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# S&T Stakeholders Conference

An Introduction to Specific Tools for Communications  
Interoperability Improvement

Luke Klein-Berndt and Michael Skena  
Command, Control and Interoperability  
Science and Technology Directorate



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# Agenda

1. Introduction to the Command, Control and Interoperability Division's Office for Interoperability and Compatibility
2. The Interoperability Challenge
3. Specific Tools:
  - *Interoperability Continuum*
  - *Interoperability Business Case: An Introduction to Ongoing Local Funding*
4. Next Steps

# 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.

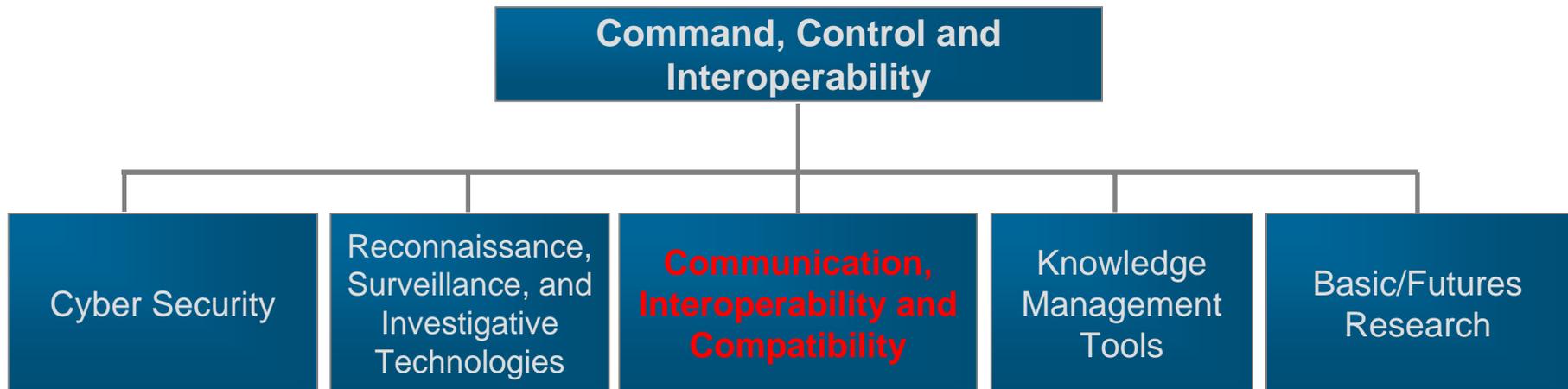


Responders often cannot talk to some parts of their own agencies—let alone across cities, counties, and states. Ineffective communications risk the lives of responders in the field, and can mean the difference between life and death for those awaiting help.

# Command, Control and Interoperability

## Mission

Through a practitioner-driven approach, the Command, Control and Interoperability Division (CID) creates and deploys information resources to enable seamless and secure interactions among homeland security stakeholders.



## Vision

Stakeholders have comprehensive, real-time, and relevant information to create and maintain a secure and safe Nation.

