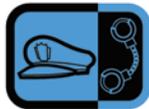




# Issue Brief



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## Building a Regional Communications Plan

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### Introduction

Why do many local, regional, and state communications efforts continue to struggle with interoperable communications? Do these struggles to achieve interoperability involve the way we approach relationships of technology and operational planning? How do these relationships work together in a successful interoperable communications effort?

A key step in integrating technology and operational requirements is building a **regional communications plan**. This *Issue Brief* presents the basic steps in building such a plan to improve interoperability and, ultimately, joint response to emergencies.

### Background

The national post-9/11 focus on national preparedness and communications among first responders has driven and defined numerous federal initiatives.

Broadly, establishment of a comprehensive, all-hazards approach to respond to incidents of national significance has greatly shaped current needs for regional communications. The **National Inci-**

**dent Management System**<sup>1</sup> (NIMS) and its core element, the Incident Command System (ICS), are the key drivers. Their relationship to and impact on first responder communications is addressed in a separate *Issue Brief* in this series.<sup>2</sup>

On the specific issue of first responder communications, federal grant programs in both the U.S. Department of Justice and the Department of Homeland Security have been closely aligned with SAFE-COM, a presidential initiative to improve communications interoperability.<sup>3</sup>

In 2004, SAFECOM released its first statement of requirements for public safety wireless communications. Subsequently, SAFECOM's RapidCom initiative, undertaken to ensure that the nation's 10 highest risk urban areas had at least a minimal

level of communications interoperability, yielded the first comprehensive depiction of critical success factors and progress: the Interoperability Continuum.<sup>4</sup>

These initiatives and the dramatic effects of Hurricane Katrina in 2005 have driven the need for regional approaches to ensuring communications among public safety agencies during incidents small and large.

### Build a Foundation

The effort involved in building a foundation for a communications plan at the local, regional, or state level is fundamentally a political one. Why should this be, when the more obvious focus would appear to be funding, technology, and documents of agreement and support?

The need for agreement, cooperation, and participation at many levels is at the heart of any plan. Obstacles to this cooperative spirit may likely occur as changes in responsibility, authority, and operational processes within participating communities and organizations occur

<sup>1</sup> The National Incident Management System was established by Homeland Security Presidential Directive 5 (HSPD-5), "Management of Domestic Incidents." See <http://www.whitehouse.gov/news/releases/2003/02/20030228-9.html>.

<sup>2</sup> Hawkins, Dan, *Communications in the Incident Command System*, SEARCH, 2007. Available at <http://www.search.org/programs/safety/>.

<sup>3</sup> See <http://www.safecomprogram.gov/SAFE/COM/about/default.htm>.

<sup>4</sup> See <http://www.safecomprogram.gov/SAFE/COM/tools/continuum/default.htm>.

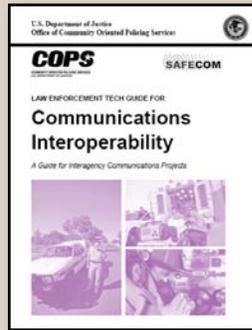
during the development of a regional communications plan.

The effort to create a cooperative foundation for a communications plan must first address three fundamental obstacles of every cooperative effort: **turf**, **agendas**, and **trust**. These obstacles exist at all levels of political and organizational entities and must be dealt with in an effective and forthright manner.

These obstacles to cooperation may be ingrained in many individuals and organizations. Therefore, addressing their impact in the building of a foundation must occur at the outset of the effort and at the highest possible levels of the participating organizations.

Chief executives of each participating entity should be educated about the elements of a regional communications plan, emphasizing the level of cooperative effort needed to create the following:

- **Memoranda of understanding** (intergovernmental and mutual aid



*Law Enforcement Tech Guide for Communications Interoperability: A Guide for Interagency Communications Projects* provides further information on NIMS in the context of interoperability. Produced by SEARCH under COPS Office sponsorship, it is available from the COPS Office Response Center, 800.421.6770, and at <http://www.cops.usdoj.gov/ric/ResourceMain.aspx?RID=238>.

agreements that involve shared policy-making decisions of the political entities)

- **Policies** related to operational procedures of public safety disciplines, equipment purchases, funding, training, and exercises.

