

New York

2014 Statewide Communication Interoperability Plan (SCIP)

Revised and Adopted December 2014

EXECUTIVE SUMMARY

The New York Statewide Communication Interoperability Plan (SCIP) is a stakeholder-driven, multi-jurisdictional, and multi-disciplinary statewide strategic plan to enhance interoperable and emergency communications. The SCIP is a critical mid-range (three to five years) strategic planning tool to help New York prioritize resources, strengthen governance, identify future investments, and address interoperability gaps.

The purpose of the New York SCIP is to:

- Provide the strategic direction and alignment for those responsible for interoperable and emergency communications at the State, regional, local, and tribal levels.
- Explain to leadership and elected officials the vision for interoperable and emergency communications and demonstrate the need for funding.
- Inform emergency communications stakeholders on the statewide interoperability vision to align projects funded by the Statewide Interoperable Communications Grant (SICG).

The following are New York's Vision and Mission for improving emergency communications operability, interoperability, and continuity of communications statewide.

Vision: To ensure emergency responders can effectively communicate during day-to-day operations, significant events, and disasters to protect lives and property.

Mission: To implement our vision of effective interoperable and emergency communications, the New York State Interoperable and Emergency Communication (SIEC) Board will continue to develop and support communications partnerships inclusive of local, state, tribal, and Federal public safety agencies, through the efficient development and use of communication resources, policies, procedures, training, and exercises.

The following strategic goals represent the priorities for delivering New York's vision for interoperable and emergency communications.

- Governance –
    - Review and update the State Interoperable and Emergency Communication (SIEC) Board membership, working groups, and subcommittees to validate that members are fully representative and actively participating
    - Assist the Regional consortium groups to achieve a baseline common governance structure through the standardization of principles for standard operating procedures (SOP), technology, training and exercise, and usage.
    - Identify interoperability coordinator points of contact for all counties

  - Revise operating standards for Public Safety Answering Points (PSAP) in accordance with New York State County Law Article 6A and ensure consistency and compliance

- Standard Operating Procedures (SOPs) –
  - Develop and update Tactical Interoperable Communications Plans (TICP) for all levels of government
- Technology –
  - Continue to promote statewide technology standards/guidelines
  - Develop interoperability channel implementation plan
  - Establish requirements and prepare the State to interface the National Public Safety Broadband Network
  - Establish requirements and prepare the State to interface with emerging technologies (e.g., Next Generation 911 [NG911], alerts and warnings)
  - Implement the system of systems approach to interoperability by assuring deployment of open-standards based technologies (e.g., Project 25 [P25] for digital systems, IP addressing)
  - Improve communications infrastructure resiliency in New York
- Training and Exercises –
  - Establish the Communications Unit (COMU) as a response asset
  - Support communications exercises to prepare for real-world events
- Usage –
  - Establish and maintain a schedule for the systematic testing and use of interoperable systems, Strategic Technology Reserve (STR)/cache equipment, and channels or talk groups
- Outreach and Information Sharing –
  - Establishment of an outreach and information sharing program to facilitate planning and buy-in by informing stakeholders, soliciting feedback, and maintaining engagement
- Life Cycle Funding –
  - Promote and maintain the Statewide Interoperable Communications Grant (SICG) Program
  - Identify and document long-term funding for State communications systems and assets (e.g., operations and maintenance of existing systems, STR program, reserve funds)

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1. INTRODUCTION

The New York Statewide Communication Interoperability Plan (SCIP) is a stakeholder-driven, multi-jurisdictional, and multi-disciplinary statewide strategic plan to enhance interoperable and emergency communications. The SCIP is a critical mid-range (three to five years) strategic planning tool to help New York prioritize resources, strengthen governance, identify future investments, and address interoperability gaps. This document contains the following planning components:

- Introduction – Provides the context necessary to understand what the SCIP is and how it was developed.
- Purpose – Explains the purpose/function(s) of the SCIP in New York.
- State's Interoperable and Emergency Communications Overview – Provides an overview of the State's current and future emergency communications environment and defines ownership of the SCIP.
- Vision and Mission – Articulates the State's three- to five-year vision and mission for improving emergency communications operability, interoperability, and continuity of communications at all levels of government.
- Strategic Goals and Initiatives – Outlines the strategic goals and initiatives aligned with the three- to five-year vision and mission of the SCIP and pertains to the following critical components: Governance, Standard Operating Procedures (SOPs), Technology, Training and Exercises, Usage, Outreach and Information Sharing, and Life Cycle Funding.
- Implementation – Describes the process to evaluate the success of the SCIP and to conduct SCIP reviews to ensure it is up-to-date and aligned with the changing internal and external environment.
- Reference Materials – Includes resources that provide additional background information on the SCIP or interoperable and emergency communications in New York or directly support the SCIP.

Figure 1 provides additional information about how these components of the SCIP interrelate to develop a comprehensive plan for improving interoperable and emergency communications.

