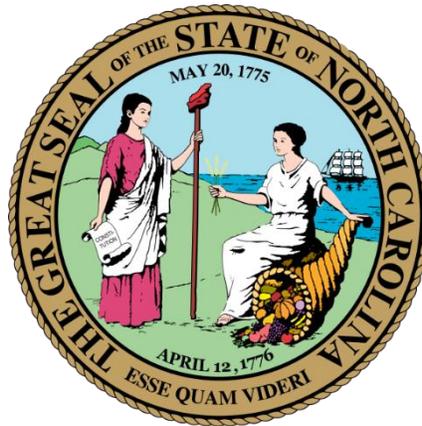




NORTH CAROLINA STATEWIDE COMMUNICATION INTEROPERABILITY PLAN



APRIL 2018



STRATEGIC PLAN AUTHORIZATION LETTER FROM THE SERC

The State Emergency Response Commission (SERC) has enjoyed an excellent reputation in North Carolina and throughout the nation for providing outstanding guidance and improving public safety and emergency response. As a sub-committee to the SERC, the State Interoperability Executive Committee's (SIEC) leadership, dedication, and hard work has been instrumental to North Carolina's interoperability successes and we are extremely proud of the progress we have made.

One of the greatest challenges we face when responding to an emergency is streamlined communication interoperability with local, state, and federal agencies. The 2018 Statewide Communications Interoperability Plan (SCIP) provides renewed direction for North Carolina to proactively maintain and build upon interoperability successes with the emerging public safety communication technologies. The greater level of interoperability among public safety agencies during preparedness, response, and recovery across the state demonstrates the positive impact of the SIEC's work.

The SERC eagerly authorizes and endorses the 2018 North Carolina Statewide Communications Interoperability Plan (SCIP).

Erik Hooks
Chairman, SERC

Michael A. Sprayberry
Vice-Chairman, SERC



EXECUTIVE SUMMARY

As a recognized leader in public safety communications interoperability, North Carolina has achieved a greater level of interoperability by continuing to identify best practices and lessons learned and implement them in North Carolina. Emergency personnel in North Carolina must have and sustain the ability to coordinate over mission critical communication technologies during a large-scale hurricane incident response, a multi-agency and multi-jurisdiction public safety task force, wildfire evacuations, winter storms or daily traffic accidents.

Emergency communications has changed dramatically in the last 30 years from simple voice communications to a demanding operating environment. This new environment now requires the sustainment of robust Land Mobile Radio (LMR) communications, the integration of data communications over a public safety broadband network, the delivery of 9-1-1 services using a Next Generation 9-1-1 (NG911) digital network, and the statewide integration of modern Emergency Alert and Warnings Systems (AWS).

The North Carolina 2018 Statewide Communications Interoperability Plan provides the State with strategic direction and actionable goals for public safety communications interoperability for the next three to five years. A series of collaborative stakeholder engagements between the Statewide Interoperability Executive Committee and the Department of Homeland Security: Office of Emergency Communications led to the development of a stakeholder-driven Statewide Communications Interoperability Plan. These collaborative engagements allowed for the direct input from both local and state government representatives and stakeholder organizations.

The Statewide Interoperability Executive Committee is a multi-agency, multi-jurisdictional, and multi-discipline sub-committee of the State Emergency Response Commission that enabled the development of this strategic plan, one that encompasses the needs of stakeholders and identified known communications gaps across the state. The 2018 Statewide Communications Interoperability Plan contains strategic goals and actionable objectives across four core areas: Governance, Technology, Funding and Sustainment, and Outreach and Implementation.



GOVERNANCE

ESTABLISH CONSISTENT OPEN DIALOGUE AND COLLABORATION ACROSS GOVERNANCE ORGANIZATIONS TO OVERCOME PUBLIC SAFETY COMMUNICATIONS CHALLENGES.

Actionable objectives for governance:

- Identify public safety stakeholders statewide and develop formal and informal collaborative partnerships.
- Assist with acquiring funding sources for the sustainment of public safety interoperability technologies.
- Assist with acquiring funding sources for emerging interoperable public safety technologies.



TECHNOLOGY

IMPLEMENT PUBLIC SAFETY COMMUNICATIONS TECHNOLOGIES TO ESTABLISH STATEWIDE INTEROPERABILITY.