Agency chief executives must become advocates of this cooperative effort and define their expectations for all who participate in the cooperative process. Most important, the chief executives must communicate unequivocally, within

their respective organizations, the necessity of regional cooperation as it relates to developing and sustaining a regional communications plan. Experience has shown that without this clearly articulated executive policy and action, the ability to implement a communications plan successfully will, at best, be considerably more difficult and lengthy and, at worst, doomed to failure.

### **Who Are Participants in the Plan?**

Another step in building a foundation is to identify which disciplines (**stakeholders**) should be a part of the communications plan and planning process.

In 2005, the Department of Homeland Security established grant requirements for 75 metropolitan regions to develop Tactical Interoperable Communications Plans (TICP). Guidance for these plans identified first responder disciplines of public and private agencies that would initially respond to the scene of an emergency and that need to be coordinated during the response. The public safety core of first responders in this initial incident-scene response would be **law enforcement, fire, and emergency medical services**.<sup>5</sup>

<sup>5</sup> For more information on TICP development, see <http://www.ojp.usdoj.gov/odp/docs/TICPGuidanceandTemplate.pdf>.



That guidance recommended the following additional disciplines as potential first responders:

- Emergency management
- Explosive ordnance disposal
- HAZMAT
- Urban area search and rescue teams (USAR)
- Transportation
- Utilities
- State and federal agencies that may be involved in initial incident-scene responses.

### Create a Written Agreement

Why are written agreements important to building a regional communications plan? For the many reasons discussed above and to define the scope and vision of the plan and the commitments required of the participants for long-term cooperation and participation.



The first component of a regional communications plan is the **memorandum of understanding** (MOU) or agreement. This document is general in nature and should list the activities and commitments participants will be expected to undertake and maintain as partners in the plan.

A typical MOU involving a regional communications plan contains statements of agreement regarding development and participation in the following:

- A regional communications plan involving public safety and support services and private responders that will prepare the region to respond to and mitigate emergency incidents

- Regional standard operating procedures (SOP) that conform to NIMS
- Regular training and exercises at the local and regional levels
- Regional logistical and financial support for the development of SOPs, planning, technology compatibility, training, and exercises
- Coordinating on a regional level the purchase and use of communications technology to ensure compatibility with all regional users
- Meeting on an ongoing basis to update interoperability plans and directives and update/review training and exercises
- Incorporating the identified interoperability activities into everyday operational activities to ensure compatibility and familiarity among regional users
- Accepting and approving, as a region, the SAFECOM definition of communications interoperability.

Sample agreements and SOPs are provided in SEARCH's *Communications Interoperability: A Guide for Interagency Communications Projects*.

### Establish a Governance Structure

All plans require a **governance structure** to manage the planning process and establish accountability for the planning outcomes. There are four recommended components of project governance:

- Executive sponsorship (discussed earlier in **Build**

#### a Foundation)

- Steering committee
- User (operational) committee
- Technical committee.

The **steering committee** generally comprises high-level managers or supervisors from within the stakeholder agencies. The steering committee provides constant guidance and oversight of the planning project and makes most of the decisions related to the project. It keeps executive sponsors informed of the project's progress or requests specific action from the executive to remove project barriers or provide resources.

The **user (operational) committee** includes participant agency line personnel and key users of the technology. Individuals serving on the committee would include first responders, supervisors, dispatch supervisors and dispatchers, emergency managers, and emergency operation center representatives. User committee members need to be familiar with the business and operational requirements of the agencies they represent.

