

Emergency Response Communications

Heartland Security Conference & Exhibition

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Communication Challenge on the Frontlines

Emergency responders—police officers, fire personnel, emergency medical services—need to share vital voice and data information across disciplines and jurisdictions to successfully respond to day-to-day incidents and large-scale emergencies.



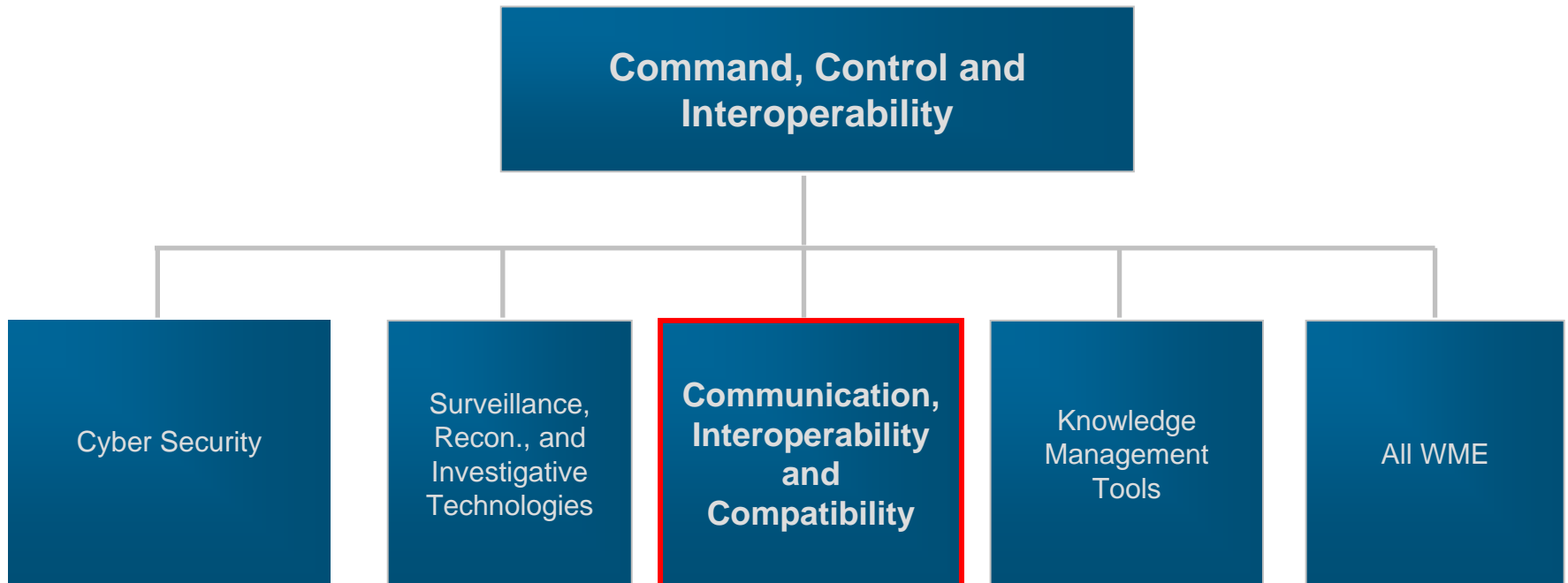
Responders often cannot talk to some parts of their own agencies—let alone across cities, counties, and states. Ineffective communications risk the lives of responders in the field, and can mean the difference between life and death for those awaiting help.



**Homeland
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Command, Control and Interoperability

The mission of the Science and Technology (S&T) Directorate's Command, Control and Interoperability Division is to transform new and promising concepts into real operational capabilities. With its Federal partners, the Division is working to strengthen communications interoperability, improve Internet security and integrity, and accelerate the development of automated capabilities to help identify potential national threats.



OIC Background

The Office for Interoperability and Compatibility (OIC) is working with the emergency response community and Federal partners to improve local, tribal, state, and Federal emergency preparedness and response. OIC's communications portfolio is comprised of the research, development, testing, evaluation, and standards aspects of the SAFECOM and Disaster Management (DM) programs.