# OIC Background

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

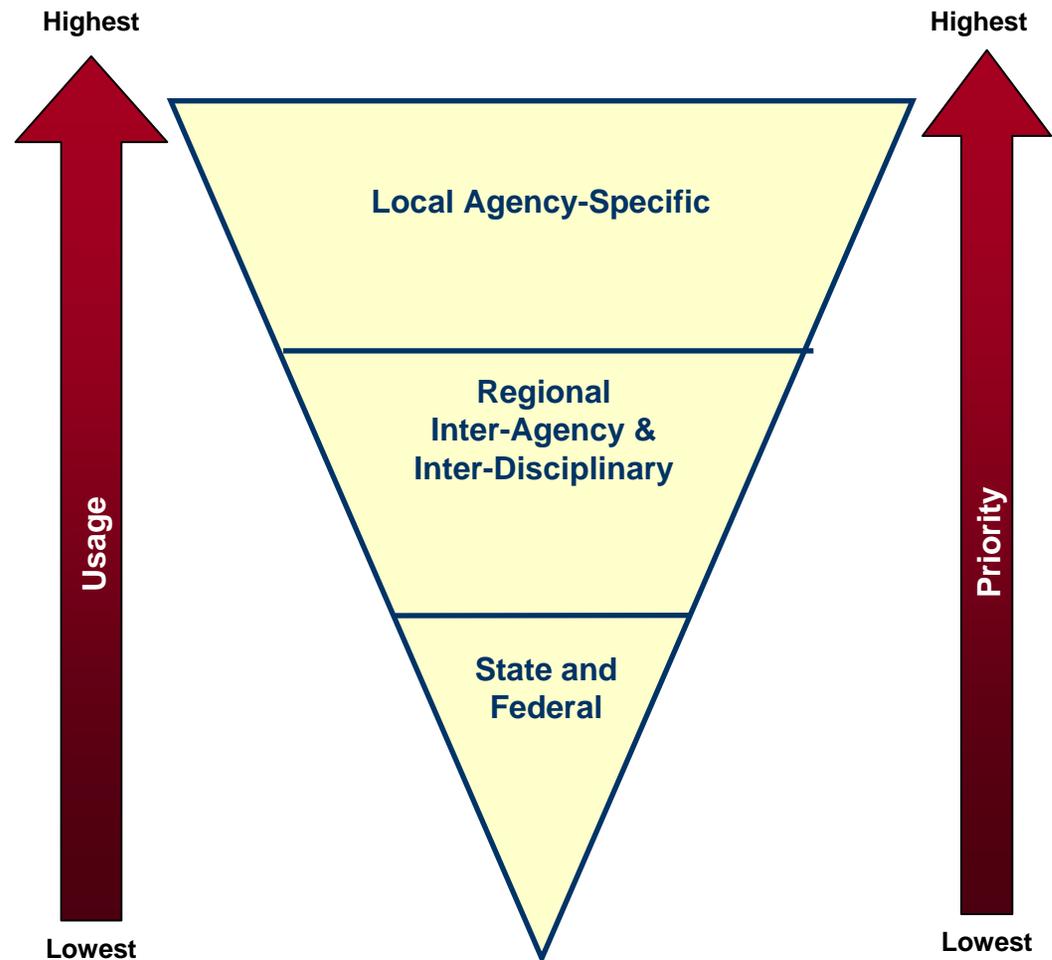


OIC is committed to developing tools—methodologies, templates, models, and educational materials—that effectively meet the critical needs of emergency responders in the field.

# The Interoperability Challenge

A successful strategy for improving interoperability must be based on user needs and driven from the bottom up.

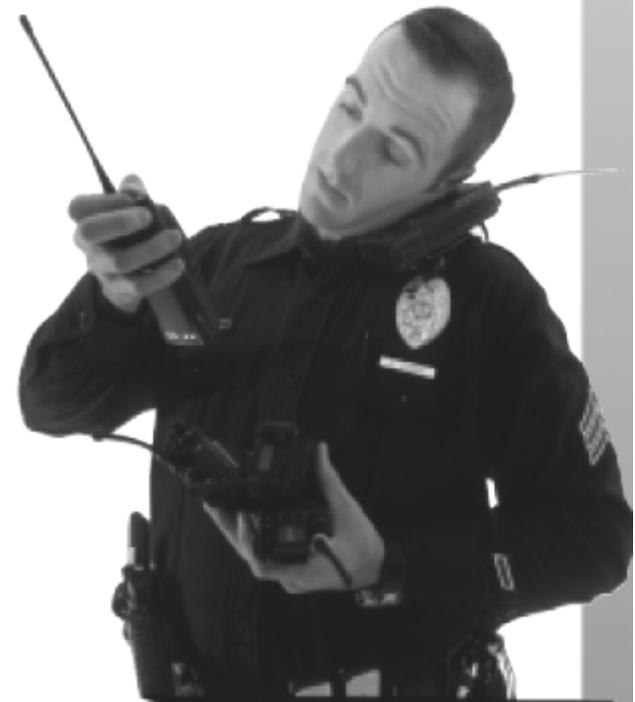
OIC advocates a unique, practitioner-driven approach. OIC benefits from the critical input of the emergency response community and from local, tribal, state, and Federal policy makers and leaders. This input ensures that OIC resources are aligned with responders' needs.



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# 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.