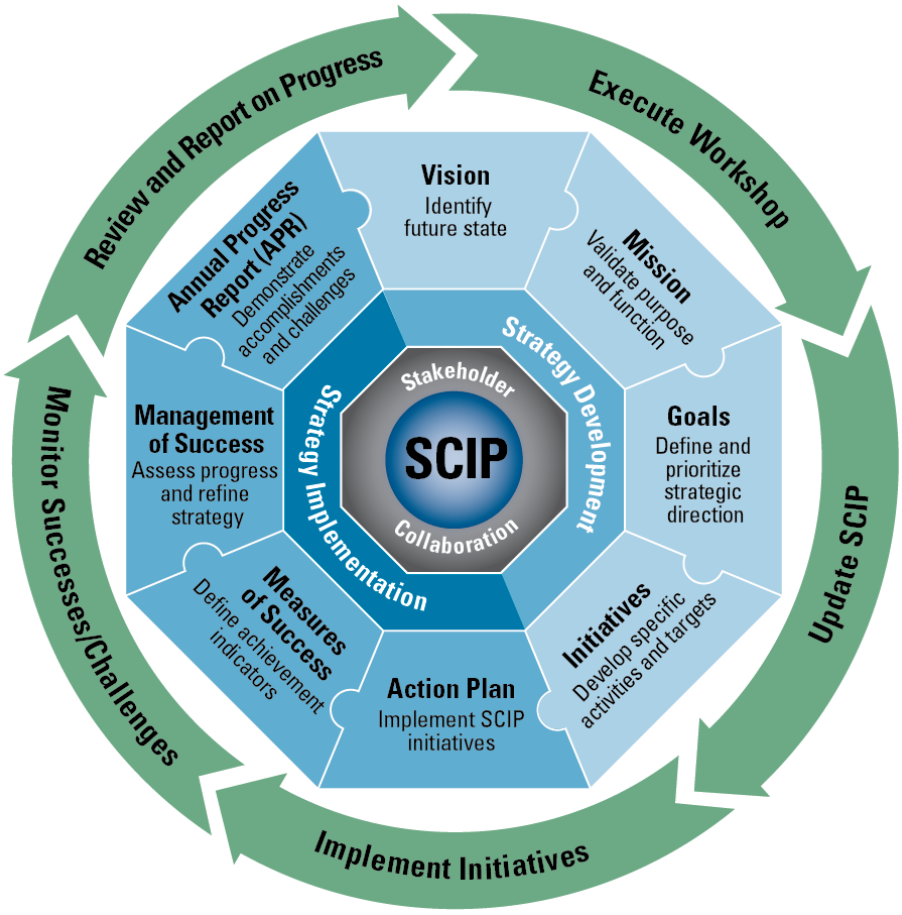

Figure 1: SCIP Strategic Plan and Implementation Components

The New York SCIP is based on an understanding of the current and mid-range interoperable and emergency communications environment. New York has taken significant steps towards enhancing interoperable and emergency communications throughout the State including setting up governance working groups made up of subject matter experts to advise the State Interoperable and Emergency Communication (SIEC) Board, creating the Office of Interoperable and Emergency Communications (OIEC) and creating the Statewide Interoperable Communications Grant (SICG) Program, a competitive grant for local jurisdictions funded by cellular surcharge revenue.

However, more remains to be done to achieve New York's vision including strengthening the network-of-networks approach to interoperability across the State bolstered by strong governance to oversee and integrate the effort, as well as creating a statewide Tactical Interoperable Communications Plan (TICP). It is also important to note that this work is part of a continuous cycle as New York will always need to adapt to evolving technologies, operational tactics, and changes to key individuals (e.g., Governor, project champions). In the next three to five years, New York will encounter challenges relating to operability, interoperability, geography, aging equipment/systems, emerging technologies, changing project champions, and sustainable funding.

Wireless voice and data technology is evolving rapidly and efforts are underway to determine how to leverage these new technologies to meet the needs of public safety. For example, the enactment of the Middle Class Tax Relief and Job Creation Act of 2012 (the Act), specifically Title VI, related to Public Safety Communications, authorizes the deployment of the NPSBN. The NPSBN is intended to be a wireless, interoperable nationwide communications network that will allow members of the public safety community to securely and reliably gain and share information with their counterparts in other locations and agencies. New policies and initiatives such as the NPSBN present additional changes and considerations for future planning efforts and require an informed strategic vision to properly account for these changes. Figure 2 illustrates a public safety communications evolution by describing the long-term transition toward a desired converged future.