OIC is committed to developing tools—methodologies, templates, models, and educational materials—that effectively meet the critical needs of emergency responders in the field.

Voice and Data Interoperability Programs

OIC addresses both voice and data interoperability

Voice Interoperability

OIC is creating the capacity for increased levels of interoperability by developing tools, best practices, and methodologies that emergency response agencies can put into effect immediately.

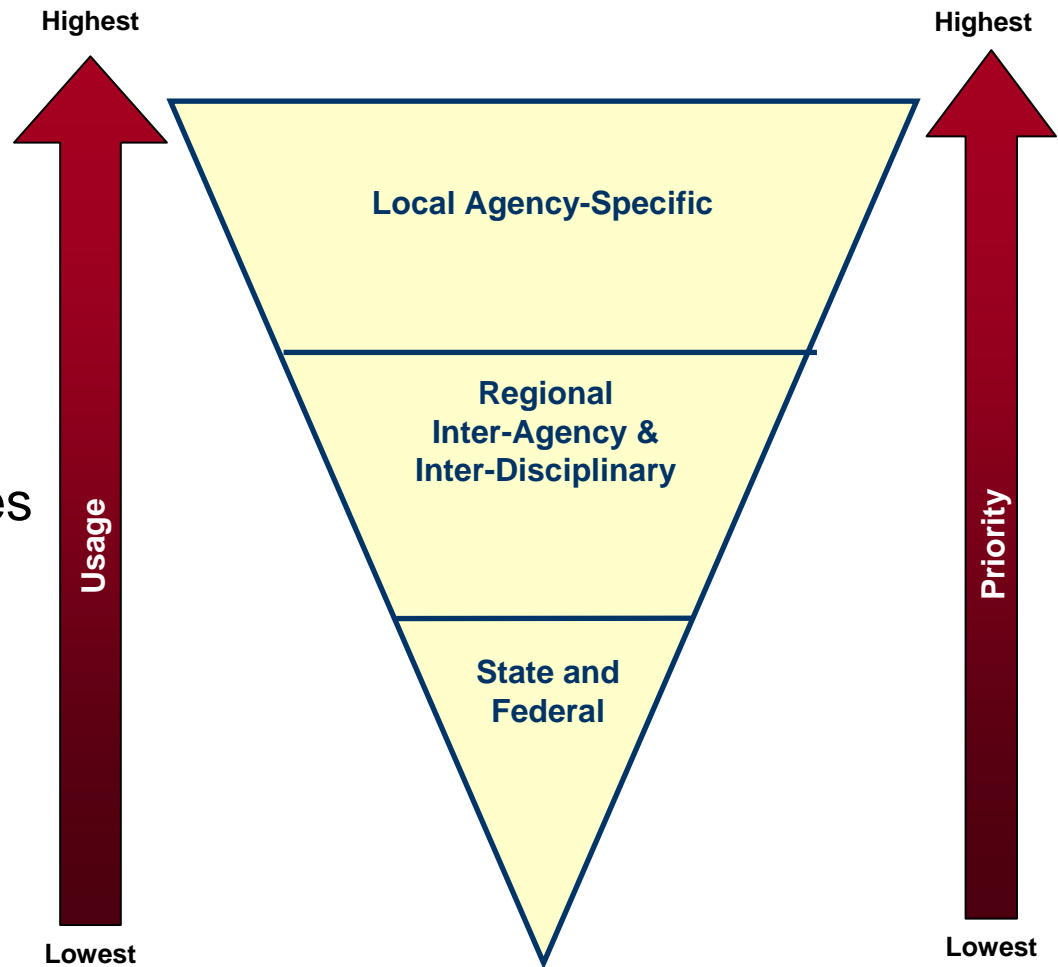
Data Interoperability

OIC's DM program is improving incident response and recovery by developing tools and messaging standards that help emergency responders manage incidents and exchange information in real time.

