Homeland Security

SAFECOM

Strategic Recommendations to the Nevada Communications Interoperability Plan

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Executive Summary

This strategic recommendations report provides four practitioner-developed strategic initiatives to improve the *Nevada Communication Interoperability Plan, Version 1.0* (the Nevada Plan). See Appendix A for a complete copy of the Nevada Plan.

The strategic initiatives were developed during the practitioner-driven strategic planning process facilitated by SAFECOM. Six practitioner focus groups—comprised of public safety practitioners, representatives from federal, state, and local agencies, and elected and appointed officials—were convened across the State of Nevada. The focus group participants addressed the current realities of regional communications interoperability in Nevada and shared a vision for what improved communications interoperability can provide. They suggested a course of action to move Nevada closer to that shared vision. Finally, they validated and prioritized the top four initiatives at the strategic planning session on September 14, 2005.

SAFECOM used the practitioner-developed strategic initiatives and input to develop recommendations with specific implementation tasks to enhance public safety interoperable communications capabilities. The four practitioner-developed strategic initiatives are presented below.

1. Governance Initiative:

Establish a governance structure to allow a single point of contact for all interoperability activities

2. Capabilities Assessment Initiative:

Conduct a capabilities assessment and gap analysis using the results to:

- Maximize existing capabilities pending the development of improved communications interoperability
- Increase training and awareness of first responders on how to operationalize current equipment and systems most effectively

3. Funding Initiative:

Secure consistent funding for ongoing development, capital replacement, and maintenance costs and identify partnerships in which resources will be provided

4. Public Education Initiative:

Increase education of the public, elected officials, and policy makers on the requirements and priorities for public safety communications so that they have realistic expectations and provide appropriate levels of support

The strategy for improving public safety communications and interoperability is most effective when it involves first responders and public safety practitioners and is driven from the "bottom up." Successful communications interoperability requires engaging different jurisdictions and disciplines and taking action based on practitioner input. The ongoing participation of a broad stakeholder community is imperative to building the capacity for each of the four strategic initiatives and ensuring a shared understanding and shared commitment between member agencies/organizations.

SAFECOM recommends seven actions for consideration while addressing the Governance Initiative:

1. Establish a governance structure that emphasizes transparency, accountability, and collaboration.
2. Identify the roles and responsibilities of members of the governance structure.
3. Establish when the Nevada Communications Steering Committee (NCSC) has centralized decision-making authority and when the decision-making authority is decentralized, with NCSC serving as a point of central coordination.
4. Build a relationship with a sponsor at the executive level in the Governor's office.
5. Promote the future sustainability of the governance structure (e.g., by creating a permanent state position that provides administrative support to and coordinates activities for the governing body).
6. Publicize the criteria for distributing funding so that local representatives will have faith that their needs were taken into account before funding decisions were made.
7. Partner with federal agencies already working on communications interoperability in Nevada to leverage their experiences and resources as well as complement and integrate efforts.

SAFECOM recommends nine actions for consideration while addressing the Capabilities Assessment Initiative:

1. Establish a working group responsible for coordinating the process for developing and completing the capabilities assessment and data analysis.
2. Review, consolidate, and validate the accuracy of data collected in the previous survey and inventories through interviews or focus groups to avoid duplication of efforts.
3. Determine any additional data, questions, and operational and technical information that need to be collected in the capabilities assessment.
4. Research or edit the existing data collection tools to ensure the ability to gather the data necessary for a technical and operational assessment.
5. Encourage a comprehensive focus on key interoperability success factors, including governance, Standard Operating Procedures (SOP), technology, training and exercises, and usage, as discussed in the Interoperability Continuum.
6. Ensure that efforts for implementing technical solutions, developing SOPs, improving training, and conducting exercises are coordinated with local practitioners.
7. Maximize the uses and applications of the data collected to improve and train on the use of existing capabilities.
8. Leverage the data collected in long-term planning efforts.
9. Establish Interlocal Agreements to foster accountability.

SAFECOM recommends seven actions for consideration while addressing the Funding Initiative:

1. Designate a funding working group tasked with implementing all aspects of the Funding Initiative.
2. Research and develop an inventory of all potential funding sources/mechanisms.
3. Develop a statewide funding strategy.
4. Collect and review acquisition plans.
5. Seek opportunities to share current resources for immediate cost savings and explore

partnerships for future funding prospects.

6. Document agreements between partners that identify funding and resource sharing.
7. Review research on best practices and lessons learned.

SAFECOM recommends seven actions for consideration while addressing the Public Education Initiative:

1. Create a public education working group with clearly defined roles and responsibilities.
2. Develop a comprehensive public education plan with a clearly defined purpose, desired outcomes, and implementation tasks.
3. Develop consistent messages.
4. Develop materials and a plan to distribute them.
5. Identify and train spokespersons and maximize speaking opportunities.
6. Seek out media coverage.
7. Educate public officials on the issues related to improving communications interoperability.

For each implementation task, SAFECOM recommends that the NCSC assign a specific timeframe in terms of months/years required to accomplish the task and designate a lead coordinator responsible for prioritizing and implementing the task. SAFECOM recommends that Nevada work with practitioners to develop performance measures to assess the achievement of the four strategic initiatives. Finally, to build support for communications interoperability efforts, SAFECOM recommends that the NCSC identify tasks for each of the four strategic initiatives that will be implemented within the first 90 days and develop a roadmap to reach the desired future state of communications interoperability.

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Introduction

Case for Change

The lack of interoperable wireless communications systems has been an issue plaguing public safety organizations for decades. In many cases, these organizations do not have adequate radio spectrum (channels or frequencies) or equipment to perform their critical duties. Emergency responders are often unable to communicate or share critical voice and data information with other jurisdictions or disciplines in day-to-day operations or during major emergency response scenarios, including natural disasters and terrorist acts.

In Nevada, many local public safety responders feel the impact of not being able to communicate effectively or directly with their state-level or regional counterparts. Additionally, interoperable communications between regional, state, local, and tribal public safety organizations and federal responding agencies are limited by the lack of standard operating procedures, training, exercises, and awareness for an interoperability technology. Given the local and regional vulnerabilities and challenges – including terrain, presence of military bases and federal agencies, annual wildfires, and economic dependency on tourism – the inability to relay incident scene information directly, efficiently, or effectively jeopardizes the lives, security, and well-being of Nevada's public safety responders and citizens.

Four stories shared during the regional focus group sessions demonstrate the need to enhance communications interoperability in Nevada.

1. 1. There are known dead spots along Highway 50 in the Northeast region of Nevada where radio communications are not available because of the mountainous terrain. As a result, when there are traffic accidents or an accident with hazardous materials (HAZMAT), the police, Emergency Medical Services (EMS), and fire and rescue cannot respond in a timely manner.
2. During one Clark County incident, the school police arrived at a shooting while a SWAT team was already there. This information was not communicated in time, so the SWAT team and school police did not coordinate and were not aware of each other's presence. There was not immediate communication across agencies and the lack of awareness of policies and procedures created an unnecessary hazard in the situation for the schoolchildren and first responders.
3. During the well-recognized "waterfall fire" incident around the Lake Tahoe Basin area, there were fire fighters who were injured during a fire response and needed air evacuation support; however, the helicopters were unable to communicate with those on the ground and slowed the rescue support. The "waterfall fire" provided an example of the lack of communications interoperability leading to difficulties during an incident response involving multiple agencies, jurisdictions, and levels of government. Issues with frequency coordination between local and federal fire fighters, lack of common language between disciplines, and lack of communications with local hospitals created a dangerous situation for the first responders and the local citizens.
4. A young girl was lost in one incident at the Lamoille Canyon outside Elko. There was support and response from multiple agencies and jurisdictions; however, responders could not communicate with each other at the scene to efficiently coordinate the search. The inability to communicate information in real time endangered the lives of citizens and slowed the response coordination.

The Nevada Communications Steering Committee (NCSC) recognizes the critical need to improve communications interoperability between and among jurisdictions and disciplines across Nevada. The SAFECOM Program partnered with the Nevada public safety community through the NCSC to leverage resources and promote coordination and cooperation to improve communications and interoperability across all levels of government.

Background

Office for Interoperability and Compatibility's (OIC) SAFECOM Program

The Department of Homeland Security's (DHS) Office for Interoperability and Compatibility (OIC) is housed within the Science and Technology (S&T) Directorate's Office of Systems Engineering and Development (SED). The OIC is a practitioner-driven office that believes that any successful effort to improve public safety interoperability must include the voices of first responders on the front lines in large, small, rural, and urban communities across the Nation. OIC makes it possible for the public safety community to leverage resources by promoting coordination and cooperation across all levels of government.

Authorized by Section 7304 of the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458) to address communication issues facing public safety, OIC, through SAFECOM, is carrying out two Regional Communications Interoperability Pilots (RCIP). The purpose of the RCIP is to improve interoperable communications nationwide. The pilots will build upon the work SAFECOM has done with other states and localities that have delivered improvements for states and regions while leading to replicable tools. The pilot projects are focused on developing tools and models for improving communications and interoperability that seek to address the unique challenges faced across the Nation. SAFECOM conducted the first of two RCIPs in the State of Nevada. As a result, SAFECOM formed a partnership with the NCSC.

The SAFECOM Program promotes strategic planning efforts that:

- Demonstrate a user-driven philosophy
- Build relationships across agencies and jurisdictions in an effort to acknowledge stakeholder similarities and differences
- Address interoperability from a comprehensive point of view, recognizing that solutions take on a variety of forms, including governance, frequency of use, Standard Operating Procedures (SOP), training and exercises, and technology
- Identify existing technical and operational strengths and promote solutions that leverage these strengths as improvements are made
- Promote a "system of systems" approach and recognize that interoperable solutions are rarely "one size fits all"

Pilot sites were selected using criteria provided by Section 7304 of the Intelligence Reform and Terrorism Prevention Act of 2004 and SAFECOM, such as:

- Level of risk to the area
- Number of federal, state, and local law enforcement agencies located in the area
- Number of potential victims from a large-scale terrorist attack in the area
- Community risk and vulnerability
- Level of commitment and buy-in of the region
- Articulation of a defined interoperability need by the region

- Ability of the pilots to serve as national models

More information about the RCIPs can be found in Appendix B within the Nevada Plan, which is included in this document as Appendix A.

The Nevada Communications Steering Committee (NCSC)

As stated in the *Nevada Communication Interoperability Plan, Version 1.0* (the Nevada Plan), in December 2002, a statewide radio communication conference was held in Carson City. Shortly thereafter, the Governor directed the formation of the NCSC. In the 2003 Legislative session, AB441 created the Nevada Homeland Security Commission (HSC) and gave the Commission the responsibility for approving a statewide communications plan. The NCSC received the charter to develop a Nevada statewide communications interoperability plan.

The mission of the NCSC is to facilitate the planning, development, and operation of interoperable communication systems for use between government officials and emergency response agencies. The NCSC includes a broad range of communications stakeholders representing northern and southern Nevada, rural, tribal and urban Nevada, and state, county, and local governments. For more information about the NCSC, see the NCSC Overview in Appendix B or visit: http://ncsc.nv.gov/index.htm.

The SAFECOM-NCSC Partnership

The NCSC began developing its draft communications interoperability plan in 2003. In April 2005, the NCSC requested SAFECOM support in gathering the perspective on the needs and vision of public safety practitioners for improving communications interoperability. The NCSC adopted Version 1.0 of its plan on June 28, 2005 with the intent of revising the plan upon receipt of this strategic recommendation report.

The SAFECOM Program fully acknowledges the efforts of the NCSC, among others, to improve interoperability among first responders across Nevada. Both parties recognize that this partnership between the federal and state government requires open and honest dialogue on the issues Nevada faces and how SAFECOM can offer perspectives on these issues. SAFECOM appreciates the opportunity to serve as a conduit in sharing solutions and information across all groups interested in improving interoperable communications for first responders. All comments and suggested actions offered in this report are recommendations and not mandates.

Under the auspices of the RCIP projects, the SAFECOM Program partnered with the state of Nevada, through the NCSC, to include the voice of public safety practitioners in Nevada's communications interoperability plan. This practitioner-driven effort is intended to bolster the current plan and establish a foundation of practitioner support for successful and sustainable implementation.

In June 2005, SAFECOM provided the NCSC an Interim Assessment of Nevada's draft interoperability plan. The Interim Assessment was developed based on a two-part approach. First, SAFECOM conducted interviews with a majority of NCSC members. The data gathered from these interviews revealed the perspectives held by NCSC members on the state's interoperability efforts in the recent past, current needs, and the plans for the future. Second, technical and operational experts on the SAFECOM team reviewed the statewide interoperability draft plan. They compiled observations and recommendations with relevant interview data and organized this information into the Interim Assessment. SAFECOM's Interim Assessment has three sections—Observable Strengths, Recommendations on Methodology, and Recommendations on Content—and is included in Appendix C of this strategic recommendations report.

Scope of this Document

This document provides recommendations for implementing the strategic initiatives identified by members of Nevada's public safety community to improve communications interoperability in the state. The strategic initiatives discussed in this report were identified by public safety practitioners in the strategic planning process described below.

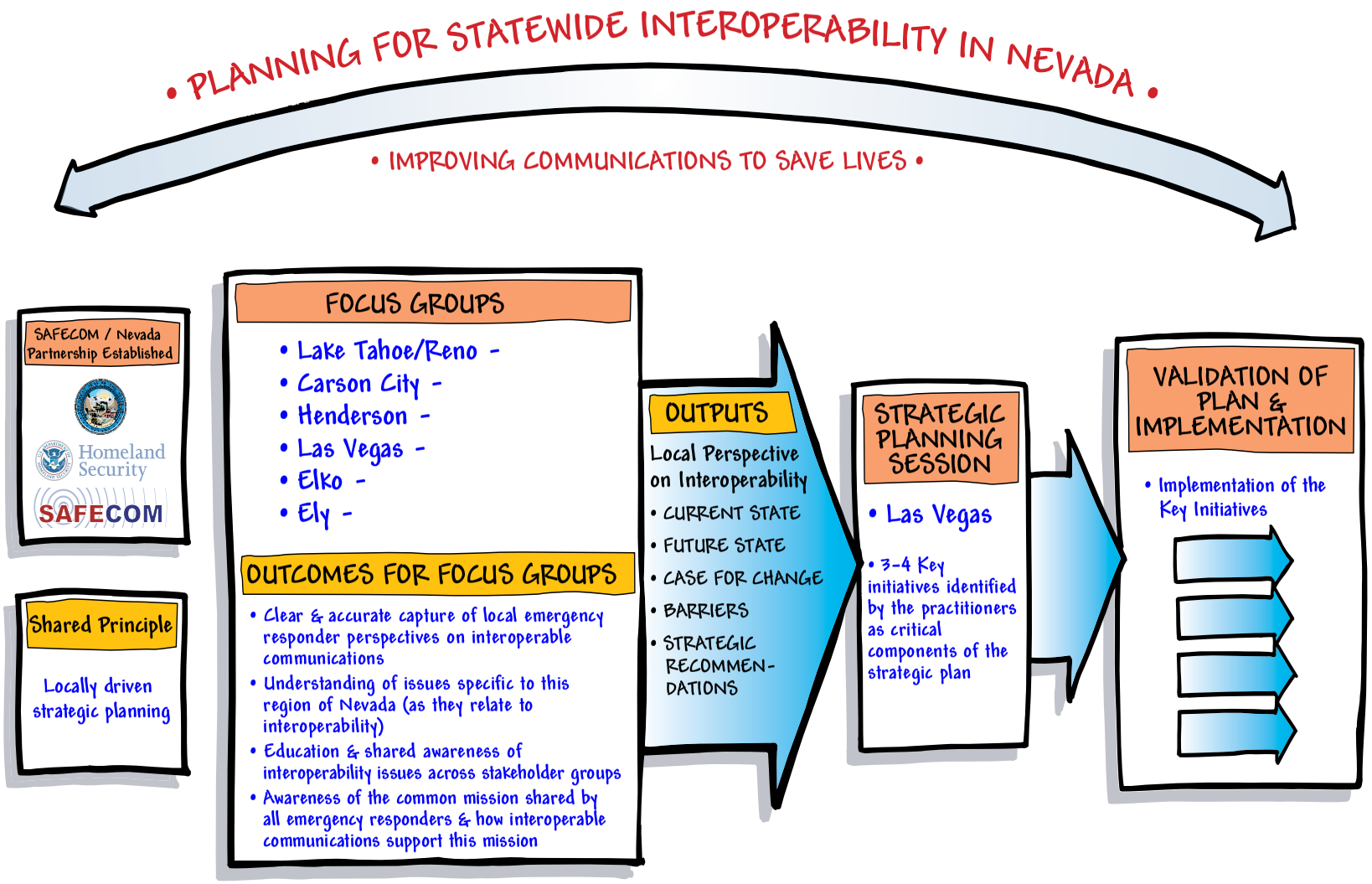
Methodology

To develop a collaborative statewide communications interoperability strategic plan, SAFECOM employed the Statewide Communications Interoperability Planning (SCIP) Methodology. The SCIP Methodology describes a step-by-step process for developing a locally-driven statewide strategic plan for enhancing communications interoperability. For the original SCIP document in PDF format, please visit: http://www.safecomprogram.gov.

As described by the SCIP, SAFECOM conducted six regional focus group sessions. These sessions included both informal and formal leaders of the public safety community. The public safety practitioners involved in the focus groups came from across the State of Nevada, representing fire, law enforcement, and emergency medical services (EMS). In addition, representatives from public services, public works, the health community, state and local agencies as well as elected and appointed officials participated in the regional focus groups. The NCSC asked the SAFECOM Program to conduct these focus groups to ensure that the practitioner perspective on the current effectiveness and the suggested initiatives for improving interoperable communications in Nevada was included in the Nevada Plan. Finally, a strategic planning session was conducted to validate and prioritize the inputs from the focus groups.

The following graphic depicts the process by which SAFECOM implemented its locally-driven philosophy and strategic planning approach to the regional focus groups and strategic planning session.

Figure 1. Nevada Strategic Planning Process Map



A total of 114 public safety practitioners participated in six focus groups sessions

1. Lake Tahoe – June 7th
2. Carson City – June 9th
3. Henderson – June 28th
4. Las Vegas – June 29th
5. Elko – July 12th
6. Ely – July 14th

The focus group sessions produced four outcomes:

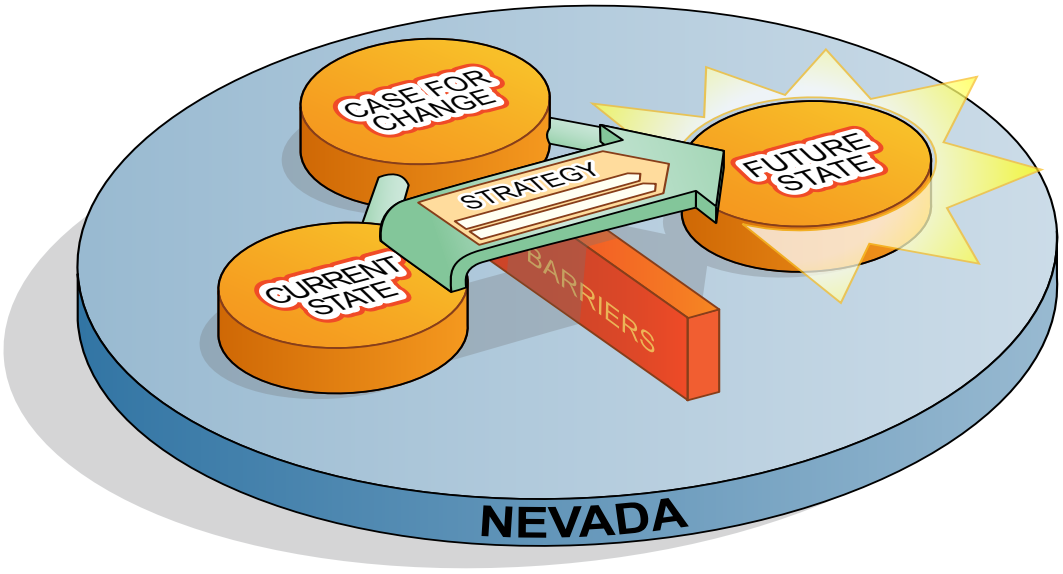
1. Clear and accurate capture of local emergency responder perspectives on interoperable communications
2. Understanding of issues specific to this region of Nevada (as they relate to interoperability)
3. Education and shared awareness of interoperability issues across stakeholder groups
4. Awareness of the common mission shared by all emergency responders—saving lives—and how interoperable communications support this mission

As depicted in Figure 2, each focus group session discussed topics related to interoperability (regional and statewide):

1. The current state
2. The envisioned future state
3. Case for why change needs to happen
4. Barriers to achieving the future state
5. Recommended strategies to pursue

Detailed session reports are on the NCSC Web site: http://ncsc.nv.gov/index.htm#Interest.

Figure 2. Depiction of Focus Group Conversations



The Nevada Strategic Planning Session for Statewide Communications Interoperability, held on September 14, 2005, brought together key stakeholders and leaders from federal, regional, state, and local levels to identify key initiatives for public safety communications interoperability in Nevada, based on the local public safety responder perspectives gathered from six regional focus groups. The session had two outcomes:

1. Shared agreement on statewide interoperability in the current and future states, the case for changing, and the barriers to improving voice and data communications across all levels of emergency response
2. Identification of the top four strategic initiatives critical to improving the efficiency and increasing the capacity of statewide public safety communications and interoperability

The strategic planning session was the capstone in the statewide strategic planning process. In preparation for the session, SAFECOM reviewed the data collected across all six regional focus groups to identify common themes, significant issues that applied to communities across the state, and critical topics to address as the state converges under a single statewide communications interoperability plan. The data presented at the strategic planning session was validated and prioritized by the participants. In the strategic planning session, participants evaluated the data summary and addressed key points that threaded across all of the focus groups and initiated discussions and deliberation toward achieving a consensus on the statewide current state, future state, case for changing, barriers, and practitioner-driven strategic recommendations.

The strategic recommendations in the following sections of this report are based on the input provided by the practitioners at the regional focus groups and validated and prioritized at the strategic planning session. The goal of these recommendations is to improve interoperability communications in Nevada by surfacing the voice of public safety practitioners.

To successfully implement the practitioner-developed strategic initiatives, SAFECOM recommends that the NCSC clearly define implementation tasks to move the strategic initiatives from ideas into actions. Implementation task actions are incremental steps that support the achievement of an initiative. After the NCSC defines the implementation tasks, they must develop performance measures to demonstrate progress toward achieving each strategic initiative. These performance measurements link investments to the mission, eliminate duplication of efforts, and indicate whether performance meets or exceeds its intended purposes. Moreover, performance measurements ensure that the NCSC can take corrective action in a timely manner if necessary.

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Layout of Strategic Initiatives

In the following sections the four practitioner-developed strategic initiatives will be further detailed with an initiative description, rationale, recommended implementation tasks, suggestions on how to address implementation, and a few sample performance measures. The four practitioner-developed strategic initiatives are presented below.

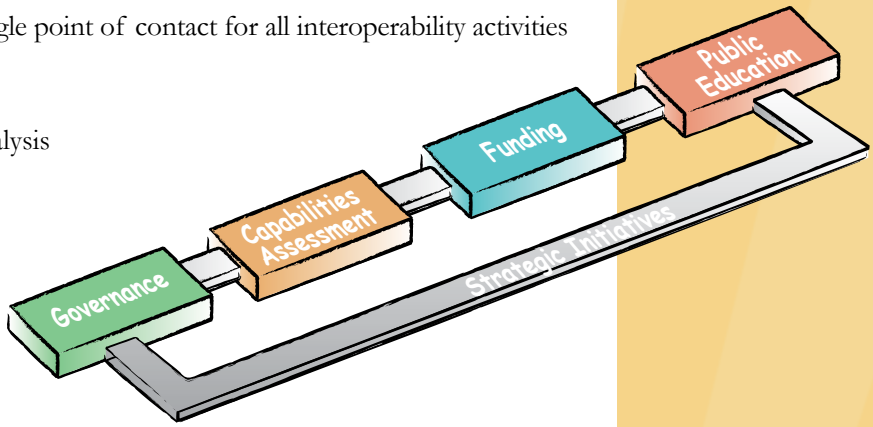
1. Governance Initiative:

Establish a governance structure to allow a single point of contact for all interoperability activities

2. Capabilities Assessment Initiative:

Conduct a capabilities assessment and gap analysis using the results to:

- Maximize existing capabilities pending the development of improved communications interoperability
- Increase training and awareness of first responders on how to operationalize current equipment and systems most effectively



3. Funding Initiative:

Secure consistent funding for ongoing development, capital replacement, and maintenance costs and identify partnerships in which resources will be provided

4. Public Education Initiative:

Increase education of the public, elected officials, and policy makers on the requirements and priorities for public safety communications so that they have realistic expectations and provide appropriate levels of support

The "Recommended Implementation Tasks" identify specific actions that support the aims of each initiative and SAFECOM suggestions for completing each implementation task. Under each initiative, the recommended implementation tasks are organized by source into three parts for the NCSC to consider:

- Part 1 provides SAFECOM suggestions specific to the action items listed in the *Nevada Communication Interoperability Plan, Version 1.0*, developed by the NCSC. The alpha- numeric identifiers listed for these implementation tasks appear in the Nevada Plan. Additionally, this part provides SAFECOM suggestions that were based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local, and are provided for NCSC consideration as the statewide plan is updated.
- Part 2 provides SAFECOM suggestions specific to the implementation tasks identified by the participants of the Nevada Strategic Planning Session for Statewide Communications Interoperability. After identifying the four priority strategic initiative recommendations, the participants of the session identified specific tasks for implementation. SAFECOM provides further suggestions on how to complete these tasks.

