

# A Strategic Fiber Upgrade: St. Laurent Apartments, Grand Prairie, Texas

In this issue, **BROADBAND COMMUNITIES** showcases the St. Laurent Apartments, an upscale apartment complex in the Dallas–Fort Worth area. A major overhaul to the communications infrastructure in this apartment complex allowed the owner to make the community more attractive to tenants.

By Masha Zager / *Broadband Communities*

*Thanks to Bert Bertelson, vice president of asset management for Continental Realty Advisors, known as CRA, and T.J. Stewart, principal of MDU Network Technologies LLC (MDU Netech), who provided the information for this profile.*

Since the 1980s, CRA-sponsored investment funds have acquired more than \$2 billion in multifamily real estate. The firm typically targets properties that can benefit from upgrading, and Bert Bertelson, VP of asset management, says, “My job is to take the investment and raise the value of that real estate.” Bertelson identifies strategic upgrades whose costs can be recouped quickly through rent increases.

Recently, Bertelson has paid particular attention to properties where network upgrades would significantly increase value. He found one in the St. Laurent Apartments, a luxury apartment complex in Grand Prairie, Texas, that had less-than-luxurious cable service. In fact, residents leaving the community cited the cable

and Internet services as their second most common source of dissatisfaction. The property had a 10-year contract with the cable provider, but Bertelson was able to terminate the contract early because the provider was unable to deliver the top advertised speed.

Because the St. Laurent’s home-run wiring and in-home wiring were sound, CRA didn’t have to invest capital in the upgrade (though, as Bertelson points out, given the growth in demand, owners may eventually have to invest in running fiber to each unit). Instead, it contracted with MDU Netech to construct a fiber ring throughout the property and connect it to the building wiring. This propertywide fiber plant is a first step to achieving full FTTH if and when CRA decides to run fiber to each unit.





Under the contract, MDU Netech designed, funded, installed and currently manages a fiber optic network that provides broadband service for residents, management offices, the clubroom, the pool area, the business center and the laundry center. In addition, MDU Netech provided dedicated fiber for a single-dish array (two satellite dishes for the entire property) to be used by a national satellite TV provider. The video system improved the aesthetics of the complex, and, in the future, other video providers that deliver content through a fiber medium will be able to use this fiber.

The fiber backbone assured St. Laurent residents of consistent, reliable Internet service, and CRA could easily match or beat local competitors' speeds

and pricing. The top download speed offered at St. Laurent, 53 Mbps, is slightly higher than the area norm; there did not appear to be any demand for significantly higher download speeds.

But Bertelson was still looking for a differentiator. "I want my residents to have something better," he says, "and the one thing we can offer is the upstream speed. That's becoming just as important as the downstream speed." Accordingly, he set the top upstream speed at 16 Mbps, far beyond what any local competitors offer.

The fiber network at St. Laurent is 1 Gbps x 1 Gbps and expandable to 10 x 10 Gbps as higher backhaul speeds become available. Currently, packages greater than 200 Mbps symmetrical can be made available almost instantaneously.

Bertelson and MDU Netech collaborate as to when these speeds should be increased based on network and property management needs. Residents can be price sensitive. Although they care about speed, what matters most is a pleasant online experience without disruptions or slowdown. At St. Laurent, Bertelson says, residents know their Internet service is always fast enough or can be upgraded at any time. In some cases residents opt for lower-tier packages because the network's speed is able to meet their needs.

The result? "They think we're the bomb!" Bertelson says. "We get compliments all the time." Residents are staying in their apartments longer even though rents are rising faster than the average.

# PROPERTY OF THE MONTH

IP cameras attached to the fiber network have virtually eliminated costs and downtime associated with repair to the gates because all entries and exits are recorded.

## VITAL STATISTICS

*Property Description:* St. Laurent

Apartments is an upscale community in Grand Prairie, Texas. Conveniently situated near DFW airport, it offers easy commuting to Arlington, Dallas and Fort Worth. Covering 25 acres, the property has 16 apartment buildings totaling 372 apartment units, numerous attached and detached garages and one primary amenity structure.