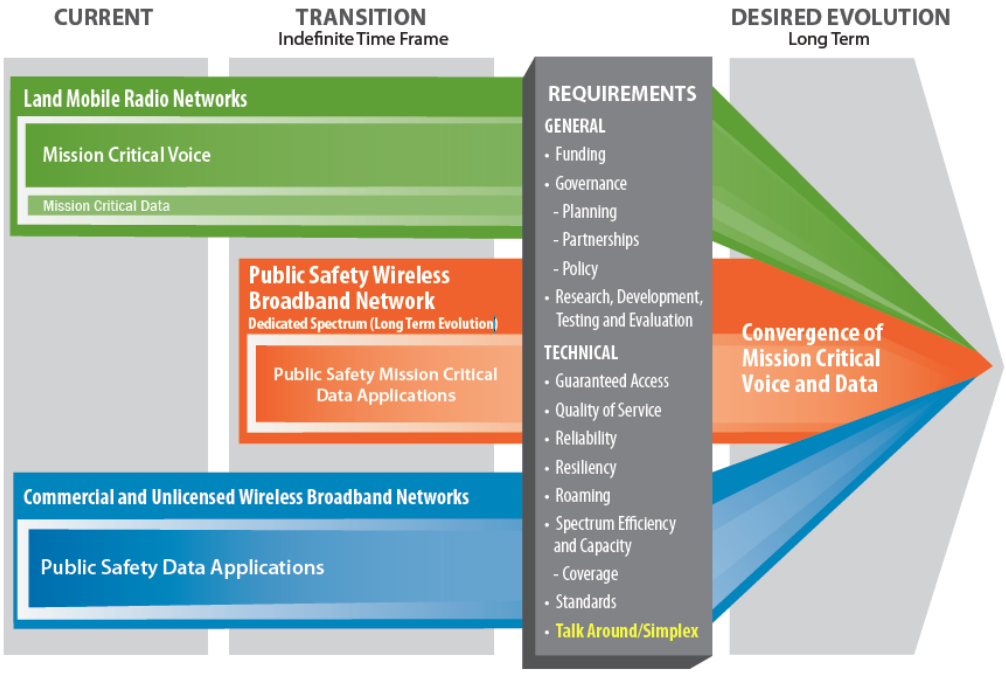

Figure 2: Public Safety Communications Evolution

Integrating capabilities such as broadband provide an unparalleled opportunity for the future of interoperable communications in New York. It may result in a secure path for information-sharing initiatives, Public Safety Answering Points (PSAP), and NG911 integration. Broadband will not replace existing Land Mobile Radio (LMR) voice systems in the foreseeable future due to implementation factors associated with planning, deployment, technology, and cost. A cautious approach to this investment is needed. Therefore, robust requirements and innovative business practices must be developed for broadband initiatives prior to any implementation.

There is no defined timeline for the deployment of the NPSBN; however, New York will keep up-to-date with the planning and build-out of the NPSBN in the near and long term in coordination with the First Responder Network Authority (FirstNet). FirstNet is the independent authority within the National Telecommunications and Information Administration (NTIA) and is responsible for developing the NPSBN, which will be a

single, nationwide, interoperable public safety broadband network. The network build-out will require continuing education and commitment at all levels of government and across public safety disciplines to document network requirements and identify existing resources and assets that could potentially be used in the build-out of the network. It will also be necessary to develop and maintain strategic partnerships with a variety of stakeholder agencies and organizations at the national, State, regional, local, and tribal levels and design effective policy and governance structures that address new and emerging interoperable and emergency communications technologies. During this process, investments in LMR will continue to be necessary and in the near term, wireless data systems or commercial broadband will complement LMR. More information on the role of these two technologies in interoperable and emergency communications is available in the Department of Homeland Security (DHS) Office of Emergency Communications (OEC) Public Safety Communications Evolution brochure.[1]

To plan and prepare for the NPSBN, New York will conduct a preliminary conference call with FirstNet in the summer 2014 to begin the state consultation process. New York is also conducting an initial needs assessment in 2014, and will continue to work with FirstNet throughout the consultation process and period of performance for the State and Local Implementation Grant Program (SLIGP).

Additionally, achieving sustainable funding in the current fiscal climate is a priority for New York. As State and Federal grant funding diminishes, the State needs to identify alternative funding sources to continue improving interoperable and emergency communications for voice and data systems. Key priorities for sustainable funding in New York include:

- Promote and maintain the SICG Program
- Identify and document long-term funding for State communications systems and assets (e.g., operations and maintenance of existing systems, STR program, “reserve funds”)

More information on a typical emergency communications system life cycle, cost planning, and budgeting is available in OEC’s System Life Cycle Planning Guide.[2]

The Interoperability Continuum, developed by SAFECOM and shown in Figure 3, serves as a framework to address all of these challenges and continue improving operable/interoperable and emergency communications. It is designed to assist emergency response agencies and policy makers with planning and implementing interoperability solutions for voice and data communications.

[1] OEC’s Public Safety Communications Evolution brochure is available here: http://publicsafetytools.info/oec_guidance/docs/Public_Safety_Communications_Evolution_Brochure.pdf
[2] OEC’s System Life Cycle Planning Guide is available here: http://publicsafetytools.info/oec_guidance/docs/OEC_System_Life_Cycle_Planning_Guide_Final.pdf