- Part 3 provides additional implementation tasks and methods suggested by SAFECOM for the NCSC to consider as it executes each initiative. SAFECOM recognizes that the development of a successful solution to improve public safety communications and interoperability requires a focus on user needs and requirements. This means ensuring that the input of both practitioners and policy makers across disciplines, jurisdictions, and levels of government represents their needs and strategically addresses the greater needs of the public safety community.

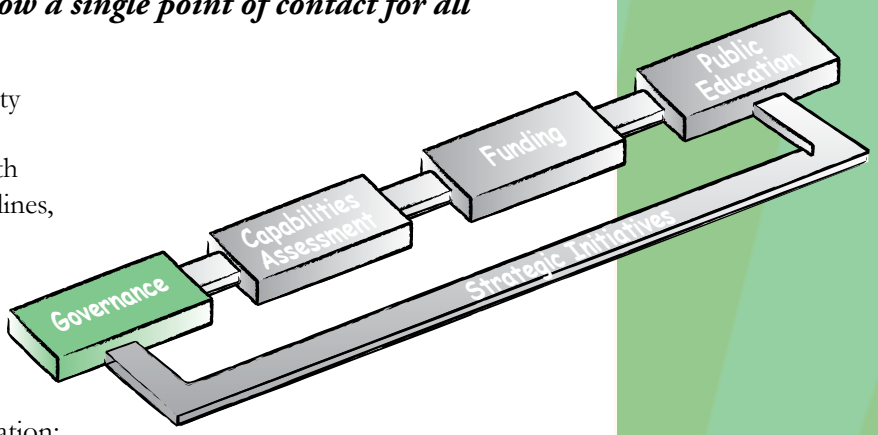
For each implementation task, SAFECOM recommends that the NCSC assign a specific timeframe in terms of months/years required to accomplish the task and designate a lead coordinator responsible for prioritizing and implementing the task.

The Practitioner-Developed Strategic Initiatives

1. Governance Initiative

The following strategic initiative was the result of a consensus-building process in the strategic planning session:

> ***Establish a governance structure to allow a single point of contact for all interoperability activities.***



This initiative provides the potential for sustainability and authority for the governance structure to promote consistent leadership and management with representation from all relevant public safety disciplines, jurisdictions, and agencies.

Rationale

Practitioners across Nevada felt strongly that a common governance structure was necessary to enhance communication, coordination, and cooperation; establish guidelines and principles; and reduce any internal or jurisdictional battles. Participants in the statewide strategic planning process supported this strategic initiative with the following comments:

1. "There is a history of individual jurisdictions having independent authority in Nevada."
2. "There is a lack of communication about and awareness of statewide efforts to improve interoperability."
3. "Purchases are made based on personal preferences instead of through shared criteria, so we have system incompatibility."
4. "We are not collaborating across local agencies to leverage our buying power."

The Governance Initiative promotes the creation of a centralized point for decision-making, coordination, planning, implementation, equipment procurement, training, and funding as well as building a repository of knowledge. A common governing structure for solving interoperability issues improves the policies, processes, and procedures of any major project. The SAFECOM philosophy emphasizes that the development of a successful solution to improving public safety communications and interoperability requires a focus on user needs and requirements. An effective practitioner-driven governance structure consists of federal, state, local, and tribal entities in the region as well as representatives from all pertinent public safety disciplines within the identified region. Additionally, clear decision-making and conflict resolution processes for the governance structure are critical to the successful development and implementation of strategic efforts when multiple agencies, jurisdictions, and disciplines are involved.

Recommended Implementation Tasks

SAFECOM recommends seven actions for consideration while addressing the Governance Initiative:

1. Establish a governance structure that emphasizes transparency, accountability, and collaboration.
2. Identify the roles and responsibilities of members of the governance structure.
3. Establish when the Nevada Communications Steering Committee (NCSC) has centralized decision-making authority and when the decision-making authority is decentralized, with NCSC serving as a point of central coordination.
4. Build a relationship with a sponsor at the executive level in the Governor's office.
5. Promote the future sustainability of the governance structure (e.g., by creating a permanent state position that provides administrative support to and coordinates activities for the governing body).
6. Publicize the criteria for distributing funding so that local representatives will have faith that their needs were taken into account before funding decisions were made.
7. Partner with federal agencies already working on communications interoperability in Nevada to leverage their experiences and resources as well as complement and integrate efforts.

1.1. NCSC Implementation Tasks and SAFECOM Suggestions

The table below provides SAFECOM suggestions on the implementation tasks identified in the Nevada Plan developed by the developed by the Nevada Communications Steering Committee (NCSC). The SAFECOM suggestions were based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local.

Implementation Task	SAFECOM Suggestions
G1. Establish the NCSC as a permanent body, with funding and authority as the designated Statewide Interoperability Executive Committee, responsible for the establishment and coordination of interoperable public safety communications within the state, providing advice and counsel to the Homeland Security Commission (HSC) as it relates to radio communications-focused projects.	On July 13, an Executive Order formally chartered the NCSC. Although different decision-making models allow for cross-coordination among agencies and disciplines, SAFECOM suggests that the NCSC: • Consider whether it needs an additional executive order or legislation to provide authority and support for timely and cost efficient implementation of statewide interoperability. • Establish an Advisory Group comprised of the practitioners who participated in the strategic planning process as well as regional working groups, as necessary, that include practitioners who may or may not also be members of the Advisory Group to advise and provide input to the NCSC. • Advise the HSC regarding voice and data, as opposed to solely radio, communications.
G2. The NCSC and any successor bodies must not be controlled by the state, any state agency, or any single member, discipline, level of government, or geographic area. It must remain representative of the entire Nevada public safety community.	The decision-making authority of the NCSC needs to be clarified. It is critical that the NCSC maintain a broad representation to ensure a variety of perspectives and considerations are taken into account during decision making. There should be compromise and collaboration among the members of the governance structure. Identifying and building a relationship with a sponsor or liaison in the Governor's office will help secure access to funding and promote future sustainability of the governance structure.
G3. Develop regional working groups to provide enhanced local input on communications interoperability issues, without making the NCSC too large to function effectively.	Using regional working groups comprised of local practitioners and members of organizations associated with communications interoperability provides an informed assessment of the current state and needs of communications interoperability to the NCSC. In the statewide plan, the NCSC outlined the need to use regional working groups to collect data and conduct research. SAFECOM suggests that the NCSC charter regional working groups for specific tasks within a timeline to capture locally-driven goals and initiatives and conduct research and collect data to support major decisions. The charter must clearly outline roles and responsibilities of the regional working groups. Regional working groups provide recommendations, reports, or deliverables to the NCSC. Within the Capabilities Assessment Initiative, on pages 28-51, SAFECOM identified some of the tasks for which regional working groups might be established.

Implementation Task	SAFECOM Suggestions
G4. Work with the Nevada Governor and Legislature to develop a permanent, predictable, and stable statewide source of funding for public safety communications.	Having a permanent, predictable, and stable statewide source of funding for public safety communications ensures sustainability. SAFECOM suggests that the NCSC help identify and obtain a steady stream of funding for state agency, regional, and local interoperability efforts. This stream of funding includes grants, taxes, bonds, and budget line items. See the Funding Initiative, on pages 52-62, for additional information.
G6. Educate key policy makers at all levels of government regarding the current state of Nevada's public safety communications as well as the needs and benefits of continued investments to further interoperable communications.	Public officials need education on the current capabilities of public safety practitioners for responding to an incident and the urgent need for improving that capability. SAFECOM suggests that the NCSC get consensus for the content of this education. See the Public Education Initiative, on page 62, for further suggestions on implementing this task.
G8. Future planning efforts will be based on input from the user community.	An ongoing participatory approach leverages the subject matter expertise of the user community. SAFECOM's experience suggests successful efforts occur when each level of government shares its particular needs and requirements and then develops solutions by collaborating with other entities, such as fire services, law enforcement, emergency management, Emergency Medical Services, public health, private industry, and health cares.
G9. Work with Nevada-based senior management of federal agencies to encourage, enhance, and support federal participation in the NCSC.	Because the federal government owns 87 percent of the land in Nevada, federal agencies are key interoperability partners. However, the NCSC lacks strong federal participation. SAFECOM suggests that the NCSC integrate and complement the efforts of federal agencies in Nevada to increase federal participation in the NCSC and provide a stabilizing force to communications interoperability efforts. SAFECOM suggests that the NCSC expand this task and develop partnerships with all levels of government, including federal, state, local, and tribal.
G10. Establish a statewide secure Web site that posts interoperability preferences and access methods for all public safety agencies in Nevada.	Currently, no central repository exists in Nevada to provide stakeholder agencies with communications interoperability information. SAFECOM suggests that the NCSC permit authorized personnel to access this information quickly and work with local groups to ensure the Web site meets their needs. Moreover, the NCSC could survey members and create a database that contains information on their interests and expertise as a reference for the other members of the governance structure.
T1. Establish a formal working relationship with appropriate federal entities to establish common, shared channels for federal, state, and local uses.	By establishing these formal working relationships, the NCSC can leverage federal efforts. SAFECOM suggests working with the federal partners to fully integrate and complement all efforts related to communications interoperability in Nevada. Also, see the suggestion for this implementation task under the Capabilities Assessment Initiative on page 34.

Implementation Task	SAFECOM Suggestions
T6. Utilize the NCSC and the regional working groups as cross-discipline collaborators for long-term communications system planning to promote sharing of systems and infrastructure as appropriate.	This task supports fully leveraging the subject matter expertise of the regional working groups. SAFECOM suggests that the NCSC use the regional working groups for both short- and longer-term activities, thereby providing an immediate value while setting the course of action for long-term solutions. The NCSC will establish its role as a lead coordinating body in the state as the various regional working groups stand up. It will be critical for the NCSC to clearly charter the regional working groups with clear goals, timelines, tasks, and roles and responsibilities.

1.2. Practitioner-Suggested Implementation Tasks and SAFECOM Suggestions

Strategic Planning Session participants suggested select key actions to support the Governance Initiative. The following table depicts high-level implementation tasks and SAFECOM suggestions for consideration across the next 12 months. SAFECOM suggestions are based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local, and are provided for NCSC consideration as it updates the statewide plan.

Implementation Task	SAFECOM Suggestions
Establish credibility for the Nevada Communications Steering Committee.	Establishing the credibility of the NCSC with the public safety community ensures that the work of the NCSC is valid and representative. SAFECOM suggests that the NCSC seek the support and involvement of public officials and public safety responders at the regional, state, tribal, and local levels. In addition, the NCSC should consider using representative voting. The NCSC needs to establish clear voting procedures to assist in agency collaboration and conflict resolution. This action will lead to added credibility.
Determine who is and should be represented.	Effective governance requires an accurate assessment of the broad range of agencies and disciplines affected by communications interoperability. SAFECOM suggests that the NCSC identify representatives such as public officials and public safety responders at the regional, state, local and tribal levels to more effectively determine solutions. Entities that should be invited to participate in the governance structure include agencies and organizations related to law enforcement, fire, Emergency Medical Services, tribal governments, tribal law enforcement, transportation, Emergency Management, and disaster relief agencies.

Implementation Task	SAFECOM Suggestion
Set the parameters for the future.	Setting parameters for the future helps the NCSC implement the Nevada Plan. SAFECOM suggests that the NCSC work with leaders from the public safety community to identify the governance vision, mission, and authority to help with future planning.
Establish support and buy-in from stakeholders.	Stakeholders are more likely to support the Nevada Plan if the NCSC institutes an active and participatory approach. SAFECOM suggests that the NCSC take advantage of the expertise and input of the participants in the strategic planning process to make them want to continue participating in the governance process. Specifically, the NCSC should ask meaningful questions and consider the input provided by members of the governance structure. Practitioners are more likely to buy into the plan if they feel like they were heard, and the process of developing the plan was fair and inclusive.
Evaluate and submit, if necessary, legislation to authorize and regulate the governing body.	Formal authority supports the sustainability of the NCSC. SAFECOM suggests that the NCSC determine whether it needs additional legislation or an executive to provide authority and secure funding.
Develop a written process for interaction between regional Public Safety Answering Points (PSAP) and adjacent jurisdictions.	A written process between these regional call centers and adjacent jurisdictions eases communications during emergencies. SAFECOM suggests using Interlocal Agreements to explain the specific understanding and commitment between different federal, state, local, and tribal representatives. The NCSC can take a coordination role in this process by ensuring that all relevant agencies, disciplines, and jurisdictions involved participate in the process of writing the Interlocal Agreement.

1.3. Additional Implementation Tasks Suggested by SAFECOM

SAFECOM identified additional implementation tasks, beyond those identified in the Nevada Plan and those developed by the practitioners during the strategic planning process, to establish the governance structure in Nevada. These suggestions are based on SAFECOM-identified best practices and lessons learned through collaboration with a variety of states and localities.

Implementation Task	SAFECOM Suggestion
Develop a charter.	Nevada's response to the addendum to the Memorandum of Agreement (MOA) between the State of Nevada Department of Information Technology and SAFECOM indicated that the NCSC plans to develop bylaws addressing organizational structure and operations after the HSC develops its bylaws. The overarching goals of sustainability, transparency, and accountability require the NCSC to define why the governance structure exists, its goals, and what happens if the NCSC did not exist or its goals were not met. Furthermore, the NCSC needs to outline its organizational structure; specify the communications strategy with stakeholders, the media, and the public; and specify the rules of engagement. These rules include the meeting schedules and places, membership selection processes, voting procedures, description of staggered term limits, decision criteria, and processes for conflict resolution. Documentation of the conflict resolution process is one of the most important steps for governance. Moreover, each representative needs an assigned alternate. Having the representative or alternate attend every meeting ensures continuity.
Define roles and responsibilities.	The members of the governance structure play an important role in the implementation of the Nevada Plan. They provide advice and guidance and share their experience and knowledge of public safety, state and local needs, and capabilities. Defining clear roles and responsibilities, including the role of Chair, ensures transparency and accountability. Moreover, the members also need to translate and communicate back to their communities to build support for statewide interoperability efforts..
Develop Interlocal Agreements.	Interlocal Agreements provide a shared understanding and shared commitment of the agreements among the member organizations that comprise the governance structure.
Establish which entity controls communications interoperability funding decisions.	The NCSC needs to determine whether it controls these funding decisions or makes recommendations to the entity that does. SAFECOM suggests identifying shared criteria for making communications interoperability funding decisions or recommendations to promote transparency and accountability. It is important for the NCSC to convey how local needs are taken into consideration before money is distributed. For more information on the suggestions related to funding, please see the SAFECOM implementation tasks listed under the Funding Initiative.

Implementation Task	SAFECOM Suggestion
Obtain a letter signed by all participating agencies that specifies their agreement that the NCSC is their central coordination point.	This type of locally-driven endorsement is a proven way for the NCSC to gain credibility. Participating agencies are more likely to offer buy-in to the governance structure if their work is recognized and acted upon. If NCSC builds an Advisory Group and regional working groups, then this kind of letter would "stand them up" and hold them accountable for following through on the signed agreement.
Consider the establishment of an official position within the Governor's office to assist the governance structure.	By having an established position within the Governor's office, the governance structure may be able to secure a champion, funding, and sustainability. For instance, in the Commonwealth of Virginia, the Commonwealth Interoperability Coordination Office (CICO), led by the Commonwealth Interoperability Coordinator, coordinates initiatives, communicates information, and facilitates discussion on interoperability efforts among the Commonwealth's regions and jurisdictions as well as the Federal Government. For more information on the Commonwealth of Virginia's Governance Document, please reference the following link: http://www.interoperability.publicsafety.virginia.gov/Library/Word/VAGovernance.doc
Develop a recruiting strategy.	Sustainability requires a pipeline of regional and community representatives who have the knowledge, ability, and interest to serve as part of the governance structure and methods to approach these individuals. The regional working groups can be leveraged to help with membership recruitment and expansion of participation.

Implementation Task	SAFECOM Suggestion
Further define roles and responsibilities of the HSC in relationship to the NCSC.	The NCSC was formally recognized on July 7, 2005, as the communications committee to the HSC. However, to be more effective, the NCSC should further clarify its and roles and responsibilities as well as those of the HSC.
Add local practitioner representatives to every level of the governance structure.	The governance structure needs to reflect a broad representation of stakeholders to accurately assess needs. Incorporating local practitioner representatives into every level of the governance structure helps gather input used in decision making and create buy-in for Nevada's communications interoperability efforts.
Define when authority is centralized and when it is decentralized.	SAFECOM suggests that the NCSC clarify its decision-making powers in relationship to state and local agencies. In some instances, the NCSC may make final decisions. In other instances, the NCSC may only advise or coordinate, while serving a clearinghouse type function. The NCSC can more easily gain input from the practitioners and create buy-in for statewide communications interoperability efforts by incorporating some decentralized decision making into its role as the governing body.
Identify what actions will occur within 90 days of implementing the revised plan.	The action plan within the Nevada Plan is not complete in identifying responsibility, funding source, and timetables for all implementation tasks. The NCSC should address the prioritization of all tasks. SAFECOM suggests that the NCSC consider a phased approach and concentrate initial efforts in addressing relatively easy-to-implement tasks with few barriers to build momentum and encourage accountability.

Where to Start

Although the NCSC needs to consider a number of implementation tasks for the NCSC to advance the Governance Initiative, the NCSC must assign priorities. SAFECOM suggests that the NCSC give top priority and achieve the following tasks within the first 90 days of adopting the revised plan. Then, after receiving input from the lead coordinators for each working group, the NCSC can identify the next set of implementation tasks to address.

SAFECOM suggests that the NCSC focus the first 90 days on four key actions:

1. Develop a charter for the NCSC.
2. Develop bylaws for the NCSC, including the development of voting and membership procedures.
3. Clarify the roles and responsibilities of the NCSC, including when it is serves in a statewide decision-making role and when the NCSC serves in a statewide coordinating role.
4. Plan a strategy session to prioritize all the implementation tasks and develop a roadmap for the next year.

Performance Measures

The NCSC can measure the fulfillment of tasks supporting the Governance Initiative in a variety of ways, including:

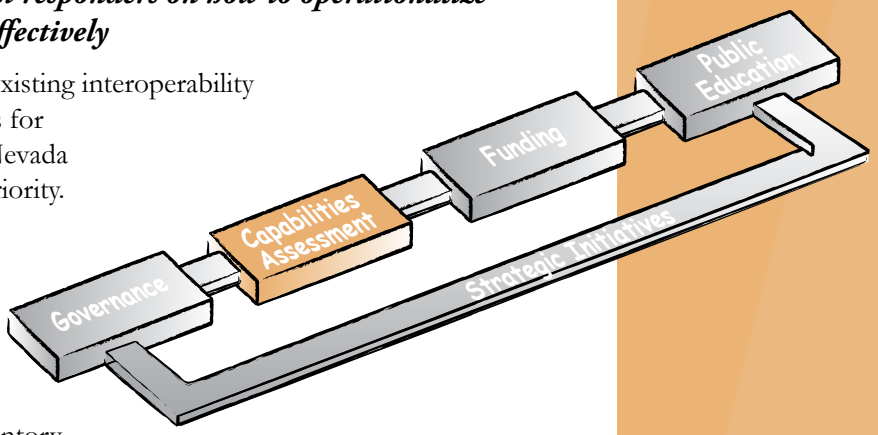
- Number of institutionalized processes to review action plans on a regular basis, such as annually and after significant events or upgrades
- Number of institutionalized processes to review the entire communications interoperability strategic plan on a regular basis, such as every three to five years
- Percentage of agencies that have adopted NCSC recommendations and definitions
- Percentage of localities that purchase communications equipment through existing and future state contracts

2. Capabilities Assessment Initiative

The following strategic initiative relating to a capabilities assessment was the result of a consensus-building process in the strategic planning session:

Conduct a capabilities assessment and gap analysis using the results to:

- ***Maximize existing capabilities pending the development of improved communications interoperability***
- ***Increase training and awareness of first responders on how to operationalize current equipment and systems most effectively***



The Capabilities Assessment Initiative documents existing interoperability capabilities in Nevada and provides insight on areas for improvement. Practitioners and members of the Nevada public safety community consider this initiative a priority. The participants in the strategic planning session have recommended this initiative to collect consolidated information for all existing interoperable capabilities of federal, state, local, and tribal public safety communities in Nevada. The success of this initiative entails collecting data beyond technical equipment, systems, and inventory and depends upon assessing operational capability elements such as governance, standard operating procedures (SOP), training and exercises, and usage of equipment that support the use of technology in place. As a result of this initiative, Nevada public safety practitioners understand existing capabilities in the state for all communities, jurisdictions, and agencies to identify, prioritize, and address any gaps and to operationalize the existing interoperability capabilities not being used. Moreover, they can initiate SOP development, necessary governance needs, and training programs to increase the effectiveness of current equipment and systems.

Rationale

Practitioners, public safety officials, and state and local officials involved in the statewide strategic planning process offered five comments to support this strategic initiative recommendation.

1. Currently, many practitioners are not aware of all the existing capabilities that they can call on for interoperability.
2. The assessment could be used to guide the development of policies, procedures, and training programs for communities so that "communities ensure that they introduce new and recurring training as they introduce new tools and technology."
3. The capabilities assessment could provide the foundation for information sharing and collaboration on future systems by providing a shared knowledge base of current capabilities information across Nevada for jurisdictions and agencies to leverage.
4. The capabilities assessment could give communities a current state picture as they achieve their future goal of "expanding lifecycle capabilities without losing compatibility with other agencies" and encourage "information sharing, collaboration, coordination, and shared understanding of the impacts in technology changes for existing systems on neighboring jurisdictions and agencies."

5. The capabilities assessment can provide opportunities for communities to "eliminate unnecessary redundancies" and "build upon existing capabilities," as was noted in the case-for-change discussions. For instance, discussions emphasized building on local capabilities while planning and preparing for future expansions of communications interoperability on regional and statewide levels.

The strategic planning session participants asserted that this initiative is an essential starting point to begin defining programs, projects, and critical efforts that will move the entire state toward its future interoperability goals. The information from the capabilities assessment would lead to efforts for maximizing existing interoperable capabilities pending the development of improved communications interoperability, support the identification of training programs for increasing awareness, and enable more effective use of existing capabilities for first responders. The assessment would also identify gaps in existing capabilities, which could be analyzed and prioritized by the Nevada Communications Steering Committee (NCSC) through collaboration with Nevada's public safety community and lead to initiatives and implementation tasks that begin addressing Nevada's critical capability needs.

Recommended Implementation Tasks

SAFECOM recommends nine actions for consideration while addressing the Capabilities Assessment Initiative:

1. Establish a working group responsible for coordinating the process for developing and completing the capabilities assessment and data analysis.
2. Review, consolidate, and validate the accuracy of data collected in the previous survey and inventories through interviews or focus groups to avoid duplication of efforts.
3. Determine any additional data, questions, and operational and technical information that need to be collected in the capabilities assessment.
4. Research or edit the existing data collection tools to ensure the ability to gather the data necessary for a technical and operational assessment.
5. Encourage a comprehensive focus on key interoperability success factors, including governance, SOPs, technology, training and exercises, and usage, as discussed in the Interoperability Continuum.
6. Ensure that efforts for implementing technical solutions, developing SOPs, improving training, and conducting exercises are coordinated with local practitioners.
7. Maximize the uses and applications of the data collected to improve and train on the use of existing capabilities.
8. Leverage the data collected in long-term planning efforts.
9. Establish Interlocal Agreements to foster accountability.

2.1. NCSC Implementation Tasks and SAFECOM Suggestions

The table below provides SAFECOM suggestions on the implementation tasks identified in the Nevada Plan developed by the developed by the Nevada Communications Steering Committee (NCSC). The SAFECOM suggestions were based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local.

Implementation Task	SAFECOM Suggestions
Survey and Data on Nevada Needs The Nevada Plan, page 13. The following suggestions refer to the *"Interoperability & Communications Issues Facing Nevada's Public Safety Community"* survey conducted by Tech/Knowledge in late 2004. SAFECOM is providing these suggestions, since the developed database, although not complete, will be turned over to Nevada for continued development, refinement, and use and may be leveraged for the capabilities assessment.	SAFECOM acknowledges various surveys and inventories have been previously conducted by other agencies, including the NCSC. The most recent survey was in late 2004, and the NCSC may consider this survey as the basis for the development of the capabilities assessment. If the survey mentioned in the current draft NCSC plan is the starting point, the following suggestions may help NCSC expand the initial survey into a capabilities assessment: • Review, consolidate, and validate the accuracy of data collected in past surveys and inventories through interviews or focus groups to avoid duplication of efforts. • Research or edit existing data collection tools that will gather the necessary data for developing an accurate capabilities assessment. Potential tools or references for the NCSC to consider include but are not limited to: o Editing Nevada's existing Web survey to serve as the capabilities assessment tool o SAFECOM Baseline Assessment Tool (available in pilot version in May 2006) o Interoperable Communications Technical Assistance Program (ICTAP) Communications Asset Survey and Modeling (CASM) Tool o National Incident Management Capabilities Assessment Support Tool (NIMCAST) o The State Homeland Security Assessment and Strategy (SHSAS) Program System • Consider that vendor services and experienced capabilities assessment surveys may be valuable in moving this implementation task forward o SAFECOM does not endorse any specific vendors. When considering the use of vendors, SAFECOM suggests that the NCSC and Nevada public safety practitioners collaborate and develop clear statements of work and requirements. Establishing an aligned vision for the capabilities assessment among the NCSC and practitioners ensures vendors comply and create products that meet the needs of the Nevada public safety community. SAFECOM provides additional specific implementation tasks and considerations for the development of the capabilities assessment for considerations in the sections below. See the Interim Assessment, Appendix C, for more suggestions.