*Demographics:* Mixed demographics, trending to young and middle-aged professionals

*Greenfield or retrofit?* Retrofit. St. Laurent was built in 1998.

*Number of units:* 372

*Style:* Two- and three-story garden apartments

*Time to deploy:* Outside-plant work was completed in approximately three weeks. Cross-connects and unit activation occurred over a 10-day period.

*Date services started being delivered:* March 1, 2013

*Special requirements:* Limiting

disruption and service interruption for residents

## SERVICES

*Services offered:* High-speed Internet access with a top tier of 53 Mbps/16 Mbps, satellite video through DIRECTV, VoIP, common-area Wi-Fi, propertywide Wi-Fi for leasing staff, broadband-enabled laundry rooms, and propertywide IP video recording or imaging. The network is designed to accommodate IP-based access control, in-unit home automation, and building management services in the future.

*Bert Bertelson:* Ten years ago, our security cameras couldn't see whether a car was a Ford or a Chevy. The IP cameras on this new network have phenomenal high resolution. Their primary purpose is to protect our real estate. Every gate has a camera recording cars and license plates entering the property to protect the property from false claims that gates damaged people's vehicles or to recover damages from cars bumping the gates. With access to the fiber, we also installed

overview cameras viewing entrances at the clubroom, office and business center. This gives our residents and staff peace of mind that the facility is being looked after. Most important, we have virtually eliminated costs and downtime associated with repair to our gates because residents are aware the entry and exits are being recorded. If an incident occurs, we have the capability to hand videos or photos on a thumb drive to the police or insurance company. We recently expanded the camera system using the fiber pulled to our newly renovated laundry room. Residents can now go on the website and view which washers and dryers are available or how much time is left on a cycle.

*Technical support:* MDU Netech provides 24/7 help desk support for broadband issues, and the video provider has its own 24/7 help desk for TV-related issues. Having two support numbers has not posed a problem for residents.

## BUSINESS

*Who owns which parts of the network?*

During the 10-year contract term, all components of the fiber plant are owned by the service provider. The property owner owns all home-run and in-unit wiring.

*Service agreements:* The property has exclusive service agreements for both data and video. The agreement with MDU Netech includes substantial ancillary income for the property owner.

*How do the service provider and owner market the services?* Residents are informed about the fiber system when they tour the property. They are given the specifics in print form during their tours and in move-in packets. Residents also receive printed, three-step instructions for creating their network accounts for Internet access. The process takes about four minutes and usually is one of the first things residents

## PROPERTY OF THE MONTH HIGHLIGHTS ~ St. Laurent Apartments, Grand Prairie, Texas ~

- Luxury apartment complex in the Dallas-Fort Worth area required a competitive broadband service.
- MDU Netech funded, designed and built a fiber backbone to connect with in-building and in-unit Cat 5 and RG-6 cable.
- Equipment vendors include Alcatel-Lucent and Axis Communications.
- Results: Residents and office management are satisfied, and property value increased.

do after receiving their keys. The company hosted town-hall meetings and educational sessions at the time of conversion to further educate interested parties.

*Take rate:* Well above 50 percent

*Network benefits:* The fiber network generates healthy income for the property, and the benefit of having fiber at the property has won residents. Network speed can be upgraded as demand warrants. Residents noticed a significant increase in speed and less peak-hour congestion when the system was activated. The leasing staff promotes the presence of a fiber optic facility in the leasing walk-through.

## TECHNOLOGY

*Broadband architecture:* Fiber to the building. Fiber is terminated at an intermediate distribution frame (IDF) on the side of each building, and data runs over Cat 5 cable to each unit. Video runs on RG-6 home-run cable. MDU Netech could have used either the RG-6 cable (along with the video provider) or the Cat 5. The property owner chose to use the Cat 5, but RG-6 remains an option.