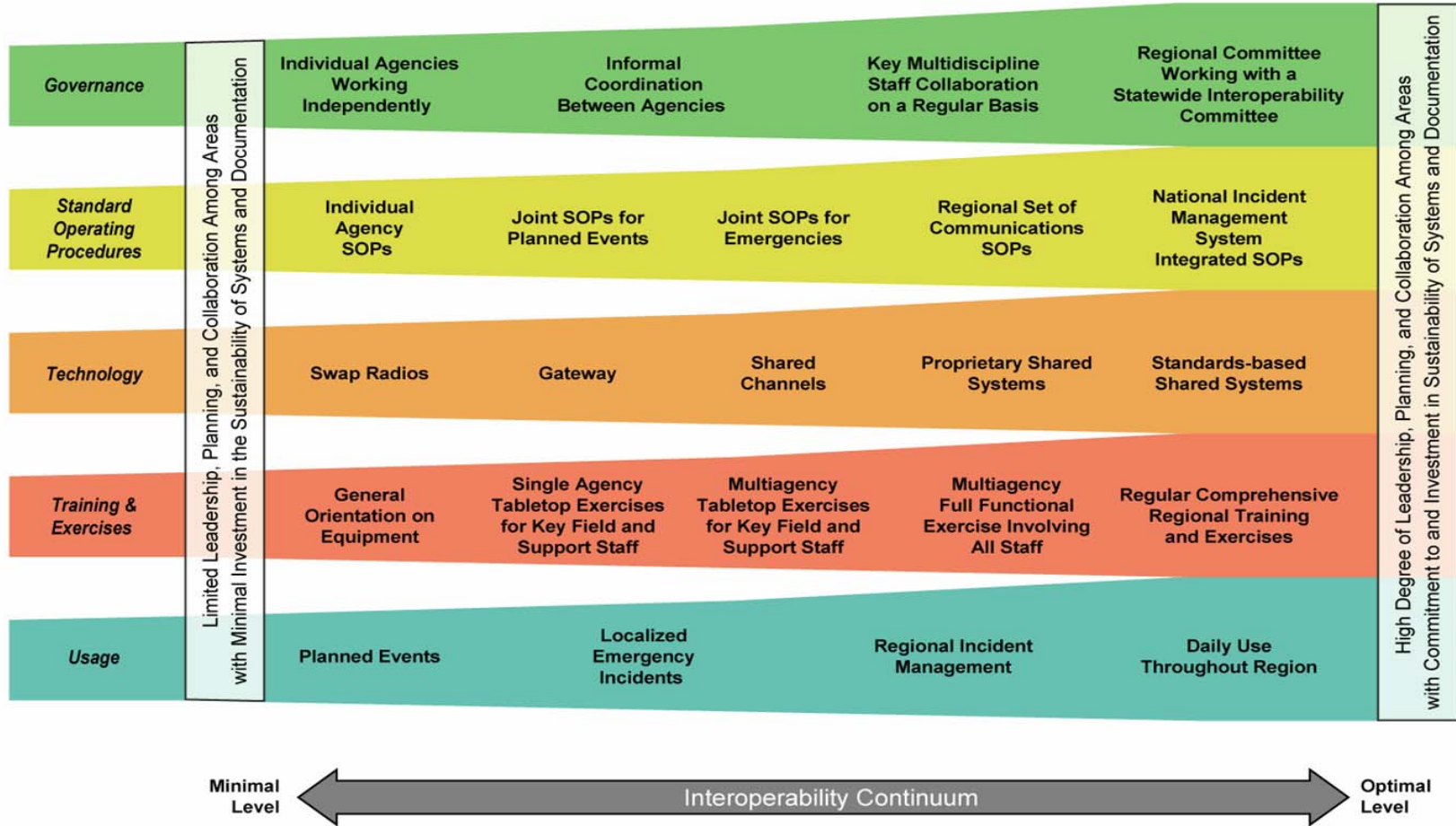


Practitioner-Driven Approach

- A successful strategy for improving interoperability must be based on user needs and driven from the bottom up.
- OIC advocates a unique, practitioner-driven governance structure. OIC benefits from the critical input of the emergency response community and from local, tribal, state, and Federal policy makers and leaders. This input ensures that OIC resources are aligned with responders' needs.



