Installation of Alarm Monitoring System at Military Facility

Problem: A large military base was required by Air Force regulations to eliminate and replace their existing conventionally zoned Wide Band, 1221 AM Radio Fire Alarm Reporting System, with a Narrow Band, Radio Alarm Reporting System.

The base also needed to receive addressable-point specific alarm information from the various manufacturers of addressable Fire and Security Alarm Systems installed throughout the base, and to annunciate and display the alarm point specific information at several Alarm Monitoring stations on the base.

Additional requirements:

- Supervision of the Radio communication between the various buildings and the alarm monitoring stations.
- Identification of appropriate destinations for specific alarm types (fire alarms to be sent only to both firehouses and the security alarms to be sent only to the Security Dispatch Center, e.g.).
- Provision of a redundant Alarm Monitoring system to receive alarms in the event that the main system becomes nonoperational.
- A display point specific instructional ("who to call and what to do") information, as well as site plans, building floor plans, and fire and security pre-plans at the Main Fire House and the Security Dispatch Center.
- Data basing all alarms with user defined report-writing capabilities.
- Maintenance of a smooth transition between the old and new alarm monitoring systems.

The Digitize Solution

Meeting the challenges of this complex installation involved the application of several existing Digitize products and specific custom-software innovations. The hardware components included: four System 3505 Alarm Monitoring units, 23 Muxpad IIs and CGRMS, the Computer Graphics Response Management System. Together, this equipment met each need.

The four System 3505 Alarm Monitoring units were installed at the Main Fire House, Crash Fire House, Security Dispatch Center and the Alarm Shop, respectively. All four System 3505s display and annunciate alarm information. The Muxpad IIs were installed and provided three functions:

- They became the critical interface between the existing addressable fire and security alarm panels and the System 3505s.
- They interpret the information provided by the panels and convert it into the Digitize protocols.
- They provide the supervised communication platform for any transmission media, including wire, fiber or polling radio, which resolves the supervision problem. Custom sorting software for the System 3505 enabled the system to direct specific alarm types to correct destinations. The system is redundant because two of the four System 3505s can receive information from the Muxpad IIs, thus ensuring that one system is always operational.

The installation of Digitize, Inc.'s CGRMS System enabled the facility to create and display user defined site plans, building and floor plans, alarm annunciation and report generation, which resulted in the ability to display point specific instructional information. Thus, the dispatcher knows "who to call" and "what to do" in the case of specific alarms. In addition, CGRMS generates user-defined reports, resulting in the ability to report all relevant information concerning alarm history.

The combination of Networked System 3505 units and Muxpad IIs form the communication backbone of the system, thus meeting the customer's main objectives: use of Narrow Band Radio, creation of system supervision, system redundancy, and the ability to control and direct alarm destinations. The ability to keep the existing system operational until the new system is running effectively ensured a smooth transition process.

Customer Benefits:

- The Air Force base is able to respond with greater efficiency and speed to an alarm due to its supervision capability.
- The safety at the base is increased due to the redundancy of the system, since one of the System 3505 units are always operational.
- With increased and accurate information, the base is able to direct specific and appropriate responses to alarms more efficiently.
- The base is able to maintain a more specific and accurate history of alarm information.
- The base is able to adhere appropriately to Air Force regulations.