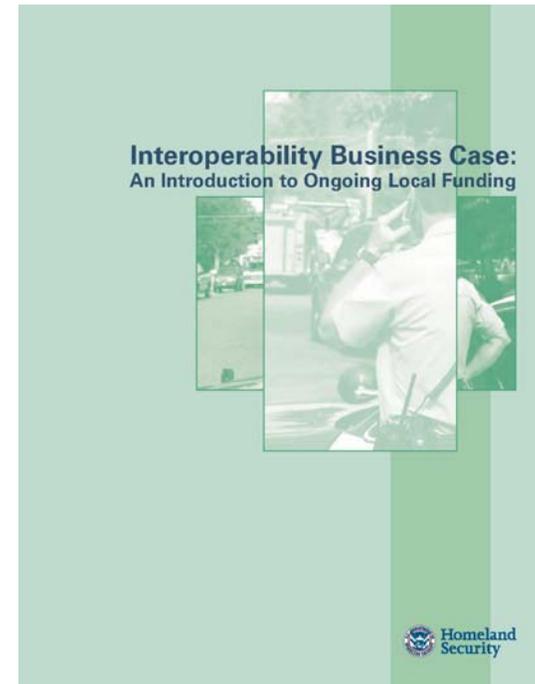
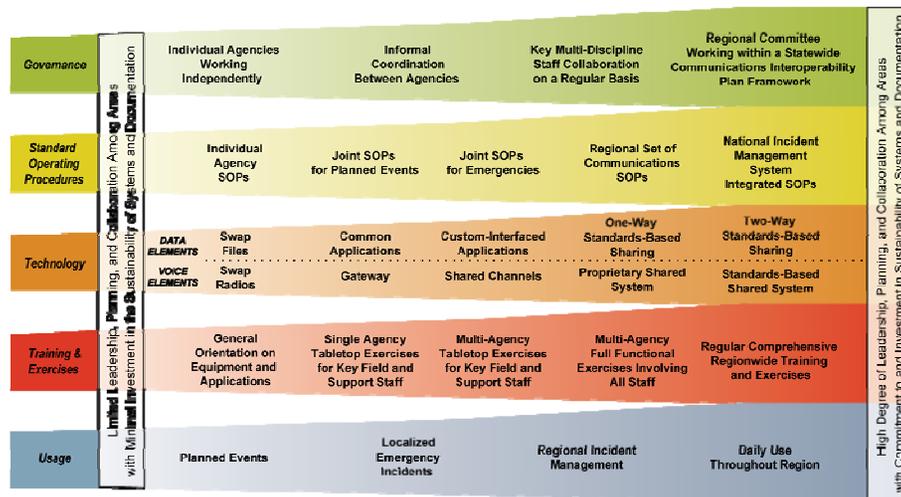
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# Best Practices and Lessons Learned

- OIC recently updated the *Interoperability Continuum* and released the *Interoperability Business Case*.
- Both tools provide simple and applicable best practices and lessons learned intended to help the emergency response community improve local, tribal, state, and Federal communications interoperability.



## Interoperability Continuum



# Interoperability Continuum

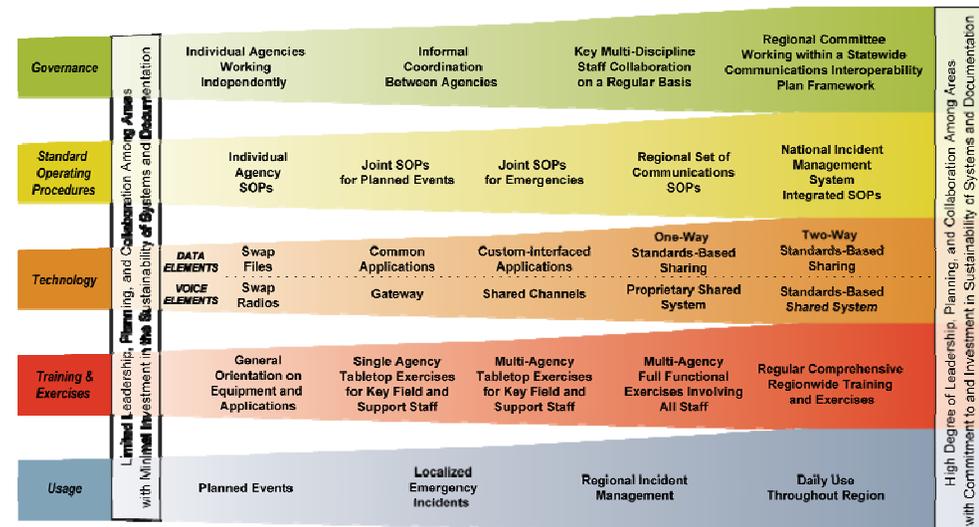
The *Interoperability Continuum*:

