightly lower than those offered by national telephone companies, and well below cable, for symmetrical service up to 30 Mbps.

### Why Gigabit Now?

Once World Wide Packets was selected, the North Kansas City Council began debating the network design. The configuration uses the city's existing fiber-optic network, in conjunction with new construction. North Kansas City had originally budgeted for 100 Mbps, but LightningEdge allows for Gigabit delivery to the premise at a price point comparable to 100 Mbps offerings. Officials said it is unlikely that anyone will subscribe to the high-end access now (the Website offers up to 30 Mbps symmetrical to residents and 100 Mbps to businesses), but city planners were looking to the not-too-distant future.

"There is not an overwhelming need for Gigabit delivery at this time, but at the cost point offered by World Wide Packets it made sense to enable services at that speed. With our ever expanding community, the need will definitely exist down the road," said Rader.

"In this day and age, high speed Internet is an essential utility on the same plain as electricity, and we are pleased to provide our citizens with the best possible solutions to improve business processes and quality of life."

Dave Curry, president and CEO of World Wide Packets, has seen the company deploy several successful municipal networks and worked closely with North Kansas City on this project. "World Wide Packets is thrilled to provide North Kansas City with the flexible, scalable solution it needs to propel the city into the 21st century," said Curry.

The city has a Website in place ([www.linkcity.org](http://www.linkcity.org)), encouraging residents to sign up for the services. The city is offering unrestricted Internet, with bandwidth purchased from local providers. Monthly price plans were developed by the city, designed to provide affordable high-speed Internet access to all. The residential prices are \$14.95 for 256 Kbps service, \$34.95 for 5 Mbps, \$59.95 for 10 Mbps, \$99.95 for 20 Mbps and \$159.95 for 30 Mbps – A bit lower than the typical prices for Verizon FiOS, but not wildly out of line.

Business services are slightly higher due to anticipated increased traffic: 5 Mbps for \$69.95, 10 Mbps for \$79.95 and 30 Mbps for \$199.95. The city will provide separate price quotes for users looking for greater speed. **BBP**

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