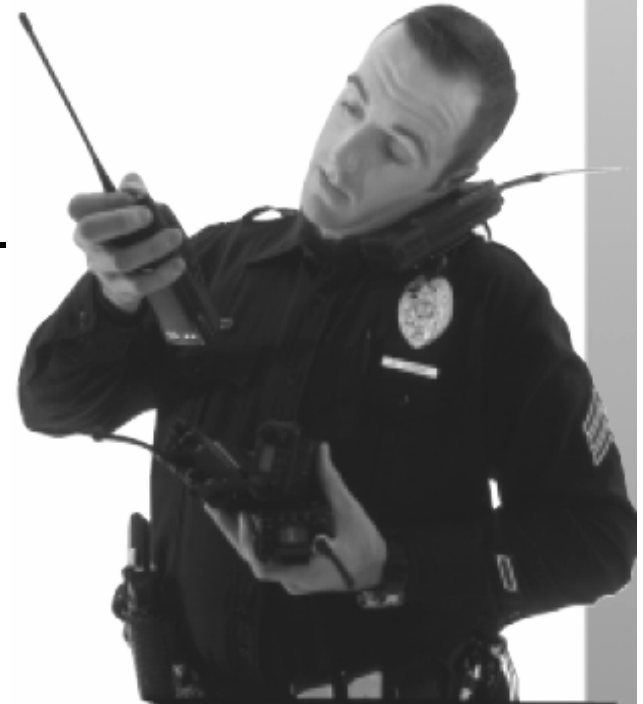
Multi-Dimensional Challenge



A national strategy for improving interoperability must take into account all of the factors critical for a successful interoperability solution.

Beyond Technology Solutions

- Interoperability is not solely a technology problem that can be solved with the “right” equipment or the “right” communications system.
- Some technology solutions are useful for command elements, but are hopelessly impractical for individual emergency responders.
- There are not any “silver bullet” solutions.
- Achieving interoperability involves tactical, technological, strategic, and cultural changes.



Baseline Survey Findings

- Fire/emergency medical service and law enforcement agencies tend to show the same degree of development across three-quarters of the Interoperability Continuum topics.
- State-local interoperability tends to be at a less-advanced stage than cross-discipline and cross-jurisdiction interoperability.
- Small agencies—whether measured by staff or population served—tend to be at less advanced stages of development than larger agencies.
- Agencies that operate on large, shared systems tend to be at more advanced stages of development than those that operate on stand-alone systems.
- Agencies are least advanced in the non-technology elements.
- Two-thirds of the agencies use interoperability to at least a moderate degree.

