

Daniel Island

Fiber-To-The-Home Deployment

INTRODUCTION

Daniel Island, located in historic Charleston, S.C., is an evolving island community. Over time, the 4,000-acre development will boast 5,000 single-family homes, apartment complexes, assisted living facilities, a high school, and 2 million-square-feet of office space. The community already features a Tom Fazio-designed golf course, and it is home to the annual Family Circle Cup tennis tournament.

This community is the vision of the Daniel Island Company, the group spearheading the development effort. The island is a first-class establishment, and the Daniel Island Company wanted communication services to reflect this. Cutting-edged cable television (CATV) and telephone services, high-speed Internet access and seamless upgradability for future technology were a must! The development group ran into problems, however, when it looked at the existing communication infrastructure. The architecture wouldn't allow for digital subscriber line (DSL) or broadband connectivity, and CATV services were limited, with no upgrades in site. The existing infrastructure was unable to handle the demands of today's technology, much less take the community into the future.

As a result, the Daniel Island Media Co., an outgrowth of the development group, was tasked with bringing cutting-edged technology to Daniel Island.

GOALS

Daniel Island Media Co. had several network goals:

1. To enhance property value and residents' lives with a state-of-the-art communication infrastructure that would reach the entire community
2. To provide residents and businesses with elite desk services – voice, video, and data – that were second-to-none
3. To prepare the community for future broadband services



Daniel Island community, Charleston, S. C.

FIBER – THE BEST VALUE

Daniel Island Media Co. decided that fiber-to-the-home (FTTH) was the optical network solution for several reasons. Faced with alternative technologies that would leave copper in the ground, the group realized future network upgradability would ultimately be restricted. Copper-based solutions would also limit the ability to offer enhanced community services, which wouldn't increase property value or differentiate Daniel Island from other communities.

The required solution needed to bring residents state-of-the-art telephone service and access to additional broadband services, including analog and digital cable television and ultra high-speed Internet data. An FTTH network would further enhance residents' lives by supporting emerging and futuristic applications. This would position Daniel Island at the forefront of today's technology, but more importantly, a fiber network would lay the groundwork for future applications, including IP-based video on demand, IP multicast, interactive TV, telecommuting and peer-to-peer applications.

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THE SOLUTION

Daniel Island Media Co. was looking for a turnkey, end-to-end solution for its fiber network, and it wanted a cost-competitive solution. The group selected Corning Cable Systems and Optical Solutions Inc. as the perfect team to engineer and furnish its FTTH networks. The two companies have formed a strategic relationship to accelerate the rate of FTTH adoption and optimize the deployment of optical Access networks.

At Daniel Island, Optical Solutions provided the FTTH equipment with its FiberPath® fiber-to-the-home solution. By combining Optical Solutions' FiberPath equipment with Corning Cable Systems' passive optical network (PON) infrastructure, a complete fiber-optic solution for FTTH deployments was found.

Corning Cable Systems began its work at Daniel Island by providing the network infrastructure design and fiber build, which was a unique challenge. To design the infrastructure, Corning Cable Systems factored in a mix of residential and business areas. Corning Cable Systems was also faced with an aggressive deployment schedule. Daniel Island was set to host the annual Family Circle Tennis Tournament in six weeks, and organizers wanted the tennis complex carrying traffic by that time.

After the design work, Corning Cable Systems provided all of the necessary products – including cable, splice closures, vaults/hand holes and other hardware and equipment – as well as the turnkey installation services. Throughout the project, experts from Corning Cable Systems were available to answer any questions that arose. With

its experience, technical expertise and excellent history of customer support services, Corning Cable Systems was able to ensure a worry-free installation for Daniel Island, as well as provide the training and support necessary for successful FTTH network maintenance and ongoing operations.

CONCLUSION

With phase one of the deployment successfully completed at the tennis complex, the benefits of working with Corning Cable Systems and Optical Solutions were evident. The unique relationship between the two companies ensured that the passive infrastructure and active electronics were designed for trouble-free performance, without the concern of possible integration issues. Daniel Island received an integrated network design with an optimized PON infrastructure and a highly-flexible, yet scalable Access network.

The true success of this deployment was evidenced at the Family Circle Tennis Tournament, which was seen by thousands at the tennis complex and broadcast to millions. With a new communication infrastructure in place and work to wire the entire community ongoing, residents were able to get a glimpse of what was in store for the future. Together, Corning Cable Systems and Optical Solutions are making the vision of Daniel Island a reality.