



PROJECT NAME: Design and Implementation Services for a Channel 16 Radio System for Fire/EMS Dispatching, New York City, NY (Contract 1)

Concepts To Operations was retained by the Department of Information Technology and Telecommunications (DoITT) to provide Radio Frequency (RF) engineering services for the successful engineering, design, procurement, implementation supervision, and system acceptance testing services to implement a turnkey, citywide narrow-band (12.5 kHz) UHF radio system. The system serves the Fire/EMS Department of New York City for dispatch of Fire fighters and EMS personnel. The Fire/EMS functions were to be supported by a conventional **20 Channel** system compliant with P25 Standards. Provision for interoperability with NYPD and other jurisdictions were included. The goal of **95% or greater on-street coverage** was required.

PHASE I: Needs Assessment and System Design

- ✓ Performing a citywide radio traffic analysis;
- ✓ Performing radio propagation measurements;
- ✓ Interviewing selected agency representatives;
- ✓ Determining system requirements;
- ✓ Developing a conceptual design;
- ✓ Determining impact on current agency operations;
- ✓ Preparing necessary FCC license modifications;
- ✓ Determining site construction requirements;
- ✓ Developing a detailed system design; and
- ✓ Developing Request for Proposal(s) (RFP's).

PHASE II: Evaluation of Responses, Installation Supervision and Quality Assurance

- ✓ Providing proposal evaluation and vendor recommendations;
- ✓ Aid in contract negotiation and award;
- ✓ Site Acquisition and Construction;
- ✓ Radio System Factory Staging;
- ✓ Installation oversight;
- ✓ System testing;
- ✓ System training; and
- ✓ System acceptance.

During Phase II face-to-face team meetings were held every other week and progress reports developed to track the project progress. In addition project team conference calls were held once a month. The team was composed of representatives of DoITT, FDNY, CTO, equipment vendor and the City's quality control vendor. CTO attended and participated in system testing and observed system training to ensure vendor's contract obligations.

The resulting 20 channel, 23 site conventional radio system improved the operation of Fire and EMS functions provided by the City of New York. Dispatch is performed on a Borough-wide basis and when necessary on a city-wide basis. The system supports over 4,000 users per shift.

In a related project CTO was a subcontractor to a DoITT vendor and recommended various methods of obtaining improved in-building fire ground coverage.