Implementation Task	SAFECOM Suggestions
G5. Consistent with the provisions of Nevada Revised Statutes (NRS) Chapter 414, the Department of Public Safety shall revise, update, and promulgate an interagency Radio Frequency Plan. The plan shall comply with rules and regulations established by the Federal Communication Commission and the U.S. Department of Homeland Security and shall be reconciled with surrounding states. The Department of Public Safety shall coordinate with and report to the Homeland Security Commission or any designated sub-committee at the pleasure of the committee to ensure adequate progress and compliance with the plan.	Radio communications interoperability is a critical need, whether in response to a major incident, routine task force operations, or providing a coordinated response to daily events. There are several strategies that Nevada can implement to facilitate interoperability, including: • Create one radio system that provides communications for multiple agencies. • Establish a common frequency and (if necessary) protocol so that transmissions from a subscriber on one radio system can be received by subscribers on a different radio system. • Deploy a gateway device that establishes an interface between radio systems by receiving a transmission from one radio system and rebroadcasting it on another radio system, typically on a different, normally incompatible, frequency. Additionally, SAFECOM suggests that the NCSC develop provisions for all types of wireless communications, such as voice and data.
T6. Utilize the NCSC and the regional working groups as cross-discipline collaborators for long-term communications system planning to promote sharing of systems and infrastructure as appropriate. Detail: The regional working groups should work with individual discipline groups to define minimum standards for public safety radio equipment, including the definition and subsequent implementation of appropriate interoperability channel sets.	The capabilities assessment data will help the NCSC identify and characterize the existing wireless communications systems within Nevada. This information supports strategic planning to migrate gracefully to shared systems and resources. The capabilities assessment data provides regional working groups with an accurate baseline of the current situation, allowing for a thorough gap analysis and subsequently recommended improvements development. • Include data gathering methods in the capabilities assessment to capture data on current shared systems and resources as well as agencies interested in sharing their existing interoperability capabilities, such as equipment, technology, SOPs, and training programs. • Use capabilities assessment data to identify potential resource sharing opportunities. • Conduct a gap analysis to determine the differences between the baseline information collected in the capabilities assessment and the ideal future state for successful interoperable communications. *Additional suggestions and considerations in regards to organizing and using the NCSC and the regional working groups are in the Governance Initiative.*

Implementation Task	SAFECOM Suggestions
T1. Establish a formal working relationship with appropriate federal entities to establish common, shared channels for federal, state, and local uses.	Based on the results of the capabilities assessment, SAFECOM suggests the following key considerations to support the NCSC increase in resource-sharing and the efficient use of the limited spectrum currently available to the Nevada public safety community: • Leverage the data from the capabilities assessment to identify which channels are available and best suited for use as common, shared channels. • Consider involving representatives from all counties, localities, and agencies that can also establish common, shared channels among themselves and with federal entities. • Establish a working group(s) representing all of the affected entities and agencies in the selection and designation of common, shared channels. The number and composition of the working group(s) could be based on a number of factors including regional perspectives, operational needs, interdisciplinary considerations, and system compatibility. • Develop an Interlocal Agreement that specifies which agencies will share frequencies, the scenarios for frequency sharing, and locations where frequencies will be used. o Although the NCSC may not be the sole party responsible for the development of the Interlocal Agreements, it is a best practice to make sure that agreements clarify the roles and responsibilities for resource sharing. SAFECOM suggests that the NCSC encourage this practice, collect the developed Interlocal Agreements as a resource for other communities or groups, and leverage any existing templates or models for Interlocal Agreements. • Develop SOPs to ensure a shared understanding and common process for using the common, shared channels. • Implement a training and exercise program across all Nevada public safety communities to build a familiarity with properly using the common, shared channels. • Promote and distribute information regarding the existence and use of federal, regional, state, and local shared channels to foster interoperable communications in training and promotional materials. *See the SAFECOM Recommendation relating to this task in the Governance Initiative and in the Interim Assessment, Appendix C.*

Implementation Task	SAFECOM Suggestions
T2. Purchase and properly maintain caches of portable radios configured to operate on the various proprietary shared systems to provide communications to inbound mutual aid resources.	Radio caching and exchange between agencies has significant associated costs and challenges beyond just buying the equipment. The following considerations are recommended as this task is implemented in order to make the solution increasingly effective: • Leverage the data from the capabilities assessment to develop a procurement strategy for the required radios and equipment to ensure compatibility with existing proprietary systems. • Analyze the disadvantages of radio caches and determine the cost-benefit of the purchases. • Develop a strategic placement strategy for the distribution of the radio caches. • Develop SOPs to ensure a shared understanding and a common process for requesting and implementing the radio cache during an incident. • Implement a training and exercise program for the use of the radio cache across all Nevada public safety communities to build a familiarity with properly using and requesting the radio cache. • Raise awareness about the existence and availability of the radio caches. *See the additional SAFECOM Recommendations relating to this task in the Interim Assessment, Appendix C.*

Implementation Task	SAFECOM Suggestions
T3. Configure talk groups and construct resources on the proprietary shared systems to permit direct interoperation within their coverage areas. (Core Four Concept)	SAFECOM suggests that the NCSC clarify the specific actions "construct resources" entails. Analyzing the data from the capabilities assessment and working with local practitioners representing the disciplines and agencies in a coverage area to identify requirements will help determine the most effective talk groups for interoperability. The following are considerations to evaluate in this task: • Establish regional working group(s) or work with designated governance group(s) to define operational requirements that thoroughly consider the missions and priorities of the localities, agencies, and disciplines involved to identify the best use of resources. • Analyze the capabilities assessment data for information to support talk group planning. • Identify additional system requirements and opportunities for resource sharing among regions and communities when developing the talk groups. o More specific information can be found in the How to Establish and Manage Talk Groups guide on the SAFECOM Web site library at: http://www.safecomprogram.gov/SAFECOM/library/systems/1047_HowTo.htm. This guide provides public safety personnel with a user-friendly introduction to the key steps involved in establishing and managing talk groups for a trunked Land Mobile Radio (LMR) system. • Conduct a planning and engineering analysis, if needed, to ensure proper integration of dissimilar architectures, such as conventional and trunk radio systems. • Develop SOPs to ensure there is a shared understanding and a common process for operating on the talk groups. • Implement a training and exercise program across all Nevada public safety communities to build a familiarity with properly using and accessing the talk groups. *See the additional SAFECOM Recommendations relating to this task in the Interim Assessment, Appendix C.*

Implementation Task	SAFECOM Suggestions
T4. Support and encourage a statewide network of inter-tied base stations/repeaters statewide to provide communications gateways between users in disparate frequency bands. (Short-Term Gateways)	The capabilities assessment results can help determine equipment and frequency gaps and identify base stations and repeaters available to implement this task. Gateways require twice as much spectrum because each participating agency must use at least one channel in each band per common talk path, and they are tailored for communications within the geographic coverage area common to all participating systems. SAFECOM provides the following considerations: • Evaluate the cost-benefit of purchasing and sustaining gateways as an interim interoperability solution as agencies move toward shared systems. • Reference the A*GILE Guide to Radio Communications Interoperability Strategies and Products* at the following link: http://www.safecomprogram.gov/NR/rdonlyres/8F919F4D-B077-4338-876D-98F440C90606/0/Guide_Radio_Comm_Strategy_and_Products.pdf. This document defines three technical strategies for providing interoperability and identifies products available at the time of publication to implement those strategies. System-to-system gateways are discussed on pages 13-29. • Test the proposed gateway interoperability solution. Reference the results of the City of Alexandria Operational Test Bed – A at the following link: http://www.safecomprogram.gov/SAFECOM/library/technology/1023_OperationalTest.htm. This document summarizes the results of tests conducted to verify proper operation of a communications interoperability gateway subsystem based on an ACU 1000 Intelligent Interconnect System. • Resolve any issues/concerns observed as a result of testing with the involvement of the communities, agencies, disciplines, and jurisdictions involved. • Support the development of Interlocal Agreements among communities using the gateways in the disparate frequencies. • Develop SOPs for use of the gateways in all event types—from day-to-day to major incidents. • Establish training programs and exercises that operationalize the use of gateways among the first responder communities in which they are available. *See additional SAFECOM recommendations for this task in the Interim Assessment, Appendix C. In addition, SAFECOM recommends a syntax change in replacing "inter-tied" with "interconnected."*

Implementation Task	SAFECOM Suggestions
T5. Support and encourage a statewide IP-based network to interconnect public safety communications centers and their associated radio systems.	The capabilities assessment data and information regarding current assets in the state will help determine the cost effectiveness and feasibility of moving this initiative forward. This NCSC implementation task addresses a specific technical solution. SAFECOM recommends that NCSC evaluate this solution against the needs of Nevada's public safety community based on operational and technical requirements while considering alternative system architectures. SAFECOM suggests the following key considerations for this implementation task: • Review current and validated practitioner-driven operational requirements from the capabilities assessment data. If the operational requirements have not been gathered in the capabilities assessment, this data will need to be collected before moving forward • Determine how the statewide IP-based network approach meets operational requirements. • Evaluate alternative solutions as part of the technology selection process. • Research and evaluate the impending completion of related standards before making purchases. • Consider the risks and disadvantages of implementing this initiative. Reference the Software-Enabled Wireless Interoperability Assessment Report – Voice-Over-Internet Protocol Technology (VoIP) at the following link: http://www.safecomprogram.gov/NR/rdonlyres/65398E2E-C4EE-4779-BB91-600847499056/0/voip_technology_assessment.pdf. This paper identifies and discusses key capabilities available for advanced LMR systems and those potentially available as a result of implementing VoIP in an LMR environment. • Involve all necessary stakeholders in the planning phases for purchasing new equipment and establishing standard protocols for use of IP-based network connections. • Establish training programs to support familiarity with use of this new technology and capability. *See the additional SAFECOM Recommendations relating to this task in the Interim Assessment, Appendix C.*

Implementation Task	SAFECOM Suggestions
S2. The Nevada Department of Public Safety (DPS) should work with the regional working groups to define and test and exercise formal, statewide policy and procedures for interoperability between local agencies and the DPS, utilizing the existing technology currently deployed.	The capabilities assessment data will support the identification of interoperable capabilities that could be effectively leveraged through improved SOPs. With this implementation task, Nevada's public safety community can have operating procedures to standardize the use of currently available technology. SAFECOM suggests the following considerations as this implementation task moves forward: • Establish a working group or leverage an established regional working group to involve practitioners in the development of policies and procedures. • Support the development of Interlocal Agreements among the communities involved in using or sharing interoperable equipment. • Clarify the scope of the policies and procedures developed to identify the communities, disciplines, and agencies that are affected by the SOPs. • Establish a review panel to validate and test the SOPs. • Consider developing SOPs first at the local level and then consider expanding to regional areas of Nevada after acceptance and testing. • Train and test the new SOPs with the practitioners in the field. • Develop an implementation plan or guidance for the integration of newly developed SOPs into the existing operations of the communities in which they apply. • Share, across the state, best practices and lessons learned from the development of SOPs. • Create awareness of newly developed or recently updated SOPs. *See the additional SAFECOM recommendations relating to this task in the Interim Assessment, Appendix C.*

Implementation Task	SAFECOM Suggestions
E1. In cooperation with and through the existing state training bodies, develop training programs for all public safety personnel in the state based on the National Incident Management System (NIMS)-based SOPs developed under Recommendation S1. S1 Utilize the regional working groups, on a per-discipline basis, to develop, test and exercise standard operating procedures for operational and communications interoperability consistent with the National Incident Management System. E3. Carry out regional, interagency, cross-discipline interoperability exercises based on Department of Homeland Security (DHS) exercise guidelines on at least a biennial basis. These exercises may be an element of a larger exercise. E4. Once training programs have been developed and delivered for interagency operations, require periodic refresher training.	Data gathered through the capabilities assessment will support the leaders of the NCSC in determining which training programs can help fully operationalize existing capabilities in the state. SAFECOM recommends the following considerations for the NCSC as it partners with existing state training bodies to develop training that will improve operations in the state within a short timeframe: • Leverage capabilities assessment data to determine short- and long-term training needs. o Per the intent of the strategic planning session participants, the capabilities assessment data will help identify and budget for immediate training needs • Seek training development and implementation support available from federal resources and other practitioner communities nation-wide, such as the Office of Domestic Preparedness (ODP), Federal Emergency Management Agency (FEMA), and other state interoperability committees. o ODP: http://www.ojp.usdoj.gov/odp/training.htm o FEMA: http://www.fema.gov/fema/first_res.shtm o Kentucky: http://archives.techlines.ky.gov/april2004/interop.htm • Establish Interlocal Agreements with the existing state training bodies to ensure that training programs are coordinated and resources are effectively shared. • Develop an implementation plan that ensures Nevada's plans, procedures, policies, and training programs incorporate NIMS principles. o Reference the NIMS Implementation Plan template at the following link: http://www.fema.gov/doc/nims/nims_implementation_plan_template.doc o The NCSC can use and share the template with state and local agencies to encourage incorporating NIMS in emergency response plans, procedures, and policies. • Develop training programs with scheduled implementation plans that increase education and awareness among public safety personnel. • Promote and implement new training programs that maximize the use of current, existing capabilities. • Review training effectiveness through interagency, cross-discipline interoperability exercises. • Determine necessary improvements for training based on the exercise results. • Include refresher training in training implementation. o For additional information on training development and evaluation, reference the following link: http://www.ojp.usdoj.gov/odp/docs/hseep.htm

Implementation Task	SAFECOM Suggestions
E2. Train, certify, and deploy qualified and credentialed a Communications Unit Leaders in all public safety disciplines.	At present, DHS is developing a Communications Unit Leader (COML, also commonly referred to as CUL) training and certification program to serve as a national framework. The results of the capabilities assessment will help the NCSC identify which communities and agencies are prepared to take the COML training and certification. As the NCSC leverages the DHS program to train, certify, and deploy COMLs, SAFECOM suggests the following steps to support this implementation task: • Use capabilities assessment data to identify which communities are prepared to train and certify COMLs. • Coordinate establishing resource sharing agreements between communities so that COMLs are available across agencies and jurisdictions while additional COMLs are being trained and certified. o Resource sharing agreements help bridge identified capabilities gaps while additional COMLs are being trained and certified • Gain the support and agreement of local ranking officials for the development of this implementation task. • Charter a working group to plan for the implementation of the DHS COML training and certification program for Nevada's public safety disciplines and communities. • Promote the existence and availability of expertise of the COMLs in the communities in which they are available. • Conduct training exercises involving multi-agency responses in order to test field level practitioners' knowledge and awareness with COMLs in incident responses. More information regarding training and curriculum development is in the NIMS National Standard Curriculum Training Development Guidance at the following link: http://www.fema.gov/pdf/nims/nims_training_development.pdf. Also, reference the NIMS shared resources Web site: http://www.fema.gov/nims/nims_training.shtm

2.2. Practitioner-Suggested Implementation Tasks and SAFECOM Suggestions

Strategic Planning Session participants suggested select key actions to support the Capabilities Assessment Initiative. The following table depicts high-level implementation tasks and SAFECOM suggestions for consideration across the next 12 months. SAFECOM suggestions are based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local, and are provided for NCSC consideration as it updates the statewide plan.

Implementation Task	SAFECOM Suggestions
Define the assessment approach with clear objectives.	Members representing the various disciplines, agencies, and jurisdictions at all levels of government need to be involved in defining the assessment approach and objectives. SAFECOM suggests involving local practitioners to ensure local level interoperability becomes the basis for the capabilities assessment planning. SAFECOM suggests the following when developing the assessment approach and objectives: • Determine the data requirements needed for a successful, complete capabilities assessment. o What type, scope, and array of interoperable capabilities data will be collected from the communities? • Consider the local-level interoperability needs and capabilities first in order to build a truly practitioner-driven, "bottom-up" approach. • Focus on gathering operational and technical capabilities data. • Consider developing an all-hazards based preparedness goal in collaboration with Nevada practitioners establishing measurable priorities, targets, and a common approach to identifying needed capabilities.
Develop an assessment tool to collect clear and usable data.	Collecting clear and accurate operational and technical data is an essential part of this initiative. SAFECOM acknowledges many tools are available to fit the needs of individual communities. SAFECOM suggests reviewing the usefulness of the data in past surveys and evaluating the survey tool's future usefulness in the selection process. Leveraging and modifying past tools can result in significant cost and time savings. In Section 2.1, SAFECOM provides examples of resources to evaluate as a data collection tool.

Implementation Task	SAFECOM Suggestions
Complete the assessment.	To gain a comprehensive assessment of existing capabilities in the state, the NCSC should collect data on both operational and technical aspects. SAFECOM suggests the following considerations when completing the assessment: • Identify the operational procedures, organizational structures, and personnel capabilities in the federal, state, local, and tribal levels of the Nevada public safety community. • Understand the relationship between current operations and technical capabilities and mission requirements for the federal, state, local, and tribal public safety practitioners in Nevada. • Gather operational and technical data from local practitioners. • Evaluate system performance based on established procedures. • Identify trends and existing system plans for state and local level radio systems and infrastructure. • Determine spectrum availability. • Identify gaps in current technical and operational communications capabilities. Additional considerations for the capabilities assessment may be gleaned from the following Public Safety Wireless Network (PSWN) Program's *How to Guide for System Planning, Design, Procurement, Implementation, and Operations and Maintenance* document: http://www.safecomprogram.gov/NR/rdonlyres/9826FC3F-BE4D-4C02-9AE9-166AF13C7B9B/0/how_to_guide_radio_system_life_cycle_guide.pdf.

Implementation Task	SAFECOM Suggestions
Set the minimum requirements.	SAFECOM believes that one solution does not always meet the needs of all communities and suggests carefully considering how the NCSC will apply the minimum standards in Nevada in future planning efforts and how it will ensure that the application of the minimum standards is equitable for all communities. NSCS should carefully analyze the cost-benefits when establishing minimum interoperability requirements. If the NCSC sets minimum requirements, SAFECOM suggests the following: • Include representation for all public safety practitioners in the minimum requirements setting process through a subcommittee or working group that has a clear charter for this work. • Define the purpose and objective of setting the minimum requirements. • Determine whether one statewide set of minimum requirements makes sense for local communities across Nevada. • Consider the format in which minimum requirements are set by understanding the unique operational and technical requirements for communications interoperability of the diverse disciplines, agencies, and jurisdictions across the state. • Define the minimum requirements that can be fulfilled given existing equipment and systems owned by individual agencies, jurisdictions, and disciplines. • Establish an Interlocal Agreement among agencies in the state that assures compliance with the minimum requirements. • Conduct awareness and outreach efforts that educate the public safety communities on the minimum requirements in the state.

Implementation Task	SAFECOM Suggestions
Develop an interoperability appendix for the state mutual aid plan.	The Nevada mutual aid plan serves to document the rapid, systematic mobilization, organization, and operation of public safety resources to respond to extraordinary incidents or events. In the development of an interoperability appendix for this plan, SAFECOM recommends the following: • Ensure federal, state, local, and tribal practitioners are involved in the development of the plan and appendices. • Leverage the data from the capabilities assessment for use in the interoperability appendix. • Identify existing mutual aid channels that can be inexpensively brought into operation for the public safety community to use. o Nevada has not yet designated the use of its mutual aid channels within the state even though some frequencies have been acquired for this use. After the NCSC oversees the completion of the capabilities assessment, an analysis of the data will help identify the best use of these frequencies. The NCSC can begin coordinating efforts to ensure the mutual aid channels are successfully leveraged for the benefit of first responders in the state through established SOPs, training, and awareness-raising efforts. • Consult with other federal, state, and community resources on best practices and lessons learned for mutual aid interoperability appendices. o Reference the NIMS Integration Center (NIC) at the following link: http://www.fema.gov/nims/nims.shtm o Access the Santa Clara County Mutual Aid Plan Radio appendix as an example at the following link: http://www.sccfd.org/map/MAP_01.pdf. • Establish an agreement among all agencies, communities, disciplines, public safety practitioners and private sector stakeholders in support of the mutual aid plan. • Conduct outreach, education, training, and testing of procedures in the mutual aid plan interoperability appendix. • Establish a schedule, responsibilities, and accountability for updating information published in the interoperability appendix.

2.3. Additional Implementation Tasks Suggested by SAFECOM

SAFECOM identified additional implementation tasks, beyond those identified in the Nevada Plan and those developed by the practitioners during the strategic planning process, to develop and implement the Capabilities Assessment Initiative in Nevada. These suggestions are based on SAFECOM-identified best practices and lessons learned through collaboration with a variety of states and localities.

Implementation Task	Rationale for Task
Establish a working group comprised of NCSC members and local practitioners to lead the completion of the Capabilities Assessment Initiative.	SAFECOM suggests that the NCSC establish a working group to take charge of the overall capabilities assessment initiative process. Involving NCSC members and local practitioners from the Nevada public safety community in this working group will continue the collaborative efforts built upon in the strategic planning process. Practitioners from the state and local communities are knowledgeable about their own capabilities and also can provide insights as to which data elements make the most sense for the capabilities assessment. Additionally, the working group can determine the format for the data collection tool and monitor the tool selection process. The members of the working group will be well-positioned to conduct follow-up calls when collecting the data, coordinate interviews for data validation, and support the analysis of the assessment data. The group should be chartered to complete this initiative based on an action plan approved by the NCSC and authorized to work with the necessary state and local agencies in the collection of capabilities data statewide. Assigning this task to a lead coordinating group allows the NCSC to focus on oversight of the initiatives to improve interoperability in the state. This group informs the NCSC of its activities and decisions through regular progress reports.
Develop a respondent profile defining criteria for selecting who should respond to the assessment.	SAFECOM suggests this implementation task to ensure that the practitioners asked to complete the assessment have the appropriate level of familiarity with the information requested. The respondent profile is useful when assigning personnel to complete the assessment and when tracking the completion of the assessment within any community, agency, or jurisdiction. In creating a directory of the personnel who responded to the assessment, the NCSC can build a database of contacts involved in interoperability efforts across the state and can then leverage these same contacts in future outreach efforts, building support for implementation of initiatives and raising awareness of the analysis at all local community, agency, and discipline levels.
Validate data collected through interviews with respondents.	SAFECOM suggests that the NCSC validate data submitted through the assessment tool with the assessment respondents through an interview process to clarify any inconsistencies or capture data for unanswered questions. Conducting the validation step establishes credibility for the capabilities assessment results from the community, agency, and jurisdiction leaders in the state.

Implementation Task	Rationale for Task
Conduct outreach in order to ensure a high level of response for the assessment.	SAFECOM suggests conducting outreach efforts in regards to the importance of gathering the data for the capabilities assessment to gain a high percentage of response in a timely manner. SAFECOM suggests the following steps: • Develop clear instructions for the capabilities assessment and clearly define the due date. • Conduct follow-up phone calls to remind identified respondents or communities that the data is due. • Communicate a clear value proposition on the importance of, intended uses for, and next steps for the collected data.
Maximize Nevada's existing capabilities through SOPs development.	Creating SOPs that foster interoperable communications across a region is one of the more difficult elements to implement. Developing SOPs requires a shared understanding and awareness of the technology deployed in a community and the working relationships among practitioners in the current operational environment. However, developing SOPs is one of the first areas where the NCSC can make immediate improvements without making a large financial investment. The following suggestions would facilitate the development and implementation of SOPs across Nevada: • Leverage the working relationships initiated in the statewide strategic planning process. • Gather expertise and suggestions from local practitioners interested in developing SOPs or sharing sample SOPs. • Assemble an SOP working group. • Develop and implement regional/local emergency response SOPs. • Test, evaluate, and manage SOPs. For additional information on SOP development, reference the following links: o http://www.epa.gov/quality/qs-docs/g6-final.pdf o http://www.mmsonline.com/articles/0498ci.html o http://planit.ucdavis.edu/emergency/standard/

Implementation Task	Rationale for Task
Identify opportunities for improved training programs, exercises, and information sharing.	Improving training and exercise on existing capabilities maximizes the investment in the current technology. The following are additional key actions that facilitate the improvement of first responder training and exercises across Nevada: • Establish a working group to monitor existing and new technologies as they relate to interoperable communications equipment and make recommendations on ways to improve interoperability with training processes to the NCSC. • Ensure that training procedures are in place for new equipment and technologies in communities, including scheduled exercises to evaluate the use of equipment by practitioners in simulated real-life scenarios involving a multi-agency incident response. o What works in one community may not work for others, so NCSC needs to consider the appropriate processes for exemptions and work-around solution needs. • Develop a lessons learned clearinghouse. o Determine whether the NCSC Web site will support this implementation task or whether a more secure access portal site is needed. o Share information gathered from grant recipients in the state and from existing interoperability projects across the state. o Provide contact information for local projects to get more information.

Where to Start

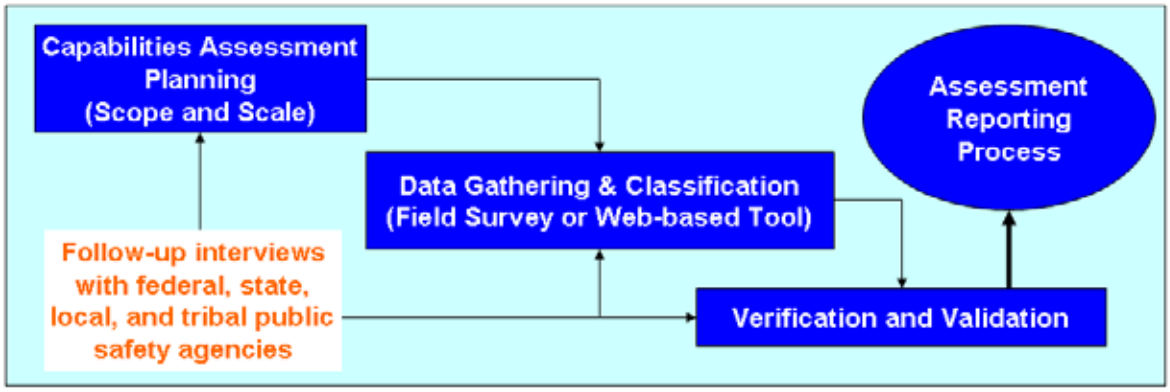
The implementation tasks and suggested considerations discussed depend on completing an accurate and thorough capabilities assessment in the state. Data collected can lead to efforts that maximize existing interoperability capabilities pending the development of improved interoperability and increase training and awareness of first responders on how to most effectively operationalize existing equipment and solutions.