Actionable objectives for technology:

- Complete the VIPER System and develop a long-term sustainability plan.
- Tactically locate technology devices across the state to provide voice communication links between existing communications systems as required.
- Implement federally recognized cybersecurity standards for public safety communications.
- Promote data sharing to improve situational awareness and remain network neutral from a data interoperability standpoint.
- Support the 911 Board in the development and adoption of the statewide 9-1-1 ESInet, statewide CAD interoperability, and statewide GIS interoperability.
- Support the adoption and implementation of alert and warning capabilities that will cover all jurisdictions and provide redundant capability.



FUNDING AND SUSTAINMENT

IMPLEMENT PUBLIC SAFETY COMMUNICATIONS TECHNOLOGIES TO ESTABLISH STATEWIDE INTEROPERABILITY.

Actionable objectives for funding and sustainment:

- Support and maintain current funding sources for emergency communications and identify additional funding sources to fill capability gaps for LMR systems across the state.
- Finish the build out of VIPER.
- Sustain VIPER through the replacement of base stations, network-monitoring solutions, determining a System Upgrade Agreement (SUA) solution, and replacement of the statewide microwave network.
- Sustain and upgrade regional systems to integrate and interoperate with state systems.
- Sustain North Carolina's Strategic Technology Reserve by acquiring funding for life cycle equipment replacements.
- Support the 911 Board in the funding and adoption of the statewide 9-1-1 ESInet, statewide CAD interoperability, and statewide GIS interoperability.



OUTREACH AND IMPLEMENTATION

CONDUCT OUTREACH AND PROMOTE OPERATIONAL IMPLEMENTATION TO INFORM STAKEHOLDERS AND DECISION MAKERS ON INTEROPERABILITY STRATEGIES.

Actionable objectives for outreach:

- Provide outreach and education on communications lessons learned, best practices, technology limitations, and challenges.
- Assist the 911 Board with promoting CAD and GIS interoperability.
- Promote participation and use of alert and warning technologies.

Actionable objectives for implementation:

- Assist with the development of SOPs and SOGs and promote usage.
- Assist with the development of after action reports and best practices.
- Assist with the communications planning for special events around the state
- Assist with the planning and execution of communication training and exercises.
- Promote the North Carolina Communications Unit program in alignment with the North Carolina Communications Unit Qualification Guide.
- Promote the sustainment and growth of interoperable deployable assets for incidents, exercises, and planned events.

The SCIP will provide strategic direction and promote alignment of those responsible for interoperable and emergency communications at the state, regional, local, and tribal levels. Furthermore, the SCIP can explain to executive and elected leadership the vision for interoperable and emergency communications and demonstrate the need for funding.

The 2018 North Carolina SCIP is a strategic plan to guide committees and working groups in the accomplishment of plans. The utilization of the SCIP and the concurrent execution of initiatives from all four areas above will enable the sustainment of and improvement upon North Carolina’s current communications interoperability success. Ultimately, the SCIP will prepare North Carolina for future disasters, regardless of scope where, public safety communications and interoperability will be essential for the preservation of life and the protection of property.

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NORTH CAROLINA COMMUNICATIONS OVERVIEW

North Carolina's State Emergency Response Commission (SERC) is a representative body appointed by the Governor to advise and make recommendations to the Secretary of Public Safety and has tasked the SIEC to provide recommendations on public safety communications policies and procedures.

The Statewide Interoperability Executive Committee (SIEC) is a formal subcommittee of the SERC and is comprised of state and local agencies that have direct knowledge and responsibility for public safety communications. The SIEC oversees the development of the SCIP and provides subject matter expertise relating to interoperable communications. North Carolina utilized a collaborative and objective-oriented approach to bring together the SIEC to prioritize strategic goals aimed to enhance emergency communications. A detailed understanding of the current emergency communications environment defined by stakeholders through focused meetings on governance, technology, and funding led to the development of the 2018 North Carolina SCIP.

While North Carolina has improved interoperable communications, stakeholders are working diligently to enhance emergency communications to achieve North Carolina's vision. It is also important to note that this work is part of a continuous cycle, as North Carolina will always need to adapt to evolving technologies, operational tactics, and changes to citizen expectations. North Carolina has taken significant steps towards enhancing interoperable and emergency communications effectiveness, including:

- Coordination between the 911 Board, FirstNetNC, and the SIEC.
- SIEC membership is representative of local and state public safety disciplines statewide.

SCIP VISION

TO PROMOTE THE HIGHEST LEVEL OF INTEROPERABLE COMMUNICATIONS BETWEEN ALL ENTITIES INVOLVED IN PUBLIC SAFETY IN NORTH CAROLINA.

