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KELTRON ®

Town of Exeter, NH Fire Department
Transitioning from Legacy Systems to New Technologies

Overview

Located in the beautiful Seacoast Region of New Hampshire, the venerable Town of Exeter was the state's original Revolutionary War capital. Two rivers - the Exeter River and the Squamscott River - grace the 23-square-mile town which encompasses a central historic district that is surrounded by thriving businesses and restaurants, historic churches, hotels, inns and lovely homes.

Home to the distinguished Phillips Exeter Academy and the Seacoast School of Technology, the Town of Exeter is made up of single family homes, housing complexes, the Exeter Hospital facility and industrial parks with various manufacturing companies.

Providing excellent fire safety response services to this diverse community is the responsibility of the Exeter Fire Department, whose officers and firefighters are committed to the Town of Exeter and its constituents.

The challenge

To alert the Exeter Fire Department of potential fires in the town, there is a fire alarm system that was designed and installed at the end of the eighteenth century. This system uses the 100 loop milliamp communications infrastructure, still commonly found throughout cities and towns on the East and West Coasts of the United States and in the Chicago area. As the town grew this system became overloaded with the iconic master and street boxes, and the Fire Department management looked to newer technology for updated features and improved scalability.

An important feature for any new system was its ability to monitor both the existing 100 milliamp loop signaling system along with the new signaling system to immediately relieve the overload on the existing system and enable a longer-term phased transition. The new system also needed to:

▼ Monitor buildings with multiple zones or areas

▼ Receive multiple types of alarms (medical, panic, burglar) on a single transceiver

▼ Remotely monitor the fire alarm system and radio transceivers for system troubles or radio transceiver failures.

▼ Enable an operator to remotely place a transceiver in test mode while technicians inspect the fire alarm systems

▼ Enable an operator to place the system in storm mode to eliminate trouble alarms

▼ Print a ticket with essential building information for the firefighters

> *"Since maintaining the existing 100 milliamp loop system's street boxes was key to our plan, we were looking for a company with expertise in both technologies."*
>
> Chief Brian Comeau
> Exeter, NH Fire Department

The solution

After considerable review, the Exeter Fire Department determined that an active network radio system would deliver optimal performance, flexibility and scalability. "Since maintaining the existing 100 milliamp loop municipal signaling system's street boxes was key to our plan, we were looking for a company with expertise in both technologies", said Exeter, NH Fire Chief Brian Comeau. "If cellular or home phone service is down for any length of time, all areas of the town are covered by the fire department's street boxes."

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The Exeter Fire Department turned to their consultants, Wright Signal, who recommended the Keltron Active Network Radio System. Throughout its 50 years in the industry, Keltron has expertise in all types of signaling systems and provided a solution that includes both the 100 milliamp loop municipal signaling system and the new wireless system.

Installing the system

To build their network of intercommunicating transceivers, the town managers began by installing them in town-owned buildings and in new buildings. This enabled them to most effectively map out their network. Emergency response information programming is dependent on the size of the building and whether the fire alarm panel is conventional or addressable. If the building use requires burglar, medical aid or panic buttons, these can also be programmed for instant identification at the receiver, leveraging the flexibility of the system.

"Where building owners are upgrading their fire alarm systems, the Exeter Fire Department recommends an upgrade from their master box to a radio transceiver however this is not currently mandatory since both can be monitored from the Keltron system."

Lt. Paul Morin
Exeter, NH Fire Department

Benefits

The Keltron Active Network Radio system offers a wide range of benefits for municipal environments. The Town of Exeter Fire Department relies on their Keltron system to be highly dependable and provide valuable features and functionality:

- **Reliability:** the Keltron Active Network Radio system transmits signals among radio transceivers to ensure 24 hour check-ins and prevent missed or lost signals.

- **Flexibility:** the Keltron radio signaling system can be configured to simply monitor fire alarms and trouble signals or it can monitor a complex network of devices with specialized functions including multiple floors (zones), sprinkler systems, fire pumps, and duct detectors. For example, the Town of Exeter Recreation building has a pool and playing fields and the Keltron fire alarm system and initiating devices are adapted to their needs. An outside pull station is installed at the lifeguard station and is programmed as such on the Keltron radio transceiver to alert the dispatcher and the fire department of a potential for water rescue or medical emergency.

- **Ease-of-use:** when a Town of Exeter building owner purchases a Keltron radio transceiver, site specific data is immediately entered into Exeter's Keltron dispatch system for monitoring. When a fire alarm is received on the system's monitor screen, the dispatcher can print out a run ticket with essential information for the responding firefighters. This information includes building type (single family dwelling, nursing home, 4-story hospital) building hazards and other information that will facilitate response and protect the responders.

- **Scalability:** the Keltron system can be expanded as the Town of Exeter grows. Adding more radios strengthens the system and enhances overall performance with additional communication pathways. System security prevents unrecognized or unwanted radio boxes from connecting to the Exeter network.

Future plans

The Exeter Fire Department plans to eventually phase out master boxes and maintain only street boxes on the 100 milliamp loop municipal system. There are currently over 130 radio transceivers on Exeter's Keltron system and as the current master boxes are phased out, they will be replaced by Keltron radio transceivers.

Keltron develops and manufactures universally-compatible, UL listed life safety event management systems for the municipal and multi-building facility markets. Solutions include Ethernet (IP), active network radio, distributed multiplex, digital communicator/receiver, direct wire and coded signaling systems. For more information visit www.keltroncorp.com or contact us at 781-894-8710.

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