Members of the **technical committee** would include technical staff of the participating agencies who are knowledgeable about the current technical environment and potential industry solutions. The technical committee responds to the



user committee's defined business and operational needs and analyzes those needs against the agencies' current technical capabilities and potential industry solutions.

Both the technical and user committees provide recommendations and evaluations about training and exercises required to prepare the region to implement and sustain the final communications plan.

One resource to assist in identifying project governance structures and business needs is the *Law Enforcement Tech Guide: How to plan, purchase and manage technology (successfully!), A Guide for Executives, Managers and Technologists*.<sup>6</sup>

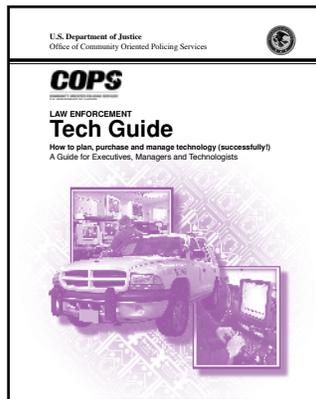
## Develop a Concept of Operations

Understanding what currently exists and works within the region as it relates to cooperative efforts and operational activities is important in the effort to develop a **concept of operations** that supports a regional communications plan. Inventorying and identifying these efforts is an important process in developing the plan.

### Inventory Existing Agreements

The effort to inventory cooperative agreements should start with each public safety discipline. Disciplines that are professionally accredited, such as police and sheriffs under the Commission on Accreditation for Law Enforcement Agencies (CALEA), require agencies to enter into mutual aid agreements and maintain current files of these agreements. The National Sheriffs' Association (NSA) and the National Fire Protection Association (NFPA) both set professional standards that may assist in the identification of existing or pending agreements.

<sup>6</sup> Harris, Kelly J. and William H. Romesburg, Washington, D.C.: U.S. Department of Justice Office of Community Oriented Policing Services, 2002.



To view or download the Law Enforcement Tech Guide, see <http://www.cops.usdoj.gov/ric/ResourceMain.aspx?RID=243>.

### Use Existing Agreements

The need not to "reinvent the wheel" is important when working to establish regional communications. Consideration and review of regional efforts among the agencies and disciplines can provide synergism, and reduce participant resistance in joining the plan, by exploiting **existing agreements, cooperative efforts, and relationships** within the region. When possible, examine and integrate potential sources for these documents. Existing regional agreements that could assist in this effort would be intergovernmental agreements, mutual aid agreements, and regional memoranda of agreements involving specialized units like HAZMAT, SWAT, and narcotics task forces, or public safety incident responses across jurisdictional or political boundaries.

## Inventory Communications Resources

### Systems

A wide range of private, local, state, or federal communications systems may exist within the region. Identifying all existing communications systems and systems planned for development is an important task in creating the plan.

When a region inventories its communications system, it should consider wireless communications systems involving VHF-low band, VHF-high band, 800 MHz analog and digital, non-Project 25- and Project 25-compliant, interoperability gateways, data communication, and cellular phone capability, or the lack of it, along with the wide range of connectivity types and capabilities.

### Equipment

In its February 2003 report, the National Task Force on Interoperability identified key problem areas that act as a barrier to communications interoperability. One of these is the lack of equipment compatibility because of age, design, or both.<sup>7</sup> This problem is brought about for many reasons, many of which may be longstanding within a region.

For a regional communications plan to function well, the participants must possess a clear understanding of the region's communication equipment and its connectivity or inability to connect.

How this equipment supports or affects the ability of the region's first responders to fulfill their operational mission is a key component in the development of a communications plan. Identifying communication gaps created by the region's equipment and how operational communications would function in relation to these gaps is an important part of the inventory process.