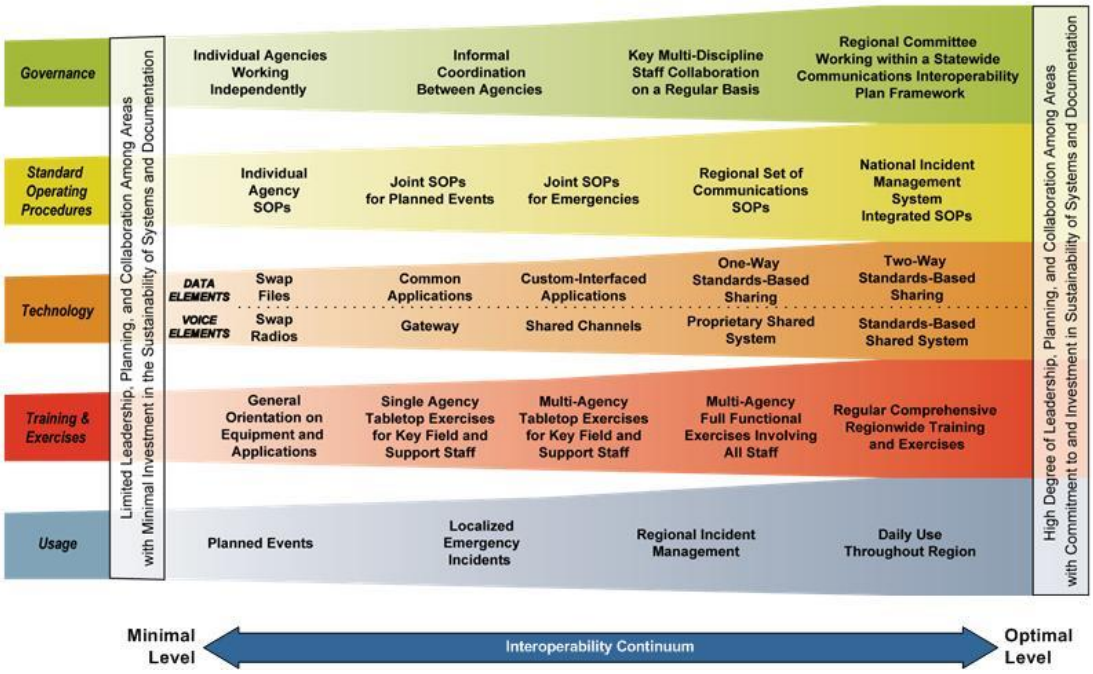

Figure 3: The Interoperability Continuum

The Continuum identifies five critical success elements that must be addressed to achieve a successful interoperable communications solution:

- Governance – Collaborative decision-making process that supports interoperability efforts to improve communication, coordination, and cooperation across disciplines and jurisdictions. Governance is the critical foundation of all of New York's efforts to address communications interoperability.
- SOPs – Policies, repetitive practices, and procedures that guide emergency responder interactions and the use of interoperable communications solutions.
- Technology – Systems and equipment that enable emergency responders to share voice and data information efficiently, reliably, and securely.
- Training and Exercises – Scenario-based practices used to enhance communications interoperability and familiarize the public safety community with equipment and procedures.
- Usage – Familiarity with interoperable communications technologies, systems, and operating procedures used by first responders to enhance interoperability.

More information on the Interoperability Continuum is available in OEC's Interoperability Continuum brochure.[3] The following sections will further describe how the SCIP will be used in New York and New York's plans to enhance interoperable and emergency communications.

[3] OEC's Interoperability Continuum is available here: http://www.safecomprogram.gov/oecguidancedocuments/continuum/Default.aspx

2. PURPOSE

The purpose of the New York SCIP is to:

- Provide the strategic direction and alignment of goals to those responsible for interoperable and emergency communications at the State, regional, local, and tribal levels.
- Explain to leadership and elected officials the vision for interoperable and emergency communications and demonstrate the need for funding.
- Inform emergency communications stakeholders on the statewide interoperability vision to align projects funded by the SICG.

The development and execution of the SCIP assists New York with addressing the results of the National Emergency Communications Plan (NECP) Goals and the Federal government with fulfilling the Presidential Policy Directive 8 (PPD-8)[4] National Preparedness Goal for Operational Communications.[5]

In addition to this SCIP, New York will develop an Annual Progress Report (APR) that will be shared with OEC and other stakeholders to highlight recent accomplishments and demonstrate progress toward achieving the goals and initiatives identified in the SCIP. More information on the SCIP APR is available in Section 6.4.

This SCIP is owned and managed by the New York State Division of Homeland Security and Emergency Services (DHSES), through its Office of Interoperable and Emergency Communications (OIEC). This effort will be led by the Statewide Interoperability Coordinator (SWIC), who is responsible for making decisions regarding this plan in consultation with the SIEC Board and Regional Consortiums. The SWIC is also responsible for ensuring that this plan is implemented and maintained statewide.

The New York SCIP was created by engaging with key public safety agency stakeholders who have detailed knowledge and experience with interoperable communications requirements throughout the State. Beginning with a series of three planning calls and culminating in a two-day workshop, public safety communications leaders in New York revised the SCIP to outline the strategic direction and alignment of all emergency communications at the State, regional, local, and tribal levels in New York.

[4] PPD-8 was signed in 2011 and is comprised of six elements: a National Preparedness Goal, the National Preparedness System, National Planning Frameworks and Federal Interagency Operational Plan, an annual National Preparedness Report, and ongoing national efforts to build and sustain preparedness. PPD-8 defines a series of national preparedness elements and emphasizes the need for the whole community to work together to achieve the National Preparedness Goal. http://www.dhs.gov/presidential-policy-directive-8-national-preparedness.