- Provides a framework to help emergency response officials and policy makers understand and address their **voice** and **data** communications needs
- Identifies five critical success elements that must be addressed to achieve a comprehensive interoperability solution:

1. Governance
2. Standard Operating Procedures
3. Technology
4. Training & Exercises
5. Usage



## Interoperability Continuum



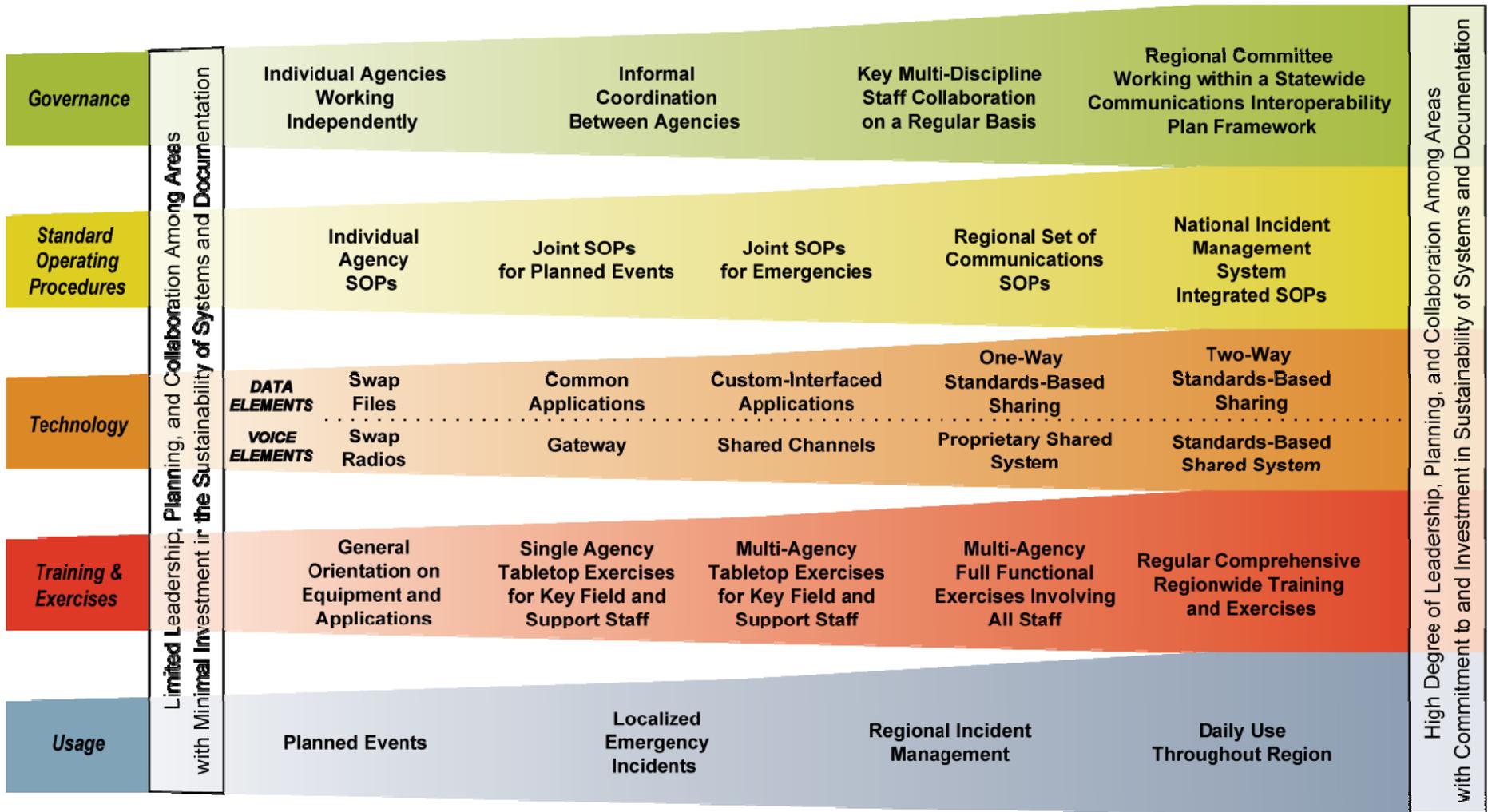
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# Challenge and Method