SCIP MISSION

PROVIDE STRATEGIC GUIDANCE TO THE WHOLE COMMUNITY TO MITIGATE LOSS OF LIFE AND PROPERTY THROUGH PUBLIC SAFETY COMMUNICATIONS INTEROPERABILITY PLANNING AND COORDINATION.

- Expanding standards based shared LMR systems to enhance interoperability, improve operating tactics, and reduce overall costs
- Supporting the foundation for transitioning all 129 Public Safety Answering Points (PSAP) (primary and secondary) onto an Emergency Services IP Network (ESInet).

However, in the next three to five years, North Carolina will encounter challenges relating to operability, interoperability, geography, aging equipment/systems, emerging technologies, and sustainable funding. Specifically, future challenges include:

- Broadband will not replace existing LMR voice systems in the foreseeable future due to implementation factors associated with planning, deployment, technology, and cost. Therefore, a cautious approach to broadband investment for mission critical reliance is needed.
- Continued outreach with executive and elected leaders in order to build strong alliances with government leadership and communicate needs with legislative members to garner support for public safety priorities.
- Securing funding for the continued investment in Voice Interoperability Plan for Emergency Responders (VIPER) towers, network connectivity, and frequencies, and connecting disparate LMR systems together.

Over the next few years, the Statewide Interoperability Executive Committee (SIEC) working in conjunction with its collaborative partnerships will seek to sustain and move North Carolina forward in interoperable communications by accomplishing the following goals and corresponding objectives across four core areas: Governance, Technology, Funding and Sustainment, and Outreach and Implementation.



INTEROPERABILITY GOVERNANCE STRATEGIC DIRECTION

The State Emergency Response Commission (SERC) is a representative body appointed by the Governor to advise and make recommendations to the Secretary of Public Safety. Under the SERC, the Statewide Executive Interoperability Committee (SIEC) is responsible for facilitating interagency cooperation and education for efficient and effective use of resources to achieve interoperable public safety communications and for providing recommendations on public safety interoperable communications policies and procedures.

North Carolina has made significant progress over the past few years to establish the SIEC through stakeholder outreach and approving an initial SIEC charter in 2015. Past issues and challenges with interoperability governance have been the following:



- Limited interoperability governance authority or collaborative partnerships with clear mission, vision, and responsibilities that aligns with communication interoperability needs.
- Ensuring buy-in from local users, decision makers and elected officials.
- Visibility of interoperability issues and concerns between local, regional, and state public safety and emergency communications communities.
- Stakeholder participation during planning, policy recommendations, and best practices identification.
- Past interoperability plans were Land Mobile Radio (LMR) focused and did not address interoperability considerations for integrating all emergency communication technologies (e.g. LMR, Broadband, 911, and Alerts and Warnings).

To maintain and enhance North Carolina's interoperability governance to overcome these past issues and challenges, **the SIEC will build interoperability partnerships to establish consistent open dialogue and collaboration across governance organizations** to tackle communications interoperability issues and challenges.

SIEC VISION

THE NORTH CAROLINA SIEC WILL SERVE AS A CONDUIT FOR THE MULTI-DIRECTIONAL FLOW OF PLANNING, BEST PRACTICES AND POLICY RECOMMENDATIONS BETWEEN LOCAL, REGIONAL, AND STATE COMMUNITIES WITH REGARD TO PUBLIC SAFETY COMMUNICATIONS.

The SIEC has and will continue to establish collaborative partnerships to integrate current and emerging communication technologies. The SIEC will develop working groups to address interoperability priority issues and challenges. Figure 1, depicts the relationships between governance organizations, stakeholder groups, and the SIEC. These partnerships include but are not limited to the following:

SIEC MISSION

TO FACILITATE INTERAGENCY COOPERATION AND EDUCATION FOR EFFICIENT AND EFFECTIVE USE OF RESOURCES TO ACHIEVE INTEROPERABLE PUBLIC SAFETY COMMUNICATIONS.

SERC Regionalization Committees (SRC): North Carolina has organized jurisdictions into Homeland Security planning regions titled Domestic Preparedness Regions (DPR), which provide a structure for identifying gaps and capabilities. SERC Regionalization Committees (SRC) are within the DPRs and are responsible for handling homeland security grant project processing. There are three SRC members represented on the SIEC, one for Eastern North Carolina (DPRs 1, 2, 3), one for Central North Carolina (DPRs 4, 5, 6), and one for Western North Carolina (DPRs 7, 8, 9).

