Enhancing Communications Interoperability:

*General Guidance and Recommendations
for Interoperability-related Governance*

SAFECOM

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Introduction

SAFECOM is a communications program of the Department of Homeland Security's (DHS) Office for Interoperability and Compatibility (OIC). SAFECOM provides—with its federal partners—research, guidance, tools, and templates on communications-related issues to local, tribal, state, and federal public safety agencies. SAFECOM believes that any successful effort to improve public safety communications interoperability must take into account the views of first responders on the front lines in large, small, rural, and urban communities across this Nation.

This document presents general information about the role, structure, and operations of governing bodies charged with improving communications interoperability at the local, regional, tribal, or state level. Material and information presented here should be viewed as general guidance that individual communities should consider in establishing interoperability-related governance that reflects their specific needs.

The material is organized as follows:

- *New Perspectives on Governance:* An explanation of why sound governance is important, some common barriers to setting up governance structures, and how governance relates to the overall challenge of achieving communications interoperability.

- *The SAFECOM Approach:* An overview of the general principles for sound governance developed and promulgated by SAFECOM.

- *Recommended Governance Structure:* Characteristics of successful governance models, characteristics of effective bylaws, examples of governance roles and responsibilities, and a discussion of performance measures.

- *Conclusion:* A summary of the general governance recommendations.

- *Appendix A: Governance in Action:* A discussion of the lessons learned and methods used for communications interoperability governance models used by communities across the country.

New Perspectives on Governance

The Case for Sound Governance

For any area or region to improve communications interoperability, collaboration and participation of relevant public safety stakeholders is essential. A formalized governance structure provides a unified approach across multiple jurisdictions and disciplines that can aid the funding, effectiveness, and overall support for communications interoperability. Establishing a governing body is critical for successfully addressing the key challenges of achieving interoperable communications. A governing body also provides the framework in which stakeholders can collaborate and make decisions that reflect a common objective.

Common Governance Challenges

Establishing a formal governance structure that improves communications interoperability can be a challenge, particularly given the demands of "business as usual." Some of the most common challenges, which should be kept in mind while planning a new governance structure, are:

- Independent disciplines and jurisdictions have difficulty giving up authority in favor of a regional governing body.

- Current way of doing business supports independent decision making rather than a shared decision-making process fostered by a well-designed governing body.

- Failure to consider key design elements for the governance structure can result in delays, inefficiencies, and ineffective decisions and solutions.

- Governing body membership is often not representative of all agencies, disciplines, and jurisdictions involved in a regional response.

- Policy makers are not aligned with the needs for a region's interoperability requirements and therefore do not commit the required resources.

- Few standard criteria or models have been established to help communities create a successful governance model. This document was prepared with the goal of addressing this particular challenge.

Governance in Context: The Interoperability Continuum

Solutions to communications interoperability often focus solely on equipment or technology, excluding the other factors that are also critical to success. SAFECOM identified five interrelated elements that are essential to a foundation for seamless interoperability:

- Governance

- Standard Operating Procedures (SOP)

