S&C ELECTRIC COMPANY
Excellence Through Innovation

Distribution Automation Enhances Reliability for a New Airport

S&C Featured Solution: Scada-Mate® Switching Systems and Remote Supervisory PME Pad-Mounted Gear

Location: Southern United States

Customer Challenge

A new airport was to be built in a previously rural area in the southern United States that was now experiencing rapid residential, commercial, and industrial development.

Significant improvements would be required to the distribution system of the local electric utility to ensure reliable power for crucial areas of the airport, including the terminal building, the air-traffic control tower, and the air rescue and fire fighting facility. Distribution automation would provide that enhanced reliability.

S&C Solution

Since this was the utility's first distribution automation project, they researched a number of equipment suppliers. They selected S&C because of its extensive experience in supplying equipment and expertise for other airport projects.

S&C Scada-Mate® Switching Systems and Remote Supervisory PMH Pad-Mounted Gear were chosen for the application.

Each switch and unit of pad-mounted gear was furnished with an automatic switch control featuring the IntelliTeam® Automatic Restoration System, as well as a Metricom Internal Wangate Radio.

The IntelliTeam Automatic Restoration System uses peer-to-peer communication and distributed intelligence to make operating decisions. No central processing or SCADA is required, though fully supported. The S&C equipment was applied in two separate IntelliTeam systems.

Team members communicate with one another via the Metricom Internal Wangate Radios. Each radio

The IntelliTeam systems have successfully operated for a number of disturbances on the airport's distribution system.

operates not only as a transceiver, but also as a repeater for other radios in its team and the other team as well—thus enhancing the connectivity of the entire communication system.

Each IntelliTeam system includes a pager gateway that provides remote access to the team. The pager gateway maintains a database of information about each switch control in the team. Using dial-up access, the pager gateway can be used to control or receive information about the team members, allowing each team to act as a "mini-SCADA" system. The pager gateway is also used to alert utility employees when events have occurred in the team, by sending an appropriate message to their alphanumeric pagers.

Results

Since the airport was opened, the IntelliTeam systems have successfully operated for a number of disturbances on the distribution system. In each instance, a pager message was transmitted to utility employees, informing them of the operation.

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