



In-Building Public Safety Communications Systems

What is it?

A Public Safety Communications System is a communications system used by first responder and emergency services personnel such as police, fire, emergency medical, homeland security, and disaster response agencies to prevent or respond to incidents or situations that pose a threat to people or property. Such systems typically rely on radio communications between dispatch/ incident command and responders on scene. Fire codes typically make allowances for wired communications between critical locations and command, such as at elevator bays, places of refuge, or radio-blocked spaces. Radio communication with responders is generally the preferred method because it supports their mobility on scene.



An In-Building Public Safety Communication System ensures that Public Safety radio signals (RF) are available throughout a building, including areas that are especially difficult for RF to penetrate such as stairwells, elevators, basements, and thick-walled or shielded areas.

Key Considerations for Building and Fire Code Officials (sometimes called AHJs, or Authority Having Jurisdiction)

- **Publish your Local Standards and Permitting Procedures.** Unlike sprinkler system or electrical codes, In-Building Public Safety Communication Systems are relatively new requirements and much of the market and industry is navigating a steep learning curve. Make sure your requirements are clearly documented, and that pre-construction permitting procedures and documentation requirements are clearly defined and published. These procedures should be based on sound RF engineering principles applicable to the type of system and radios used by first responders in your jurisdiction. Otherwise, *expect to field many phone calls* to answer the same questions. It is also useful to identify the main point of contact within your agency and ensure that individual has a general knowledge of local Public Safety Communications technology.
- **Specify Your Testing / Inspection Procedures and Documentation Requirements.** Some agencies are staffed such that agency inspections are feasible. Some jurisdictions prefer that the owner engage a qualified third-party professional to test and document system performance and compliance to code. Make your requirements known in advance.
- **Balancing Objectives.** Make sure the requirements in your jurisdiction meet the need of ensuring critical communications without imposing unnecessary additional costs. The NFPA and ICC seek input from experts in the Fire Professional community as well as from other technical experts to periodically adapt model codes that accomplish this balance.
- **Participate in Industry Forums that Provide Training and Public Information.** Groups like the Wireless Infrastructure Association (WIA), and the HetNet Forum routinely provide training, seminars, and other opportunities and context for engaging the In-Building Public Safety Communication System supply ecosystem, and also to get the latest information about new and proposed fire codes as well as new FCC regulations and other requirements.



To learn more about the Public Safety Working Group, contact Tracy Ford at Tracy.Ford@wia.org.