- Technology

- Training and Exercises

- Usage

To help visualize the evolving interrelationship of these components, SAFECOM developed the Interoperability Continuum shown in Figure 1. As this graphic suggests, proficiency in all five of these elements is needed to achieve the best possible interoperability and compatibility.
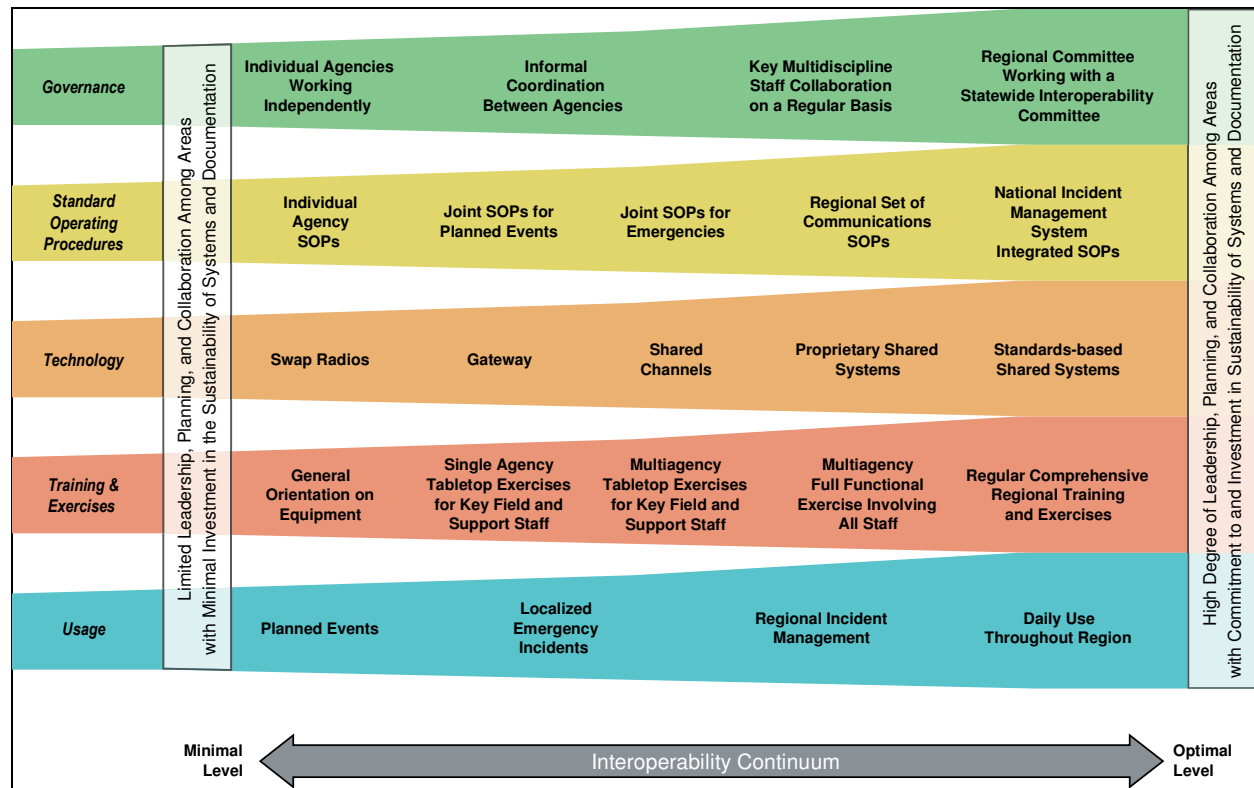
Figure 1. Interoperability Continuum

The SAFECOM Approach

The SAFECOM program identified and adopted a practitioner-driven approach that can help guide the establishment and effective operation of a governing entity. Key elements of this approach include:

- *Work from the bottom up. A* successful program relies heavily on local and state public safety practitioners for input and guidance as it works to define and put into effect solutions for the interoperability challenge.

- *Promote shared decision making, while maintaining accountability.* Strong leadership and clearly defined roles and responsibilities are essential to achieving an effective balance.

- *Promote transparency.* The membership, operations, and actions of the governing body must be clearly articulated and understood, not only within the entity itself, but also among the public.

- *Promote sustainability.* It is important to recognize that achieving communications interoperability is a long-term effort. Succession planning and membership rotation should be built into the governance structure.

- *Establish and articulate a shared understanding of goals.* A shared vision is the foundation of any effective undertaking, while common goals provide momentum to

move forward. Both are essential to any long-term group effort. In the case of interoperability-related governance, the diversity of the disciplines and jurisdictions involved makes agreeing on these common goals even more critical, along with maintaining commitment to them over time.

- *Stay flexible.* Because of the complexity of the tasks, it is important to keep in mind that working processes, roles, and responsibilities are likely to evolve over time.

- *Establish an oversight body.* Some type of interoperability oversight body may be established to coordinate efforts and provide reports and recommendations to the Governor and State Legislature. The Governor should provide authority for the oversight body under state legislation or through an executive order.