- The *Interoperability Continuum* serves as a valuable tool for helping the emergency response community understand and address **voice** communications needs.
- **Voice** interoperability has been identified by many in the emergency response community as the first interoperability priority; however, **data** applications are emerging as a critical element to interoperable communications as well.
- To address this need, OIC established a working group to update the *Interoperability Continuum* by infusing **data** considerations into the Continuum text and graphic as appropriate.
- The working group was composed of OIC Practitioner Steering Group and SAFECOM Emergency Response Council (ERC) members. The purpose of this working group was to develop an improved *Interoperability Continuum* that would benefit appropriate parties by helping them address critical elements for success as they plan for and implement **voice** and **data** interoperability solutions.



# Interoperability Continuum: Updated



# What Has Changed?

- The Technology element has been divided into separate **Voice** and **Data** elements.
- New **Data** elements include: Swap Files, Common Applications, Custom-Interfaced Applications, One-Way Standards-Based Sharing, and Two-Way Standards-Based Sharing.
- Text has been added to the *Interoperability Continuum* to explain the new **data** elements.

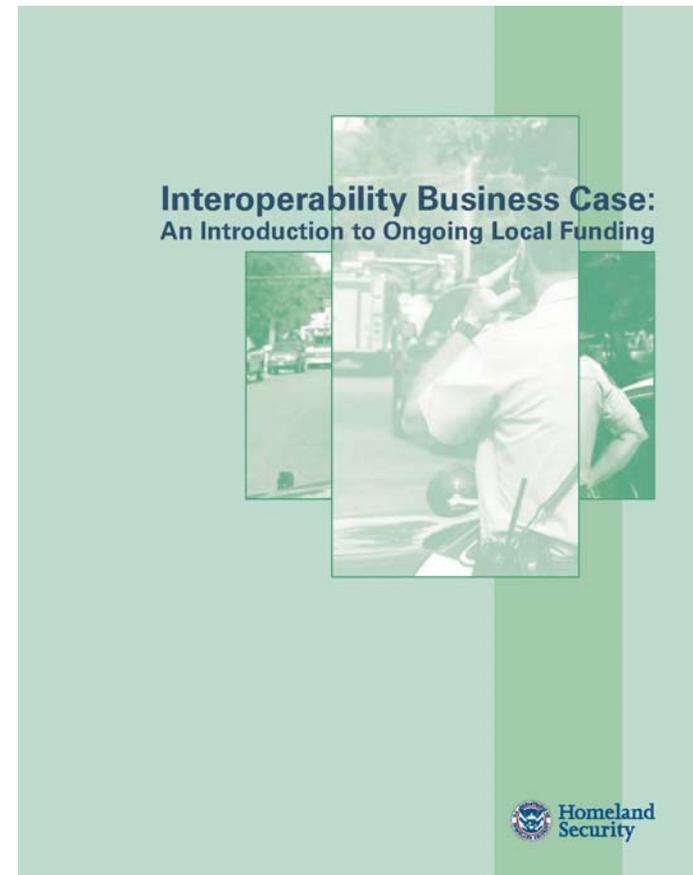
# Impact

- The updated *Interoperability Continuum* will continue to prepare and inform emergency response officials and local, tribal, state, and Federal policy makers as they tackle complicated interoperability problems.
- Although interoperability is not strictly a technology problem, officials now have an *Interoperability Continuum* that more accurately depicts the technology concerns facing the emergency response community.
- As an evolving tool, the *Interoperability Continuum* supports the *National Preparedness Strategy* and aligns with national frameworks including, but not limited to, the National Response Framework, the National Incident Management System, the National Emergency Communications Plan, and the National Communications Baseline Assessment.

# Interoperability Business Case

*Interoperability Business Case: An Introduction to Ongoing Local Funding* is intended to:

- Assist emergency response officials in establishing the need for ongoing local interoperability funding within their community.
- Provide key considerations and steps for officials as they develop their project plans.
- Present four success stories from communities that achieved “buy-in” from elected officials and established dedicated funds for interoperability projects.