SAFECOM suggests that the NCSC focus the first 90 days on five key action items:

1. Create a charter for a working group that will be tasked with coordinating the completion of the capabilities assessment.
2. Define the capabilities data requirements to determine what will be collected in the assessment.
3. Develop a clear and efficient process for capturing the necessary data from the appropriate personnel in communities across the state, including tool selection.
4. Initiate coordination with the appropriate points of contact across the state to validate information collected.
5. Begin to define an action plan for how the data will be analyzed and most effectively leveraged in efforts to maximize existing capabilities. The action plan should include the identification of necessary SOPs, training programs, and short-term, low-cost initiatives that can be easily achieved.

The following graphic depicts critical components of a process that the NCSC can use to conduct a capabilities assessment. SAFECOM does not endorse a single process for conducting a capabilities assessment, as each community deals with unique circumstances. However, the core principles illustrated in this graphic serve as a useful framework for the NCSC as it organizes its efforts for this initiative.

Figure 3. Sample Capabilities Assessment Process



Performance Measures

The NCSC can measure the fulfillment of implementation tasks supporting the Capabilities Assessment Initiative in a variety of ways, including:

- Percentage of communities, agencies, or jurisdictions submitting information regarding interoperability capabilities from the total number of survey responses requested
- Percentage of completed implementation tasks as identified in the action plan created as a result of analyzing the capabilities assessment data
- Percentage or number of completed measures from those identified in the action plan

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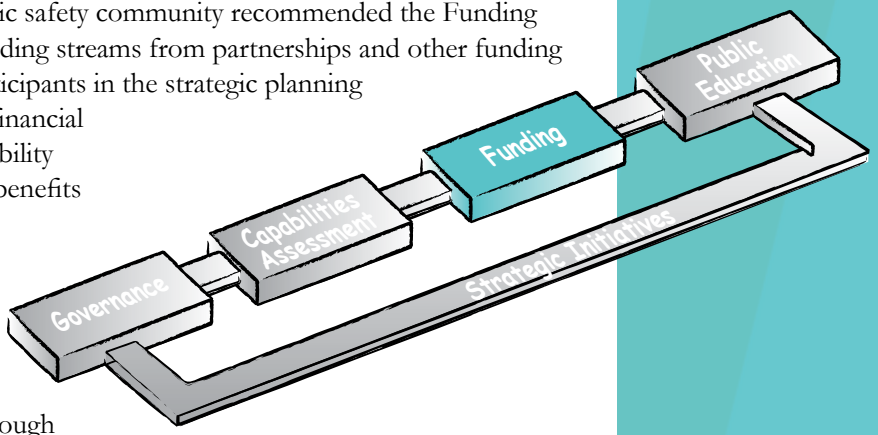
3. Funding Initiative

The following strategic initiative was the result of a consensus-building process during the strategic planning session held on September 14, 2005:

> ***Secure consistent funding for ongoing development, capital replacement, and maintenance costs and identify partnerships in which resources will be provided.***

The practitioners and members of the Nevada public safety community recommended the Funding Initiative that establishes strategies for acquiring funding streams from partnerships and other funding sources as one of the state's top priorities. The participants in the strategic planning session recommended this initiative to provide the financial stability needed for all current and future interoperability improvement efforts. This initiative results in four benefits for Nevada public safety practitioners:



1. A shared understanding of all available funding resources
2. Shared responsibility for funding from the federal, state, and local levels across jurisdictions to support interoperability through partnerships and collaboration
3. Increased awareness for developing sound acquisition strategies
4. Coordination and collaboration across disciplines and jurisdictions through resource sharing and funding partnerships

Rationale

Participants made the rationale for this initiative clear during the statewide strategic planning process. The following six comments are from the participants—practitioners, public safety officials, and state and local officials—who support the creation of this initiative.

1. "Interoperability is under-funded and acquisition programs within agencies/local government are not coordinated, are impacted by misinformation and vendors, and often are not compatible with others because of a lack of shared criteria."
2. "There are no short-term or long-term processes for funding communications."
3. "Funding is not available to migrate our current technology for interoperability beyond where it currently exists."
4. "Current funding streams are a good start, but Nevada needs to expand interoperability to many more communities and therefore, requires additional resources."
5. "By coordinating and collaborating, the public safety community will be more responsible with the public's money."
6. "Rural counties cannot successfully compete with the metropolitan areas for funding because Homeland Security funding is distributed according to population."

The participants agreed that securing consistent, sustainable funding streams is essential for Nevada as it advances statewide interoperability. The Funding Initiative ensures Nevada proactively seeks and obtains adequate funding for statewide interoperability improvement efforts.

Recommended Implementation Tasks

SAFECOM recommends seven actions for consideration while addressing the Funding Initiative:

1. Designate a funding working group tasked with implementing all aspects of the Funding Initiative.
2. Research and develop an inventory of all potential funding sources/mechanisms.
3. Develop a statewide funding strategy.
4. Collect and review acquisition plans.
5. Seek opportunities to share current resources for immediate cost savings and explore partnerships for future funding prospects.
6. Document agreements between partners for identifying funding and resource sharing opportunities.
7. Review research on best practices and lessons learned.

3.1. NCSC Implementation Tasks and SAFECOM Suggestions

The table below provides SAFECOM suggestions on the implementation tasks identified in the Nevada Plan developed by the developed by the Nevada Communications Steering Committee (NCSC). The SAFECOM suggestions were based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local.

Implementation Task	SAFECOM Suggestions
G4. Work with the Nevada Governor and Legislature to develop a permanent, predictable and stable statewide source of funding for public safety communications.	Working with state and local leaders to secure predictable and stable funding for public safety communications is a critical step toward improving long-term interoperability. SAFECOM suggests that the NCSC identify and work with a larger network of stakeholders to assist in obtaining ongoing funding for regional, state, and local agency interoperability efforts from all available resources. A representational, organized body of stakeholders with a sound funding strategy may help in applying for grants and obtaining stable funding. In Section 3.2, SAFECOM provides specific suggestions for completing this task.
G6. Educate key policy makers at all levels of government regarding the current state of Nevada's public safety communications as well as the needs and benefits of continued investments to further interoperable communications.	Education of public officials is important to ensuring appropriate investment levels for public safety interoperability projects. SAFECOM suggests that the NCSC coordinate and establish consensus among the practitioners and leaders in the public safety community on goals and objectives for both the need for and vision of Nevada's statewide interoperability capabilities. After the NCSC sets a unified needs statement for public safety capabilities, increasing education and awareness is key. Clarity on goals and objectives will help officials understand the issues and support their decisions to make public safety interoperability funding a priority. SAFECOM suggests that the NCSC coordinate and establish consensus around the messages for providing this education. For more information on the suggestions related to public education, please see the SAFECOM implementation tasks listed under the Public Education Initiative on pages 68-73.

Implementation Task	SAFECOM Suggestions
G9. Work with Nevada-based senior management of federal agencies to encourage, enhance, and support federal participation in the NCSC.	Given the large federal presence in Nevada, engaging the participation and support of key federal agencies is critical to improving statewide interoperability. This will help increase interoperability between local public safety agencies and Nevada-based federal entities, such as the Bureau of Land Management, Department of Energy, Department of Homeland Security, and United States Park Service. SAFECOM suggests that the NCSC expand this task and develop partnerships with all levels of government, including federal, state, local, and tribal. In Section 3.2 of the report, SAFECOM provides specific suggestions for completing this task.
Identify prospective funding sources for key items of the Action Plan.	In the Nevada Plan, the NCSC proactively designated potential funding sources, such as grant or legislative appropriation, for key action items identified in the current Action Plan (see Nevada Plan pages 16-21). SAFECOM suggests that the NCSC provide specific information for each of these designations, including a rationale for these assignments in the funding strategy. In addition to the funding sources currently listed, SAFECOM suggests that the NCSC revisit the current and future funding source designations to items in the Action Plan after identifying all available funding mechanisms. In Section 3.2, SAFECOM provides more detail for completing this task.

3.2. Practitioner-Suggested Implementation Tasks and SAFECOM Suggestions

Strategic Planning Session participants suggested select key actions to support the Funding Initiative. The following table depicts high-level implementation tasks and SAFECOM suggestions for consideration across the next 12 months. SAFECOM suggestions are based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local, and are provided for NCSC consideration as it updates the statewide plan.

Implementation Task	SAFECOM Suggestions
Identify all available funding sources.	Although bonds, loans, and state appropriations are the most common methods for a state to use in funding a public safety wireless communications system, these funding mechanisms are not the only viable strategies. SAFECOM recommends that the NCSC identify, research, and implement additional funding sources and mechanisms for operations, infrastructure, and equipment costs, such as federal appropriations, grants, surcharges, taxes, trust funds, and public-private partnerships. Completion of this task greatly improves the likelihood of securing consistent funding for interoperability. SAFECOM recommends that the NCSC consider the following for this task: • Identify all current funding sources and mechanisms in use by Nevada public safety agencies and analyze the success rate of obtaining and maintaining stable funding for each. • Research additional funding sources and mechanisms not currently in use. • Identify all potential funding sources, then revisit the funding source designations for each item of the Action Plan in the *Nevada Communication Interoperability Plan, Version 1.0*. • Maintain and update the list of funding resources and mechanisms annually and share this list with the Nevada public safety community. For general information on a variety of federal, state, and local funding sources (organized in three categories: planning and design, procurement and installation, and operations and maintenance), reference the SAFECOM *Report on Funding Strategy for Public Safety Radio Communications* at http://www.safecomprogram.gov/SAFECOM/library/grant/. To identify public safety federal grant resources, reference SAFECOM's recommended federal grant guidance document available at www.safecomprogram.gov.

Implementation Task	SAFECOM Suggestions
Identify shareable resources.	SAFECOM suggests that as the NCSC leads the first responder community in identifying shareable resources, it should also work collaboratively with agencies and jurisdictions to facilitate the forming of partnerships. Multi-jurisdictional partnerships and public-private partnerships can reduce the resources needed for interoperability and help build political and public support. These partnerships can take many forms, including: • Shared infrastructure, equipment, and systems by different levels of government, such as federal, state, and local • Systems shared by several jurisdictions at the same level of government, such as one system supporting several counties, cities, or towns • Systems shared by multiple agencies within one jurisdiction, such as one city system supporting many municipal agencies such as police, fire, Emergency Medical Services (EMS), and public works SAFECOM suggests that the NCSC explore partnerships with federal, state, local, tribal, and private entities to leverage resources and maximize cost savings. SAFECOM suggests the following considerations for this task: • Leverage the capabilities assessment data to identify and raise awareness about opportunities for multi-jurisdictional, multi-agency, and public-private partnerships across Nevada. • Identify existing partnerships and formal agreements for sharing resources within Nevada to document templates, lessons learned, and best practices. • Establish formalized resource sharing agreements to ensure each party understands its rights and obligations. • Develop Interlocal Agreement templates with policies and procedures for how to fund these agreements. • Partner with federal agencies operating in Nevada. o Possible coordination efforts may include sharing infrastructure and equipment, cooperative purchases, and applying for grants jointly. For additional information regarding partnerships, reference the SAFECOM *How to Guide for Funding State and Local* at http://www.safecomprogram.gov/SAFECOM/library/grant/.

Implementation Task	SAFECOM Suggestions
Review acquisition plans.	SAFECOM suggests that the NCSC review all current communications related acquisition plans to establish a baseline of the current and planned acquisition projects across the state. This review also allows the NCSC to better support localities and regions in identifying appropriate funding sources and mechanisms for their specific needs. Reviewing existing and planned acquisitions also gives the NCSC a more complete picture in terms of estimating total costs for the statewide public safety wireless networks in the near future, which is a critical first step in the process for securing funding.
Leverage data from the capabilities assessment to define funding priorities.	SAFECOM recommends that the NCSC review the capabilities assessment, after completion, to identify existing capabilities to leverage as shared resources. This review will also allow the NCSC to prioritize additional long-term funding needs for desired future capabilities and incorporate these capabilities in the overall funding strategy. For more information on recommendations related to conducting a capabilities assessment, please see the SAFECOM implementation tasks listed under the Capabilities Assessment Initiative on pages 28-51.

3.3. Additional Implementation Tasks Suggested by SAFECOM

SAFECOM identified additional implementation tasks, beyond those identified in the Nevada Plan and those developed by the practitioners during the strategic planning process, to secure communications interoperability funding in Nevada. These suggestions are based on SAFECOM-identified best practices and lessons learned through collaboration with a variety of states and localities.

Implementation Task	Rationale for Task
Create a funding working group comprised of NCSC members and local practitioners to lead the activities of the Funding Initiative.	Designate a regionally representative funding working group, including NCSC members with specific experience in developing and implementing funding strategies for public programs. Therefore, the NCSC can oversee the funding initiative while still managing other activities. Additionally, SAFECOM suggests that the NCSC consider inviting county commissioners or officials with budgetary authority to participate in the working group in an advisory role, if possible. These officials bring perspective on the burden and accountability that accompanies the authority to spend public funds and can provide advice on how to make compelling proposals and bids.

Implementation Task	SAFECOM Suggestions
(cont'd) Create a funding working group comprised of NCSC members and local practitioners to lead the activities of the Funding Initiative.	SAFECOM suggests that the NCSC designate a working group within the NCSC to develop and implement the Funding Initiative. This body would be responsible for the implementation tasks listed in this report and any additional tasks assigned in the funding strategy. This working group would ultimately provide recommendations to the NCSC that would in turn serve as a resource for Nevada agencies and localities by providing information and support for exploring creative ways of securing funding. The funding working group should include NCSC members and Nevada public safety practitioners with specific experience developing and implementing funding strategies for public programs. This working group should also leverage the expertise of representatives from the state and local agencies and jurisdictions successful in securing funding for local interoperability efforts. For more information on recommendations related to creating working groups within the NCSC, please see the SAFECOM implementation tasks listed under the Governance Initiative on pages 24-26.
Develop a comprehensive funding strategy.	SAFECOM recommends that the NCSC consider the following as it develops a comprehensive funding strategy: • Must incorporate all of the implementation tasks of this report. • Include the following initial steps: o Estimate funding needs for all efforts in the state. o Prioritize all of the funding needs of the state. o Identify all available funding mechanisms. o Review acquisition plans. • Consider the laws and limitations concerning capital projects, the legislature's budget process, the prevailing political climate, and the overall difficulty of pursuing specific mechanisms. • Consider prioritizing funding needs in order of importance. • Revisit and revise the funding strategy on a regular basis. For specific guidance on developing and implementing a comprehensive funding strategy for communications interoperability systems, reference the SAFECOM *How to Guide for Funding State and Local Public Safety Wireless Networks* at http://www.safecomprogram.gov/SAFECOM/library/grant/.

Implementation Task	SAFECOM Suggestions
Develop a firm understanding of the governmental structure and control of budgets.	Understanding the budgetary control and legal constraints of the political stakeholders at the federal, state, regional, and local level is vital to successfully securing funding. SAFECOM recommends that the NCSC funding working group develop and maintain expertise in the budgeting processes of all governmental levels. This expertise will better equip the working group to support agencies and localities seeking funding for their interoperability efforts.
Identify and educate stakeholders to build consensus and support.	By establishing consensus on the vision, goals, and objectives for statewide interoperability, the NCSC can clearly justify investment requests from potential funding sources. By educating all key stakeholders through uniform messages and initiating open communications, the state would establish a firm foundation to build cooperative efforts. SAFECOM suggests the following key considerations as the NCSC implements this initiative: • Present funding as a major focus in its Public Education Initiative. • Collect and use anecdotal stories to emphasize the funding need. For more information on recommendations related to public education, please see the SAFECOM implementation tasks listed under the Public Education Initiative on pages 68-73. For a publication for educating stakeholders on the need for funding communications interoperability efforts, reference the *Public Safety Communications Funding Awareness Guide*.
Capitalize on successful funding processes of other states and regions.	Using the SAFECOM-identified best practices and lessons learned of other states that have successful funding practices for interoperability better positions Nevada to develop lasting funding strategies. SAFECOM recommends identifying other states and regions with similar systems or solutions, geography, and political challenges for best practices to incorporate into the overall funding strategy for Nevada. SAFECOM recommends that the NCSC review key funding-related documents before beginning the implementation tasks for the Funding Initiative. The Public Safety Wireless Network (PSWN) Program, folded into the SAFECOM Program, created a collection of best practices and lessons learned documents for developing and implementing successful funding strategies for interoperable wireless communications systems. These funding strategies are on the SAFECOM Program's library page at http://www.safecomprogram.gov/SAFECOM/library/default.htm.

Where to Start

Funding is one of the most important and the most challenging requirements for successfully implementing interoperability systems. Despite the need for communications interoperability, one of the most difficult hurdles public safety agencies face is funding. Because interests and projects compete for public and homeland security funds, securing ongoing funding for communications interoperability is a complicated task. The implementation tasks and suggested considerations discussed in this section require continuous efforts by the NCSC and its partners. Participants in the strategic planning session suggested the Funding Initiative as a critical need to successfully achieve Nevada's vision of statewide interoperability.

SAFECOM suggests that the NCSC focus the first 90 days on the following seven key actions:

1. Designate a funding working group tasked with implementing all aspects of the Funding Initiative.
2. Review research on SAFECOM-identified best practices and lessons learned. (See the resource list in Appendix D.)
3. Begin researching and developing an inventory of all potential funding sources/mechanisms.
4. Collect and review acquisition plans.
5. Develop a draft statewide funding strategy.
6. Begin to seek opportunities to share current resources for immediate cost savings and explore partnerships for future funding prospects.
7. Create Interlocal Agreement templates for use in the establishment of partnerships for funding and resource sharing.

Performance Measures

The NCSC can measure the fulfillment of tasks supporting the Funding Initiative in a variety of ways, including:

- number of funding sources/mechanisms identified
- number of new grant proposals submitted and awarded
- number of new federal partnerships established
- number of formalized partnerships established between agencies and localities

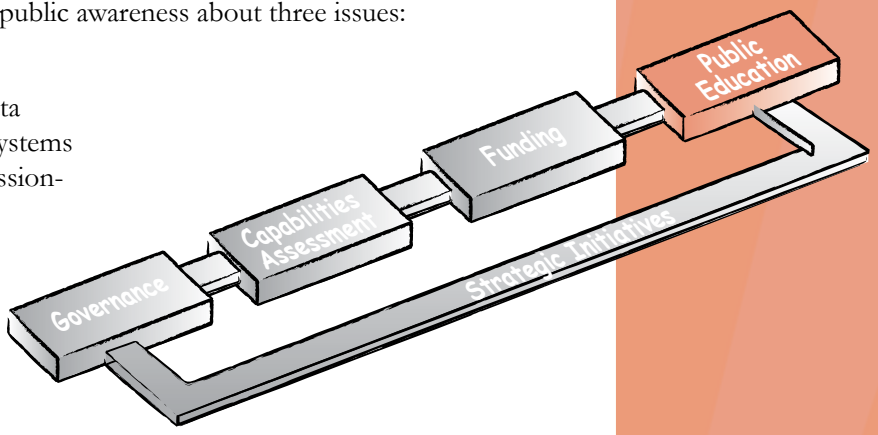
4. Public Education Initiative

The following strategic initiative was the result of a consensus-building process in the Strategic Planning Session held on September 14, 2005:

> ***Increase education of the public, elected officials, and policy makers on the requirements and priorities for public safety communications so that they have realistic expectations and provide appropriate levels of support.***

A well-planned public education effort would raise public awareness about three issues:

1. Lack of public safety interoperability
2. How this inability to share vital voice or data information using radio communications systems hinders agencies from performing their mission-critical duties
3. Tools needed to advance communications interoperability



Rationale

Practitioners, public safety officials, and state and local officials involved in the statewide strategic planning process believe that the Public Education Initiative must become one of the top strategic priorities. Participants believe the public has unrealistic expectations about how public safety practitioners can respond to an incident. As a result, the public does not have a sense of urgency about the need to improve communications interoperability. Below is a summary of practitioner beliefs expressed that reflect the need for greater public education on communications interoperability:

1. The public has a false sense of safety because of a false perception of what public safety emergency responders can do.
2. The public does not understand how the lack of communications interoperability "endangers people's lives and property."
3. The public does not understand what would be involved in making the relevant agencies' communications systems interoperable.
4. Public awareness regarding the lack of communications interoperability and how it endangers public safety is raised during events such as 9/11 or Hurricane Katrina, but that awareness is short-lived.
5. Public officials are not knowledgeable about the current state of communications interoperability.
6. Public officials constantly face competing, important demands and need to make choices about which programs to fund.
7. A public education initiative will help create "... an awareness and reconciliation between the public's demands and the public safety agency's ability to respond."

The Public Education Initiative is a top practitioner-developed strategic priority because building public awareness of and support for a statewide process advancing interoperable communications is essential to progress.

An effective public education initiative teaches the public and public officials about communications interoperability, underscores the value of improving interoperable communications, creates a sense of urgency for advancing interoperability statewide, and builds public support for strengthening Nevada's communications interoperability.

Recommended Implementation Tasks

SAFECOM recommends seven actions for consideration while addressing the Public Education Initiative:

1. Create a public education working group with clearly defined roles and responsibilities.
2. Develop a comprehensive public education plan with a clearly defined purpose, desired outcomes and implementation tasks.
3. Develop consistent messages.
4. Develop materials and a plan to distribute them.
5. Identify and train spokespersons, and maximize speaking opportunities.
6. Seek out media coverage.
7. Educate public officials on the issues related to improving communications interoperability.

4.1. NCSC Implementation Tasks and SAFECOM Suggestions

The table below provides SAFECOM suggestions on the implementation tasks identified in the Nevada Plan developed by the developed by the Nevada Communications Steering Committee (NCSC). The SAFECOM suggestions were based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local.

Implementation Task	SAFECOM Suggestions
G6. Educate key policy makers at all levels of government regarding the current state of Nevada's public safety communications as well as the need for and benefits of continued investments to further interoperable communications.	A public education effort with key policy makers is an important component of furthering efforts to achieve communications interoperability. By educating policy makers on the current limitations and needs for achieving communications interoperability, they are able to make informed decisions on the allocation of funds and other resources. In Section 4.3, SAFECOM made suggestions to support the implementation of this task.
G7. Increase the general public's awareness of the urgent need for interoperability.	Educating the general public about the urgent need for communications interoperability is also an important component. An effective public education initiative teaches the public about communications interoperability, underscores the value of improving interoperable communications, creates a sense of urgency for advancing interoperability statewide, and builds public support for strengthening Nevada's communications interoperability. In Section 4.3, SAFECOM made suggestions to support the implementation of this task.

4.2. Practitioner-Suggested Implementation Tasks and SAFECOM Suggestions

Strategic Planning Session participants suggested select key actions to support the Public Education Initiative. The following table depicts high-level implementation tasks and SAFECOM suggestions for consideration across the next 12 months. SAFECOM suggestions are based on SAFECOM-identified best practices and experiences collaborating with other jurisdictions, both state and local, and are provided for NCSC consideration as it updates the statewide plan.

Implementation Task	SAFECOM Suggestions
Craft a targeted communications plan.	A communications plan with a clearly-defined purpose, outcome, and implementation tasks provides a means of effectively and efficiently coordinating the efforts to implement this initiative. When identifying key audiences to target, consider: • What decisions need to be made to achieve communications interoperability? • Who makes those decisions? • Who influences the decision makers? • Who has contacts with decision makers? • What is the appropriate level of information each audience needs (some will benefit from detailed, technical reports while others only want a one-page fact sheet).? In Section 4.3 of this report, SAFECOM identified additional suggestions for further developing the communications plan.
Develop a base of information to use in educating stakeholders.	The public safety community can use these foundational materials in a variety of forums, such as speeches or articles, to educate audiences. Types of information to gather and share throughout Nevada include: • Relevant national, state, local, and tribal statistics on communications interoperability • Information on the current capabilities for communications interoperability • Identification of the public safety agencies that require communications interoperability General information on communications interoperability is in Appendix D.
Designate the governing body as the primary reference or authority for defining a common language around interoperability and definitions.	The NCSC, the body designated to develop recommendations for communications interoperability, could create a working group to develop common language and definitions that could be used in the public education campaign as well as all other initiatives undertaken. This would ensure that there is an authorized group making recommendations to the NCSC regarding consistent language to be used by the public safety community. SAFECOM recommends that this body be representative of practitioners from all regions of Nevada.

4.3. Additional Implementation Tasks Suggested by SAFECOM

SAFECOM identified additional implementation tasks, beyond those identified in the Nevada Plan and those developed by the practitioners during the strategic planning process, to increase public education in Nevada. These suggestions are based on SAFECOM-identified best practices and lessons learned through collaboration with a variety of states and localities.