*Methods for running cables between buildings, vertically within buildings, horizontally within buildings:* MDU Netech used directional boring to pull fiber to each building's demarcation point. New outdoor enclosures were installed to house fiber termination and active electronics. Vaults and handholes were used for primary splice points as fiber was distributed across the 25-acre area. The fiber was pulled back to a main distribution frame (MDF) where two 3.5 x 10-foot distribution racks were replaced with a single locked network rack that includes a low-profile IP camera linked to the property's IP camera system.

*Key vendors and products:* MDU Netech designed and installed the system using carrier-grade equipment in



the MDF and IDFs. The company has a strong partnership with the engineers and support team at Alcatel-Lucent Enterprise and uses its OmniSwitch family of products for LAN networking. IP cameras are almost exclusively from Axis Communications. Various manufacturers are used for clubhouse Wi-Fi, clubhouse management computers, IP phones, access control and business center machines.

## LESSONS LEARNED

*What was the biggest challenge?*

Coordinating with residents for in-unit turnout always seems to be the hardest challenge. Inevitably, some residents do not want unaccompanied technicians in their units even though property maintenance is monitoring installations. Others whose leases are expiring soon deny entry because they do not want the services provided. As a result, a few units need callbacks or remain incomplete until residents move out.

The ownership group agreed that when it renovates other properties in the future, it will label all in-unit work as facility improvements to expedite the process and ensure that residents moving into units are not disrupted by prior residents' decisions.

*What was the biggest success?*

*T.J. Stewart:* The installation of the outside plant had virtually zero ground impact. MDU Netech installed the plant using directional boring, which left the surface untouched. At the time of conversion, the system was live and operational, and residents had no lapse in service save those who would not file a permission to enter (PTE) at the time the building was activated. Even so, most of these outliers were installed within a day or two either after their workday or after a PTE was submitted.

*Bert Bertelson:* Offering the newest and greatest service and getting ready for future technology that doesn't exist, but that residents will want.

*What was done – and what could have been done better – to limit disruption to residents?* Management distributed multiple flyers informing residents of the cutover, in-unit work and installation windows. The management office also sent the flyers to residents via email. Residents were informed about what would be done in their units (an existing wall jack would be converted to a data port), the location of the wall jack that needed to be accessible and the approximate

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time that installers would spend in each unit. In addition, the video provider completed its customary new-user installation and equipment training as if customers had ordered service directly at the time of move-in. Toll free numbers were provided in case residents had any follow-up questions.

*What feedback does the leasing office get from residents?* Residents noticed a marked improvement in speed and stability after the fiber network was installed. The leasing office receives few complaints about the network – which is not surprising as the network is user-friendly and self-diagnostic. The few complaints received usually concern resident-owned equipment. Because it is difficult to inform residents that their speed-related issues have more to do with their equipment than with the fiber system itself, the

provider undertook educational efforts on behalf of the property for the benefit of the residents.

*Bert Bertelson:* The leasing office loves the system. The wall of cameras in the leasing office [showing video feeds from the entrances] is a big selling feature. People feel more secure.

*What should other owners consider before they get started on a similar deployment?* Installing and managing a fiber network is not as easy as confirming that lights are blinking on a network switch or as flipping a switch. Owners should confirm that active electronics are being managed, that units benefit from port isolation and that home runs are adequate to support the increased bandwidth. Progressive owners should look to give their residents a faster broadband

experience in stages. If the home run is suitable, a fiber plant can be deployed and activated. The owner should anticipate needing to upgrade either the home-run or in-unit wiring to avoid falling too far behind the throughput of the fiber plant upon contract renewal. If the property is served by low-grade Cat 3 and RG-59 cables, the owner must consider funding the costs of new home runs. These home runs will keep residents from reaping the benefits of the fiber plant. Over time, this problem will be exacerbated as bandwidth-sensitive applications continue to increase. ❖

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