- *Seek the strongest possible sponsorship.* Strong sponsorship, at the highest possible levels, helps ensure that the governance structure has the necessary authority to govern. The oversight body could be established under a state's homeland security agency or directly under the Governor's Office, with executive sponsorship.

- *Identify and secure funding.* SAFECOM recommends that the oversight body of the area or region help identify and obtain a steady stream of funding for local, regional, and state interoperability efforts. This stream of funding may include grants, taxes, bonds, and budget line items. Having a permanent, predictable, and stable statewide source of funding for public safety communications enhances sustainability.

- *Actively engage stakeholders.* The governance structure should represent the full range of interests affected by the interoperability challenge. This helps ensure that solutions are responsive to community needs and incorporate diverse perspectives.

- *Leverage associations or people authorized to speak on behalf of a larger group.* To effectively seek practitioner input and build support for the decisions made by the governing body, it is often helpful to leverage associations or people who are authorized to speak for a larger group.

The SAFECOM approach to governance calls for identification of the key constituencies from all jurisdictions and disciplines that have a stake in coordinated communications. This approach helps assure balanced representation. The actual breakdown of the governance membership may be derived in a number of ways. A practice of the National Governor's Association, for instance, is to have a representative of each major public safety agency and a cross-section of representatives from various elected government entities.

Ultimately, decisions about who should be included will reflect local political, geographic, and fiscal considerations. However, the optimal governance approach should strive for balance among a variety of organizations, including:

- Emergency Medical Services (EMS)

- Firefighting

- Law enforcement

- Emergency management

- Public works

- Public health

- Tribal government

- Tribal law enforcement

- Disaster relief agencies

- Elected government

Recommended Governance Structure

Characteristics of Successful Governance Models

Based on the evaluation of governance models used in several different localities and states, SAFECOM found that some successful governance models employ three groups and have provisions for administrative support. This three-tiered governance model encourages partnerships with other relevant organizations. A brief explanation of each of these groups is provided below:

1. *An oversight body* or executive committee, composed of higher-level administrators with funding authority, should be vested with final decision-making authority. SAFECOM recommends at least one appointed representative and one alternate from each participating jurisdiction or agency. The charter should specify how often the executive committee meets; meeting quarterly is the recommended minimum.

2. Leadership will benefit from *an advisory group* that includes an equal number of representatives from each participating jurisdiction or agency. The advisory group should meet regularly. The group can assist the executive committee with prioritizing implementation tasks and developing a roadmap for the future or a project plan.

3. Temporary, narrowly chartered *working groups*[1] should be formed for specific tasks, such as conducting research and collecting data. These working groups would have no voting powers and would disband upon the completion of the chartered tasks.

In addition, SAFECOM recommends identifying the entity that will provide staff support, such as assisting with coordination among members and disseminating information to stakeholders, public officials, and the general public.

Characteristics of Sound Bylaws

Early on, SAFECOM recommends that the governance body develop, agree upon, and document the bylaws it will follow. Written bylaws help guide the governance body's work processes; equally importantly, they establish accountability for individual members and for the

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[1] Working groups are also commonly referred to as subcommittees.

group as a whole. Further, documented bylaws promote transparency by making the governance body's work processes accessible to the communities it ultimately serves. Both accountability and transparency are essential to establishing credibility with the public safety community and the general public. Credibility, in turn, is essential to success.

Written bylaws need not be complex. Such documents typically address two broad topics, discussed below:

Vision, Mission, Values: SAFECOM recommends that the oversight body's overall vision and its specific mission be clearly articulated. Vision is a broad statement of the eventual goal; mission defines the governance entity's role in achieving that goal. In addition, it is useful to include a discussion of common values or principles that will inform all aspects of the group's work. These include, for example, a shared commitment to accountability and transparency, a consensus-based approach to decision making, and an agreement to set aside individual agendas on behalf of the broader goal.

