# CORONADO SHORES
# CORONADO, CALIF.

By Joe Bousquin ■ *Contributing Editor, Broadband Communities*

This month's feature showcases the Coronado Shores condominium community and the first-ever deployment of the DISH Optical Network solution. Thanks to DISH's Craig Snelgrove, George Mazza and Matt Passalacqua and to the Coronado's Alan Aegerter for their assistance in preparing this feature. To learn more about DISH property solutions, please visit dish.com/property.

Alan Aegerter, property manager of the El Encanto tower at the Coronado Shores condominium community just south of San Diego, Calif., knew that he and his team faced a colossal task. At issue was the property's existing video network, which hadn't been significantly updated since the property was first built in the 1970s. As the system aged, problems began to stack up.

"With the old system, which was daisy-looped, if you had a problem on the fifth floor and you broke something while you were trying to fix it, you could knock out the four floors below you," Aegerter says. "We knew we were going to have to do a complete overhaul."

The property issued an RFP to the incumbent and other local service providers with one guiding criterion: The new solution would have to suffice well into the new century. This meant the existing infrastructure would have to be completely abandoned. "The stuff that was already there was just going to rot

in the walls," Aegerter says. "We knew things were going to get messy anyway, so we had to be on the leading edge of what was available."

Now the El Encanto can truly say it is on the leading edge. Residents can subscribe to the DISH Optical Network (DON), the firm's next-generation fiber optic offering with dedicated GPON technology, and can access video and data at the flick of a switch. Options include video on demand and the company's Hopper whole-home, high-definition DVR service with its Joey set-top boxes.

The El Encanto tower's 135 units can all access DISH video programming through dedicated drops without

the need to install individual dishes on balconies. The 2.5 Gbps system also delivers 15 Mbps by 2 Mbps Internet service (a 25/5 Mbps tier is planned for later in the year), and a VoIP overlay was engineered into the build.

DISH, which already served the property with a legacy QAM system, won the El Encanto project with an enticing offer: It would shoulder all costs for upgrading the physical network within the building, and because it already had access to a fiber trunk at the property, it could deliver fiber optic services without any new trenching. In return, it would be able to offer bulk services at the El Encanto tower and get a

**About the Author**

*Joe Bousquin is a contributing editor for* **Broadband Communities** *and a journalist with more than 15 years' experience writing about finance, real estate and technology. You can reach him at joe@ameredit.com.*

chance to sell premium services to current and future residents.

DISH is now rolling out fiber to two other buildings, the El Camino and El Mirador, in the 10-building complex. Each building has its own homeowners association (HOA) and is negotiating separately with providers.

"With high-end, high-rise buildings, especially verticals with 400-plus units, we feel the DISH Optical Network is, hands-down, the best-quality solution available in the marketplace today," says Craig Snelgrove, general manager of sales, property solutions, at DISH. "It's cheaper than other alternatives, and the quality of the product is second to none."

After years of dealing with deteriorating signal quality from cable, Aegerter says, he's just happy it works. "By far, the biggest success is the fact that we've had months and months of no signal degradation at all and not a single system problem since we launched," Aegerter says. "That's clearly the best aspect we've seen."

## VITAL STATISTICS

*Property Description:* Coronado Shores is nestled between the Pacific Ocean and San Diego Bay. The luxury condominium buildings occupy 32 acres of prime beachfront real estate adjacent to the historic Hotel Del Coronado and only minutes from downtown San Diego. Each building offers friendly, accommodating staff with a 24-hour doorperson as well as roaming security in a gated community.

*Greenfield or retrofit?* Retrofit

*Number of units:* 135 (additional towers will have 135 units and 190 units)

*Style:* High-rise

*Time to deploy:* Backbone network six to eight weeks; interior wiring three to four months

*Date services started being delivered:* Video in early 2012, Internet access in mid-2012

## TECHNOLOGY

George Mazza, product manager at DISH Network, provided the following responses.

> ## "We've had months and months of no signal degradation at all and not a single system problem since we launched."

*How is fiber distributed through the property?* DISH Network installed a fiber network from the initial headend at the El Encanto tower to the other towers. We used existing conduits or bored service access to each of the towers.

The fiber network originates at the entry point in the basement of each building. A single-mode fiber backbone terminates at each intermediate distribution frame (IDF) closet on the floors. We terminate on a subscriber connector (SC) fiber patch panel. The horizontal fiber was routed to the patch panel and run to the units through the hallway ceilings, walls and, in some cases, soffits.

