SC's Forestry Commission Chooses Avtec to Protect Its Woodlands

With more than 350 employees traversing millions of acres of forested lands, the South Carolina Forestry Commission (SCFC) considers all of its voice communications to be mission-critical. Any lapse in coordination – especially during wildfires – can have dangerous results for the commission's resources, its topographical footprint, and the people who seek recreation among the woodlands.
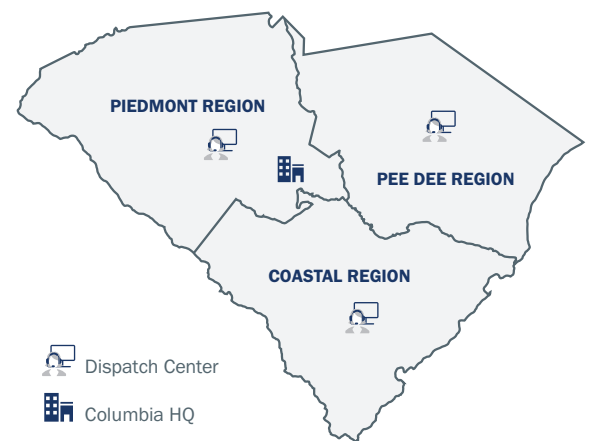
Before 1993, the commission's communications network consisted of lookout towers, mingled within the hardwoods and staffed by binoculars-toting associates. The upgrade to a contemporary communications system, consisting of 15 dispatch centers that linked to county 911 systems, ushered in a new era of safety. But, even this new technology had limitations. A central nighttime dispatch location in Columbia was the lone sentry for after-hours emergencies. And, with 24 radio repeaters feeding into one radio, it became difficult to effectively monitor activity.

These 15 centers were replaced with 3 regional centers in 1996. The combination of these dispatch centers, which featured Orbacom's TDM-150 console technology, and newly-activated phone service in the most rural reaches of South Carolina, worked to significantly reduce the number and severity of wildfires in the commission's acreage.

A later expansion of the nighttime program to include the adjoining cities of Florence, Walterboro, and Newberry, and the addition of a statewide toll-free number to help enlist the public's help in reporting wildfires, only marginally alleviated the growing communications burden.

PIEDMONT REGION

PEE DEE REGION

COASTAL REGION

Dispatch Center

Columbia HQ

The Upgrade Path

Finally, in 2008, with the legacy Orbacom console becoming increasingly difficult to service and repair, the decision was made to replace the system. After a multi-year delay caused by the U.S. recession, funds were finally approved and Avtec's Scout™ Voice over Internet Protocol (VoIP) console system was selected. In 2012, Avtec's systems engineers worked to deploy the Scout dispatch system alongside the legacy Orbacom equipment. The transition was completed in 2013 when Scout became the sole dispatching solution.

"Smooth and seamless are two words that come to mind," said SCFC Communications Manager Mike Thomas about the Scout system deployment. "Our dispatchers were amazed at how quickly they were able to adapt [to the new system]."

Statewide Interoperability

The commission's new multi-site distributed Avtec Scout system powers the SCFC's emergency call center and dispatch operations for fire safety and response throughout the state, and allows seamless switchover to the Pee Dee dispatch center for nighttime resource management. The Scout system is built on a pure internet protocol platform, which allows each center to operate autonomously should they become isolated by network failures, and allows for redundancy for all radio and telephone resources.

"With the Orbacom system, if we lost networking to the Columbia headquarters, the radio system would die," Thomas said.

In fact, it was just this scenario that expedited SCFC's switchover to Scout. While the Orbacom and Avtec systems both were functioning in late 2012, the network to Columbia, SC failed just before Christmas. Because the Scout system was already running in parallel, it was an easy decision for Thomas' team to switch over.

Project Outcome

Today, Thomas says he appreciates the flexibility that Scout offers to the SCFC. It passed a major test in 2015 when historic flooding plagued the state. Now, the commission is in the process of adding additional control points, as well as looking at expansion to new P25 components.

"This should add to the redundancy layers we have in place, to provide even greater stability," Thomas said.

SC Forestry Commission System

• 19 Avtec Scout console workstations (running on Dell OptiPlex 390 PCs)

• 13 Outpost radio controllers

• Dell Precision R5500 running VPGate for up to 80 endpoints

• CVDS ComLogNP72 for instant recall and logging

• Cisco switches

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