

**ANNUAL SUMMIT ISSUE**

# Broadband **Communities**

BUILDING A FIBER-CONNECTED WORLD

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# FINANCING

# FIBER

# NETWORKS

Featuring – The Property of the Month:  
**The Virginian**  
With Verizon FIOS FTTH



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# The Virginian Fairfax, Va.

The **BROADBAND COMMUNITIES** Property of the Month for this issue is The Virginian, a mid-rise community that has been providing elder care for more than 30 years. The campus was recently upgraded with Verizon FiOS FTTH and Healthsense monitoring equipment. Thanks to Mark Ridgely, director of The Virginian, Sarah Jones of Healthsense and Eva Bell and Bill King of Verizon Enhanced Communities for their help with this feature.

By Steven S. Ross / *Broadband Communities*

**T**he Virginian, founded by The Temple Foundation in 1980, has a long history as an independent, not-for-profit, continuing care retirement community (CCRC) dedicated to providing housing and individualized care for older adults. The Virginian is recognized in the community for its standards of excellence, sound values and quality of care.

Featured over the years in publications such as *Woman's Day*, *Good Housekeeping* and *Redbook* and on NBC's "American Health Front," The Virginian offers all levels of care, including independent living, assisted living, nursing, rehab, Parkinson's-specific programs, outpatient rehab, respite and home health services.

"We actually look at our labor costs, the number of staff per resident," says Mark Ridgely, director of The Virginian, "so technology and the ability to monitor residents is critical for our industry. We've added skilled care, outpatient therapy and a home health division as revenue sources that do not require a lot of capital and also help us market our facility."

Ridgely was interested in using Healthsense's remote monitoring, emergency response and wellness

management solutions to minimize the cost of delivering quality care, and he was able to implement this technology after Verizon installed the fiber infrastructure over which the Healthsense devices communicate. He says, "A reliable, fiber-connected wireless network installed and operated by Healthsense includes motion detectors to see if residents are up and about in the morning. People carry

emergency-response pendants not just inside apartments but anyplace."

Ridgely foresees the possibility of delivering more outpatient care electronically via remote monitoring, creating "a CCRC without walls."

Technology deployment in the continuing-care market can be slow because of the elderly customer base. Residents may have physical limitations and resistance to complex technology.

The standard universal remote, for instance, is daunting to many.

"We look upon this [Healthsense] as a communication tool for the residents' families as well as the residents," Ridgely says. However, he notes that many residents come to The Virginian email-literate and knowing their way around cable TV.

"The least obtrusive solution is the best solution," Ridgely says. He

explains that the motion sensors do not present much of a privacy issue, and the pendants were well-received, but that visual monitoring, although possible given the network's bandwidth, would be almost nonsellable.

The Virginian depends on its on-site marketing employees to train staff in the new technologies. Although FiOS and Healthsense have been live since fall 2012, new capabilities are still being





implemented. For example, Verizon Concierge is just getting up to speed.

## VITAL STATISTICS

*Demographics:* The median age of residents at The Virginian is 86, and many residents, even in independent living, have medical issues. The primary attraction of a CCRC such as The Virginian is that residents and their families are given multiple care options to allow aging in place, including independent living, assisted living, Medicare skilled care and long-term nursing care, as well as respite care. The Virginian was recognized as one of U.S. News & World Report's Best Nursing Homes for 2012 in that magazine's list of 5-Star Ranked Communities.

*Greenfield or retrofit?* Retrofit

*Number of units:* 368 living units (186 apartments, 86 assisted-living quarters and 96 nursing rehabilitation/hospital rooms) plus 39 offices and amenity areas

*Style:* 5-story mid-rise

*Special requirements:* The property required a three-step implementation process. The first step was for Verizon to provide broadband connectivity for the Healthsense Wi-Fi applications for remote health care monitoring and

its own management services. The second step was for Healthsense to configure, install and activate its Wi-Fi-based aging services technology platform. The third step was for Verizon to provide FiOS TV, Internet and phone service to the residential and rehabilitation accommodations.

*Time to deploy:* Providing the infrastructure backbone for the Healthsense Wi-Fi network took approximately three months to complete. The project began in February 2012 and was completed in May. This allowed Healthsense to offer its technology-enabled care solutions at The Virginian by early July. The second phase of FiOS deployment, to provide telephone, Internet, and television services to the residents and patients, was completed in September 2012.

## SERVICES

*Services offered or planned on the network:* FiOS TV, Internet and phone services, along with Healthsense's technology-enabled care services and Verizon Concierge.

*High-speed Internet access:* FiOS Internet with top speeds of 75 Mbps downstream and 35 Mbps upstream.