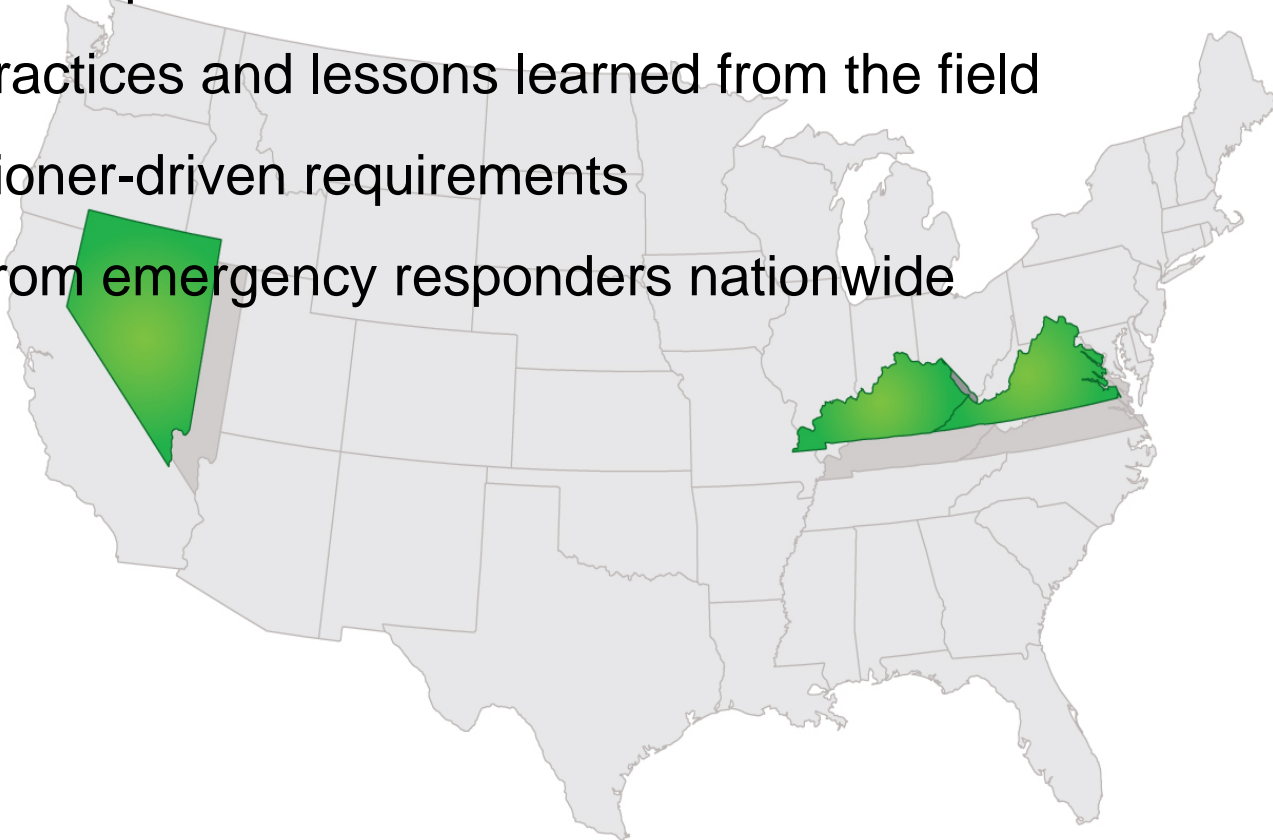


OIC Tools and Resources

OIC is committed to developing tools that emergency responders can use immediately.

OIC tools—methodologies, templates, models, and educational materials—capture:

- Best practices and lessons learned from the field
- Practitioner-driven requirements
- Input from emergency responders nationwide



New Tools and Resources

- **Writing Guide for Standard Operating Procedures (SOPs) Challenge:** Tool that provides instructions to assist emergency responders in creating effective SOPs
- **Writing Guide for a Memorandum of Understanding:** Tool that provides information on creating a framework for mutual accountability among multiple jurisdictions
- **Multi-Agency Interoperability Committee Charter Template:** Tool that provides questions for consideration and example text to assist practitioners with the creation of a charter for a multi-agency communications interoperability committee
- **Improving Interoperability Through Shared Channels:** Guide to assist state and local interoperability coordinators with creating a regional channel plan

Acceleration of Standards

The acceleration of standards is a key component of both voice and data interoperability. In particular, DM focuses on messaging and information sharing standards.

- OIC supports the acceleration of Project 25 (P25) standards that help produce equipment that is interoperable and compatible regardless of manufacturer. P25 is a suite of eight standards intended to help produce equipment with such characteristics.
- At the request of Congress, OIC is working with the National Institute of Standards and Technology, the Department of Justice, and the P25 Steering Committee to develop and implement a Compliance Assessment Program. It will validate that P25 standardized systems are indeed P25-compliant. Also that equipment from different manufacturers can interoperate. This will help ensure Federal grant dollars are being used appropriately.
- DM leads the Information Exchange Standards Initiative, a public-private partnership to create messaging standards to share information between disparate incident management systems and software applications.



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