### Talk Paths

As part of the inventory process, it is important to identify and inventory available talk paths or frequencies. In addition, identify and inventory the number and types of frequencies or talk

<sup>7</sup> *Why Can't We Talk?: Working Together to Bridge the Communications Gap to Save Lives*, NCJ 204348 (Washington, D.C.: National Institute of Justice, 2003). See <http://www.ncjrs.gov/App/Publications/abstract.aspx?ID=204348>.

paths available to each first responder for day-to-day operations, and those used for other activities outside of routine events (such as planned events or multiagency or multijurisdictional responses within the region).

### **Trained Communications Unit Staff**

The execution of a regional communications plan that is compliant with the NIMS Incident Command System (ICS)<sup>8</sup> requires the creation and deployment of an ICS-based Communications Unit. ICS identifies four positions within the Communications Unit: the Communications Unit Leader, Incident Communications Technician, Radio Operator, and Incident Communications Center Manager. Most regions have personnel among their many first responder agencies who serve in such roles during routine, day-to-day operations. Emergencies managed under ICS may need all or none of these functions formally designated as part of the response, depending on the scope of the incident. Regional communications plans establish who will serve in these roles and under what conditions they will be activated.

#### **■ Communications Unit Leader**

The Communications Unit Leader in an ICS-based response system should be activated early in the response. The Unit Leader is responsible for integrating communications, that is, ensuring that operations are supported by communications. The position must understand ICS and local response systems to support the efforts of the command team. The Unit Leader is responsible for developing the Incident Communications Plan (ICS 205) and establishing the Incident Communications Center (ICC).

<sup>8</sup> ICS establishes basic principles, practical tools, and a definitive structure for supporting communications needs during emergency response.

#### **■ Incident Communications Technician**

Incidents involving more than a few agencies and extending for more than a day or two often require the skills of an Incident Communications Technician. The technician position is needed to deploy advanced equipment and keep it operational.

#### **■ Radio Operator**

Radio Operators within the unit may serve as dispatchers or be assigned to the general staff to facilitate their communications requirements. Many agencies are now creating dispatcher teams to respond to incidents as on-scene Radio Operators.

#### **■ Incident Communications Center Manager**

The Incident Communications Center Manager position is filled when the Communications Unit Leader's span of control would be exceeded, typically during complex incidents requiring multiple Incident Communications Technicians and Radio Operators. The Manager serves primarily to supervise Radio Operators and manage the ICC.

### **Establish Policies and Procedures**

The greatest challenge to building a regional communications plan, beyond the executive sponsorship, is the establishment of common, NIMS ICS-compliant, **regional policies and procedures** for participating disciplines and agencies. Once again, many agency executives and managers may see this requirement as an intrusion into their ability and responsibility to direct and manage their individual organizations.



Use of common directives by all regional agency participants on a daily basis is one of the critical success factors of the SAFE-COM Program's Interoperability Continuum dimensions, and of a regional communications plan.<sup>9</sup>

### **Equipment**

The importance of regional cooperation regarding equipment compatibility and interoperability is another area that may create resistance from participant agencies in the development of a regional communications plan.

The National Task Force on Interoperability noted five impediments hampering the development of interoperable communications systems. Two of these impediments—incompatible and aging communications equipment, and limited and fragmented planning and coordination—are related to the topic of regional equipment.

<sup>9</sup> See <http://www.safecomprogram.gov/SAFE-COM/>.



A regional communications plan may require that the agency's equipment purchase decisions—and sometimes appropriations—be vetted by an impartial party outside the agency, such as the technical committee.

Purchases of equipment and software that do not support the region's collective communications processes and plan can create gaps in interoperability and additional costs for partner agencies because they may have to modify their equipment and infrastructure to compensate for a nonvetted purchase by another agency.

Establishing and retaining regional communications capabilities requires participant agencies to cooperate and agree on communications system infrastructure and equipment purchases, modifications, and future expansion. This cooperation and agreement during the planning process will best ensure interoperability across the region's system.

