



An Early System Installation Is Upgraded To A Third-Generation IntelliTeam SG System

S&C Featured Solution: IntelliTeam® SG Automatic Restoration System

Location: Bentonville, Arkansas

Customer Challenge

In 1998, Carroll Electric Cooperative Corporation in Bentonville, Arkansas, installed one of the world's first IntelliTeam® Automatic Restoration Systems at the then-new Northwest Arkansas Regional Airport. The system featured two automatic switch controls, each installed in a 14.4-kV S&C Scada-Mate® Switching System, and six other automatic switch controls, each installed in a unit of 14.4-kV S&C Remote Supervisory Pad-Mounted Gear. Each of the Scada-Mate switches is served from a separate overhead source and can provide power to up to three of the Remote Supervisory Pad-Mounted Gear units that feed the airport's electrical loads.

Each of the controls is furnished with a UtiliNet® WanGate Radio. The radios provide inter-team

"IntelliTeam® Designer constructs the IntelliTeam SG system and automatically sends configuration for all switch controls through the SpeedNet™ Radio System."

communication but do not report team status to the airport's SCADA system, as is now typically the case for IntelliTeam Automatic Restoration Systems. Team status is instead reported to a pager gateway. Support for the pager system is no longer available, however.

It was thus time to update the airport's IntelliTeam system and its communication capability.

Scada-Mate switches can now provide power for all six of the airport's Remote Supervisory Pad-Mounted Gear units.



The IntelliTeam SG system allows two separate automation systems to be combined.



S&C Solution

Carroll Electric contracted with S&C's Power Systems Solutions to update the Scada-Mate switches and Remote Supervisory Pad-Mounted Gear with new 6800 Series Automatic Switch Controls featuring the IntelliTeam SG Automatic Restoration System and SpeedNet™ Radios.

The IntelliTeam SG system includes a feature called "IntelliTeam® Designer" that makes configuration very easy. All the user needs to do is draw the system single-line diagram in IntelliTeam Designer and then enter the site parameters for each device. IntelliTeam Designer automatically sends the appropriate configuration to each switch control through the SpeedNet Radio system.

The S&C crew also installed a head-end SpeedNet Radio in a nearby substation and connected it to the substation data concentrator. The data concentrator now polls the switch controls and reports switch control information and IntelliTeam SG system operations to the SCADA master station.

Updating of the switch controls and radios, along with training for the Carroll Electric staff, took about a week.

Results

Because the IntelliTeam SG system can handle as many teams of switches as line loading will allow, each of the Scada-Mate switches can now provide power for all six of the airport's Remote Supervisory Pad-Mounted Gear units, providing enhanced service reliability. And team status serving the airport is now available to cooperatives monitoring the system.

In addition, Carroll Electric can now make any necessary configuration changes to the airport's IntelliTeam SG system from its operations center, using IntelliLink® Remote Setup Software.