Whatever common values are determined by the group, formally documenting them is a useful exercise in bringing members into early agreement. Moreover, as the work evolves, a clear statement of vision, mission, and values establishes both a point of reference and a set of standards to evaluate the effort's progress.

Operations: SAFECOM recommends agreeing on and documenting the work processes or operations for the governance body. Clear decision-making and conflict-resolution processes for the governance structure ensure the successful development and execution of strategic efforts when multiple agencies, jurisdictions, and disciplines are involved. Moreover, transparency in these processes helps build support for their outcomes.

The bylaws should outline how the governance structure will operate. Some of the key topics that should be addressed for operations are:

Elections. The method of election for the leadership of the executive committee and advisory group should be determined and specifically described. For example, elections could be held during a meeting of each committee at some predetermined and publicized date and time (such as the first meeting following the start of the fiscal year).

Roles and responsibilities. Each component of the governance body (for example, executive leadership, advisory committees, and working groups) should have a clearly defined role and a specific set of responsibilities. Descriptions should include the extent of authority, frequency of meetings, reporting requirements, membership duties, terms, and limitations.

Rules of engagement. The way that the governance body and its components will conduct business should be clearly described, including, for example, defining what constitutes a quorum for meetings, the chain of command between the layers of the governance structure, authority for calling and chairing meetings, and other similar procedural issues.

Voting procedures. Clear voting procedures are necessary for agency collaboration and conflict resolution. Discussion should include topics such as voting versus non-voting participation, issues requiring different levels of agreement (for example, simple majority, super-majority, unanimity, or consensus), and a procedure for breaking a tie vote.

Examples of Governance Roles and Responsibilities

In addition to identifying the structure of the governance model, the roles and responsibilities of each component should be identified to ensure transparency and accountability. Suggested roles and responsibilities for each major group component follow.

Executive committee or oversight body:

- Adopt executive committee bylaws.

- Develop a statewide plan for achieving public safety wireless communications interoperability.

- Leverage resources where appropriate.

- Establish working groups with appropriate representatives from the public safety community to ensure that technical issues are thoroughly researched.

- Educate and regularly update representatives from the Governor's Office, appropriate legislative committees, and the public regarding the state's interoperability work.

- Build relationships at the local, state, and federal levels.

- Develop processes to allow associated equipment to be purchased collectively to ensure compatibility and favored pricing.

- Develop outcome-based strategic planning.

- Develop a recruiting strategy to ensure consistent leadership and participation.

- Provide a method to capture lessons learned for future operations.

- Review and adjust the governance model, as needed.

Advisory group:

- Develop and document advisory group operations and working processes.

- Review and recommend goals and objectives to the executive committee.

- Review and recommend long-range plans to the executive committee.

- Recommend adoption and modification of operating policies and procedures to the executive committee.

- Translate information and communicate with communities to build support for statewide interoperability efforts.

Working groups:

- Meet and collaborate in areas of common expertise.

- Take on specific assignments, such as research or data collection.

- Assist with execution of adopted public safety communications and interoperability projects.

Note that because working groups will be formed on a temporary, as-needed basis, their charters should specify time limits as well as roles and responsibilities.

Prioritization of Tasks and Performance Management

Once implementation tasks are developed, the next step is to establish a shared understanding of performance goals. Clearly stated expectations and measures for success provide governing bodies important tools for collaboration across stakeholder groups. The adoption of performance measures by a governing body sets goals to encourage strategic thinking, promotes a results- or outcome-driven approach, and cultivates productive working relationships across diverse groups.

Once performance measures are developed and agreed upon, it is necessary to construct a formal process to monitor and evaluate performance, suggest revisions, and make necessary, regular adaptations to the strategy at all levels. Improvement of the governance approach, process, and structure cannot occur without regular review, evaluation, and reflection. The establishment of performance measures, and a system of accountability, will help support any governing body in its efforts.

Conclusion

The SAFECOM governance model incorporates representative leadership from a wide variety of local-level first responders in a process of participatory decision making. It also strives to gain the authority and support through state legislation or an executive order to enforce timely and cost efficient application of statewide interoperability. Relationship building at the local, state, and federal level and outcome-based strategic planning are among the other important elements of an effective governance model.