[5] National Preparedness Goal – Mitigation and Response Mission Area Capabilities and Preliminary Targets – Operational Communications: Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.

1. Ensure the capacity to communicate with the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, State, and local first responders.
2. Re-establish sufficient communications infrastructure within the affected areas to support ongoing life-sustaining activities, provide basic human needs, and transition to recovery.

3. STATE'S INTEROPERABLE AND EMERGENCY COMMUNICATIONS OVERVIEW

New York's approach to interoperable and emergency communications governance lies in the strength of its 13 regional partnerships or consortiums. These regional consortiums are inclusive of all 57 counties and the City of New York, with some counties belonging to more than one consortium. Figure 4 identifies the name of 13 regional consortiums and the member counties and New York City.

Consortium Name	Consortium Membership (County Name)
Adirondack Regional Interoperable Communications Consortium	Clinton, Essex, Franklin, Fulton, Hamilton, Herkimer, Montgomery, Saratoga, St. Lawrence, Warren, Washington
Capital Region Urban Area Security Initiative	Albany, Rensselaer, Saratoga, Schenectady, Schoharie
Catskill Interoperable Communications Consortium	Delaware, Greene, Otsego, Schoharie, Sullivan, Ulster
Central New York Interoperable Communications Consortium	Cayuga, Cortland, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence
Finger Lakes New York Interoperable Communications Consortium (FLNYICC)	Allegany, Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Steuben, Wayne, Wyoming, Yates
Hudson Valley Interoperable Communications Consortium	Columbia, Dutchess, Greene, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester
Northern New York Interoperable Communications Consortium or Thousand Island Regional Interoperable Communications Consortium	Jefferson, Lewis, St. Lawrence
NYC-Urban Area Working Group (UAWG)	Nassau, New York City, Suffolk, Westchester
Six County Regional Interoperable Communications Coalition	Genesee, Livingston, Monroe, Ontario, Orleans, Wayne
Southern Tier East Regional Emergency Service Interoperable Communications Alliance	Broome, Chenango, Cortland, Delaware, Otsego, Schoharie, Tioga, Tompkins
Southern Tier Interoperable Communications Consortium	Chemung, Schuyler, Steuben
Western New York Interoperable Communications Consortium	Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Wyoming
Southern Tier West Interoperable Communications Consortium	Allegany, Cattaraugus, Chautauqua, Chemung, Schuyler, Steuben

Figure 4: New York's Interoperable Communications Consortiums

Governance protocols, standard operating procedures, and training and exercise efforts are implemented through these entities; however, consistency in the formality, activities, and participation varies from consortium to consortium. In the past, most funding support for the consortiums has centered on urban areas and other regions with high-profile homeland security risks or recurring communications breakdowns. Jurisdictions that do not quite fit traditional funding models have struggled to keep pace and improve their capabilities. While progress has been made, funding patterns have not reflected the diverse needs across jurisdictions and municipal boundaries. As a result, there can be stark differences from county to county in terms of communications capability throughout New York.

The State seeks to continue support for the consortiums by establishing and sharing best practices, standards, and guidelines related to interoperable and emergency communications through its SIEC Board comprised of 25 members, including state agency heads, state legislative and executive appointees representative of first responder organizations, and experts in the field of emergency communications.

Through the consortiums, in terms of technology, New York pursues statewide interoperability through a "network of networks" approach for local, State, and other first responder agencies. Local jurisdictions and entities maintain and run disparate radio systems and the sustainment of these systems is challenging, particularly in austere fiscal times. New York mitigates the challenge through its SICG, a competitive grant program to facilitate the development, consolidation, and operation of public safety communications systems which support statewide interoperability for first responders. The SICG funds have impacted interoperability in several ways including:

- Expanding regional partnerships and consortiums among the awarded counties and neighboring counties, including participation of State agencies
- Supporting portable/mobile equipment in more efficient digital equipment; installing base stations and microwave links for connections with command and control and system redundancy; constructing additional towers/antennas to increase radio coverage and signal strength
- Promoting the access and use of shared channels among local and State agencies.

Counties will continue to improve interoperability with SICG funding by expanding radio coverage by installing new equipment at tower and antenna sites, establish common interoperability channels and other local mutual-aid channels among public safety radio systems, consolidating emergency service dispatch centers, and deploying new technology so that individual county systems may link to other county systems.

4. VISION AND MISSION

The Vision and Mission section describes the New York vision and mission for improving emergency communications operability, interoperability, and continuity of communications statewide.

New York Interoperable and Emergency Communications Vision:

To ensure emergency responders can effectively communicate during day-to-day operations, significant events, and disasters to protect lives and property.

New York Interoperable and Emergency Communications Mission:

To implement our vision of effective interoperable and emergency communications, the New York State Interoperable and Emergency Communication (SIEC) Board will continue to develop and support communications partnerships inclusive of local, state, tribal, and Federal public safety agencies, through the efficient development and use of communication resources, policies, procedures, training, and exercises.

5. STRATEGIC GOALS AND INITIATIVES

The Strategic Goals and Initiatives section describes the statewide goals and initiatives for delivering the vision for interoperable and emergency communications. The goals and initiatives are grouped into seven sections, including Governance, SOPs, Technology, Training and Exercises, Usage, Outreach and Information Sharing, and Life Cycle Funding.