NC Voice Interoperability Plan for Emergency Responders (VIPER) Administrator (and Local LMR Administrators): The NC State Highway Patrol is responsible for the administration of the NC VIPER System. The NC VIPER System has over 108,000+ users with 64 counties utilizing the

mission critical voice system on a daily basis. There is one representative from the Technical Services Unit on the SIEC and one representative for a local LMR administrator on the SIEC.

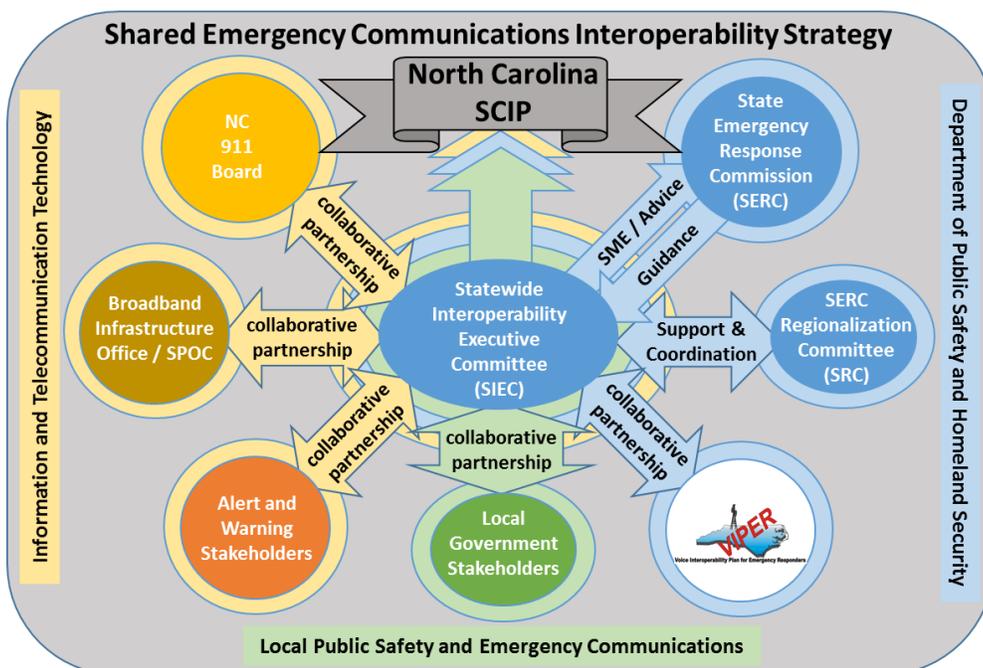


Figure 1: SIEC Interoperability Collaborative Governance

Broadband Infrastructure Office: The NC Department of Information Technology: Broadband Infrastructure Office houses the state’s Single Point of Contact (SPOC) for the federal FirstNet project and for public safety broadband coordination. The SPOC acts as the primary agent bringing the concerns of North Carolina’s responders to the forefront of the effort. There is one representative from the Broadband Infrastructure Office on the SIEC and one representative from the SPOC Office on the SIEC.

North Carolina 911 Board: The North Carolina 911 Board, created by the North Carolina General Statute 62A Article 2, is responsible for both wireline and wireless 911 communications in the state, as well as related policies and procedures, and it administers the state’s 911 Fund. There is one representative from the 911 Board on the SIEC.

Local Government Stakeholders: The SIEC includes a representative balance between both local and state communication stakeholders. Figure 2 below, depicts the local and state represented agencies, organizations, and associations that are SIEC voting members.

LOCAL REPRESENTATIVES	<ul style="list-style-type: none"> • Eastern Domestic Preparedness Regions • Central Domestic Preparedness Regions • Western Domestic Preparedness Regions • Urban Area Security Initiative • NC Association of Rescue & EMS • NC Emergency Management Association • NC Association of County Commissioners • NC League of Municipalities • Association of Professional Communications Officers • NC National Emergency Number Association • NC Sheriff’s Association • NC Association of Chiefs of Police • NC Fire Chiefs Association • Auxiliary Communications • Tribal Rep: Eastern Band of Cherokee Indians. 	STATE REPRESENTATIVES	<ul style="list-style-type: none"> • NC Office of the Governor • NC Emergency Management • Voice Interoperability Plan for Emergency Responders (VIPER) • NC 911 Board • NC DIT: Broadband Infrastructure Office • NC SPOC/ FirstNet Project • NC Department of Transportation • NC Department of Health and Human Services • NC Office of Emergency Medical Services • NC Homeland Security • NC Forest Service • North Carolina National Guard • State Bureau of Investigation
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Figure 2: SIEC Local and State Membership Balance

Alert and Warning Stakeholders: The SIEC will establish new collaborative partnerships with emergency alert and warning stakeholders to develop interoperable solutions and integration recommendations for modern Emergency Alert and Warnings systems (AWS).