These general governance recommendations incorporate SAFECOM's philosophy and the results of working with various localities and states to achieve and improve communications interoperability. The recommendations help identify important considerations to further define the membership, responsibilities, and decision-making procedures for a communications interoperability governance structure. However, these general recommendations should be modified according to the unique needs and circumstances of a particular locality or state. Ongoing review and adjustment of the governance approach, structure, and process are critical for continuous improvement.

Appendix A: Governance in Action

SAFECOM researched the governance models used in a number of localities and states to develop the recommendations and guidelines in this document. Profiles of Maryland; Utah; Virginia; Washington; Washoe County, Nevada; and Wyoming are presented here in alphabetical order. SAFECOM found that each of these entities developed successful governance models and plans to address communications interoperability. Other communities may find them helpful to consider.

Maryland

The State of Maryland's plan involved the formation of a work group and project team to bridge gaps among the various partners in the state. In an effort to improve public safety communication systems, processes, and infrastructure, the state formed a Public Safety Communications Interoperability Governance Work Group (GWG), consisting of state, county, and municipal government officials. The GWG oversees the state's initiative to provide voice and data communications across agencies, departments, and government levels.

An Interoperability Project Team (IPT) consisting of professional public safety representatives from state, county, and municipal agencies supports the GWG. The collaboration between these two groups resulted from cooperation among the Maryland Municipal League, the Maryland Association of Counties, and a number of state agencies.

The GWG meets at least four times per year. Additional meetings may be required to resolve critical issues. The GWG is responsible for:

- Overall policy making and approval on public safety voice and data communications interoperability

- Advocacy for adopted public safety communications interoperability voice and data projects

- Leadership in obtaining necessary legislation and funding for these projects

The Statewide Interoperability Executive Steering Committee reports to the GWG. The steering committee is made up of senior appointed officials from state, county, and municipal agencies and is led by an elected Chair and Vice Chair that serve staggered 2-year terms.

The steering committee meets at least bi-monthly. Additional meetings may be required to resolve critical issues. The steering committee is responsible for:

- Overall program management oversight

- Continuation of the planning process to ensure the vision for public safety communications interoperability and conceptual frameworks outlined in the statewide plan are carried out

- Management of grant funds

- Oversight of standards compliance

The steering committee may appoint a limited number of ex officio members as needed to provide it with expertise and insight. For example, a representative from the Maryland State Geologic Information Commission (MSGIC) might represent geographical data issues.

At least three subcommittees report to the steering committee (administrative and budgetary support, technical, and operations subcommittees). Membership in the subcommittees is broadly inclusive, and each subcommittee has an appointed Chair and Vice Chair who serve staggered 2-year terms. The IPT proposes that the subcommittees meet at least monthly.

Subcommittees are expected to provide support to the steering committee in their areas of expertise to assist implementation of adopted public safety communications and interoperability projects. As the effort evolves, these subcommittees will be responsible for coordination and facilitation. Project management and implementation activities will be the responsibility of the sponsoring agencies represented on a subcommittee.

Utah
The Utah Communications Agency Network (UCAN)[2] was formed in May 1997. In the same legislation, the Communications Agency Network Board was created. The board is composed of one representative selected by each member organization. Duties and authorities of the board are to:

- Adopt bylaws by a majority vote

- Elect 10 representatives to its executive committee

- Recommend broad policies for the long-term implementation and operation of the communications network to the executive committee

- Dissolve the UCAN as provided in the enabling legislation by a three-quarters vote

UCAN's 15-member executive committee is its administrative body. The distribution of members is:

- Ten members elected by the board from its local agency representatives

- Four members appointed by the Governor

- The Utah State Treasurer

The committee's duties and authorities are to:

- Manage the affairs and business of the UCAN

- Appoint an executive director to administer the UCAN

- Act upon reports covering the operations of the network and the funds administered by UCAN

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[2] For more information, please see http://publicsafety.utah.gov/2002report/UCAN.htm.