### **Operational**

One trait that many regional communications planning efforts take on early in the planning process is to become *technology-centric* when discussing and implementing the communications plan. The plan, however, must be *operational-centric*; in other words, the plan must focus on the operational communications needs of first responders regarding the **who**,

**when** and **how** of their operational communications.

As discussed earlier, the formation of the user and technical committees to assist in the plan's development and management is critical to the plan's overall success.

Emphasis is placed on the user committee to represent operational first responders and on the technical committee to work off of the business and operational requirements of the user committee. This is a critical and key component of an effective communications plan.

An effective communications plan must reflect the operational communications needs of first responders at incident-specific events. The technology is then used to meet this communication need. Many regions reverse this process by defining what technology is available, leaving the first responder to fit the technology to the response. The crux of this issue is best reflected in the architectural question, "Does form follow function, or function follow form?"

Regional communications directives should also designate the types and numbers of talk paths in the participating agencies' radios, gateways, and communication center consoles, and how and when they will be used.

### **Funding**

Funding to implement the regional communications plan can reflect a wide range of needs. The most common fiscal support provided by participating agencies comes in the form of staff time and expenses. The personnel costs should be

understood and anticipated. Staff time across jurisdictions is needed to draft and prepare final regional directives, cooperative planning activities, technology compatibility analysis, training and exercises, and to hold meetings to update/review the communications plan, directives, and ongoing regional training and exercises.

## **Train and Exercise**

Training and exercise activities are often considered a low priority when jurisdictions implement a regional communications plan. As has been noted by some police first responders, the relation to the quantity of firearms training versus the quantity of communications training is not nearly proportional to the number of times those skills are relied on and how critical both are to job performance and sometimes survival.

Communications interoperability is achieved through the routine use of interagency capabilities. The skills needed to respond to large and small emergencies are instilled through day-to-day use, basic, and in-service training and routine exercises.

### **Train in Context**

**Training in context** simply means training personnel in practical skills by doing it within the context of how the skills will be used, for example, training a police officer to conduct a traffic stop. This kind of contextual training requires the officer to pick a safe location for the stop, use his radio to communicate his location, vehicle description and the number of occupants in the vehicle, while at the same time positioning his vehicle to provide him with protection and to protect the stopped vehicle from oncoming traffic. This form of training evaluates several skill levels beyond the activities of how to use the radio to effect a traffic stop. Trainees are, in effect, not being trained how to use the radio, but how to *communicate* to accomplish their job.

The Department of Homeland Security Exercise and Evaluation Program (HSEEP) states:

“The most effective way to evaluate preparedness prior to an actual incident is by conducting and evaluating threat- and performance-based exercises.”<sup>10</sup>

### Discussion-Based Exercises

The HSEEP provides detailed guidance for designing, conducting, and evaluating exercises, including **discussion-based exercises**.

**Tabletop exercises** give regional participants a method, through discussion, for applying new procedures or policies and to determine if there are any gaps and conflicts that would cause disconnects during an incident response. The tabletop exercise provides an opportunity to apply the communications plan processes and protocols in incident communications as they relate to the receipt, dispatching, and response of first responders and the cooperation and support of on-scene commanders and emergency operation centers. Tabletop exercises often precede operations-based exercises.

### Operations-Based Exercises

HSEEP also discussed **operations-based exercises** in detail. These bring first responders to the field for actual practice and training. It is a practical level of training and provides the means to validate policies and procedures that were part of the discussion-based tabletop exercise.

**Functional exercises** generally are limited in scope. Usually, a particular team or unit is brought to the field to test its deployment and the direction and con-

<sup>10</sup> *Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement*, NCJ 202198 (Washington, D.C.: U.S. Department of Homeland Security, October 2003) p. iii. Available at <https://hseep.dhs.gov/>.

trol of its assets; for example, deploying a HAZMAT unit to a public arena to test for biological or chemical contamination. Communication would be tested in a limited capacity to evaluate team control and coordination. Evaluation of a particular capability is the primary focus of the functional exercise.