The SIEC will accomplish the governance goal of **establishing consistent open dialogue and collaboration across governance organizations to overcome public safety communications challenges** by establishing an SIEC Executive Working Group to accomplish the following governance objectives:

<u>Governance Goal:</u>	<u>Governance Objectives:</u>
<p>Establish consistent open dialogue and collaboration across governance organizations to overcome public safety communications challenges</p>	<ul style="list-style-type: none"> • Identify public safety stakeholders statewide and develop formal and informal collaborative partnerships. • Provide subject matter expertise for those in leadership and legislative positions. • Assist with acquiring funding sources for the sustainment of public safety interoperability technologies. • Assist with acquiring funding sources for emerging interoperable public safety technologies. • Promote proactive interoperability and maximum efficiency of resources by bridging the coordination gap between operational executives and communication executives. • Regularly reassess SIEC membership to ensure representative of communications interoperability stakeholders and a membership balance between local and state representatives. • Promote the bi-directional flow of communications interoperability information.

INTEROPERABILITY TECHNOLOGY STRATEGIC DIRECTION

North Carolina public safety entities continue to enhance and increase the coverage and capacity of all public safety communications systems, as well as enhancing backhaul and improving interoperability among those systems.

VIPER is North Carolina's statewide mission critical radio system that the majority of state agencies utilize. The Legislative Criminal Justice Information Network (CJIN) Report identifies the State Highway Patrol as the managing agency for the statewide 800 MHz P25 Land Mobile Radio (LMR) mission critical voice system. As of April 2011, the network consists of 221 tower sites, over 108,000 subscriber IDs and more than 350 agencies using and relying on VIPER on a daily basis. There are also 18 standalone (P25) LMR neighboring systems and 18 standalone legacy (Non-P25) LMR systems at the local level in the State. The 18-standalone local legacy (Non-P25) LMR systems create interoperability barriers with the NC VIPER system and the other 18 standalone (P25) neighboring systems. Implementing public safety communication technologies that overcome these interoperability barriers will be necessary to enhance statewide interoperability.



The construction of a Public Safety Broadband network in North Carolina will integrate a network architecture utilizing land-based cellular infrastructure, satellite infrastructure, and deployable systems to provide broadband priority and preemption (mission critical data) to North Carolina public safety agencies. The public safety agencies expect the Nationwide Public Safety Broadband

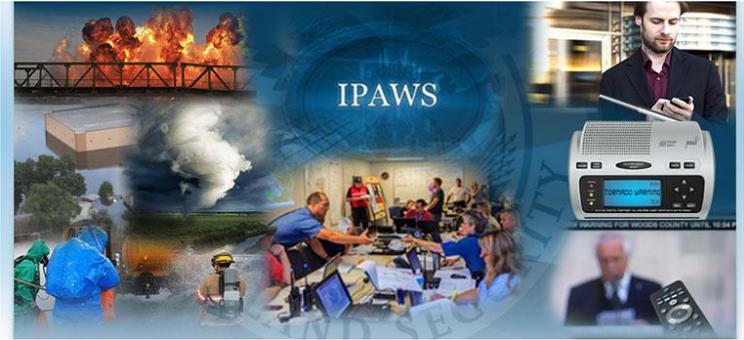


Network to address their needs of a high quality of service, priority, and preemption on a cellular network. To be successful, this includes a governance model that is comprised of end-users, competitive pricing, and a requirement that applications will retain basic functionality across

competing networks so that a new problem of interoperability is not introduced. FirstNet has and will continue to be a catalyst for public safety communications; however, **FirstNet adoption is optional**. When talking about interoperability, stakeholders need to recognize that some public safety agencies will continue to use their cellular carrier of choice. **Interoperability from a data standpoint needs to remain network neutral.**

The 911 Board is moving North Carolina toward implementation of a statewide ESInet and a hosted system, where any PSAP can move their infrastructure to a Level 3 data center, which includes CPE and CAD. Currently, the state is working on CAD interoperability with two Level 3 data centers.