- Ensure UCAN follows the law

- Approve the operating budget of UCAN

- Act on recommendations of the Chair

- Recommend changes to statutes governing UCAN

- Develop broad policies for the operations of the network

- Execute contracts and other instruments on behalf of UCAN

- Authorize the borrowing of money, the incurring of indebtedness, and the issuance of bonds

UCAN's executive director attributes the success of this model to three factors:

- A legislated governance model offers full transparency (i.e., everyone knows the rules).

- Operating as an independent agency leads to a higher comfort level among the local agencies. In fact, 10 of the 15 members of the executive committee must be local representatives.

- Having a specific, legislated date for completion encourages everyone to pull together.

Virginia

The Commonwealth of Virginia's communications interoperability governance model[3], illustrated in Figure 2, relies on two primary objectives:

- *Performance*: Contribute to the overall performance and delivery of services to the public safety community and ultimately to the larger constituency it serves.

- *Adherence*: Ensure that requirements of the law, regulations, and community standards of accountability and transparency are met.

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[3] For more information, please see
http://www.interoperability.publicsafety.virginia.gov/Library/PDFs/VAGovernance.pdf.
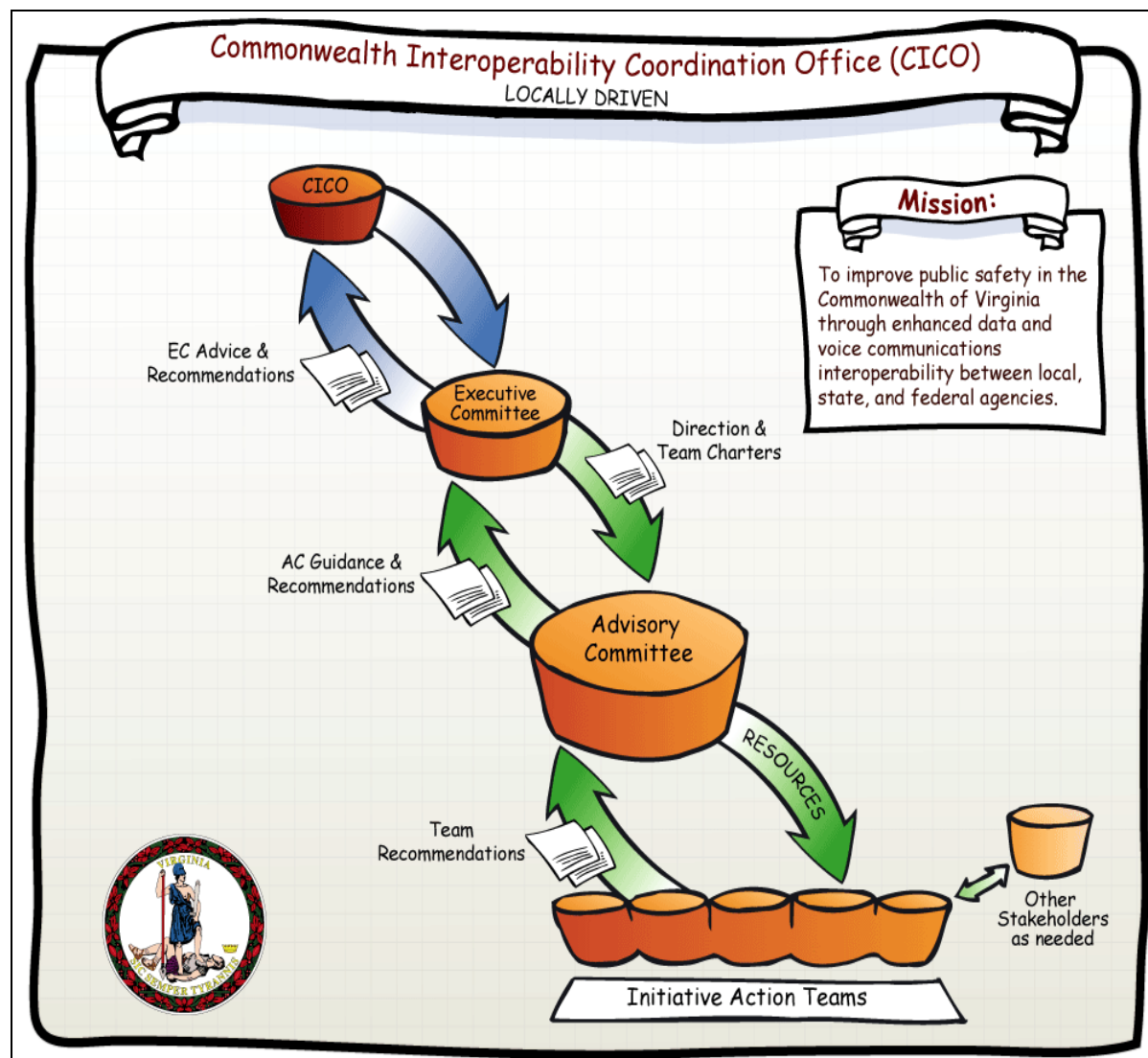
Figure 2. Virginia Interoperability Governance Structure