# Challenge

- How can emergency response officials present a compelling business case to community leaders and tap into critical ***ongoing local*** funding sources for interoperability?
- Most states and regions are coming together to apply for grants and setting up their Statewide plans, but what happens when those plans are implemented and the systems need to be maintained and upgraded?
- Why was ***ongoing local*** interoperability funding selected?
  - It is not prevalent in community budgets.
  - It complements existing grant funds.
  - It sustains existing interoperability investments.



# Method

- Members of the SAFECOM ERC identified the need to develop a business case for interoperability.
- OIC created this guide with practitioner input, focusing on a tool that emergency response officials can leave with elected officials as a “marketing brochure.”
- There are three major segments to the guide:
  1. The importance of interoperability
  2. Developing a compelling case for interoperability
  3. Examples of success stories illustrating how communities successfully implemented ongoing local funding

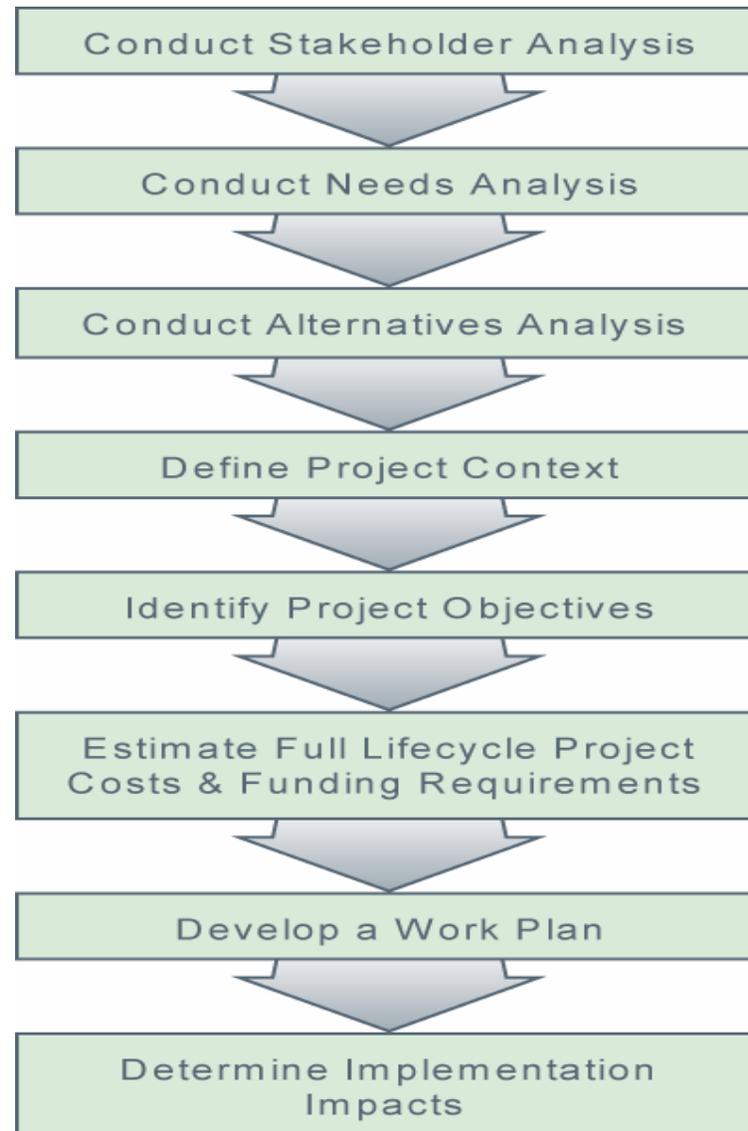
# Why is Interoperability Important?