Current alerting disseminators in the state are through the Integrated Public Alert Warning System (IPAWS), Internet Services and Social Media, state and local unique alerting systems, and non-IPAWS opt-in alerting software. IPAWS includes the Emergency Alert System (EAS),



Wireless Emergency Alerts (WEA), and NOAA Weather Radio. State and local alerting plans specify what alerting authorities and what type of alerts can transmit on any particular alerting disseminator. North Carolina is moving towards integrating alert disseminator plans and policies to establish alerting plans that have clear roles, responsibilities, and usage expectations for both local and state levels of government and that incorporate old and new alerting technologies. This will maximize emergency alerting effectiveness and overcome demographic factors, such as age, income, language, culture, and disabilities, which can affect both the likelihood of owning an alerting device and the ability to understand the alert message.

North Carolina has made progress over the past few years to implement interoperability technologies. However, significant issues and challenges with interoperability technologies still exist and are the following (next page):

- Existing VIPER system needs new base stations due to equipment end of life.
- Lack of interoperability between disparate LMR systems and the NC VIPER system.
- Lack of radio coverage in buildings.
- Lack of adopted standards and statewide policies regarding public safety broadband.
- Lack of improved Automatic Location Information (ALI) to advance 911 dispatch capabilities and accuracy.
- Lack of information and standards regarding cybersecurity and public safety communications.
- Lack of integrated alert and warning plans that incorporate old and new alerting capabilities.

The SIEC is focusing on the future state of interoperability and how North Carolina can accomplish the technology goal of **implementing public safety communications technologies to establish statewide interoperability**, particularly how the different technologies may integrate in the future.

The focus will be on LMR, 911, public safety broadband, and emergency alerts and warnings and the need for them to be coordinated to ensure mission critical capabilities. In the future, these technologies will converge, and it will need to be determined how they technically interface, what the operational guidelines and/or protocols will be, what users will need to implement them and ultimately how much it will cost each entity to adopt these system changes. The SIEC will accomplish this technology goal by establishing an SIEC Technology Working Group and an SIEC Alerts and Warnings Working Group to accomplish the following technology objectives:

<u>Technology Goal:</u>	<u>Technology Objectives:</u>
<p>Implement public safety communications technologies to establish statewide interoperability.</p>	<ul style="list-style-type: none"> • Identify mission critical voice and mission critical data public safety communications interoperability gaps and develop solutions for current and emerging technologies. • Complete the VIPER System and develop a long-term sustainability plan. • Standardize LMR implementations to ensure P25 compliance. • Provide access to both NPSPAC (national interoperability channels) conventional mutual aid repeaters, as well as strategically located VHF and identify voice interoperability fixed stations in the state. • Tactically locate technology devices across the state to provide voice communication links between existing communications systems as required. • Develop a statewide encryption standard. • Adopt federally recognized cybersecurity standards for public safety communications. • Promote data sharing to improve situational awareness and remain network neutral from a data interoperability standpoint. • Develop and recommended technical solutions for dispatching and mobile command vehicle interoperability with the 9-1-1 ESInet. • Support the 911 Board in the development and adoption of the statewide 9-1-1 ESInet, statewide CAD interoperability, and statewide GIS interoperability. • Assist with consolidating alert disseminator plans and policies into integrated alerting plans that have clear roles, responsibilities, and usage expectations for both local and state levels of government and that incorporate old and new alerting technologies.

- Support the adoption and implementation of alert and warning capabilities that will cover all jurisdictions and provide redundant capability.



INTEROPERABILITY FUNDING AND SUSTAINMENT STRATEGIC DIRECTION

North Carolina's focus is on sustaining existing systems and capabilities. Currently, all funding for the VIPER system comes from the state legislature. There are plans to finish the build out of the VIPER system from 219 sites to 241 sites while continuing to update the system over the next five to ten years. The annual construction budget allocates \$7 million for building approximately six fully operable sites at a cost of \$1 million per site. Some sites are co-located with another agencies or departments for cost savings. The annual operating budget for VIPER is \$5 million for maintenance, vehicle costs, administration and any other unforeseen site costs. Currently, there are no user fees for the system and SIEC members are concerned that local-level subscribers would leave the system if the state imposes user fees, which would significantly degrade statewide interoperability. There is already a significant individual costs to users that consists of procurement and maintenance for hand-held units, mobile units, and communications centers.



North Carolina has made progress over the past few years to fund and sustain public safety communications technologies. However, significant issues and challenges with funding and sustainment still exist and are the following:

- Limited funding source to finish the build out of the NC VIPER System.
- No state funding source to sustain VIPER through life cycle equipment replacements (e.g. base stations, network monitoring, microwave network).
- No state funding source to fill interoperability capability gaps between LMR systems across the state.
- No state funding source to sustain North Carolina's Strategic Technology Reserve through life cycle equipment replacements.
- 116 PSAPs are running on antiquated technology and the state needs to consider the cost of replacement or consolidation.
- Lack of a strategic plan for public safety communications interoperability funding.