The Commonwealth Interoperability Coordination Office (CICO) is responsible for the daily operations of Virginia's interoperability efforts. The CICO, once housed within the Office of the Secretary of Public Safety and now located within the Office of Commonwealth Preparedness, works across multiple levels of government. Its stated mission is to coordinate initiatives, communicate information, and assist discussion on interoperability efforts between and among the Commonwealth's regions and jurisdictions as well as the Federal Government.

The CICO is headed by the Commonwealth Interoperability Coordinator (CIC), who leads Virginia's interoperability efforts. The office's responsibilities include developing and delivering reports and briefings, coordinating various state initiatives related to public safety interoperable communications, and assisting temporary, narrowly chartered working groups known as initiative action teams that were formed to address specific tasks.

The State Interoperability Executive Committee (SIEC or executive committee) serves as the steering group for the CIC; it evaluates guidance and recommendations for the Commonwealth Preparedness Working Group (CPWG) and Governor's Office. The SIEC meets at least quarterly to review overall progress and to evaluate and approve the next set of goals and priorities. The SIEC consists of 13 representatives from the local and state public safety associations and government.

The State Interoperability Advisory Committee (SIAC or advisory committee) provides guidance to the executive committee. This guidance incorporates the knowledge and expertise of representatives from the local, regional, state, and federal public safety and government practitioner community. The advisory committee regularly receives ongoing information about project initiatives and other business matters through e-mail, conference calls, and other means. Members of the advisory committee are expected to meet in person at least twice a year to review overall progress and to discuss and suggest priorities and initiatives for the advisory and executive committees. Between plenary meetings, and when appropriate, advisory committee members may meet at Initiative Action Team levels.

At every level of this governance model, key stakeholders representing various disciplines, jurisdictions, and levels of government play an important role in:

- Creating and sustaining partnerships essential to the governance structure

- Sharing knowledge and resources across the Commonwealth

- Ensuring that tangible value is provided to the public safety community and to citizens

Public safety personnel participate in Virginia's interoperability governance in three different groups as: 1) members of the executive committee; 2) members of the advisory committee; and 3) participants in initiative action teams or short-term work groups.

Washington
The State of Washington established the State Interoperability Executive Council (SIEC) as a permanent subcommittee of the Information Services Board (ISB) in July 2003. Four required tasks set forth in the enabling legislation of the SIEC are:

- Conduct an inventory of state government-operated radio systems.

- Complete an interim statewide public safety communications plan.

- Conduct an inventory of all public safety radio communications systems in the state.

- Prepare a final statewide public safety communications plan.

The SIEC has 15 voting members. Thirteen members are specified in the enabling legislation. Two members are appointed by the ISB. The SIEC's stated mission is to:

- Develop sources of funding for the state wireless communications systems.