Implementation Task	Rationale for Task
Create a public education working group.	The NCSC is the overall body making recommendations on actions to achieve communications interoperability. Designating a practitioner-based, regionally-representative public education working group with clearly defined roles and responsibilities to develop and implement the public education campaign enables the NCSC to: • Divide the larger group into committees with specific roles, responsibilities, and accountability for a particular piece of the larger communications interoperability plan • Provide another opportunity to involve practitioners who are not on the NCSC and build a broader base of leadership on the issue
Develop a comprehensive plan that can guide all of the public education efforts.	A communications plan with a clearly defined purpose, desired outcomes, and implementation tasks can serve as the agreed-upon strategy for those working on the public education initiative. The plan provides guidance and consistency to all of public education tasks and ensures consistency with the greater plan. The plan defines: • Purpose of the campaign • Outcomes desired • Targeted audience(s) • Implementation tasks with timelines and person/organization responsible for implementation and the budget
Develop consistent messages and deliver them through speeches, the media, publications, Web sites, and list serves.	Creating a consistent, clear message demonstrates unity among the members of the public safety community in their efforts and ensures that the public is not confused by hearing different messages from different sources. Additionally, developing materials and radio feeds with consistent messages accessed and used statewide saves time and cost of each member of the public safety community developing its own materials. Use these messages to develop materials such as: • Talking points for spokespersons • Materials that can be distributed locally

Implementation Task	Rationale for Task
Identify champions who could influence the legislature, government agencies, and the public.	Identifying people who can effectively and persuasively carry the message to the public and public officials helps build support for the need for communications interoperability. Public safety practitioners are particularly effective champions and spokespersons. They provide compelling examples to demonstrate the importance of improving communications interoperability. NCSC should keep the champions informed about the status of communications interoperability and remain engaged in the campaign. Ensuring regularly scheduled contact not only provides current information, but also reinforces a sense of shared purpose. Keep these champions informed through: • List serves • Briefings • Mailings • Sample speeches, editorials, and letters to the editor
Maximize speaking opportunities.	By reaching a wide audience of Nevadans who have traditionally not heard about the need for improving communications interoperability, the NCSC can expand the base of the public who understand and support the issue. Although many groups might not have thought of having a speaker on interoperability communications at their conferences or monthly membership meetings, SAFECOM suggests seeking opportunities to give speeches and workshops on communications interoperability to inform these groups about how communications interoperability affects them. To identify speaking opportunities, SAFECOM suggests contacting • Civic, professional and trade associations • Membership organizations • State and local elected officials such as legislators and county commissioners • Members of the press
Establish a speaker's bureau.	Creating a speaker's bureau and providing training and resources for the speakers enables the public safety community to address many more groups around the state. The bureau also helps in the distribution of a consistent message at all public events. Additionally, a bureau is a way to involve volunteers who want to help. To cultivate speakers, SAFECOM suggests considering the following: • Training speakers to provide a consistent message • Providing speakers with sample speeches and talking points

Implementation Task	Rationale for Task
Develop materials and templates that carry the developed messages and information supporting the need for improved communications interoperability.	Supporters around the state can then use these materials to build public awareness and support for communications interoperability improvements. These NCSC-developed materials ensure a consistent message is being delivered and saves the time and cost of each community developing its own materials.
Seek out media coverage.	The media offers a tremendous opportunity to reach a greater percentage of the general public. There are many ways to obtain free press (i.e., earned media) and disseminate messages to the public about communications interoperability. SAFECOM suggests that the NCSC be proactive in communications and outreach activities instead of reacting only to media coverage of an event where first responders encountered challenges in providing the necessary support. Examples of activities that can be undertaken include: • Issue media advisories whenever public safety achieves a milestone. • Pitch stories to the media, especially ones that make the current state more of a reality or demonstrate what better communications interoperability will provide. • Participate in relevant/credible radio and television news shows. • Capitalize on events the media is already attending. • Develop sample opinion editorials and letters to the editor that supporters can try to place in their local newspapers. • Develop public service announcements.
Build relationships with the press.	Building a relationship with the press is important. If the press trusts you and knows you can provide them with relevant information, they are more likely to contact you when they cover a story. Additionally, the NCSC enhances its credibility when the press covers stories about milestones and successes. Examples of ways to build relationships include: • Hold periodic press briefings • Send the press periodic informational mailings The NCSC should develop and maintain a current press list or database for these activities.

Implementation Task	Rationale for Task
Develop an engaging and educational Web site for the public.	An engaging and educational Web site that includes links to frequently visited Web sites attracts Internet users, thereby informing a wide audience of intended messages and information.
Distribute messages and materials to key audiences.	Materials cost money. A dissemination plan ensures that the materials reach the people that public safety emergency responders want to reach. Distribution of appropriately tailored materials can occur through the mail, Web sites, list serves, and community events. Bulletins can be posted in public places such as billboards, buses, supermarkets, and laundromats.
Gather and communicate personal stories that show how the lack of communications interoperability affects first responders' ability to provide assistance.	People connect with personal stories. They are more likely to be moved by and remember stories than statistics and other facts. Stories make technical and complex issues understandable.
For Public Officials:	
Develop relationships with public officials and their staff.	By providing public officials with special briefings on communications interoperability, the public safety community can help educate public officials on what exists and what opportunities are available. Furthermore, these briefings provide public officials with contacts and resources if they have relevant questions in the future.
Brief public officials on communications interoperability at the state level and in local communities.	The public safety community can help educate public officials on what exists and what opportunities are available by providing special briefings on communications interoperability. Furthermore, these briefings provide public officials with a contacts and resources if they have relevant questions in the future.

Implementation Task	Rationale for Task
Provide materials to educate public officials on communications interoperability issues.	Because public officials make decisions that affect communications interoperability, they need more comprehensive information about communications interoperability than the public needs. To make decisions that affect the level of support they provide or the laws and regulations they enact, they also may need to know different information than what is publicly available. For example, consider distributing *Why Can't We Talk: Working Together to Bridge the Communications Gap to Save Lives*, National Task Force on Interoperability (NTFI) publication. This publication is online at: http://www.safecomprogram.gov/NR/rdonlyres/664663B2-D1FB-4E91-A356-DA38B340C38F/0/National_Task_Force_Interoperability_Supplemental.pdf . See Appendix D for additional resources.
Educate public officials on the need for ongoing funding to support the implementation and operations of new technology purchases.	Public officials need to be aware of the full extent of investment needed to improve communications interoperability. To maximize an investment in new equipment, funding needs to support not just the one-time purchase of equipment, but also support the development of governance structures among different agencies purchasing and using the equipment, Standard Operating Procedures (SOP), training and exercises for the practitioners, and regular usage of the equipment. The continued support of public officials for all of these aspects of improving communications interoperability is essential for using public funds wisely. The Interoperability Continuum (see Appendix D) gives further information on the interdependency of these five elements: governance, technology, SOPs, training and exercises, and usage. The key message shared with public officials is that technology cannot be fixed with a one-time investment, but that the public safety community needs to work with public officials to establish a long-term funding strategy for interoperability investments that include funding estimates for training, exercises, related maintenance, and operational support.
Provide talking points to supportive public officials.	Talking points enable public officials to accurately communicate information about communications interoperability to colleagues, constituents, and the media.

Where to Start

Although the NCSC needs to consider a number of implementation tasks to advance the Public Education Initiative, the NCSC should assign priorities. SAFECOM suggests that the NCSC assign top priority and achieve the following tasks within the next 90 days. Then, after receiving input from the lead coordinators, the NCSC can identify the next set of implementation tasks to be addressed

SAFECOM suggests that the NCSC's Public Education working group focus the first 90 days on five key actions:

1. Establish a public education working group that has clearly defined roles and responsibilities.
2. Develop a public education plan for the general public and public officials.
3. Develop consistent messages.
4. Identify champions and spokespersons.
5. Prepare and disseminate background materials that support these spokespersons.

Performance Measures

The NCSC can measure the fulfillment of tasks supporting the Public Education Initiative in a variety of ways, including:

- Percent of population aware of the current state of communications interoperability
- Percent of population aware of the critical need to improve communications interoperability
- Percent of public officials aware of the current state of communications interoperability
- Percent of public officials aware of the critical need to improve communications interoperability

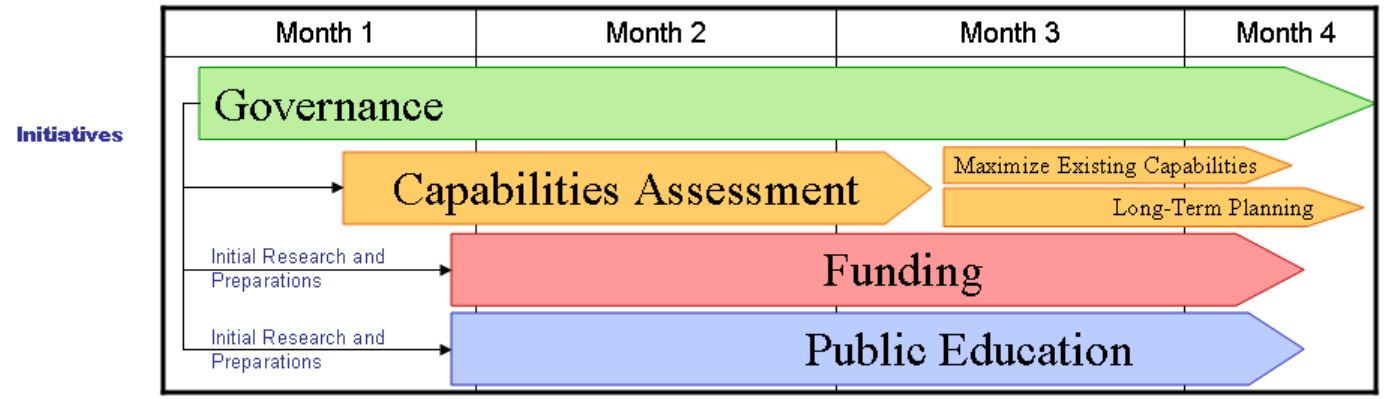
Recommendations for Successful Implementation of the Communications Interoperability Plan

The strategic recommendations, described above for the four strategic initiatives, can be used to ensure the successful implementation of Nevada's strategic plan for communication interoperability. Although many factors may contribute to the successful implementation of the four strategic initiatives, described above, some factors are common to the four initiatives. Examples include the clarification of tasks, lead coordinators, timeframes, and development of meaningful performance measures. As part of the recommendations developed for the four initiatives, SAFECOM offered specific performance measures to monitor and evaluate the implementation process. These performance measures represent a small sample of the possible ways to monitor and evaluate. The NCSC should consider using SAFECOM-suggested performance measures as a starting point for the creation of other performance measures that meet their specific needs. These performance measures can help the NCSC highlight how well the strategic implementation process moves forward and determine where corrective action is needed. For more information on clarifying initiatives, developing a performance management plan, and creating meaningful and effective performance measures, see Appendices E and F.

Roadmap to the Future

SAFECOM developed the following detailed roadmap to outline key implementation tasks and activities from the Strategic Recommendations to the Nevada Communication Interoperability Plan that SAFECOM recommends that the NCSC start addressing within the next 90 days. Please note that the timeline below reflects a period of more than 90 days because the four strategic initiatives do not necessarily start at the same time. Although some tasks can start simultaneously, depending on schedule and resource availability, some tasks build on others and have interdependencies or prerequisites.

The following roadmap graphic depicts the four near-term strategic initiatives as recommended to the NCSC by the public safety community during the statewide strategic planning process. These initiatives include: governance, capabilities assessment, funding strategy, and public education. Each initiative has associated key implementation tasks to further define the near-term course of action. SAFECOM recommends that the NCSC follow the roadmap to build momentum toward its long-term goals in support of improving interoperability in Nevada. This visual plan is a powerful tool around which a leader can motivate and organize staff.



Initial High-Level Tasks

• Develop a charter and bylaws for the NCSC, including establishing voting procedures • Clarify the roles and responsibilities of the NCSC in relationship to the HSC • Clarify when the NCSC is serving in a statewide decision-making role and when the NCSC is serving in a statewide coordinating role • Define the roles and responsibilities of the members of the governance structure	• Charter a working group to coordinate and complete the capabilities assessment • Define the capabilities data to be collected in the capabilities assessment • Develop a clear and efficient process for capturing the necessary data, including tool selection • Initiate coordination with points of contact across the state to validate data • Establish a draft action plan for analysis and use of the data to maximize existing capabilities and long-term planning	• Designate a working group tasked with implementing the Funding Initiative • Review research on best practices and lessons learned for funding • Begin researching and developing an inventory of all funding sources • Collect and review acquisition plans • Develop a draft statewide funding strategy • Begin seeking resource sharing opportunities and explore partnerships for future funding prospects	• Establish a public education committee with clearly defined roles and responsibilities of its members and committee recruiting • Develop a public education plan for the general public and public officials •Develop a consistent message •Identify champions and spokespersons •Prepare and disseminate background materials that will support these spokespersons

APPENDIX A

NEVADA INTEROPERABLITY COMMUNICATION PLAN

NEVADA COMMUNICATION INTEROPERABILITY PLAN

Developed by
Nevada Communications Steering Committee

Version 1.0

June 28, 2005

KENNY C. GUINN
Governor

STATE OF NEVADA

TERRY SAVAGE
CIO, State of Nevada

DEPARTMENT OF INFORMATION TECHNOLOGY
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To the members of the Nevada Homeland Security Commission:

This Communication Interoperability Plan is the culmination of more than 2 years of work by the Nevada Communication Steering Committee (NCSC). The NCSC includes a broad range of communications stakeholders representing northern and southern Nevada, rural and urban Nevada, and state, county, and local governments.

The problems associated with different radio systems not being able to talk to each other have been known to first responders for decades. The events of September 11th, 2001 significantly raised the visibility of the issue. In December 2002, a statewide radio communication conference was held in Carson City, and the NCSC was formed at the Governor's direction shortly thereafter. In the 2003 Legislative session, AB441 created the Nevada Homeland Security Commission (HSC), and gave the Commission the responsibility for approving a statewide communications plan. The NCSC was given the charter to develop that plan, and the following document meets that requirement.

The plan is modeled in part on the work of the SAFECOM Office of the Department of Homeland Security. The following pages start with a high level overview of the direction being proposed, move on to a specific technical recommendation, and then continue in greater detail with specific action items grouped according to the SAFECOM paradigm. SAFECOM is actively engaged with NCSC in a complete review of our strategy, and we will be proposing a revision to this plan in early September, to incorporate their input. After that, we expect to make revisions at least bi-annually to make this a useful, living document, which adapts as conditions change.

Terry C. Savage, Co-Chair, NCSC
Chief Information Officer
State of Nevada

Jack Staley, Co-Chair, NCSC
Director of Support Services
LV Valley Water District

CONTENTS

DEFINITIONS, CONCEPTS AND STANDARDS

What is Interoperability?

The following definition has been adopted by the Nevada Communications Steering Committee (NCSC):

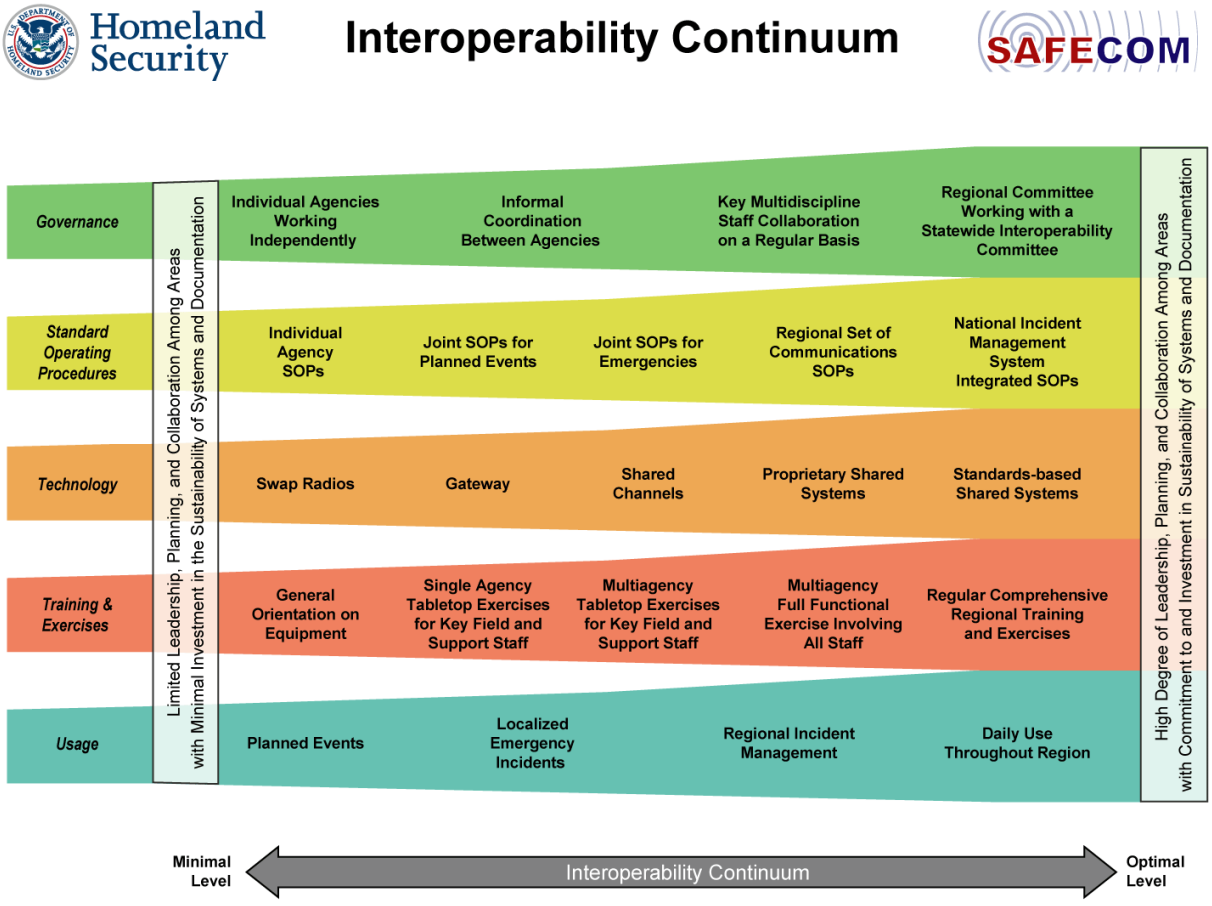
"Interoperability is the ability of appropriate officials and personnel to effectively communicate by radio across jurisdictions and with each other, when authorized, as needed and in real time."

Who are "public safety" agencies?

- Fire Services
- Law Enforcement
- Emergency Management
- Government Administrative Services
- Emergency Medical Services
- Public Health
- Health Care
- HazMat
- Private Industry
- Volunteer Organizations
- Public Safety Communication
- Public Works

INTEROPERABILITY CONTINUUM – SAFECOM

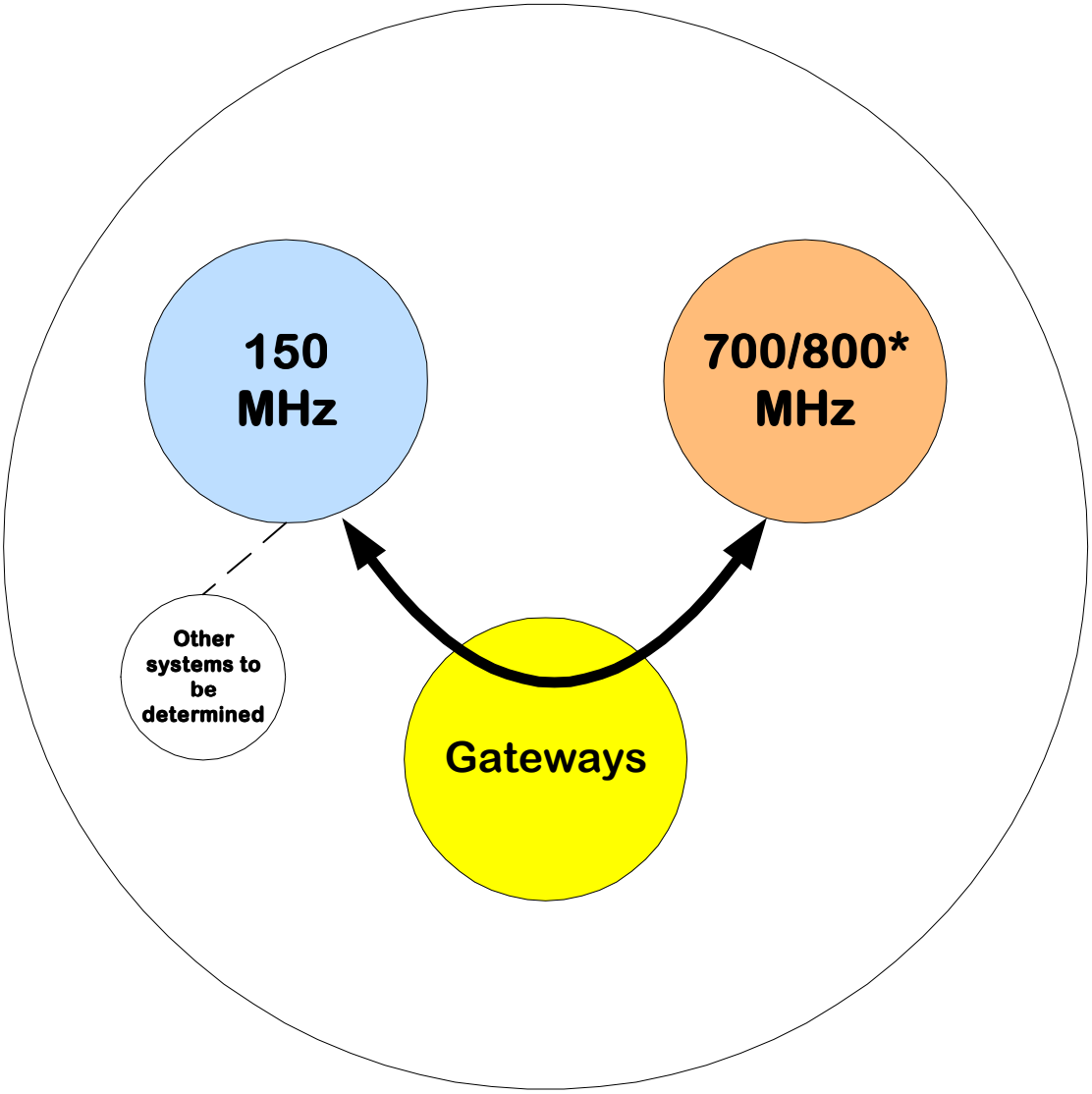
The Interoperability Continuum is designed to help the public safety community and local, tribal, state, and federal policy makers address critical elements for success as they plan and implement interoperability solutions. These elements include governance, standard operating procedures, technology, training/exercises, and usage of interoperable communications.



The Interoperability Continuum was developed in accordance with the Department of Homeland Security (DHS) Science & Technology (S&T) Directorates Office for Interoperability and Compatibility's SAFECOM program's locally driven philosophy and its practical experience in working with local governments across the nation. This tool was established to depict the core facets of interoperability according to the stated needs and challenges of the public safety community and will aid public safety practitioners and policy makers in their short- and long-term interoperability efforts. www.safecomprogram.gov

COMMUNICATIONS INTEROPERABILITY - SHORT TERM GATEWAYS

3 - 5 Years

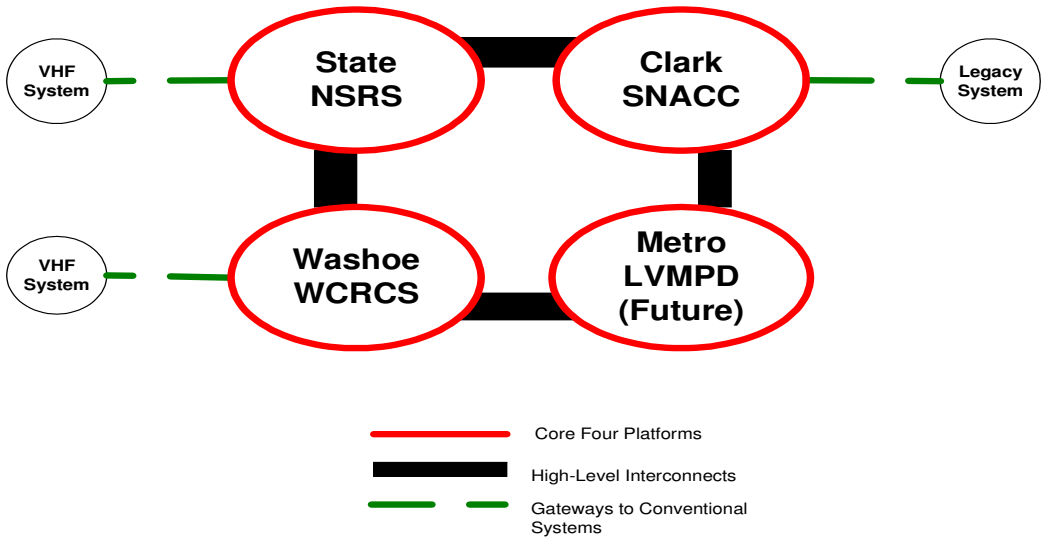


The two main components of the Nevada radio system are the 700/800 MHz component (Core Four*) and the 150 MHz components (mainly in the rurals.) Our short-term proposal is to link these two systems with gateway connections on mutual aide channels. Some of these gateways already exist, and they need to be expanded statewide. A preliminary estimate is that this statewide linkage could be accomplished for approximately $2.4M. Cost does not include integration of other frequency bands which will require additional expense.