Generally, **full-scale exercises** involve multiple jurisdictions in a full system response. Communication is tested as part of the overall response capability and as part of a system of systems in how it is used during real-life conditions. This level of exercise provides the best opportunity to test and evaluate entire systems within the agencies or region.

### Measure Performance

One area that many regions and organizations overlook when conducting training and exercises is a performance measurement to determine how effective their training and exercise was in meeting its stated purpose.

The HSEEP addresses in detail the processes and importance of stating expected outcomes, measuring the performance in meeting those outcomes, and conducting follow-up to close the performance gaps.

### Evaluate Exercises

Prepare evaluations for all exercises conducted within the agency and region. Key elements of an evaluation are the following:

- Train evaluators and facilitators and debrief these individuals at the conclusion of the exercise.
- Conduct a “hot wash” or after-action critique with the other participants of the training exercise.
  - Debriefs and hot washes are used for both tabletop and operations-based exercises.

- An After-Action Analysis and Report is completed to capture broader details of the evaluation and to recommend improvements.

### Assess Regional Progress

The primary purpose of exercise and training evaluation is to improve performance. Improvement will not happen without an effective evaluation program that embraces follow-up and follow-through on recommended changes. Support for development of performance measurements can be obtained through SEARCH.<sup>11</sup>

<sup>11</sup> *Law Enforcement Tech Guide for Creating Performance Measures That Work: A Guide for Executives and Managers*, by David J. Roberts, SEARCH, 2006. Available from the COPS Office at <http://www.cops.usdoj.gov/ric/ResourceMain.aspx?RID=275>. See also *Law Enforcement Tech Guide for Communications Interoperability: A Guide for Interagency Communications Projects*, Chapter 15, “Measuring Interoperability.”



Communication is a unique response capability. It cannot truly be tested and evaluated outside the context of integrated exercises. Given the uniqueness of this capability, a regional communications plan, if it is to continually improve, should include a comprehensive, contextual training and exercise program with an effective evaluation component.

## Conclusion

Building a regional communications plan is a multifaceted, time-consuming, cooperative effort.

A review of many incidents and exercise debriefings and hot washes consistently reveals a recurring frustration exhibited by first responders, supervisors, dispatchers, managers, executives, and political figures: Why are there *always* serious problems with communications and

Why are there *always* serious problems with communications and interoperability at the first responder and command levels?

interoperability at the first responder and command levels?

Many will have us believe that problems with local, regional, and state interoperability are caused primarily by a lack of technology. A review of numerous agencies and regions, large and small, throughout the country, however, reveals one consistent shortcoming: a lack of effective preparation and planning regarding communications and interoperability for first responders.

Analysis of this problem reveals a common communications gap—the absence of a comprehensive, operationally driven, NIMS ICS-compliant, well-trained and well-exercised, cooperative communications plan within and among individual agencies and the region.

Intra-agency and interagency communication within an individual community is hampered without a communications plan. The belief that interagency, inter-jurisdictional interoperable communication can occur in response to large-scale emergencies without a well-planned, well-exercised, and well-executed regional communications plan is a fallacy. ■

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## Technical Assistance Available

SEARCH is the technical assistance (TA) provider to the U.S. Department of Justice Office of Community Oriented Policing Services (COPS) Interoperable Communications Technology Program (ICTP). SEARCH is a national nonprofit organization that has provided more than 37 years of expert assistance to state and local criminal justice agencies on the use of information and identification technology. SEARCH has a long-standing program of providing direct, no-cost, tailored TA to law enforcement and public safety agencies in planning for, procuring, implementing, and managing information technology.

### Areas of Assistance:

- Effective governance structures development
- Strategic planning
- Infrastructure assessment and development
- Needs analysis and assessment
- Operational requirements development
- Policy and procedure development
- Risk management

To apply for TA in these areas or review additional SEARCH TA focus areas, see <http://www.search.org/services/ta/>.

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