- Coordinate public safety band frequencies for the state.

- Serve as the point of contact to the Federal Communications Commission (FCC) for the public safety radio spectrum.

- Make policy on technical standards for wireless communications.

- Author proposed legislation to promote the interoperability of state wireless communications systems.

- Promote cooperation and coordination between public safety agencies.

- Collaborate with professional associations and technology groups to make certain that interoperability is developed among all public safety wireless communications systems in the state.

Washoe County, Nevada

One of the most successful local governance models that SAFECOM identified in the State of Nevada came from Washoe County. This governance structure was created in October 1999 as several entities signed an Interlocal Agreement to create the Washoe County Regional Communication System (WCRCS). The goal was to improve interoperability and pool funds. Washoe County maintains the backbone of the regional system, which is funded proportionately by the participating jurisdictions or agencies based on the number of their radios that will use the new communication system.

The Washoe County governance model follows the three-tiered structure described in SAFECOM's recommendations. The executive committee, comprised of higher level administrators with funding authority, is vested with final decision-making authority and is named the Joint Operating Committee. There is one appointed representative and one alternate from each participating jurisdiction or agency. The Joint Operating Committee meets quarterly.

The advisory group to the Joint Operating Committee is known as the Users Committee. It has three representatives from each participating jurisdiction or agency and meets monthly. The Users Committee reviews and recommends to the Joint Operating Committee an annual operating and maintenance budget for the WCRCS, as proposed by Washoe County Telecommunications (WCT) (defined below). Leaders of both committees are elected during each committee's meeting at the start of the fiscal year.

The roles and responsibilities of both committees are outlined in the Interlocal Agreement. The WCT provides staff support to the Joint Operating Committee and manages the day-to-day operation of the WCRCS, subject to the input of the Joint Operating Committee and the Users Committee. The WCT charges participating agencies for expenses incurred in ongoing maintenance, repair and operation, and capital outlay for the regional system. The WCT develops contracts with vendors and submits them to the Joint Operating Committee and the Users Committee for review and approval.

Among the leadership of the Washoe County governance entity, the success of this governance model is widely attributed to the fact that each participating agency has equal voting power regardless of its size. In this case, experience has demonstrated that equal representation and voting has resulted in greater buy-in for decisions.

Wyoming

At the encouragement of the State of Wyoming's public safety community, the Wyoming Legislature established Wyoming's Public Safety Communications Commission[4] (PSCC), effective July 1, 2004. The PSCC is responsible for providing policy-level direction related to planning, designing, and applying guidelines, best practices, and standard approaches to address Wyoming's public safety communications interoperability issues.

The PSCC's structure, both in its appointments and the makeup of its working groups, is designed to foster collaboration among stakeholders at the local and state level. The PSCC comprises representatives appointed by the Governor from the following public safety agencies, professional associations, and state, tribal, and federal departments:

- Wyoming Police Chief's Association

- Wyoming Sheriff's Association

- Division of Criminal Investigation, Office of the Attorney General

- Wyoming Game and Fish Department

- Wyoming Department of Transportation

- Wyoming Livestock Board

- Department of State Parks and Cultural Resources

- Wyoming Fire Chief's Association

- Wyoming State Fire Marshal

- Wyoming Office of Homeland Security

- Wyoming Ambulance and Emergency Medical Services Association

- Wyoming Department of Health

- Municipal government or municipal government association

- County government or county government association

- General public

- Tribal government or tribal government association

- Federal Government or Federal Government association

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[4] For more information, please see: http://pscc.state.wy.us/index.html.

The PSCC resolved to focus on the following priorities:

- Recommend strategies for improving Wyoming's wireless interoperability.

- Determine standards for the WyoLink network.

- Identify short-term technological and policy solutions that tie existing infrastructure together into an interoperable system.

- Develop long-term technical and policy recommendations to establish the development and execution of the WyoLink network.

- Develop recommendations for state legislation or other state action that may be required to further promote wireless interoperability in Wyoming.