The fiber terminates in each unit at a wiring panel that contains a wave-division multiplex (WDM) filter. The output feeds both the video and the data service.

DISH's optical switch supports the whole-home Hopper-Joey HD-DVR system, or individual set-top boxes. The optical network terminal (ONT) is colocated; all devices are powered from the network inside the unit.

*What is the FTTH technology?* GPON. All the active electronics are located in the headend or the customer units.

*What type of gear is used?* All the video equipment was provided by Echo-Star. The DISH Optical Network (DON) is a small-form-factor headend able to support up to 512 units and 1,536 receivers. It supports up to four satellite feeds, including the complete DISH HD programming and VoD content. The video switch is the DISH ODPP-43 integrated optical demultiplexer.

The data equipment is the Trident7 from Aurora Networks. DISH installed a compact optical line terminal (COLT) at the headend, and at each unit we installed the ONT-G420i with four 10/100 Mbps Ethernet ports and two voice ports.

*How did you deal with wiring and plug access within the units?* The DISH Network installation team had to go into the walls, mainly in hallways and common areas, to access building risers and chases. All the wiring to the units is hidden under the surface. Inside the units, we replaced the old RG-59 looped network with RG-6 and Cat 5 cable to each outlet from the network panel.

*Did you provide wireless signals within units?* No.

*How much square footage did you have to dedicate to the network inside the building? Could closets be shared with other utilities?* The IDF rooms, where backbone and horizontal fiber terminate in a fiber patch panel, required minimal footprint, and we shared

> ## PROPERTY OF THE MONTH HIGHLIGHTS
> ### CORONADO SHORES CONDOMINIUM
> - *DISH Network deployed its first FTTH network in three buildings of an upscale San Diego condo, replacing obsolete coax/QAM infrastructure with state-of-the-art fiber.*
> - *Dual play of video and Internet; VoIP and security can be added.*
> - *Equipment vendors include EchoStar and Aurora Networks.*

## The updated infrastructure can support residents' needs today and into the future.

space with other utilities. In the basements, the footprint was larger, as we terminated outdoor fiber cables to the horizontal backbone.

### SERVICES

*Does the building have triple-play services?* At this time we are offering a dual play of broadband and video. However, the network was engineered with VoIP capabilities.

*Can residents subscribe to IPTV?* No, we are not providing IPTV programming, although the broadband network is robust, offering a rich experience that supports multiple HD downloads or over-the-top (OTT) content at each unit.

*Are there technology amenities beyond the triple play?* Not at this time; however, security monitoring and control is also an engineered capability of the system.



DISH **optical headend – inside view**



DISH **optical headend**

*Do residents have a choice of service providers?* DISH Network is the exclusive video provider. Residents have a choice of Internet providers and can subscribe to AT&T DSL services.

*How did the owner set up the dual-choice capabilities from a wiring and business standpoint?* Each unit has an unshielded twisted pair outlet dedicated for the telecom service provider and can access DSL services over this line.

*Who provides support?* Customers contact DISH for all support questions.

### BUSINESS

Matt Passalacqua, DISH Network's area sales manager, provided the following responses.

*Who owns the network? Does the property owner have "skin in the game"? Who paid for what?* DISH owns the network and paid for the equipment and infrastructure upgrades at the property.

*Was there a door fee?* There were no door incentives for this property. The benefits for the property include a one-of-a-kind, top-notch fiber optic system installed free of charge with no obligation to maintain it. The benefits for DISH Networks include the opportunity to serve the Coronado Shores residents.

*What is the take rate for services?* The HOA pays bulk video fees, and residents can select upgraded programming. DISH is seeing an increase in upgrades with the new system in place. [As of press time, Internet service was just beginning to be offered and no take rates were available.]

*How are billing and collection handled?* Residents are billed directly only

when they upgrade their individual TV service or subscribe to Internet access. Bills for individual upgrade fees are sent directly to individual unit owners, not to the HOA.

*How are the services marketed?* The assigned local DISH representative markets the services and coordinates marketing events, door hangers and direct mailing efforts with the HOA.