5.1 Governance

The Governance section of the SCIP outlines the future direction of the New York governance structure for interoperable and emergency communications. Empowered under Section 326 of the New York County Law, the State Interoperable and Emergency Communication (SIEC) Board is comprised of 25 state agency heads, state legislative and executive appointees representative of first responder organizations, and experts in the field of emergency communications. Members meet four times during the calendar year and serve four year terms.

The SIEC has embraced a shared governance approach by chartering numerous subcommittees and working groups to develop policies and procedures and coordinate SCIP implementation activities. Through these groups, New York encourages widespread support for achieving statewide interoperability by identifying and addressing the concerns, perspectives, and any unique circumstances of the jurisdictions and organizations that will benefit most from interoperability. The sub-committees and working groups include but are not limited to:

- **The Communications and Interoperability Working Group:** Addresses the tactical, operational, and strategic interoperability needs of public safety first responders by providing best practices, identifying measurable outcomes and performance planning, and clarifying the technical needs and standards of mandates and evolving technologies for public safety first responders in the State.
- **The 911 Advisory Committee:** Assists the local government service suppliers, wireless telephone service suppliers, and appropriate State agencies by facilitating the most efficient routing of wireless 911 emergency calls; develops the minimum standards for PSAPs, and encouraging the use of best practices among the PSAP community.
- **The Channel Naming and Use Working Group:** Identifies the State and National Interoperable radio channels and establishes the base line operational policies and procedures for the use of the channels.
- **The Public Safety Broadband Working Group:** Advises the SIEC board and the New York public safety community on matters such as FirstNet consultation, evolving standards development, and the needs, requirements, and expectations of the public safety and emergency management communities for broadband.

Despite the existence of this governance structure, New York still faces challenges to interoperable communications governance in the State (e.g., coordination and collaboration among levels of government, disparate communications systems). The

establishment of regional consortiums has been an effective way to mitigate these challenges; however, the effectiveness of the consortiums varies. Solidifying the consortiums can serve as the basis for sharing bandwidth, infrastructure and technology, but more importantly provide the operational, administrative, and governance vehicle to make it workable as communications interoperability remains a top priority for the State.

Table 1 outlines New York's goals and initiatives related to governance.

Table 1: Governance Goals and Initiatives

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
1.	Review and update the State Interoperable and Emergency Communication (SIEC) Board membership, working groups, and subcommittees to validate that members are fully representative and actively participating	1.1 Work with stakeholder groups to fill existing Board vacancies (currently 6)	DHSES OIEC / Commissioner	December 2014
		1.2 Promote attendance and participation from consortium leaders in the SIEC Communications and Interoperability Working Group	SIEC Board Chair	July 2014, ongoing
		1.3 Establish subcommittees for work products (as needed)	SIEC Board	July 2014, ongoing
		1.4 Ensure outgoing Board member vacancies are filled in a timely manner and formalize the onboarding process for new Board members	DHSES OIEC / Commissioner	October 2014, ongoing
		1.5 Reconvene Communications Interoperability Working Group for State agencies	OIEC	January 2015
		1.6 Include meeting notice and work products from the Board and working groups into the Annual Report to the legislature	DHSES OIEC	March 2015, annually thereafter
2.	Assist the Regional consortium groups to achieve a baseline common governance structure through the standardization of	2.1 Conduct annual meeting with regional consortium chairs and SIEC Board to share information	SIEC/Regional Consortium Chairs/OIEC	June 2015, yearly thereafter
		2.2 Gather and identify consortium best practices	SIEC Working Group	April 2015

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
	principles for SOPs, technology, training and exercise, and usage.	(e.g., established procedures, establishing a consortium chair, meeting regularly, similar state structures)		
		2.3 Develop and vet consortium guidelines from identified best practices	SIEC Working Group	August 2015
		2.4 Recommend and promote consortium guidelines	OIEC/Regional Consortiums/SIEC/Other State agencies	August 2015, ongoing
		2.5 Incorporate annual reporting process for regional consortiums	Regional Consortiums	December 2015
3.	Identify interoperability coordinator points of contact	3.1 Identify coordinator at each State agency and authority that utilizes emergency communications	OIEC	January 2015
		3.2 Identify coordinator in each county; leverage County Emergency Preparedness Assessment (CEPA) requirement process	DHSES OIEC	April 2015
		3.3 Incorporate point of contact information into State TICP and CEPA list, and Office of Emergency Management (OEM) Phone book	OIEC	April 2015, ongoing
4.	Revise operating standards for PSAPs in accordance with New York State County Law Article 6A and ensure consistency and compliance	4.1 Review current standards	911 Advisory Committee	December 2014
		4.2 Revise and propose enhanced operating standards for PSAPs	911 Advisory Committee	December 2014
		4.3 Submit draft operating standards for review and comment, update as necessary	SIEC / 911 Advisory Committee	January 2015
		4.4 Initiate New York State Regulatory Process	DHSES Counsel	January 2015
		4.5 Distribute finalized operating	DHSES / Executive	December 2015

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
		standards	Branch	(determine appropriate timeframe with DHSES Counsel)
		4.6 Designate a 911 Coordinator for the State of New York	Executive Branch	December 2015

5.2 Standard Operating Procedures (SOPs)

The SOPs section of the SCIP identifies the framework and processes for developing and managing SOPs statewide. In 2013, the SIEC board adopted a Channel Naming and Usage resolution which recommended the common naming conventions for VHF High-Band frequencies used by law enforcement, and nine frequencies utilized by EMS. The recommendations seek to eliminate confusion of multiple names per channel and to align the State with generally accepted naming conventions. New York seeks to expand on progress in this area by utilizing the regional consortiums to develop TICPs that will eventually roll up to a statewide TICP.