* See “Core Four” next page

COMMUNICATIONS INTEROPERABILITY - THE "CORE FOUR" CONCEPT

Short and Long Term



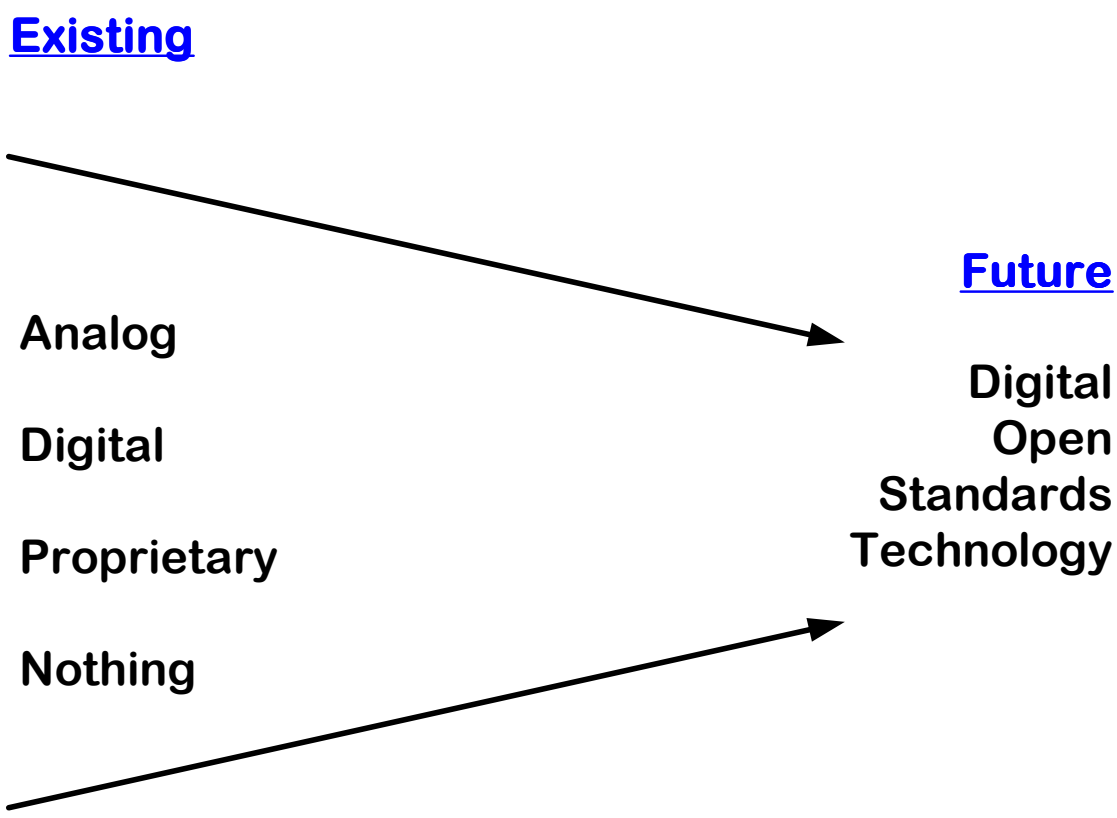
The "Core Four" concept capitalizes on communications systems investments made by each of the Core Four system operators in favor of all Nevada citizens. By connecting these four major trunked systems, a single "virtual" system is created. In turn, as each one of the four major, or other accepted systems, links to their principle mutual aid partners operating on smaller conventional systems, these mutual aid partners will have access to, and through the combined Core Four systems to other first responders.

This initiative will provide an immediate improvement in interoperability between public safety users on the four major systems, and also offer opportunity for improved interoperability with conventional system operators across the State. Leveraging the sophistication and coverage of these large trunked systems offers immediate benefits to emergency responders, and implements the SAFECOM recommendation of constructing a "system of systems".

- **NSRS –** ***Nevada Shared Radio System***
- **SNACC –** ***Southern Nevada Area Communication Council***
- **WCRCS –** ***Washoe County Regional Communication System***
- **LVMPD –** ***Las Vegas Metropolitan Police***

COMMUNICATIONS INTEROPERABILITY – LONG TERM CONVERGENCE

10 – 15 years



Our plan emphasizes convergence over time, upgrading when equipment otherwise needs replacement on maintenance schedules, not a wholesale change out of existing, operational equipment. We need to preserve the public's existing investments in communications technology that have already been made by agencies around the state. The approach is to require that new purchases comply with the plan, while generally allowing existing equipment to serve out its useful life.

TECHNICAL STANDARD FOR COMMUNICATION SYSTEMS DIGITAL, OPEN-SYSTEM (P25)

Background

In order to move toward long term convergence, a technical protocol or standard must be adopted.

P25 is an open-system (i.e. non-proprietary), technical standard that has been nationally developed for more than fifteen years. It continues under development as technology evolves and additional parts of the complex standard are addressed.

The P25 technical standard establishes a common protocol, much as a group of people will establish a common language such as English. This allows radios from different vendors, operating in the same frequency band, to effectively communicate using digital technology.

P25 does not address the technical issue of radios operating in differing frequency bands, nor other interoperability issues such as standard operating procedures. Development of a radio frequency plan is required and addressed in action item G5, and gateways between frequency bands in T4.

Recommendation

The long range plan for achieving communications interoperability includes the long term convergence of all radio systems within the state to digital, open standards technology, implementing the most current version of the P25 standard available at the time of purchase. This standard should be phased-in throughout the State based on the timetable presented below.

The P25 standard and the following implementation dates are hereby adopted for Nevada governmental agencies at all levels (state, county, city). Exemptions to adoption of this standard will be considered upon written showing of good cause, and only exemption requests approved by the Nevada Homeland Security Commission will be implemented.

1. **Effective October 1, 2005 (Fed FY 2006)**

A. All mobile and portable (i.e. end-user) radio equipment purchased using grant dollars, shall be P25 Common Air Interface capable.
B. All radio equipment (including consoles and backbone equipment) purchased using grant dollars, for initial implementation and use in a new system shall be capable of supporting P25 Common Air Interface on a system basis.
C. The “Core Four” Systems are exempt from mandatory compliance with this standard until July 1, 2009
D. Radio systems that do not use or apply for grant funding are exempt from this standard until July 1, 2007.
E. Other exemptions may be granted by the Homeland Security Commission on a case-by-case basis.

2. **Effective July 1, 2007**

A. All mobile and portable (i.e. end-user) radio equipment purchased shall be P25 Common Air Interface capable.
B. All radio equipment (including consoles and backbone equipment) purchased for initial implementation and use in a new system shall be capable of supporting P25 Common Air Interface on a system basis.
C. The “Core Four” systems, and any system directly connected to the “Core Four”, are exempt from these requirements until July 1, 2009.

3. Effective July 1, 2009:

A. All radio equipment purchased for use in radio systems operating below 512MHz shall be P25 Common Air Interface capable. This includes mobiles, portables and system equipment purchased as replacement for existing systems and new systems.
B. Mobile radios and portable radios purchased for use in all existing radio systems operating above 512MHz shall be P25 Common Air Interface capable.

4. Effective July 1, 2011:

All radio systems equipment purchased in the state, regardless of operating frequency or the system it is purchased for, shall be P25 capable.

5. Effective July 1, 2013:

All radio systems and equipment in the state shall be operating in P25 mode for normal, operational voice communications. Multi-mode operation, for interfacing with out-state systems, may be retained and used as needed.

Assumptions

1. "Capable" is defined as the ability to be quickly upgraded via the loading of a software program to actual P25 Common Air Interface operation. "Capable" in this context does not mean the equipment must actually operate in P25 mode when purchased, rather that it be "capable" of simple upgrade to such operational mode at a future time.

2. In every case where purchase of P25 capability is mandated, the requirement is for capability to accommodate the most recently approved version of the P25 standard.

SUMMARY

The 9/11 Commission Report found that:

> *"The inability to communicate was a critical element at World Trade Center, Pentagon, and Somerset County, Pennsylvania, crash sites, where multiple agencies, multiple jurisdictions responded. The occurrence of this problem at three very different sites is strong evidence that compatible and adequate communications among public safety organizations at the local, state, and federal level remains an important problem."*[1]

The Nevada Communications Steering Committee agrees with the 9/11 Commission's findings as described above and have taken steps over the past several years to develop methods to solve the interoperable communications problem.

Purpose of the Nevada Communications Interoperability Plan

The Nevada Communications Interoperability Plan (the Plan) is intended to provide near and long term directions to establish and improve *communications interoperability.* The scope of the intended improvements extends to all organizations providing public safety[2] services within the State of Nevada.

As used in the development of the Plan:

> ***"Interoperability is the ability of appropriate officials and personnel to effectively communicate by radio across jurisdictions and with each other, when authorized, as needed and in real time."***

This Plan is presented as a overview to identify general directions toward improving interoperability throughout the state, rather than an agency-by-agency list of items to be undertaken.

What Need Drives this Plan?

In this post-9/11 era, the documented and compelling need is to improve the inter-working of public safety personnel through better communication, and specifically through better *communications interoperability,* thereby improving the safety of both the public and the providers.

[1] ***The 9/11 Commission Report,*** pg.397: Command, Control and Communications.
[2] See page 3 for list of Public Safety agencies

Scope and Orientation of this Document

This document is designed as a condensed plan description. It is an effort to present the distilled essence and action plan, with references to a much larger body of developed detail, data, theory and alternatives.

This document is intended for a wide audience of individuals such as officials, administrators, legislators and non-technical users. An effort has been made to minimize non-essential detail and technical jargon.

Organizational Background

While work toward improving interoperability goes back some two decades, the current effort started in December 2002. At that time the first Nevada Government Communication Conference[3] was held. From the 125 attendees, two common themes became clear: a) a statewide forum for discussion of communication issues was needed; and, b) a communications interoperability plan for Nevada should be developed. Reflecting these, the Governor directed the State Chief Information Officer (CIO) to assemble a representative committee and begin developing a plan. Thus the Nevada Communications Steering Committee (NCSC)[4] was created, and began working.

Subsequent to this, the Nevada Homeland Security Commission, and a specific requirement for a plan was created in law by the 2003 Legislature[5]. The NCSC has since worked with to the Commission. The Plan is required for implementation by October 1, 2005 pursuant to the Nevada Revised Statute.[6].

Plan Development Process

The process is fundamentally a broadly representative steering committee driving consultants, reviewing and acquiring feedback, and adapting results. NCSC representatives (see appendix) are from fire, law enforcement and medical/health disciplines, from urban and rural locals, and from city, county and state agencies. NCSC meetings have been held monthly under Nevada open-meeting laws. The Nevada Department of Information Technology (DoIT) provides administrative support.

In 2003, the NCSC through DoIT successfully applied for a Department of Homeland Security (DHS) planning grant. In mid-2004 Tech/Knowledge (consultant)[7], was hired and began working. The Consultant has developed data through survey and interview, prepared draft recommendations and participated in NCSC meetings discussing plan development.

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[3] *Nevada Government Communication Conference;* aggregated raw comments and summary conclusions. 3Dec02.
[4] More information available at: www.ncsc.nv.gov.
[5] AB441 by the 2003 Nevada Legislative Session, as incorporated into NRS 239.
[6] AB441 originally called for plan implementation 1Jul05, however this has been modified by SB194 in the 2005 Session to 1Oct05.
[7] *A Proposal to Prepare a Communications Interoperability Plan;* from Tech/Knowledge, 10May04; and contract.

In addition, the SAFECOM Office of the Department of Homeland Security (DHS) has offered assistance to Nevada.[8] SAFECOM is the federal government coordinating office for public safety communication interoperability efforts.[9] SAFECOM has offered, and Nevada has accepted, to assist in plan development specifically with additional consultant and expert assessment resources. In return, Nevada will become a "model state" for other states developing plans. Information developed by SAFECOM has been used and integrated throughout the Plan.

Vision

The following statement has been adopted by the NCSC to describe the overall goal envisioned for Nevada:

Providers of public safety and critical infrastructure services in the State of Nevada, in both the public and private sectors, at all levels of government, including local, county, special district, authority, tribal, state and federal, will possess the tools needed to communicate and work together:

- *To more effectively address their day-to-day missions*
- *To respond to and recover from large-scale emergencies*
- *In real time*
- *Across disciplines and jurisdictions*
- *With optimum balance between efficiency and effectiveness*
- *At the lowest appropriate long-term cost to the public, given the criticality of the public safety mission.*[10]

Survey and Data on Nevada Needs

A survey was conducted by the Consultant in September through December 2004: "*Interoperability & Communications Issues Facing Nevada's Public Safety Community"*

The Consultant identified and contacted 341 public safety agencies in Nevada. They were asked to respond to 179 questions via secure web site. Response was received from 160 agencies, a database developed and analyzed, and extensive results documented.[11]

The developed database, while not complete, will be turned over by the Consultant to the state for continued development, refinement and use.

[8] *Memorandum of Agreement between the State of Nevada Department of Information Technology and SAFECOM;* Apr05; and SAFECOM "Regional Communications Interoperability Pilot" announcement (See Appendix B
[9] *SAFECOM:* www.safecom.dhs.gov.
[10] Tech/Knowledge recommendations second draft, March 02,2005; Section 5.2, as modified and adopted
[11] Tech/Knowledge recommendations second draft, March 02, 2005; Section 4

Dimensions of Interoperability

Interoperability has been recognized as having more dimensions than simply technology. SAFECOM has developed the *Interoperability Continuum*[12], identifying the dimensions of Governance, Standard Operating Procedures, Technology and Training & Exercises. These dimensions have been adopted and used as seen in the categorization of needs and major plan components.

Major Plan Components

The following summarizes the components and actions identified in *Section 3 - Action Plan* of this document. Note: organization in accordance with SAFECOM Interoperability Continuum.

Governance

- *Organization.* Establish and define a permanent body responsible for coordination of interoperability (G1, G2, and G3).
- *Funding.* Work with the Governor and Legislature to develop a permanent source (G4).
- *Education and Communication.* Provide issue information to legislators, policy makers, administrators and the public; and operational information to first-responders (G6 and G7).
- *Process and Planning*. Work with federal agencies and base future planning on user needs (G5, G8, G9, and T6).

Standard Operating Procedures

- *Operational SOP's*. Develop, test and exercise SOP's consistent with the National Incident Management System (NIMS) (S1, S3).
- *Enabling Policies*. Develop policies implementing SOP's between state and local agencies (S2).

Technology

- *Common and Mutual Aid Channels*. Establish and (where needed) re-establish common and mutual aid frequencies and channels (G6 and T1).
- *Equipment Caches*. Establish and maintain radio equipment caches for emergency situations (T2).
- *Talk group Linkages*. Establish talk groups on shared systems ("Core Four") allowing conventional interconnects (T3, related T4).
- *Gateways.* Construct gateways statewide between disparate frequency bands (T4, related T3).
- *Connect Dispatches*. Construct a network connecting dispatch centers within the state (T5).
- *Standards.* Define through users the minimum standards for new radio equipment and a schedule for implementation (T6).

[12] See also Interoperability Continuum-SAFECOM Section 1 of this document .

Training and Exercises

- *NIMS Training*. Develop training schedules for public safety personnel on National Incident Management System (NIMS) (E1, related S1).
- *Certify and Credential*. Train and certify Communications Unit Leaders in public safety first-responder disciplines (E2, E5).
- *Regular Refresher Training*. Require regular refresher training (E4).
- *Interagency Exercises*. Regularly schedule and execute interoperability exercises; may be part of larger exercise (E3).

Coverage and Operability

Overarching the issue of *interoperability*, the major issues of *operability* and *coverage* have been identified as effecting public safety agencies, especially in rural areas. "Operability" includes aspects of insufficient or obsolete equipment, and "coverage" relates to geographic areas of a jurisdiction lacking radio system coverage ("dead spots"). While beyond the scope of this interoperability plan, coverage and operability problems have been noted in survey data, interview data and NCSC member statements. Operability and coverage are basic and fundamental to achieving needed interoperability.

ACTION PLAN

Definitions:

Priority
A low (L), medium (M) or high (H) priority is identified based on perception of the relative benefit to interoperability, balanced by the degree of difficulty expected in implementing the recommendation. In that respect, a project with significant impact on interoperability and relative ease of implementation was ranked more highly than a project with the same impact, but a higher degree of difficulty to implement.

Time Period
The time frame within which the item is expected to be accomplished and operational. In some cases the effort is continuous.

Estimated Cost (where included) Methodology of estimate is provided.

GOVERNANCE *(See SAFECOM Interoperability Continuum)*

G1: ***Establish the NCSC as a permanent body, with funding and authority as the designated Statewide Interoperability Executive Committee, responsible for the establishment and coordination of interoperable public safety communications within the state, providing advice and counsel to the Homeland Security Commission as it relates to radio communications focused projects.***

Implementation: Legislative and executive action required.
Priority: High
Time Period: Near Term

G2: ***The NCSC and any successor bodies must not be controlled by the State, any State agency, or any single member, discipline, level of government, or geographic area. It must remain representative of the entire Nevada public safety community.***

Implementation: NCSC adoption and inclusion in any policy or legislation as required.
Priority: High
Time Period: Near Term

G3: ***Develop regional working groups to provide enhanced local input on communications interoperability issues, without making the NCSC too large to function effectively.***

Implementation: NCSC
Priority: High
Time Period: Near Term

G4: ***Work with the Nevada Governor and Legislature to develop a permanent, predictable and stable statewide source of funding for public safety communications.***

Implementation: Legislative and executive action required
Priority: High
Time Period: Mid to Long-Term
Prospective Funding Source: N/A

G5: ***Consistent with the provisions of NRS Chapter 414, the Department of Public Safety shall revise, update and promulgate an interagency Radio Frequency Plan. The plan shall comply with rules and regulations established by the Federal Communication***

Commission, the U.S. Department of Homeland Security and shall be reconciled with surrounding states.

The Department of Public Safety shall coordinate with and report to the Homeland Security Commission or any designated sub-committee at the pleasure of the committee to ensure adequate progress and compliance with the plan.

Implementation: integrate into the enabling legislation developed in support of Recommendation GI.
Priority: High
Time Period: Near Term

G6: ***Educate key policy makers at all levels of government regarding the current state of Nevada's public safety communications, as well as the needs and benefits of continued investments to further interoperable communications.***

Implementation: NCSC
Priority: High
Time Period: Ongoing

G7: ***Increase the general public's awareness of the urgent need for interoperability.***

Implementation: NCSC
Priority: High
Time Period: Ongoing

G8: ***Future-planning efforts will be based on input from the user community.***

Implementation: NCSC adoption and inclusion in any policy or legislation as required
Priority: High
Time Period: Near Term

G9: ***Work with Nevada-based senior management of federal agencies to encourage, enhance and support federal participation in the NCSC.***

Implementation: NCSC, Department of Information Technology (DoIT)
Priority: Medium
Time Period: Near Term

G10: ***Establish a statewide secure web site that posts interoperability preferences and access methods for all public safety agencies in Nevada.***

Implementation: will require a moderate expenditure of funds (under $25,000)
Priority: Medium
Time Period: Near Term

STANDARD OPERATING PROCEDURES

S1: ***Utilize the regional working groups, on a per-discipline basis, to develop, test and exercise standard operating procedures for operational and communications interoperability consistent with the National Incident Management System.***

Priority: High
Time Period: Near Term

S2: ***The Nevada Department of Public Safety (DPS) should work with the regional working groups to define, test and exercise formal, statewide policy and procedures for interoperability between local agencies and the DPS, utilizing the existing technology currently deployed.***

Priority: High
Time Period: Near Term

S3*:* ***Develop, test and exercise standard operating procedures for the use of ad hoc gateway interconnect devices based on the SOPs developed for Recommendation S1.***

Priority: Medium
Time Period: Near Term

TECHNOLOGY

T1: ***Establish a formal working relationship with appropriate federal entities to establish common, shared channels for federal, state and local uses.***

Implementation: approach the Chair of the local Federal Executive Association (located in Las Vegas) for assistance in this regard
Priority: High
Time Period: Near Term

T2: ***Purchase and properly maintain caches of portable radios configured to operate on the various proprietary shared systems to provide communications to inbound mutual aid resources.***

Implementation: the operators of the systems with the NCSC taking steps to assist in funding
Priority: High
Time Period: Near to Mid-Term
Estimated Cost: $2,000,000
This estimate is based on (2) caches of 250 radios at an average price of $4000 each, which includes support accessories such as chargers, transport cases, etc.
Prospective Funding Source: Grant

T3: ***Configure talk groups and construct resources on the proprietary shared systems to permit direct interoperation within their coverage areas. (Core Four Concept)***

Implementation: the operators of the systems with the NCSC taking steps to assist in funding
Priority: Medium
Time Period: Near Term

T4: ***Support and encourage a statewide network of inter-tied base stations/repeaters statewide to provide communications gateways between users in disparate frequency bands. (Short Term Gateways)***

Implementation: carried out by the NCSC as these resources are intended to be shared statewide with the entire Nevada public safety community
Priority: High
Time Period: Near Term
Estimated Cost: $2,400,000
This estimate is based on 60 sites @ $40,000/site total. Each site requires (2) 800 MHz radios and (2) VHF radios. The total expenditure may be reduced by recycle of existing surplus NHP equipment. Cost does not include integration of other frequency bands which will require additional expense.
Prospective Funding Source: Grant and/or appropriation

T5: ***Support and encourage a statewide IP-based network to interconnect public safety communications centers and their associated radio systems.***

Implementation: carried out by the NCSC, as these resources are intended to be shared statewide with the entire Nevada public safety community/the Committee may elect to contract with appropriate departments to assist in the implementation
Priority: Medium
Time Period: Near to Mid-Term

T6: ***Utilize the NCSC and the regional working groups as cross-discipline, collaborators for long-term communications system planning, to promote sharing of systems and infrastructure as appropriate.***

The regional working groups should work with individual discipline groups to define minimum standards for public safety radio equipment, including the definition and subsequent implementation of appropriate interoperability channel sets.

Priority: High
Time Period: Near Term

TRAINING & EXERCISES

E1: ***In cooperation with and through the existing state training bodies, develop training programs for all public safety personnel in the state based on the NIMS-based Standard Operating Procedures developed under Recommendation S1.***

Implementation: Initial NIMS training now underway through Department of Public Safety
Priority: High
Time Period: Near Term
Prospective Funding Source: Grant

E2: ***Train, certify and deploy qualified and credentialed Communications Unit Leaders in all public safety disciplines.***

Implementation: implemented through either administrative law or regulation, or by policy established through the training bodies
Priority: High
Time Period: Near Term

E3: ***Carry out regional interagency, cross-discipline interoperability exercises based on DHS exercise guidelines on at least a biennial basis. These exercises may be an element of a larger exercise.***

Implementation: Department of Public Safety
Priority: High
Time Period: Mid-Term

E4: ***Once training programs have been developed and delivered for interagency operations, require periodic refresher training.***

Implementation: implemented through either administrative law or regulation, or by policy established through the training bodies
Priority: High
Time Period: Mid-Term

E5: ***Develop a credentialing process to facilitate interoperability operations among people unfamiliar with one another.***

Implementation: implemented through either administrative law or regulation, or by policy established through the training bodies
Priority: Medium
Time Period: Mid-Term

REFERENCES

Consultant's Report and Recommendations, Second Draft, March 2005;

SAFECOM, www.safecom.dhs.gov.

"Nevada Communication Interoperability Strategic Plan", non attributed.

NIMS Implementation Requirement Letter to the Governor from Secretary Tom Ridge, Department of Homeland Security

Nevada Government Communication Conference; aggregated raw comments and summary conclusions, December 3, 2002, Carson City, NV

Nevada Communications Steering Committee website: www.ncsc.nv.gov.

2003 Nevada Legislative Session; *Assembly Bill 441*, as incorporated into NRS 239.

A Proposal to Prepare a Communications Interoperability Plan; from Tech/Knowledge, May 10, 2004

Memorandum of Agreement between the State of Nevada Department of Information Technology and SAFECOM, April 2005

SAFECOM *"Regional Communications Interoperability Pilot"* announcement, April 2005

APPENDIX A

NCSC MEMBERSHIP

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APPENDIX B

Regional Communications Interoperability Pilots (RCIP)

"Developing and disseminating tools and models in partnership with public safety at the regional level for public safety nation-wide"

Background

SAFECOM, a program of the Science and Technology (S&T) Directorate's Office for Interoperability and Compatibility (OIC), serves as the umbrella program within the federal government to help local, tribal, state and federal public safety agencies improve public safety response through more effective and efficient interoperable communications. As a public safety practitioner driven program, SAFECOM is working with existing federal communications initiatives, with key public safety stakeholders, and through its new legislative authorities to address the need to develop better technologies and processes for the cross-jurisdictional and cross-disciplinary coordination of existing systems and future networks.

SAFECOM has been granted a number of authorizations, responsibilities, and powers through legislation to address the communications issues facing the public safety community. Section 7304 of the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458) authorized the Secretary of Homeland Security, acting through SAFECOM, to carry out at least two Regional Communications Interoperability Pilots (RCIP). SAFECOM will conduct the RCIP projects in the Commonwealth of Kentucky and the State of Nevada by providing assistance and developing tools and models that can be leveraged nationally.

Overview

The purpose of the RCIP projects is to improve interoperable communications nationwide by building the knowledge base of the needs and requirements of the public safety community and developing the tools necessary to address those needs and enhance communications. The RCIP projects will focus on developing models for improving communications and interoperability that take into account a variety of challenges faced by communities across the nation. These models will be built from the local level up as over ninety percent of public safety communications infrastructure is owned and operated at the local and state level. SAFECOM will start the Nevada RCIP in the spring of 2005, which will be shortly followed by the Kentucky RCIP. The results of the RCIP projects will be models and tools for strategic planning and improving communications, which SAFECOM will share with other interested communities.

Approach and Strategy

The RCIP initiative will have components that are both technical and operational in nature to ensure public safety not only has the equipment, but also the non-technical elements that maximize the efficiency of public safety technology. The selection of the pilot locations was based on the criteria from the Intelligence Reform and Terrorism Prevention Act of 2004, such as: the level of risk to the area, the number of local, state, and federal law enforcement agencies located in the area, the number of potential victims from a large scale terrorist attack in the area, and the community's risk and vulnerability. In addition, OIC-SAFECOM composed the following criteria: the level of commitment and buy-in of the region, the articulation of a defined interoperability need by the region, and the ability of the pilots to serve as national models. Key components of SAFECOM's strategy for successfully conducting the RCIP projects include:

- Using a practitioner-driven approach that involves local, state, and federal stakeholders throughout the planning process;
- Working with members of the SAFECOM governance to provide guidance, advice, best practices, and an exchange of information;
- Applying the Interoperability Continuum as a comprehensive framework;
- Partnering with and complementing the efforts of federal agencies, such as the Departments of Defense and Justice the National Institute of Standards and Technology's Office of Law Enforcement Standards, and other DHS initiatives such as the Office of State and Local Government Coordination and Preparedness' Interoperable Communications Technical Assistance Program; and
- Focusing on developing models for improving communications and interoperability that take into account the different communications interoperability issues challenges faced across the nation.