*Video:* FiOS TV

*Telephone:* FiOS Digital Voice

*Concierge:* Verizon Concierge will offer a variety of services that range from work order management to community-based social media to dining reservations. The management of The Virginian especially likes the mobility of the Verizon Concierge platform and the diverse range of smartphones that can be used to access the platform. The phone-based Resident Alert feature, which enables staff to send voice messages to all residents, is expected to be a huge benefit because of the ease of communication with this demographic group.

*Health:* Health-related monitoring services provided directly by Healthsense include residents' personal emergency response pendants (worn around the neck), nurse pull cords installed in all living units and motion sensors.

*Headroom for future services?* Possible additions/enhancements on the Healthsense side for equipment and health-monitoring services

*Provider choice:* Cox was the incumbent provider and still offers cable service, although The Virginian designates Verizon as a preferred provider.

*Technical support:* For FiOS retail services (TV, Internet, or phone) the point of contact is Verizon. Healthsense handles all resident health monitoring equipment.

## BUSINESS

*Is there a marketing agreement with the property owner?* Yes, Verizon has triple-play exclusive marketing rights. A Verizon account manager works with the staff to coordinate marketing activities.

*What marketing approaches have been particularly successful?* On-site events

*Is there a bulk-service agreement?* No.

## TECHNOLOGY

*Broadband architecture:* Fiber to the unit, with a single-family-unit

optical network terminal placed inside each unit, either behind the door or in a closet

*Technology:* BPON

*Distribution system:* Verizon's fiber deployment design brings a feeder fiber onto the property. The feeder is extended into the buildings. The main point of entry for each building is generally the main telephone closet located on a lower level. Verizon fiber distribution also requires installing a fiber hub and terminals and microduct or interior molding and placing fiber. A small piece of fire-rated plywood backboard is also required to support the optical network terminal housed inside the living quarters. These are installed when a customer requests FiOS services.

## LESSONS LEARNED

The following answers were supplied by The Virginian.

*What was the biggest challenge?*

The biggest challenge was training the management staff to work with the residents to use Healthsense's technology to increase productivity and administrative efficiency, which helps us control costs.

We have pull cords in every nursing room and every apartment. We have motion sensors in all apartments and pendants distributed to all residents who are capable of using them appropriately. We use the motion sensors for our "Morning Watch" program to confirm that residents are up and about in their apartments. We eliminate manual check-in tasks and then receive reports on residents' check-in status.

There is a lot of room for growth on the monitoring side. The motion sensors are part of the eNeighbor product line from Healthsense and can be combined with other devices to get additional health monitoring data. That is where we plan to go in the future as we expand our electronic medical records system.

*What feedback does the management office get from residents?*

The guests and their relatives, including children and grandchildren, laud our decision to launch a cutting-edge network that will help keep some of our residents living independently and in a dignified way for a longer period of time. In addition, they greatly appreciate our ability to remotely expand our reach into residents' lives for urgent and diagnostic care.

*What was the biggest success?*

We have gained a tremendous competitive edge, and we have a vehicle in place with built-in capabilities for constant improvements.

The Virginian now has an advanced, next-generation, fiber optic network topology that can scale with our business needs, and we've partnered with companies that are at the forefront of the technological revolution. This assures us that whatever products and services evolve through creativity and innovation, and on whatever platform those products and services are delivered, we'll be in a position to take advantage of the benefits and conveniences.

We realize that our residents are more technologically competent than those in past years and will be even more so in future years. They are looking for places that will not have to be modified in a few years to accommodate the accelerated introduction of innovative services that will improve their lifestyles and provide maximum enjoyment.

*What was done to limit disruption during the deployment?*

Verizon was required to enter the property through aerial and buried access. This required the team to dig on the property to create a path to the main point of entry into the building.

Verizon brought fiber into The Virginian's main telecom room to provide an access node for Healthsense's wireless access points, dedicating an ONT to Healthsense. Verizon provided The Virginian with a block of IP addresses to configure the Wi-Fi equipment.

Healthsense is built on a Wi-Fi platform that supports the medical and patient monitoring equipment on a secured, scalable wireless LAN.

A Verizon technician installed the ONT and wireless router and activated the fiber connection.

*What should other owners consider before they get started on a similar deployment?*

Although a strategic plan with meticulous attention to every detail is crucial to success, procrastination could lead to obsolescence. Data capacity requirements are growing exponentially, demanding powerful data networks, and smart health technology is the wave of the future. Implementing a robust aging services technology platform will result in a significant savings in labor. ❖

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## PROPERTY OF THE MONTH HIGHLIGHTS

~ The Virginian ~

- First joint deployment of FiOS triple-play services and Healthsense health care monitoring services in a continuing-care facility
- Fiber to the unit permits delivery of robust services to every resident and serves as the backbone for the Wi-Fi-based health monitoring services.
- Health monitoring services keep residents safe and as independent as possible in a nonintrusive way.
- Verizon's strategic partners include Healthsense (health monitoring equipment and services), Simplikate (Verizon Concierge services) and Truecomm (system design).