- Lack of a funding needs assessment for expanding emergency alerts and warnings.

Collaboration through the SIEC between the VIPER Administrator, 911 Board, and FirstNetNC may lead to cost sharing and savings. The strategic funding priorities should include the completion and sustainment of existing P25 mission critical voice systems, exploring cost-sharing options between governance bodies, leveraging public-private partnerships to expand public safety mission critical broadband data capabilities, and expanding alerts and warning capabilities.

The SIEC will accomplish the funding and sustainment goal of **acquiring funding for the implementation and sustainment of public safety communications technologies and interoperability strategies** by identifying and promoting funding and sustainment needs through established SIEC Working Groups and collaborative partnerships to accomplish the following funding and sustainment objectives (next page):

<p><u>Funding and Sustainment</u></p> <p><u>Goal:</u></p> <p>Acquire funding for the implementation and sustainment of public safety communications technologies and interoperability strategies</p>	<p><u>Funding and Sustainment Objectives:</u></p> <ul style="list-style-type: none"> • Support and maintain current funding sources for emergency communications and identify additional funding sources to fill capability gaps for LMR systems across the state. • Finish the build out of VIPER. • Sustain VIPER through the replacement of base stations, network-monitoring solutions, determining a System Upgrade Agreement (SUA) solution, and replacement of the statewide microwave network. • Sustain and upgrade regional systems to integrate and interoperate with state systems. • Sustain North Carolina’s Strategic Technology Reserve by acquiring funding for life cycle equipment replacements. • Develop and maintain a strategic plan for public safety communications interoperability funding requirements. • Support the 911 Board in the funding and adoption of the statewide 9-1-1 ESInet, statewide CAD interoperability, and statewide GIS interoperability. • Identifying funding requirements to expand alerts and warnings.
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INTEROPERABILITY OUTREACH AND IMPLEMENTATION STRATEGIC DIRECTION

The SIEC identified outreach and implementation as areas for improvement in North Carolina. The SIEC needs to build strong alliances with executive leadership and communicate needs with legislative members to garner support for public safety communication priorities. Secondly, public safety officials need to engage system end users and the public in order to clearly communicate the benefits of interoperable communications to North Carolina citizens.

The SIEC will continue to share information across the public safety disciplines, and continue to develop the multi-directional flow of information to increase awareness of the SIEC's priorities, initiatives and activities. These efforts will build coalitions to support and promote interoperable public safety and emergency communications by providing clear and pertinent information to stakeholders and decision makers.



North Carolina has made progress over the past few years with interoperability outreach and implementation. However, significant issues and challenges with outreach and implementation still exist and are the following:

- Not fully capitalizing on outreach and educational opportunities at stakeholder meetings and conferences.
- Limited SIEC talking points or outreach material available to enhance information sharing.
- SIEC SharePoint Project Site, SIEC Website, and other stakeholder websites not updated with the most current information.
- Limited outreach or unified messaging to executive leadership and elected officials at the state and local level.
- Limited sharing of best practices, lessons learned, technology limitations, and challenges.
- Limited guidance and oversight for North Carolina's communications unit personnel.
- Limited communications training opportunities for communication planners and practitioners.

- Coordination gaps between operational planners and communication planners that lead to limited involvement of communications personnel into exercises, special event planning, and emergency operations plans.
- Limited outreach to promote the use of alert and warning technologies.

The SIEC will accomplish the outreach and implementation goal of **Conduct outreach and promote operational implementation to inform stakeholders and decision makers on interoperability strategies** by establishing an SIEC Outreach Working Group and SIEC Implementation Working Group to accomplish the following outreach and implementation objectives:



<p><u>Outreach and Implementation</u></p> <p><u>Goal:</u></p> <p>Conduct outreach and promote operational implementation to inform stakeholders and decision makers on interoperability strategies</p>	<p><u>Outreach Objectives:</u></p> <ul style="list-style-type: none"> • Attend public safety association meetings and conferences to promote interoperability and SIEC initiatives. • Develop talking points for enhancing interoperable communications in North Carolina. • Increase outreach and education efforts through meetings, SIEC SharePoint Project Site, and SIEC website. • Leverage SIEC membership influence to educate elected officials at the state and local levels. • Provide outreach and education on communications lessons learned, best practices, technology limitations, and challenges. • Assist the 911 Board with promoting CAD and GIS interoperability. • Promote participation and use of alert and warning technologies. <p><u>Implementation Objectives:</u></p>
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- Assist with the development of SOPs and SOGs and promote usage.
- Assist with the development of after action reports and best practices.
- Assist with the communications planning for special events around the state
- Assist with the planning and execution of communication training and exercises.
- Oversee and promote the North Carolina Communications Unit program in alignment with the North Carolina Communications Unit Qualification Guide.
- Promote the sustainment and growth of interoperable deployable assets for incidents, exercises, and planned events.



REFERENCE MATERIAL

Title	Description	Source/Location
SIEC Charter	Charter that outlines the membership and responsibilities of the SIEC	https://sp1.ncem.org/sites/SIEC/-SitePages/Home.aspx?RootFolder=%2Fsites%2FSIEC%2FShared%20Documents%2F1%2E%20Governance-&Folder-CTID=0x0120009D193F2210D849-47B25167A8661B5B00&View={2D9FF241-57FF-44BB-86A2-E89D1304C929}
Voice Interoperability Plan for Emergency Responders (VIPER)	Website for North Carolina's VIPER Network (Mission Critical Voice)	https://www.ncdps.gov/Our-Organization/Law-Enforcement/VIPER
North Carolina State 911 Plan	Comprehensive and enhanced wireless emergency telecommunications plan for communicating E-911 call information across networks or among PSAPs.	https://files.nc.gov/ncdit/documents/files/State-911-Plan-with-Board-Modifications.pdf
North Carolina State Broadband Plan	This plan answers the charge by the North Carolina General Assembly (NCGA) [EN: Session Law 2015-241] to assess the current status of broadband availability and use across the state, analyze the best methods and means to “establish universal access,” and offer strategies to achieve universal access	https://ncbroadband.gov/wp-content/uploads/2017/02/NC-Broadband-Plan_2017_Online_FINAL_PNGs3www.pdf
Public Safety Broadband Plan	Websites for North Carolina's Public Safety Broadband effort and the FirstNet initiative	https://ncbroadband.gov/firstnetnc/ https://www.firstnet.com/ https://www.firstnet.gov/
North Carolina Emergency Alert System State Plan	Provides procedures and guidelines for state, federal and private organizations for working together to disseminate emergency information and instructions to the public during threatened or actual emergencies.	https://sp1.ncem.org/sites/IPAWS/Site-Pages/Home.aspx
North Carolina IPAWS Wireless Emergency Alerts Policy	Serves as a guide for North Carolina Integrated Public Alert and Warning System (NC-IPAWS) users authorized to issue Wireless Emergency Alerts (WEA).	https://sp1.ncem.org/sites/IPAWS/Site-Pages/Home.aspx

APPENDIX A: LIST OF ACRONYMS

AAR	After Action Report
AHIMT	All Hazard Incident Management Teams
ALI	Automatic Location Information
APCO	Association of Public Safety Communications Officials
AWS	Alerts and Warnings
CAD	Computer Aided Dispatch
CPE	Customer Premise Equipment
CJIN	Criminal Justice Information Network
COML	Communications Unit Leader
COMT	Communications Unit Technician
COMU	Communications Unit
DPR	Domestic Preparedness Region
EAS	Emergency Alert System
EMS	Emergency Medical Service
ESF	Emergency Support Function
ESInet	Emergency Services IP Network
GIS	Geographic Information System
IPAWS	Integrated Public Alert and Warning System
ISSI	Inter-RF Subsystem Interface
MHz	Megahertz
LMR	Land Mobile Radio
NG911	National Public Safety Planning Advisory Committee
OEC	Office of Emergency Communications
P25	Project 25 (APCO)
PSAP	Public Safety Answering Point
SCIP	Statewide Communication Interoperability Plan
SERC	State Emergency Response Commission
SIEC	Statewide Interoperability Executive Committee
SOG	Standard Operating Guide
SOP	Standard Operating Procedure
SPOC	Single Point of Contact
SRC	SERC Regionalization Committee
SUA	System Upgrade Agreement
SWIC	Statewide Interoperability Coordinator
UHF	Ultra High Frequency
VIPER	Voice Interoperability Plan for Emergency Responders
VHF	Very High Frequency
WEA	Wireless Emergency Alerts
WEBEOC	Web Based Emergency Operations Center
WG	Working Group