Site Selection

Nevada and Kentucky were selected as two of the locations for the RCIP projects for public safety communications interoperability due to their diverse geography, demographics, critical infrastructure, commitment to advancing

interoperability, and commitment to funding. These states and their political subdivisions are attractive options to serve as national models because each has characteristics that are comparable to regions in other parts of the country. SAFECOM intends to leverage the results and information from these projects to develop tools and models for other regions across the nation.

APPENDIX B

NCSC OVERVIEW

Nevada Communications Steering Committee (NCSC)

Mission ....

It is the mission of the Nevada Communications Steering Committee to facilitate the planning, development and operation of interoperable communication systems for use between government officials and emergency response agencies in Nevada.

Information and Updates…

Web site: www.ncsc.nv.gov

Be sure to watch this web site for future posting of the final SAFECOM practitioner-driven recommendations report, and the updated version of the Nevada Communications Interoperability Plan

Documents of Interest…

Governor's Welcome Letter (pdf)
NV Government Communications Conference Questionnaire Responses 12/03/02 (pdf)
NV Government Communications Conference Summary 12/03/02 (pdf)
Achieving Statewide Public Safety Wireless Interoperability (pdf)
State Selected to Participate in Emergency Response Communications Academy
Nevada Communication Interoperability Plan, Version 1.0, June 28, 2005 (pdf)

New **Focus Group Reports:**

- ***New*** Focus Group Report - Carson City (pdf)
- ***New*** Focus Group Report - Elko (pdf)
- ***New*** Focus Group Report - Ely (pdf)
- ***New*** Focus Group Report - Henderson (pdf)
- ***New*** Focus Group Report - Lake Tahoe (pdf)
- ***New*** Focus Group Report - Las Vegas (pdf)

New Strategic Planning Session Report - Las Vegas, Sept 14, 2005 (pdf)

Staff support of the NCSC is provided by the Nevada Department of Information Technology

NCSC Committee Members

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APPENDIX C

INTERIM STRATEGIC PLAN ASSESSMENT

June 8, 2005

To Members of the Nevada Communications Steering Committee:

As you know, SAFECOM's mission is to serve as the umbrella program within the federal government to help local, state, tribal and federal public safety agencies improve public safety response through more effective and efficient interoperable wireless communications. SAFECOM is working with the Nevada Communications Steering Committee (NCSC) as the NCSC develops the Nevada Communications Interoperability Strategic Plan. The SAFECOM Program is committed to acting as an equal partner and supporting Nevada throughout the strategic planning process and intends to apply lessons learned from other regions and states in a way that best suits Nevada's unique demographics, geography and current perceived needs.

One of the tasks that SAFECOM has agreed to undertake in this effort is to provide the NCSC with an assessment of its initial draft strategic plan. This will be delivered in two phases. Attached is the product of first phase which is a reflection of the data gathered and analyzed from SAFECOM's interviews with members of the NCSC and a review by technical and operational experts on the SAFECOM Program. The second phase will involve conducting 6 focus group interviews with first responders and other members of the public safety community across the state, analyzing the results of those interviews, conducting a final statewide strategic planning session in which the suggested initiatives and perspectives heard around the state will be validated and formatted as recommendations to upgrade the current draft plan.

In this initial assessment, SAFECOM has looked to whether the strategic planning efforts:

- Demonstrate a user driven philosophy
- Build relationships across agency and jurisdiction in an effort to acknowledge stakeholder similarities, as well as differences

- Address interoperability from a comprehensive point of view, dependent upon a solution that addresses governance, frequency of use, standard operating procedures, training and exercises and technology
- Identify the technical and operational strengths and promote solutions that leverage these strengths as improvements are made to existing systems
- Promote a “system of systems” approach and recognize that interoperable solutions are rarely one-size fits all

The attached assessment includes an executive summary and full assessment which highlights the observable strengths of the plan and recommendations on methodology which SAFECOM believes will help lead to successful implementation of Nevada’s statewide communication interoperability strategic plan. It should be remembered that all comments in this assessment are recommendations, not mandates, made by SAFECOM in its effort to bolster the adoption of a strategic plan and lay the groundwork for successful and sustainable implementation of it.

We look forward to continuing to work with NCSC to develop a strategic plan that can be successfully implemented to achieve communications interoperability across the State of Nevada.

Sincerely,

Dr. David Boyd

Executive Summary

The SAFECOM Program, the first national program designed by public safety for public safety, is committed to serving critical local needs and working in partnership with state and local officials. To that end, SAFECOM has partnered with the State of Nevada to conduct a regional communications interoperability pilot project in the state. The goal of the pilot is to help complete a communications interoperability strategic plan in Nevada that relies on the input and guidance of public safety practitioners and create tools and models that can be shared with other interested communities across the nation.

The SAFECOM program promotes strategic planning efforts that:

- Demonstrate a user driven philosophy
- Build relationships across agency and jurisdiction in an effort to acknowledge stakeholder similarities and as well as differences
- Address interoperability from a comprehensive point of view, recognizing that solutions take on a variety of forms including governance, frequency of use, standard operating procedures, training and exercises and technology
- Identify the technical and operational strengths and promote solutions that leverage these strengths as improvements are made to existing systems
- Promote a "system of systems" approach and recognize that interoperable solutions are rarely one-size fits all

SAFECCOM has been authorized through legislation to address communications issues facing public safety. Section 7304 of the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458), authorized the Secretary of Homeland Security to carry out at least two Regional Communications Interoperability Pilots (RCIP). The first RCIP has been launched in the State of Nevada and will be conduced according to an agreement which outlines activities and milestones for the work in the state and roles and responsibilities for each of the participants.

As part of this partnership, SAFECOM has agreed to provide an assessment of the initial draft strategic plan developed by the Nevada Communications Steering Committee (NCSC). This preliminary assessment was developed based on a two part approach. First, interviews were conducted with the majority of NCSC members. The data gathered from these interviews revealed the perspectives held by NCSC members on the state's interoperability efforts in the recent past, currently and the plans for the future. Second, the statewide interoperability draft plan was reviewed by technical and operational experts on the SAFECOM team. Observations and recommendations were compiled, integrated with relevant interview data and organized into this preliminary assessment. The second phase of assessment will involve matching the data from the statewide focus group interviews with the results and recommendations in the current draft plan. SAFECOM will submit a final assessment following the final strategic planning session, scheduled for early August 2005.

The assessment is organized under three evaluation headings as follows: Observable Strengths, Recommendations on Methodology, and Recommendations on Content.

The assessment presents the finding of significant observable strengths. First, the State of Nevada included a broad range of participants in the initial strategic planning effort. The current draft plan is organized around a comprehensive view of communications and interoperability, which takes into account both technical and operational needs, increasing the likelihood that the plan's initiatives will have a true and immediate positive impact on statewide interoperability. SAFECOM also found that the plan's recommended initiatives integrate federally recognized concepts and initiatives, such as the National Response Plan and the National Incident Management System.

The assessment also provides several specific recommendations on methodology. Common themes include:

- Strengths-based strategic development
- Identifying a portfolio of funding resources
- Transparent governance
- Measurable time-based initiatives

Finally, the assessment provides detailed recommendations on the content of the draft plan. This portion of the assessment provides the following information for each recommendation: a reference to a section of the draft, a description of the observation, a recommendation and a justification or rationale for change, and is prioritized as High, Medium, or Low priority. Overarching themes in the content assessment include:

- Structure and readability of the plan
- Validity of the practitioner voice
- Connection between data gathered and recommendations offered
- Accuracy in the short and long-term technical solutions

The assessment is intended to provide the NCSC with expert insights and recommendations for enhancing Nevada's draft communications interoperability plan in preparation for presentation to the Homeland Security Commission.

The partnership between the NCSC and SAFECOM is a critical next step in a series of actions needed to successfully complete and implement the strategic planning process. This partnership across local, state, and federal agencies will not only serve to enhance the involvement of public safety practitioners, which was initiated through data gathering at the start of the strategic planning process, but will also provide the public safety community an opportunity to validate the data and collaborate in the implementation of the strategic planning efforts.

Interim Assessment of Nevada's Draft Statewide Strategic Plan for Communications Interoperability

Background

SAFECOM is managed by the Department of Homeland Security (DHS) Science and Technology (S&T) Directorate's Office for Interoperability and Compatibility (OIC). Its mission is to serve as the umbrella program within the federal government to help local, state, tribal and federal public safety agencies improve public safety response through more effective and efficient interoperable wireless communications – allowing public safety agencies to talk across disciplines and jurisdictions via radio communications systems, exchanging voice and/or data with one another on demand, in real time, when needed and as authorized.

SAFECOM has been authorized through legislation to address communications issues facing public safety. Section 7304 of the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458) authorized the Secretary of Homeland Security to carry out at least two Regional Communications Interoperability Pilots (RCIP). The purpose of the RCIP is to improve interoperable communications nationwide. The pilots will focus on developing models for improving communications and interoperability that seek to address the unique challenges faced across the nation. SAFECOM will conduct the initial pilots in the Commonwealth of Kentucky and the State of Nevada.

The pilot sites were selected based on criteria provided by the Intelligence Reform and Terrorism Prevention Act of 2004 and OIC-SAFECOM, such as:

- level of risk to the area,
- number of local, state, and federal law enforcement agencies located in the area,
- number of potential victims from a large scale terrorist attack in the area,
- community's risk and vulnerability,
- level of commitment and buy-in of the region,
- articulation of a defined interoperability need by the region, and
- ability of the pilots to serve as national models.

Introduction

This document serves as an early stage assessment and review of the Nevada Communications Steering Committee's efforts to develop a statewide strategic plan for communications interoperability. Under the auspices of the Regional Communications Interoperability Pilot program, the State of Nevada has agreed to partner with the SAFECOM program to finalize their strategic plan guided by a user-driven philosophy, and consider recommendations set forth by SAFECOM

that are intended to bolster adoption of the plan and lay the groundwork for successful and sustainable implementation.

The SAFECOM program fully acknowledges the efforts of the Nevada Communications Steering Committee, among others, to improve interoperability among first responders across the state. Both parties recognize that this partnership between the state and federal government requires open and honest dialogue on the issues Nevada faces and how SAFECOM can offer perspectives on these issues, specifically how they relate to other states and how SAFECOM may serve as a conduit in sharing solutions and information across all groups interested in improving interoperable communications for first responders. All comments and suggested actions offered in this assessment are recommendations and should at no point in time be considered mandates of any sort.

The SAFECOM program promotes strategic planning efforts that:

- Demonstrate a user driven philosophy
- Build relationships across agency and jurisdiction in an effort to acknowledge stakeholder similarities and as well as differences
- Address interoperability from a comprehensive point of view, recognizing that solutions take on a variety of forms including governance, frequency of use, standard operating procedures, training and exercises and technology
- Identify the technical and operational strengths and promote solutions that leverage these strengths as improvements are made to existing systems
- Promote a “system of systems” approach and recognize that interoperable solutions are rarely one-size fits all

The SAFECOM Program is committed to acting as an equal partner and supporting Nevada throughout the strategic planning process and intends to apply lessons learned from other regions and states in a way that best suits Nevada’s unique demographics, geography and current perceived needs.

This preliminary assessment was developed based on a two part approach. First, interviews were conducted with the majority of Nevada Communications Steering Committee members. The data gathered from these interviews revealed the perspectives held by NCSC members on the state’s interoperability efforts in the recent past, currently and the plans for the future. Second, the statewide interoperability draft plan was reviewed by technical and operational experts on the SAFECOM team. Observations and recommendations were compiled, integrated with relevant interview data and organized into this preliminary assessment. The second phase of assessment will involve matching the data from the statewide focus group interviews with the results and recommendations in the current draft plan. SAFECOM will submit a final

assessment following the final strategic planning session, scheduled for early August 2005.

This document contains recommendations on the methods taken to complete the draft plan as well as the content therein. The following two sections offer a series of recommendations and comments that SAFECOM believes if addressed will offer the best opportunity for the completion and adoption of Nevada's Strategic Plan for Statewide Interoperability.

Observable Strengths

The Homeland Security Commission recognizes the Nevada Communications Steering Committee (NCSC) as a body, diverse in agency, existing in part, to develop the statewide strategic plan for interoperability.
The State of Nevada has made efforts to include a broad range of state level participants in the strategic planning effort. This effort appears to promote an initial inclination to recognize the wide spectrum of interoperable needs across the state and to draft a plan that addresses differences as well as commonalities.

In addition, through the letter of support and endorsement from Governor Kenny Guinn dated December 3, 2002, the NCSC has been recognized as the representational committee on communications. The members of the NCSC has been asked by the highest level of office in the state to draw upon their knowledge of Nevada's communications needs, develop consensus, and develop a framework toward a communication plan for our state.

A clear deadline has been set for the completion of the plan.
The Homeland Security Commission and the NCSC have agreed on a deadline for the plan's completion that is also recognized by the state legislature.

The current draft plan is organized around a comprehensive view of communications and interoperability, which takes into account both technical and operational needs.
It is not unusual for communications related strategic planning efforts to consider only the technical needs of regions when attempting to advance interoperability. These efforts result in localities owning equipment that their practitioners are not sufficiently trained on or systems that are not interoperable with surrounding regions due to a lack of standard operating procedures or memorandums of agreement. The State of Nevada's current draft plan identifies needs along the technical and operational fronts thereby increasing the likelihood that the plan's initiatives will have a true and immediately positive impact on statewide interoperability. The current efforts of NCSC and SAFECOM to gather and incorporate additional practitioner-based information have the potential to take Nevada even further towards statewide interoperability.

The plan's recommended initiatives integrate federally recognized concepts and initiatives such as the National Response Plan and the National Incident Management System.
Successful integration and recognition of NRP and NIMS will enable Nevada to be an equal contender for federal grant monies as these federal programs mature and become required elements of emergency response.

Recommendations on Methodology

Establish a written charter for NCSC with clear roles and responsibilities for each player.
Interview data reveals that the NCSC lacks a charter or written agreement among members outlining authorization, rules and expectations for membership and decision making processes. Establishing a statewide body inclusive of a broad spectrum of agencies and programs without a clear charter shared by all leaves the NCSC vulnerable to public scrutiny and a variety of mixed perceptions on how this group differs from and relates to other groups addressing communications and interoperability. Imbalances of power may develop creating an environment that is overly political and not grounded in a common mission or shared vision.

Establish key relationships: Find a sponsor at the highest level of government to endorse the process and to drive the effort to secure funding and political sponsorship for the implementation for the plan.
Results from the NCSC interviews reveal a general sense of ambiguity regarding who will own and be held responsible for implementation of the statewide strategic plan. Immediate efforts should be made to leverage the NCSC's relationship with the state's Homeland Security Commission to confirm expectations and strategies for short and long term implementation of the interoperability plan.

Bring key county and state stakeholders together for a final strategic planning session: This acts as a forum to air unresolved issues, validates the data collected to date and aligns the entire community along a portfolio of recommendations for improving statewide interoperability.
Whole community awareness and participation in finalizing the statewide plan is an essential last step to the planning efforts and a critical first step toward implementation. Due to scarce and inconsistent funding, a large portion of the implementation effort will depend on the overall sense of ownership and belief in the value of the plan and the initiatives by practitioners and decision makers across the field of public safety. A final strategic planning session offers an arena to acknowledge the differences across parties and creates the opportunity for each stakeholder to identify the individual and group benefits of the plan. This act of consensus building requires the governing body to commit to a transparent decision making posture that invites criticism and upgrades. An inclusive

approach lays the groundwork for a healthier process and the opportunity to solicit statewide sponsorship for the plan's success.

Build on what exists by using a strength based approach to strategic planning for statewide interoperability.
The overall budgetary weight of interoperability related expenses can add up quickly, when considering the governing bodies needed to support effective operation, the technology required, training and exercises, standard operating procedures, and on-going maintenance and use. Determining the current inventory and strengths that exist in today's systems and participating agencies is a fiscally responsible way to find leverage and fund initiatives and efforts that compliment present day strengths. The current draft plan has limited its scope of the inventory. This represents a limited strength based approach and fails to clearly articulate the ways in which current systems and procedures are effective in meeting first responder needs for communications. Survey questions that target whether or not interoperability needs are being met fail to define what it means to have needs met. SAFECOM recommends gathering more data on what is effective technically and operationally across the state and leveraging this information to craft strategies that allow strengths to be shared across discipline and jurisdiction.

Identify actionable, realistic and measurable first steps for implementation: Such initiatives build credibility because they are not dependent on anything beyond the structures and individuals that already participate in the process.

The strategic plan for the state should be a concise set of key initiatives that are most critical to the immediate improvement of communications interoperability. Each initiative should declare a desired outcome that will mark a milestone to achieving a long-term goal, be measurable, and be framed by a timeline or schedule. The strategic plan should consist of the fewest set of initiatives that will have the largest impact for the entire community and maximizes the return on investment to the state. SAFECOM recommends beginning with the NCSC vision for interoperability as a long-term goal and looking to the public safety community for recommendations to determine immediate needs and solutions for achieving progress.

The following initiatives exemplify the issues underlying this recommendation:

> *Promote agency mindsets that support routine use of interoperability resources whenever they provide an operational advantage for incident management.*

How will the Homeland Security Commission know when this is complete?

The department of public safety should work with regional working groups to define formal, statewide policy and procedures for interoperability between local agencies and the DPS, utilizing existing technology currently deployed.

An initiative written to another state body stands to be scrutinized and has a potential to not be recognized because it arises from outside the state agency.

Future planning efforts will be bottom up rather than top down.

This statement cannot be measured as written, nor are the definitions of each distinctive approach clearly defined.

Determine the audience and goal of the strategic plan.

Interoperable communications is just one issue impacting first responders and the citizens they work to protect. However, many issues like this one compete for the same state and federal funding. Strategic plans are one way to educate elected officials on the consequences of not directing immediate attention to efforts that improve first responder communications. These plans are most successful when they are written to a wide audience while also being technically sound. The current draft plan needs conclusive arguments based on the data gathered and a clearly articulated case for change. As such, elected officials and grant making bodies reading this plan could be left without the sense of urgency this issue demands.

SAFECOM recommends reorganizing the plan to move the raw data gathered through surveying to the latter sections of the plan and beginning, instead, with a high level summary followed by recommendations that map to the data gathered. Organizing the information in this way will allow an individual lacking extensive technical competency to grasp the characteristics of the issue at hand and enable them to comprehend the logic for moving forward following the recommendations outlined in the plan.

Define metrics by which the plan's success can be measured.

The success of a plan and the initiatives it contains hinge on the governing body's ability to determine when an initiative has been completed. Demonstration of completion and implementation are critical to garnering more funding as the implementation effort progresses and the plan is updated over time. The current draft plan needs both to link performance measures to the recommended initiatives and provide a timeline for implementation which takes into account when the Homeland Security Commission can review and approve the draft plan and the legislature is next in session to act on any issues it needs to address. Many of the recommended initiatives in the governance section, in particular, are dependent on the NCSC being legislatively authorized as the Statewide Interoperability Executive Council (SIEC) as well as the group

responsible for all decisions pertaining to interoperable communications and issues pertaining.

SAFECOM recommends linking performance metrics to each initiative and determining an interim action plan that will demonstrably improve interoperable communications for first responders while items dependent on legislative approval shift to more of a mid to long term action plan.

Recommendations on Content

Section	Reference	Describe Observation	-Recommendation. -Justification or Rationale for Change	List Priority H/M/L
4.2.1	Are your interoperability needs being met? (Q B.16)	• Could not identify Question B.16 • Survey responses (see Appendices) are "free text" and are not traceable to questions • Appendix I, Survey Instrument, is not provided. We cannot comment on its effectiveness or completeness as a data gathering tool	-Add the survey questions in the appendices. Track responses to the questions by numbering, and organize questions and answers by agency/organization/POC -Unable to gauge whether interoperability needs are met because of the limited information provided. There may be differing views of interoperability, 52% seems to be a high percentage for compliancy -Organizing Q&A by agency/organization/POC will also help determine the urgency/priority of the interoperability requirements.	M
4.2.1	Are your interoperability needs being met?	• This question may be too broad to provide a proper response.	-The question could be rephrased to be more pointed regarding types of I/O and how they are or are not achieved within an agency -Examples include: If the department/agency operates automatic aid between agencies, are those communications interoperable and how? If the department operates in a task force how is interoperability achieved between members? What plans exist to provide I/O in a major event or incident, what resources are available? Who has those resources, How does one contact those resources? Where are the resources located? Are the resources readily available or do they require some other type of authorization?	H

			- Depending upon who responds to the question and their knowledge of the I/O solutions present could skew the outcome.	
4.2.2	List the interoperability needs with collaborating agencies that are not being met (Q. B18)	• Assumes the received responses were listed in order of priority, this may not be the case	- Either validate user prioritization or remove the inference that it has been prioritized. Remove Priority 1, 2, 3; the only valid table is the "combined" listing, remove "priority" from the table name. -Conclusions have not been validated implicate the integrity of the collected data, drawing conclusions based upon reasonableness is not recommended.	M
4.2.2	Categorization by Dimension	• The aforementioned results appear to indicate some specific opportunities to improve I/O.	-Recommend a paragraph or two discussing the implications of the results - Potentially, technical recommendation should concentrate upon the factors that received the most visibility. Better communications center to communications center access was recommended. -A technology solution that provides an RF component to allow for a communication s center network may be a viable opportunity to provide this critical connection as well as coordination of other I/O resources within a given area. This type of solution could be a wide area channel(s) that would augment on scene capabilities for an event.	M
4.2.2	Priority 1 Issue: "Narrowband Communications"	• Narrowband is a communications protocol, not a I/O solution	-Recommend removing narrowband from the table. Instead, the text should reflect that it was included although it was not a I/O solution -Narrowbanding is not an I/O solution.	M

4.2.2	All Priority Issues	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers.	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	M
4.2.3	Please provide Summary Paragraph Describing Your Agency's goal for Communications Interoperability (Q. B.1)	• "SNACC" acronym not spelled out	-Spell out acronym - Definition would help the unfamiliar reader	L
4.2.3	Please provide Summary Paragraph Describing Your Agency's goal for Communications Interoperability (Q. B.1)	• Unable to measure communications interoperability goals • Difficulty in measuring magnitude of goal (i.e., what does "achieve full interoperability" mean?	-Ascertain the timeframe that the agencies anticipate meeting their stated goals. Need follow-on questions to understand meaning of responses. Conduct focus group discussions, if not possible, remove question. -Goals should be measurable, the question is not specific enough for the data to be useful	M
4.2.3	Please provide a summary paragraph discussing your agency's goal for communications interoperability (Q. B.1)	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers.	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower	M

			percentages. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	
4.2.3	Please provide a summary paragraph discussing your agency's goal for communications interoperability	• The survey poses a good question but does not appear to be probing enough to determine the "how" part of the equation • Based upon the percentages shown, it is unclear how the statement "we're doing a great job" was deduced	-Recommend further questions including which agencies and how do you intend to establish I/O. Will you use interim resources such as a radio cache or gateway and migrate to a more permanent solution? -The statement "we're doing a great job" requires justification. -The question initiates the thought for a discussion of the "goal" but does not contemplate the "how" the goal will be achieved. The responses are too broad as in city, county, state, federal.	H
4.2.4	Please provide any comments about interoperability issues such as urgency of need, recommended solutions, etc. (Q B.2)	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers.	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	M
4.2.4	Please provide any comments about interoperability issues such as urgency of need, recommended solutions, etc. (Q B.2)	• This question does not probe deep enough to acquire all of the necessary information.	-Recommend further questions including who needs compatible system, who needs repeaters and what types to communicate with what systems, How many common frequencies and where, how will they be	M

			used and allocated, wide area, on scene or both? -Helps to clarify the agency's concern, it appears that all agencies feel that it is an urgent issue, but the responses appear all over the spectrum	
4.2.5	Provide a summary paragraph describing your agency's near term direction for your radio communications system (Q C.1)	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers.	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	M
4.2.6	Long Term Direction for Radio Communications System	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers.	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	M
4.2.7	Current Radio System Meets Needs (Q C.7)	• There is no definition for "Very Good" in the pie charts	-Define what "Very Good" indicates. Are there any shortcomings for this category?	M

			-Will help the reader better understand the results of the data analyses and how they compare to each other.	
4.2.7	Current Radio System Meets Needs (Q C.7)	• These "operations" could use better definition to allow the reader to better understand the survey content	-Recommend further discussions on the selected factor and why that factor was selected would provide additional insight. -Emergency doesn't always mean the same thing to all, as does routine. Depending upon who answers the question will potentially skew the response. Again, the "how" question should have also been asked.	L
4.2.8.1	Routine Operations	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. Or use pie charts with the top choices noted by percentages, and the balance in a slice labeled "Other" with reference to the appendix. The pie charts in section 6.1 are a good example and are large enough for good detail. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	M
4.2.8.2	Regional/Task Force Operations	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted.	M

			Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. Or use pie charts with the top choices noted by percentages, and the balance in a slice labeled "Other" with reference to the appendix. The pie charts in section 6.1 are a good example and are large enough for good detail. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	
4.2.8.3	Emergency/Disaster Operations	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. Or use pie charts with the top choices noted by percentages, and the balance in a slice labeled "Other" with reference to the appendix. The pie charts in section 6.1 are a good example and are large enough for good detail. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	M
4.2.9	I Issues, Concerns, or Recommendations (Q G.1)	• Tasking the respondents to expound on their comments may	-Recommend a paragraph explaining the results and identifying the issue/problem or concerns expressed.	M

		provide valuable details and pertinent recommendations.	- Saying it “doesn’t work” or they “don’t like 800” are opinions that need explanations to define what the issue/problem or concern may be.	
4.2.10	Issues, Concerns, or Recommendations (Q. G.2)	• The data is in free text and cumbersome to read, digest, and relate to original questions and answers	-Put these data sets into tables and move them to the appendices. Create short summary of important points resulting from data analyses, with references to appropriate appendices, for each section that is noted. Perhaps the top 5 or 6 actions/points could be highlighted in the text with bullets, and references to the appendix for actions/points with lower percentages. Or use pie charts with the top choices noted by percentages, and the balance in a slice labeled “Other” with reference to the appendix. The pie charts in section 6.1 are a good example and are large enough for good detail. -Summarizes important points for high level managers and gives them the option of going to the appendix for more details.	M
4.2.10	Issues, Concerns, or Recommendations (Q. G.2)	• Basic adequate communications within an agency’s jurisdiction is the first step and then achieving I/O with contiguous agencies comes next.	-Recommend a paragraph explaining the results -The table of results contains comments regarding basic communications issues in addition to interoperability issues. Some analysis of these results could help show that steps are needed to provide basic adequate communications. Once that is achieved, interoperability goals can be met.	M
6.1	Current Situation	• The chart section labels are not defined	-Include definitions for each chart section label. -Helps high level managers	L

			who are not necessarily familiar with such terminology	
6.3	Governance Directions	• The recommendations do not reference the matrices starting on page 92. This should apply to all recommendations in the matrices, not just Governance.	-Recommend that each recommendation in the body of the document reference the appropriate item in the matrices -Helps the reader easily navigate the recommendations defined in the report.	L
6.3.10	AB441	• No reference provided	-Recommend including explanation or reference to AB441 - Explanation or reference to this is needed	L
6.3.11	Recommendation G11	• This appears to indicate that all license applications would go through this committee prior to submission to a specific service's frequency coordinator	-Recommend that this information be verified and rewritten if necessary. -Don't believe that this is how things are done. Proposed that all I/O frequencies are licensed by this committee/state on a state wide basis and a comprehensive frequency use plan is presented to maximize frequency use/reuse across the state	M
6.3.12	Recommendation G12	• In order to obtain the desired Federal participation and increase local, state and Tribal participation will require that those entities have some reasonable expectation of benefit.	- Recommend further outreach to federal agencies to address their concerns. - The participation of federal agencies from various departments add degree of complexity and requires that existing participants are genuinely and openly interested in solving the additional complexities that come with dealing with agencies of the federal government.	H
6.3.14	Recommendation G14	• What are the financing arrangements (e.g., labor,	-Identify resource requirements to develop State of Nevada specific content for website.	H

		materials, content) for management of a statewide secure website?	Establish plan to secure sustainable funding levels to be successful -Although coordination with SIEC database and NIJ are good sources to support the website, the State of Nevada has unique and specific requirements for interoperability and will require the appropriate level of resources to ensure those requirements are accurately reflected in the web site content.	
6.3.2	Recommendation G2	• This may be difficult to do if the SIEC is to be formally recognized and authorized by the legislature.	-It may be beneficial to establish different membership levels and advisory roles - Other states have created quasi-governmental entities that provide this structure and draw upon local, state and federal public safety practitioners to serve on different boards, or committees. The quasi-governmental unit or corporation could have a director and staff to assist the public safety committee members in creating the vision, establishing the goals , developing the objectives and planning the technology. There must be a concerted effort to bring forth a equitable structure that provides inclusion throughout the public safety community.	H
6.3.5	High cost of ownership	• This situation presents an opportunity for increased and enhanced resources sharing	-Recommend introducing the concept of resource sharing and its advantages -In many states, there has historically been a significant lack of coordination between agencies when construction their LMR systems. Thus agencies duplicate sites and equipment at various places where site and infrastructure	M

			can be beneficial to all involved parties. This process can also create significant monetary savings	
6.3.6	Recommendation G6	• Change to Recommendation G6 Description	-Change to, "Transfer mutual aid interoperability communications planning to NCSC. -Clarifies recommendation	M
6.3.6	Recommendation G6	• Other than removing the "stigma" that apparently exist with the NVZDPS a discussion of additional benefits to be realized would be appropriate.	-Recommend further discussion of additional benefits -The thought is initiated but there is little discussion to substantiate the recommendation	M
7.1	Current Situation	• The chart section labels are not defined	-Include definitions for each chart section label. Eg: What is "infrequently", "anytime", and "large scale"? -Helps the reader understand the magnitude of each response.	L
7.1	Current situation	• Does the question differentiate the use of ICS/NIMS by specific discipline?	-Recommend clarification of the question -Most Fire agencies use some form of ICS. Law enforcement has historically not used an ICS/NIMS structure, but nationwide are moving, slowly, towards compliance.	L
7.1	Current Situation	• The percentages given for frequency of NIMS/ICS utilization are high in all categories, how does this trace to the total number of respondents?	-Restate the question to, "Which of the listed alternatives closely reflect your agency's utilization of the NIMS/ICS practices and procedures." Also need more probing questions to understand the reasons that NIMs/ICS fell short of 100% utilization. -Need to better define the polled population, if data is used to support recommendations. The reasons to establish a	H

			regional working group are not explored.	
7.2.1	Recommendation S1	• In actuality, NIMS is not mandated for anyone other than the Federal Government.	-Recommend rewrite of the text for accuracy -Local and state government who do not use NIMS and have policy/procedures plans in place that dictate how it is used within a jurisdiction MAY be denied additional federal homeland or first responder funding.	L
7.2.2	Recommendation S2	• Change to: Recommendation S2 Description	-Change to, "Department of Public Safety and the regional working groups should define, test and exercise formal, statewide interoperability policy and procedures among local agencies and the DPS." -States recommendation with clarity	M
7.2.3	Recommendation S3	• The SOP that is developed MUST contain language that will limit "freelancing" and self-dispatch of these units to a scene.	- The SOP should identify POC's for fixed communications centers to ensure appropriate contacts can be made before the unit is placed in service. In the interest of effective operations, user agencies must agree on the available frequencies and what frequencies will be used for what activities. Specifically, wide area coordination, command/control, on scene mission specific channels. -They must be coordinated on scene with other I/O resources that would be in or contiguous to the incident area.	M
7.2.3	Recommendation S3	• Change Recommendation S3 Description	-Change to, "Develop, test and routinely exercise standard operating procedures…" -Emphasizes the need for ongoing communication exercises	M
8.1	Current Situation	• The chart is not in the same format	-Remove the box that borders the chart and bold the title question	L

		as in sections 6 and 7	-Maintains consistency of charts in these sections and makes them easier to read	
8.2.1	10 additional channels	• It may be difficult to actually license these allocated channels as in many areas of the country they are active in wide-band systems.	-Nevada should consider the licensing of all available FCC I/O channels on a statewide basis with an appropriate frequency use and reuse plan -Until such time that those systems are moved to narrowband operations, these shared resources may not be licensable.	M
8.2.1	Narrowbanding	• The ongoing initiatives to reband 800 MHz spectrum may also have an impact on the overall plan as interim solutions must take rebanding into account as well as any derived longer term or permanent solutions	-Recommend that the text be updated to reflect these additional concerns -Text does not adequately address the issue	H
8.2.1	Recommendation T1	• The Committee to manage the Nevada Interagency Radio Frequency Plan was not named.	-State the name of the Committee (if known) in the recommendation -Identifies the responsible party or agency to manage frequency plan.	L
8.2.2	Recommendation T2	• This is a bit too limiting.	-Recommend rewriting the recommendation to be more general. -Many continuous agencies may dedicate specific channels to achieving limited I/O with their neighbors for specific operations. This could be for fire automatic aid, LE task force operation or some other day-to-day recurring activity that occurs within a smaller geographic area. It would make sense to use general assignment channel to achieve this instead of national, regional, or state	M

			allocated I/O frequencies.	
8.2.3	Recommendation T3	• A federal sponsor will be required	-Nevada should consider the licensing of all available FCC I/O channels on a statewide basis with an appropriate frequency use and reuse plan -It may be difficult to actually license these allocated channels as in many areas of the country they are active in wide-band systems	M
8.2.4	Recommendation T4	• This section recommends maintaining caches of portable radios that will operate on the various proprietary shared systems	-Recommend that the author highlight the many disadvantages of large radio caches such as: Expensive to buy and maintain Logistics of deploying such a cache Users who do not own such radios are usually not as careful with them Programming such radios can be very time intensive -Radio caching and exchange between agencies is one of the earliest forms of interoperability. Gateway solutions are typically easier to implement during an incident, and much easier to maintain. -Consideration should be given to geographical separation of the caches. Also, radio caches should be considered a short-term solution for use while other longer term non-subscriber based solution are under development	M
8.2.4	Recommendation T4	• This recommendation (and others) reference a “Core Four” concept that was developed prior to the start of this planning process	-Recommend that the author define the “Core Four” concept -Some readers may not be familiar with the concept.	L

8.2.4	Recommendation T4	• There are significant costs and challenges to maintaining radio caches beyond just buying the equipment	-Include a list of some of the challenges (i.e., radio configuration management, programming, logistics for radio distribution and collection, technology refresh) -On the surface, radio caches may be the best and easiest solution for some of the major metropolitan areas, however, there are many issues that must be addressed to successfully implement radio caches, as in the case for all or most radio systems	H
8.2.5	Recommendation T5	• The recommendation to "construct resources" requires additional explanation, and may require engineering support services to implement as planned.	-Describe the extent of resources needed to construct direct interoperability, include considerations such as planning and engineering analysis to ensure proper integration of dissimilar architectures such as conventional and trunk radio systems. -With proper planning and analysis of system requirements, possible integration problems can be identified the results of which can be used to develop alternate approaches for interoperable communications	M
8.2.6	Recommendation T6	• The three regional approach using base stations and receiver voting systems centrally routed to an operator control point may experience high call volume rates during an emergency event and possibly increase operator response time	-The operator's responsibilities include call routing based upon the voting system. The regional working group should consider including contingency planning to mitigate communication bottlenecks during peak operations -Flexibility in the design and the avoidance of "single" points of failure ensure communication reliability	H

			within reasonable expectations	
8.2.7	"Hotline" Communications	• This does not require IP based communications to achieve.	-Recommend examining other options - Specific set aside M/A or I/O frequencies could also meet this objective.	M
8.2.7	Additional traffic	• This MAY be possible, but until such time that the bandwidth needs are established and verified it is very difficult to inject that the same IP pipeline may be useable for other critical communications such as NLETS.	-Recommend to verify that these additional communications are possible. -NLETS as most criminal justice information systems has very stringent requirements for communications and security and the sharing of the resource with other critical information applications may not be a wise path. Data suggests there are very few instances where CJIS traffic is carried on the Internet due to the highly sensitive nature of the communications and the requirements for end-to-end encryption	L
8.2.7	Recommendation T7	• The use of unlicensed spectrum on the State Microwave Network is subject to interference by others and could impact reliability • APCO has not completed Phase II standards work including the Inter RF-Subsystem Interface (ISSI) requirements to support IP based networking of consoles and base station interface • -IP based consoles are unavailable at this time, only interim solutions are available	-Consider alternate connectivity median (fiber, T1) than the use of spread spectrum, especially in heavy urban areas, the technology is unregulated and mitigation of interference issues are left to the end users -Consider delaying major equipment purchases (e.g., consoles), if possible, until APCO completes Phase II intersystem interoperability standards -For planning purposes, consider that most gateway solutions include the ability to pre-define cross connections of numerous radio resources, allowing greater communication control and flexibility	H

		• Not only may Network First, Motorbridge, and Twisted Pair Solutions gateway products require modification or upgrade to meet APCO ISSI, but base stations interface may require an additional interface as well	-Protect investments for the long term: - Minimize large equipment investments until APCO completes Phase II intersystem interoperability standard, if possible. -Investigate reliable backhaul expansion solutions to avoid major upgrades and system downtime. -Minimize responder confusion at the scene by preplanning and exploring communication strategies when using the audio gateway switch solutions	
8.2.8	Recommendation T8	• On page 57, in the third paragraph, the author infers that a system such as that constructed in Alaska, which is a P25 trunked system, could be populated with P25 radios made by "over a dozen manufacturers".	-This needs clarification. At the present time, there are only 3 vendors currently producing fully-compliant P25 trunked subscriber units -This could be misleading to the reader. The plan needs to state if the intention is to compare the proposed solution to a P25 trunked, or P25 conventional, LMR system.	M
8.2.8	Recommendation T8	• This is a valid opportunity and the DHS/DOJ WMO's are actively pursuing sharing arrangements to contain site development costs and enhance interoperability opportunities.	-Recommend expanding this section further to highlight the sharing opportunity. - These types of arrangements have been successful in the State of Washington as the IWN is posed to share part of a jointly funded state microwave network system.	L
8.2.9	"Value" of P25	• The discussion regarding P25 standards and what they are and how they relate needs to be made.	-Recommend adding discussion of P25 standards. Questions to answer include: Is this recommendation for compliance or compatibility? To which suite of standards, infrastructure, CAI or others? -The current discussion is	M

			vague and somewhat confusing to the reader.	
8.2.9	Recommendation T9	• On pages 59 and 60, the author is definitely in favor of migration to P25 based LMR subscriber units and infrastructure	-Due to the acceptance of P25 standards by users such as DoD and other federal and state users, it may make sense to start the migration process as soon as possible. The author is not pushing for immediately P25 compliant subscriber units and infrastructure. However, plan is recommending that any new equipment purchased be at least upgradeable to P25 standards. -Since P25 looks to be the defacto standard for the foreseeable future, this makes sense.	M
8.2.9	Recommendation T9	• On page 60, the author mentions existing systems and the option to stay non-P25, or P25 upgradeable, on an interim basis.	-This concept would cover existing analog conventional and trunked LMR systems as well as existing digital conventional and trunked LMR systems. P25 conventional and P25 trunked subscriber units are required by the P25 standards to be backward compatible with such systems, in the same frequency band, to maintain interoperability. This concept would address interoperability with rural areas, except for rural fire departments, which must also address paging requirements and may not move to P25 compliant LMR systems until the paging requirement is adequately addressed. -Since P25 looks to be the defacto standard for the foreseeable future, this makes sense.	M
8.2.9	Recommendation T9	• On page 59, the author states that public safety grade portable digital radios are	-When quoting features, capabilities, and especially price, the author should specify whether the radios are P25 CAI conventional or	M

		now available for approximately $1,000.	P25 CAI trunking. -The reader could make incorrect assumptions about P25 radio equipment features, capabilities, and price.	
8.2.9	Rural Fire Departments	• Why does the paging system have to be a part of the LMR or support P25?	-Recommend examining other options for paging systems -It is unclear why the paging system must be a part a part of the LMR system.	L
8.2.11	Recommendation T11	• On page 61, the author infers that the Nevada Communications Steering Committee ("committee") will work with fire services and regional working groups to define standards for a VHF radio that will meet the fire services requirements.	-Is the NCSC intending to be a standards body? What about conflicts with the P25 standards? If there is a conflict, which will prevail? Perhaps vendors could provide fire-related feature(s) to address the paging requirement on P25 standards based LMR systems. Recommend that the author address such issues with this approach. -The NCSC may not be prepared for the labor intensive efforts required to derive and implement LMR standards. The P25 committee is an example of how time intensive and tedious the process can be.	H
8.2.12	Recommendation T12	• How certain are we that local agencies or municipalities are not currently using 155.7525 MHz as their main operating channel? • Who will define the regulations ascribed to the calling frequency?	-Confirm current use of the channel everywhere in the state, identify alternate radio resources for their use, include addressing reprogramming and support services -Identify the responsible party(ies) to develop the VHF calling frequency regulations -Confirming current channel usage eases acceptance of new regulations by local and rural agencies	L
10.3.3	Recommendation U3	• This assume shared channel	-Recommend verifying the assumption.	M

		resources or dedicated "always on" connections	-If the assumption is incorrect, the section should be rewritten.	
11.1	General	• As an additional action, appropriate funding mechanism or shared funding solutions must be considered.	-Recommend inserting discussion of funding mechanisms. -All of the recommendations offered come with some type of real or derived costs, but there is no mention of concurrently seeking DHS or other federal grants to held "seed" the process. There are also available federal programs that may be able to assist with some of the planning efforts at little or no costs. There may also be opportunities to concurrently solicit grant funding as a consortium of agencies striving to address a complex issue.	M
11.3.1	Recommendation S1	• Recommendation description requires stronger language	-Change description: "Utilize the regional working groups, on a per discipline basis, to develop, test and *routinely* exercise standard operating procedures for operational and communications interoperability consistent with the National Incident Management System" -Exercising operating procedures on a routine basis reinforces interoperability communication requirements and can provide an opportunity to gain relevant information on the effectiveness of the policies and procedures	L
11.3.2	Recommendation S2	• Recommendation description requires stronger language	-Change description: " The Nevada Department of Public Safety should work with the regional working groups to define, test and *routinely* exercise formal, statewide policy and procedures for interoperability between local agencies and the DPS,	L

			utilizing the existing technology currently deployed." -Same as S1	
11.3.3	Recommendation S3	• Recommendation description requires stronger language	-Change description: "Develop, test and *routinely* exercise standard operating procedures for the use of ad hoc gateway interconnect devices based on the SOPs developed for Recommendation S1." -Again, institutionalizing repetitive behavior promotes learning and allows staff to improve upon policy and procedures.	L
Pg 92	Governance Directions	• Matrix is created with "Source of Recommendation" Codes. "IN" is for Informal Interview. Are the results of these documented and traceable to the source?	-All data collection information should be documented and traceable to the source to be valid. -All recommendations should be backed by reasonable conclusions based on valid data to be of use to the NCSC.	M
Pg 92	Governance Directions	• Recommendations in the matrix are not referenced to the appropriate section(s) of the document that provide more detail	-Recommend that each table section be referenced to the appropriate section of the document -This will make it easier for the reader to find explanations of matrix items in the document.	M
Pg 92	Governance Directions	• The matrices include an estimated cost to implement. There is no cost breakdown to support each cost estimate.	-Recommend that the cost breakdown data be supplied in an appendix that is referenced in appropriate sections of the document. -This will validate the cost estimates in the document	M

Conclusion

SAFECOM acknowledges the intense effort that went into harnessing support from the state's Homeland Security Commission, coordinating the constituents statewide, gathering data from stakeholders and conducting an analysis of the

diverse perspectives and recommendations of the state's public safety community, all part of the strategic planning efforts to date. Strategic planning efforts are not simple. In particular, strategic planning to address communications and interoperability has a complexity that can be at times overwhelming because of deliberations involving various stakeholders each with unique needs and perspectives; limitations in funding, technology, and geography; and considerations of every facet for proposed solutions.

This preliminary Assessment of Nevada's Statewide Strategic Plan for Interoperability offers a high-level review of the methodology and content of Nevada's current draft strategic plan in service of completing the strategic plan and establishing recommendations for adoption. SAFECOM evaluated the current draft from two distinct perspectives – the methodology and the content – suggestions offered focus on streamlining the content on the plan, confirming the accuracy of the recommendations offered and validating the content through a public safety practitioner-driven approach.

The SAFECOM – Nevada partnership is a critical next step in a series of actions needed to complete and implement the strategic planning process. This partnership across local, state, and federal agencies will not only serve to enhance the involvement of public safety practitioners, which was initiated through data gathering at the start of the strategic planning process, but will provide the public safety community an opportunity to validate the data and collaborate in the implementation of the strategic planning efforts.

APPENDIX D

ADDITIONAL RESOURCES

Additional Resources

Introduction Resources

1. SAFECOM Program: http://www.safecomprogram.gov

2. For more information about the NCSC, please visit: http://ncsc.nv.gov/index.htm.

Methodology Resources

1. SCIP Methodology: http://www.safecomprogram.gov.

2. Focus Groups detailed session reports can be found on the NCSC website at http://ncsc.nv.gov/index.htm#Interest.

Governance Resources

1. Commonwealth of Virginia Interoperability Website: http://www.interoperability.publicsafety.virginia.gov/

2. Commonwealth of Virginia's Governance Document: http://www.interoperability.publicsafety.virginia.gov/Library/Word/VAGovernance.doc

3. NTFI Case Study: Utah Communications Agency Network: http://www.ojp.usdoj.gov/nij/topics/commtech/ntfi/cases/case_utah.htm

Capabilities Assessment Resources

1. National Incident Management Capabilities Assessment Support Tool NIMCAST - http://www.fema.gov/nimcast/index.jsp. The NIMCAST is a web-based self-assessment tool designed to aid local, state, and tribal organizations and jurisdictions in determining their capabilities and compliance against the requirements established in the recently released National Incident Management System (NIMS).

2. The State Homeland Security Assessment and Strategy (SHSAS) Program System - https://www.dct.odp.dhs.gov/dct/. The SHSAS Program, created by the Office for Domestic Preparedness (ODP), allows states and local jurisdictions to update their needs assessment data to reflect post-September 11, 2001 realities, as well as identify progress on the priorities outlined in their initial homeland security strategies. The SHSAS serves as a planning tool for state and local jurisdictions and will help ODP and its partners allocate federal resources for homeland security.

3. *How to Establish and Manage Talk Groups* guide on the SAFECOM library at http://www.safecomprogram.gov/SAFECOM/library/systems/1047_HowTo.htm.

4. AGILE Guide to Radio Communications Interoperability Strategies and Products at the following link: http://www.safecomprogram.gov/NR/rdonlyres/8F919F4D-B077-4338-876D-98F440C90606/0/Guide_Radio_Comm_Strategy_and_Products.pdf

5. Reference the results of the City of Alexandria Operational Test Bed – A at the following link: http://www.safecomprogram.gov/SAFECOM/library/technology/1023_OperationalTest.htm

6. VoIP in an LMR environment. http://www.safecomprogram.gov/NR/rdonlyres/65398E2E-C4EE-4779-BB91-600847499056/0/voip_technology_assessment.pdf

7. Training development and implementation support:

    a. ODP: http://www.ojp.usdoj.gov/odp/training.htm
    b. FEMA: http://www.fema.gov/fema/first_res.shtm
    c. Kentucky: http://archives.techlines.ky.gov/april2004/interop.htm

8. NIMS Implementation Plan template: http://www.fema.gov/doc/nims/nims_implementation_plan_template.doc

9. Training development and evaluation: http://www.ojp.usdoj.gov/odp/docs/hseep.htm

10. NIMS National Standard Curriculum Training Development Guidance at the following link: http://www.fema.gov/pdf/nims/nims_training_development.pdf

11. Review information about Capabilities Based Planning at the following link: http://www.ojp.usdoj.gov/odp/docs/CBP_041305.pdf

12. Reference the Target Capabilities List Version 1.1, drafted May 23, 2005: http://www.ojp.usdoj.gov/odp/docs/TCL1_1.pdf , pp. 17-20

    a. Planning tools are available at the following secure sites: https://odp.esportals.com and https://www.llis.gov

13. The Interim National Preparedness Goal, March 31, 2005: http://www.ojp.usdoj.gov/odp/docs/InterimNationalPreparednessGoal_03-31-05_1.pdf

14. State and Urban Area Homeland Security Strategy:
    http://www.ojp.usdoj.gov/odp/docs/StrategyGuidance_22JUL2005.pdf

15. Public Safety Wireless Network (PSWN) Program's *How2 Guide for System Planning, Design, Procurement, Implementation, and Operations and Maintenance* document:
    http://www.safecomprogram.gov/NR/rdonlyres/9826FC3F-BE4D-4C02-9AE9-166AF13C7B9B/0/how_to_guide_radio_system_life_cycle_guide.pdf

16. Santa Clara County Mutual Aid Plan Radio appendix, as an example:
    http://www.sccfd.org/map/MAP_01.pdf.

17. SOP development, reference the following links:
    http://www.epa.gov/quality/qs-docs/g6-final.pdf
    http://www.mmsonline.com/articles/0498ci.html
    http://planit.ucdavis.edu/emergency/standard/

18. NIMS Integration Center (NIC)
    http://www.fema.gov/nims/nims.shtm

Funding Resources

1. *Report on Funding Strategy for Public Safety Radio Communications:*
   http://www.safecomprogram.gov/SAFECOM/library/grant/1020_FundStratReport.htm

2. SAFECOM *How to Guide for Funding State and Local* at
   http://www.safecomprogram.gov/SAFECOM/library/grant/1061_HowTo.htm

3. SAFECOM Grant Guidance:
   http://www.safecomprogram.gov/SAFECOM/library/grant/1016_safecomgrant.htm

4. SAFECOM *Public Safety Communications Funding Awareness Guide:*
   http://www.safecomprogram.gov/SAFECOM/library/grant/1057_publicsafety.htm

5. The SAFECOM Program Grants-Related Library:
   http://www.safecomprogram.gov/SAFECOM/library/grant/

6. The Public Safety Wireless Network (PSWN) Program,
   http://www.safecomprogram.gov/SAFECOM/library/default.htm.

Public Education Resources

1. The NTFI publication, *Why Can't We Talk: Working Together to Bridge the Communications Gap to Save Lives,* can be found online at: http://www.safecomprogram.gov/NR/rdonlyres/664663B2-D1FB-4E91-A356-DA38B340C38F/0/National_Task_Force_Interoperability_Supplemental.pdf

2. SAFECOM Continuum http://www.safecomprogram.gov/SAFECOM/library/interoperabilitybasics/1229_interoperabilitycontinuum.htm

3. Shel Holtz. *Public Relations on the Net: winning strategies to inform & influence the media, the investment community, the government, the public & more…,* American Management Association, 2nd edition (June 15, 2002).

4. Fraser P. Seitel. *The Practice of Public Relations***,** Ninth Edition Prentice Hall; 9 edition (July 31, 2003).

5. James G. Stovall. *Writing for the Mass Media*, Allyn & Bacon, 6th edition (June 17, 2005).

Miscellaneous Resources

1. The 9/11 Commission Report, pages 278-323, can be referenced at: http://a257.g.akamaitech.net/7/257/2422/22jul20041130/www.gpoaccess.gov/911/pdf/sec9.pdf