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FTTXcellence Award winner stumps for FTTH

By Stephen Hardy

When Glen Lang served as mayor of Cary, NC, local press coverage indicates he alienated a significant number of housing developers by raising impact fees. The goal was to slow development enough to give the fast-growing town the time and resources necessary to enable its infrastructure to catch up with its exploding population. The fact that Lang followed his political career by getting into the business of selling optical infrastructure to the very group he had butted heads with perhaps says one thing about the man: that he has been successful enough at this endeavor to earn the 2006 FTTXcellence Award definitely says something more.

The FTTXcellence Award, co-sponsored by *Lightwave* and Corning Inc. (www.corning.com), recognizes an individual who has advanced the deployment of optical communications technology in North American access networks. A panel of judges from *Lightwave* and Corning selects the honoree from nominations received from people working within the field; the award sponsors do not offer nominations and people cannot nominate themselves. George Bell of Verizon received the inaugural award in 2004 and James Hettrick of the City of Loma Linda, CA, accepted the second annual award last year. Lang received this year's award for his work as founder and chief executive officer of Connexion Technologies (www.connexiontechnologies.net), a company that deploys and operates FTTH networks for developers; in conjunction, the company

acts as an agent for homeowners' associations to assemble and deliver bulk services over these networks that could include voice, video, Internet access, and security, among other offerings, depending upon the desires of the association.

Lang received multiple nominations for the award. "His vision and concern for customer service and desire to offer the customer the latest technology is untouched. I have personally been in the communication arena for 25 years and have never experienced the [same] excitement, energy, and commitment from anyone I have ever worked with," read one nomination.

"According to the most recent update of current single-family, multifamily, and high-rise properties signed with Connexion, the company is second only to Verizon in FTTX deployment," asserted another.

A conversation with Lang confirms the impression set by a perusal of the press coverage of his political career: He speaks plainly, he's not afraid to be contrarian, and he puts a lot of energy into turning his beliefs into action.

The politics of broadband

Lang received his first major exposure to FTTH during his tenure as mayor; he was elected in 1999 (after a short stint on the city council) and served until 2003. As part of his effort to improve the city's infrastructure, he discovered that the two major incumbent service providers, BellSouth and Time Warner, didn't plan to bring broadband connectivity to the city for another 4 years. So Lang

commissioned a study into the feasibility of launching a municipal FTTH network.

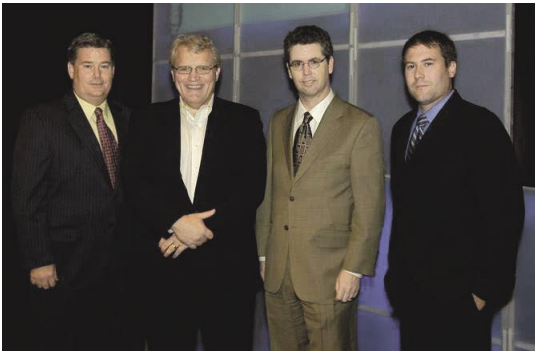
"Within six months, Time Warner and BellSouth decided it was in their best interests to deploy fully throughout Cary as quickly as possible. Which obviated the need for a municipal network somewhat," Lang recalls. "However, I read it—I read the report that was put together for the town on how to do fiber to the home. And I thought, well, this is a pretty neat business."

Lang already had a high-tech background; he had received a mechanical engineering degree from the University of Minnesota, worked at a series of computer companies, founded and sold a software development company, and helped other startups raise money. His stint as mayor brought him experience in zoning, franchise law and cable service ("Cary had been suing Time Warner for about 13 years," he says), and telecommunications service working with BellSouth (which he describes as "actually one of the better service providers in the area").

He also had already started an Internet service provider, Capitol Broadband. So when he wasn't reelected in 2003, he began to morph Capitol Broadband into a company that would own and operate fiber-based networks and bulk services in greenfield residence communities, condominiums, and resorts. He created a wholly owned subsidiary, Capitol Infrastructure, to focus this effort; Capitol Infrastructure became Connexion Technologies this past May.