*What has the return been on this implementation, in dollars or otherwise?* Implementing a GPON system resulted in several benefits. The reduction in active electronics reduced support costs, and implementation of a fiber network dramatically improved system reliability and signal quality while simplifying architecture. From a marketing and distribution perspective, DISH can now deliver all its programming content to any unit within the property. For residents, the benefit is significantly improved choice. From video on demand to international programming, residents can access it all at their fingertips.

From the perspective of the broadband service offering, the updated infrastructure can support residents' needs today and into the future. With GPON architecture, DISH can offer asymmetrical and symmetrical data services.

From a business perspective, on DISH's side, we've gained a relationship with a new management company that will likely need similar services at the 3,000 units within its portfolio. The property managers now have a proven partner to meet their residents' technology needs.

### ON-SITE EXPERIENCE AND LESSONS LEARNED

*What was the biggest challenge?*
*Matt Passalacqua, DISH:* Upgrading and replacing the in-unit wiring.
*Alan Aegerter, Coronado Shores:* Just scheduling each unit, while making sure the impact to residents was as minimal as possible, was a significant challenge.

*What was the biggest success?*
*Matt Passalacqua:* The GPON architecture with the DON and COLT pro-
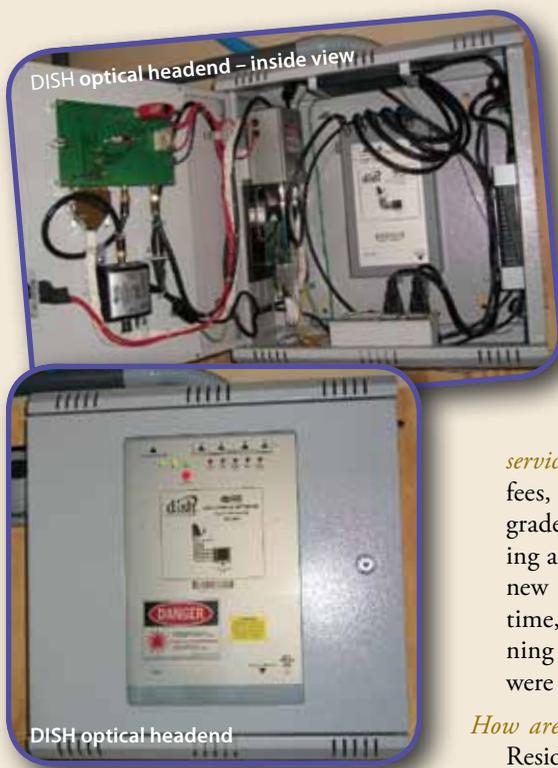
DISH optical amplifier


Fiber panel in IDF

vide elegant delivery of video and broadband services. The advantages of fiber and the reduction of active electronics provide a stable, robust platform that is easy to maintain.

*Alan Aegerter:* Months of uninterrupted programming and services without a single service call.

*What would you say to owners who want to deploy a similar network? What issues should they consider before they get started?*

*Alan Aegerter:* Know going into it that this is going to be a significant undertaking. We really benefited from walking the property with all the providers who responded to the RFP and asking specific questions, such as "How are you going to get wire from here to there?" You really need to have your ducks in a row before starting.

Second, communicate with residents about what they can expect so they know what's happening and aren't surprised when you call to start work in their unit. We went


Smart panel

> ***We really benefited from walking the property with all the providers who responded to the RFP and asking specific questions, such as "How are you going to get wire from here to there?"***

through the education process and explained to them that no matter which vendor we picked, our current cabling and wiring structure throughout the units was insufficient. Prepare to be hands-on because you're going to be inside every unit. The responsibility to make sure that messes are cleaned up, things are taped off properly and the guys do what they're supposed to do is yours.

*Matt Passalacqua:* The primary issue is to architect a standard, cost-effective method of installing fiber from the backbone to each of the units. Secondly, the solution should have an in-network power solution to avoid installation of outlets for service components.

*How did the vendor interact with residents during installation? Were there any guidelines or requests from the owner over limiting residents' pain points during installation?*

*Matt Passalacqua:* DISH coordinated with the property managers extensively for access to rewire and install equipment.

*What is the property manager's perspective on this installation? Has it been a success? What has been the response from residents?*

*Alan Aegerter:* We've had months of service with no problems, which is great. I know this type of thing has been available for years in single-family settings, but for an older property such as this, it's exciting that we're just getting the type of service that we all hoped for way back when. ❖