Table 2 outlines New York's goals and initiatives for SOPs.

Table 2: Standard Operating Procedures Goals and Initiatives

Standard Operating Procedures Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
5.	Develop and update Tactical Interoperable Communications Plans (TICP) for all levels of government	5.1 Create a policy and template for TICPs	SIEC / SWIC	September 2014
		5.2 Create statewide framework for TICP	OIEC	September 2014
		5.3 Update existing TICPs	OIEC / SIEC	June 2015, ongoing
		5.4 Create regional consortium TICP in alignment with template	Regional Consortiums	June 2016, ongoing
		5.5 Ensure each county is represented or incorporated into regional consortium TICP	OIEC	June 2016, ongoing
		5.6 Create statewide TICP	OIEC	June 2016, ongoing
		5.7 Generate a Field Operations guide at the county, regional	OIEC	June 2018

Standard Operating Procedures Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
		consortium, and State level		

5.3 Technology

The Technology section of the SCIP outlines New York's plan to maintain and upgrade existing technology; the roadmap to identify, develop, and implement new and emerging technology solutions; and the approach to survey and disseminate information on current and future technology solutions to ensure user needs are met.

Local jurisdictions and entities will continue to maintain and run independent radio systems while identifying connection points and the technology required to effectively communicate across jurisdictional boundaries. The SIEC Board will provide the guidance to promote standards, requirements to interface with emerging technologies, and implement the network of networks approach to interoperability.

NY State unequivocally supports position of SAFECOM for "…public safety agencies, and other emergency response entities contemplating the purchase or usage of LMR equipment, to select and implement P25 standards compliant equipment. No other available technological solution ensures compatibility and provides critical digital communications interoperability with established P25 standards compliant solutions. While there are many other elements to consider in one's mission to achieve a high-level of interoperability, there can be no argument that compatible technology is critical."

Table 3 outlines New York's goals and initiatives for technology.

Table 3: Technology Goals and Initiatives

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
6.	Continue to promote statewide technology standards/guidelines	6.1 Encourage adoption of P25 technology (systems, ISSI, open standards, unit ID, IP addressing)	Communications and Interoperability Working Group (CIWG)	June 2014, ongoing
		6.2 Develop SOPs for Interoperability Channels (naming and usage)	CIWG / OIEC	June 2014, ongoing
		6.3 Promote adoption of plain language	CIWG	June 2014, ongoing
		6.4 Determine adoption of Encryption standards, key	CIWG	December 2014, ongoing

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
		identification standards		
7.	Develop interoperability channel implementation plan	7.1 Encourage consortiums through the SICG to construct interoperability channel infrastructure	DHSES / SIEC	June 2014, ongoing
		7.2 Provide recommendations to public safety entities on programming interoperability channels in subscriber equipment	OIEC / SIEC Channel Naming Working Group	January 2015, ongoing
		7.3 Develop a statewide plan for the regular testing and usage of interoperability channels	SWIC / SIEC Working Group	December 2014, ongoing
		7.4 Identify gaps in interoperability channel coverage and develop mitigation plan	OIEC	September 2015
8.	Establish requirements and prepare the State to interface the National Public Safety Broadband Network (NPSBN)	8.1 Leverage established Public Safety Broadband Working Group (PSBWG) for broadband planning	SIEC	January 2015
		8.2 Develop and utilize state mobile data survey tool to collect information	OIEC	January 2015
		8.3 Conduct outreach with stakeholders as information is provided by FirstNet, in accordance with SLIGP Phase I	OIEC / PSBWG	September 2014, ongoing
		8.4 Conduct data collection in accordance with SLIGP Phase II	OIEC / PSBWG	TBD (dependent on NTIA guidance)
9.	Establish requirements and prepare the State to interface with emerging technologies (e.g., NG911, alerts and warnings, IP addressing)	9.1 Seek guidance from the Federal Emergency Management Agency (FEMA) relative to alerts and warnings on current status and adoption of standards	OIEC	September 2014, ongoing
		9.2 Seek guidance from the US Department of Transportation on NG911 on current status	OIEC / 911 Coordinator	September 2014, ongoing