How it works

"Our model is deliver superior service, bundle all the services through the homeowners' association, and go in and just do greenfield communities," Lang states. "We're also in the



Marty Curran, senior vice president and general manager, Global H&E Operations, Corning Cable Systems; **Glen Lang**, chief executive officer and founder, Connexion Technologies; **Stephen Hardy**, editorial director and associate publisher, *Lightwave*; and **Robert Bole**, vice president, Western Region, One Economy Corp. (left to right), pose after the ceremony at which Lang received the 2006 FTTXcellence Award. As part of the ceremony, Bole accepted a \$5,000 contribution in Lang's name to help One Economy's work in bringing the benefits of broadband services to low-income housing.

resort market in a very big way.”

Connexion pays for the network equipment, cabling, and installation. The value proposition for real estate developers is pretty simple. “Why do developers do it? The lot sells for \$3,000 to \$5,000 more, and we’re putting all the capital in. So they put no money in, and their lot value goes up \$3,000 to \$5,000,” Lang explains.

For the homeowners’ association, the rise in association fees (or condo fees) necessary to work with Connexion is offset by the fact that their services will be provided at a price 30% below retail, Lang says. Unlike similar companies that offer an open access model, Connexion favors what is called a “bulk services approach,” wherein Connexion finds the service providers and contracts with them directly in the name of the homeowners’ association. This approach enables the company to ensure service quality, which Connexion underscores by having its service providers sign service-level agreements.

Lang admits that, when it comes to technology, Connexion has ridden Verizon’s coattails. The company has used BPON equipment from Tellabs and Motorola and is looking to add GPON gear from Alcatel. However, Connexion also has used active Ethernet architectures (via Allied Telesis gear) in some of its high-rise applications.

“We love the 100-Mbit/sec bidirectional of active,” Lang says. However, the current first-in cost differential between active Ethernet and PON makes the former difficult

to justify in some developments, particularly when dealing with single-family units. “In the high rises, we’re more likely to go active—although we’ve got high rises with BPON as well. If we can do it and if they can hit the price point, we’re more likely to go active,” he says.

Future expansion

While much of Connexion’s business is in residential developments, Lang reports burgeoning interest from resorts, including older vacation spots looking to keep pace with newer competition. “The problem that the old resorts have is that people have better televisions and better experiences in their house than they have when they go to the resort,” he explains. “You cannot sell that as a resort.”

Lang says that developers and resort owners also are asking for a wider range of services. He reports his company has provided customer premises equipment—such as voice-over-IP phones—in some cases, as well as low-voltage wiring maintenance. Security services, including access control, are also a popular offering.


While FTTH has become associated with high-end developments and resorts, Lang also points out that lower-income housing offers a very good opportunity. “You actually deliver more video services to a low-end house than you do to a rich one. It’s the only entertainment—it’s cheap entertainment value in comparison to going out to a movie or doing something else,” he explains. “So we like the low-end stuff. And from a cost

standpoint, the lots are smaller. So the smaller the frontage on the lot, the higher the density is, and the lower the cost is for delivering the service. So we do have a huge number of very high-end developments, but we love the volume of the low end, and it works just fine.”

As requirements expand, Lang expects his company will expand as well. He says that he plans to

“diversify our equity base”—which likely will push Connexion to expand from its current stronghold in the southeastern United States as new investors demand greater market penetration. The company already is active in the Bahamas, St. Thomas, and other resort locations outside of the U.S., and has work in Vail, CO.

Meanwhile, Lang will strive to maintain the company’s philosophy of close customer contact. “It turns out that at the end of the day, people want a communications *service*,” he says. “One number—I don’t care whether it’s ‘my TV don’t work, my Internet don’t work, my phone don’t work, my access and control for the key fobs for accessing my condo unit don’t work’—one number and make the problem go away. Everyone keeps selling price in this industry, and the answer is not selling price. The answer is selling service.”

This emphasis will help Connexion distinguish itself from its competition and, Lang hopes, ensure its continued success. “You need to put a person in their living room and you need to talk to them like they’re human beings,” he concludes. “The subs are human beings, not a number or a name. And you provide this great service person to person and belly to belly—and it’s so unusual for utility companies. Utility companies are always trying to pull away, no contact, with 800 numbers and don’t want to be in the house. We want to be in the house and we want to be in there all the time, because we think we can provide better service and it makes our service unique compared to your typical cable or telco company.” 



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