## Importance of Interoperability:

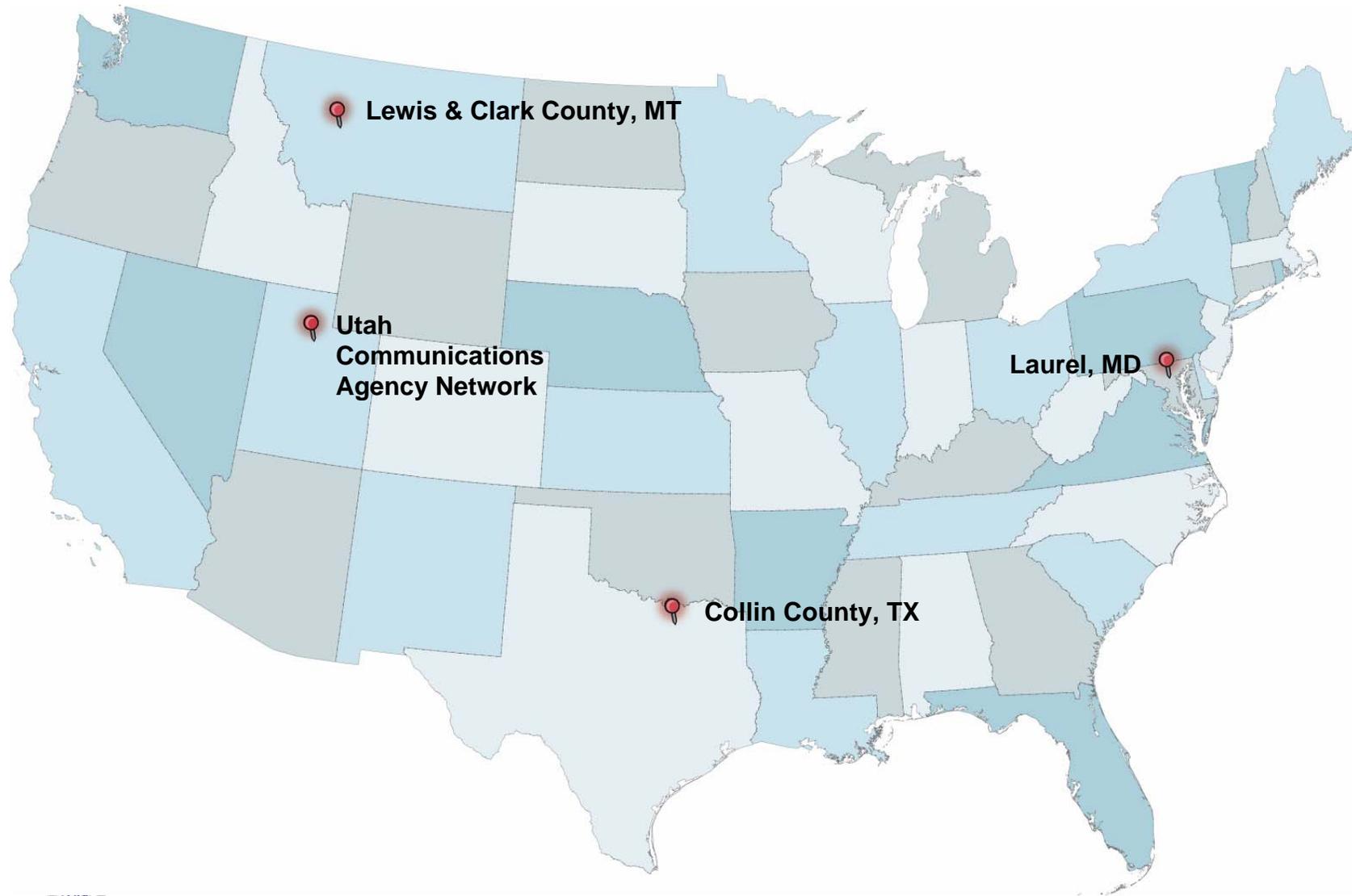
- Saves and protects citizen lives
- Saves and protects emergency responder lives
- Increases emergency responder effectiveness and coordination
- Improves response times, especially in multi-jurisdiction responses
- Reduces property loss



# Developing a Business Case



# Success Stories



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# Impact

- Federal and state grants for interoperability projects have contributed substantially to reducing the interoperability problems in local communities across the country. However, this tool will assist local emergency response officials to plan and implement funding strategies to operate and maintain communications equipment once the grant funding runs out.
- Because local funding for emergency response communications can be difficult and contentious to obtain, this tool provides case studies of innovative local funding solutions.
- A business case for ongoing local funding can be a powerful tool in presenting the argument for communications funding to local officials.

# Next Steps

- Pick up, share, and use copies of each document after the session.
- More tools and methods available on the SAFECOM Web site at [www.safecomprogram.gov](http://www.safecomprogram.gov).





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