Homeland Security

Science and Technology

P25 Compliance Assessment Program

Issue Background

Emergency responders—police officers, fire personnel, emergency medical services—need to seamlessly exchange communications across disciplines and jurisdictions to successfully respond to day-to-day incidents and large-scale emergencies. Today, multiple products and applications support radio communications and its associated infrastructure. Unfortunately, because manufacturers use different technical approaches, these products are often incompatible—potentially compromising the success of emergency response operations.

P25

Project 25 (P25) is focused on developing standards that allow radios and other components to interoperate regardless of manufacturer—enabling emergency responders to exchange critical communications. The goal of P25 is to specify formal standards for interfaces between the various components of a land mobile radio (LMR) system—commonly used by emergency responders in portable handheld and mobile vehicle-mounted devices. There is currently no process in place that confirms that equipment advertised as P25-compliant actually meets all aspects of the P25 standards.

P25 CAP

In response to these discrepancies, Congress passed legislation calling for the creation of the P25 Compliance Assessment Program (CAP). CAP is a partnership of the Department of Homeland Security's Command, Control and Interoperability Division, the National Institute of Standards and Technology, industry, and the emergency response community. The CAP establishes a process for ensuring that equipment complies with P25 standards and is capable of interoperating across manufacturers. P25 CAP is helping emergency response officials make informed purchasing decisions by providing manufacturers with a method for testing their equipment for compliance with P25 standards. The program will initially focus on the Common Air Interface which allows for over-the-air compatibility between mobile and portable radios and tower equipment.

P25 CAP Long-Term Goals

- Ensure that emergency response technologies effectively meet the needs of practitioners in the field.
- Assist emergency response officials in making informed purchasing decisions.
- Provide vendors with a method of testing their equipment for P25 compliance.
- Support the migration of communications systems to standards-based infrastructure.

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Managed by the Science and Technology Directorate, the Command, Control and Interoperability (CCI) Division is working with Federal partners to strengthen capabilities to communicate, share, visualize, analyze, and protect information. Through a practitioner-driven approach, CCI creates and deploys information resources—standards, frameworks, tools, and technologies—to enable seamless and secure interactions among homeland security stakeholders.