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
		and adoption of standards		
		9.3 Ensure state and local planning activities align with proposed technologies	911 Advisory Committee / SIEC / 911 Coordinator	September 2015, ongoing
		9.4 Conduct outreach to stakeholders on emerging technologies	911 Advisory Committee / SIEC / 911 Coordinator	September 2015, ongoing
10.	Implement the system of systems approach to interoperability by assuring deployment of open-standards based technologies (e.g., P25 for digital systems)	10.1 Define system of systems "end state"	Regional Consortiums / SIEC / State and local agencies / Executive	January 2015
		10.2 Identify needs and gaps to expand system of systems approach	Regional Consortiums / SIEC / OIEC / DHSES	December 2015
		10.3 Create and implement the plan to fill identified gaps	Regional Consortiums / SIEC / OIEC / DHSES	June 2016, ongoing
11.	Improve communications infrastructure resiliency in New York	11.1 Identify non-public safety (e.g., public service commission, New York Power Authority [NYPA]) communications stakeholders that have infrastructure	OIEC / Public Service Commission / Information Technology Services / et. al	December 2015
		11.2 Conduct risk analysis in consultation with stakeholders to identify gaps and solutions	OIEC	July 2016
		11.3 Recommend best practices and guidelines to implement backhaul sharing, expansion, and power redundancy plan	OIEC	December 2018
		11.4 Recommend best practices and guidelines for dispatch centers / EOC sharing / redundancy (i.e., fail-over plans)	OIEC	December 2018

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
		11.5 Conduct review of redundancy plans and update as necessary	OIEC	December 2018, ongoing

5.4 Training and Exercises

The Training and Exercises section of the SCIP explains New York's approach to ensure that emergency responders are familiar with interoperable and emergency communications equipment and procedures and are better prepared for responding to real-world events. Significant progress has been achieved through the training and certification of over 300 Communications Unit Leaders (COML); however, New York seeks to further the effort by establishing the COMU as a response asset during significant events.

In addition, across the regional consortiums, exercises are conducted on a frequent basis, but communications is typically a tool to achieve objectives rather than an exercise objective itself. This provides the State with an opportunity to leverage existing exercises to improve operable and interoperable emergency communications and eventually help to identify a forum for a statewide exercise to test and improve real-world communication gaps.

Table 4 outlines New York's goals and initiatives for training and exercises.

Table 4: Training and Exercises Goals and Initiatives

Training and Exercises Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
12.	Establish the COMU as a response asset	12.1 Identify need for trained personnel and offer training	OIEC / OEM	July 2015
		12.2 Implement train the trainer (COML and COMT) component to sustain the COMU program	OIEC / OEM	September 2014, ongoing
		12.3 Promote the institutionalizing of the use of the COMU in the Incident Command structure	OIEC	February 2015
		12.4 Formalize TERT activation resource, develop activation guidelines, and promote its use	OIEC	February 2015

		12.5 Determine deployable COMU teams including STR operators	DHSES OIEC	February 2016
13.	Support communications exercises to ensure end users remain trained on interoperable communications and are prepared for real-world events	13.1 Promote the inclusion of communications component into existing exercises	DHSES OIEC	December 2014, ongoing
		13.2 Provide guidance and templates to ensure All Hazards exercises contain a communications evaluation	SIEC Board / DHSES OIEC	July 2015
		13.3 Develop evaluation program consistent with HSEEP standards	DHSES OIEC / COMLs	December 2015
		13.4 Gain familiarity with other systems (e.g., National Guard, cross border systems) that may be used to prepare for real-world events	DHSES OIEC / COMLs	December 2015
		13.5 Create templates/scenarios/injects or assistance for communications-specific and All Hazards exercises	DHSES OIEC / COMLs	December 2015
		13.6 Develop exercise plan for communications-specific exercises	DHSES OIEC/OEM	December 2016

5.5 Usage

The Usage section of the SCIP outlines efforts to ensure responders adopt and familiarize themselves with interoperable and emergency communications technologies, systems, equipment and operating procedures in the State.

The State has been tested by many large-scale emergency and disasters affecting widespread areas across the State (e.g., Hurricanes Irene and Sandy, and Tropical Storm Lee); yet the public safety mission is just as real every day for localized emergencies, whether they occur within or beyond the boundaries of a single jurisdiction. As such, New York has outlined plans to become more familiar with the communications technologies, systems, equipment and operating procedures to be prepared for the next significant event.

Table 5 outlines New York's goals and initiatives for usage.

Table 5: Usage Goals and Initiatives

Usage Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
14.	Establish and maintain a schedule for the systematic testing and use of interoperable systems, STR/cache equipment, and channels or talk groups	14.1 Identify resources that require testing and frequency of testing	Regional Consortiums	December 2016
		14.2 Develop and publish a testing schedule and align with existing testing, as applicable	Regional Consortiums	April 2017

5.6 Outreach and Information Sharing

The Outreach and Information Sharing section of the SCIP outlines New York's approach for building a coalition of individuals and emergency response organizations statewide to support the SCIP vision and for promoting common emergency communications initiatives.

As the principal State agency for all interoperable and emergency communications matters, DHSES OIEC seeks to provide the forum through which public safety communications issues can be discussed comprehensively, and solutions can be developed collaboratively across jurisdictions, disciplines, and levels of government. DHSES OIEC emphasizes a regionally-based approach working with counties, State agencies and other stakeholders to inform stakeholders on emergency communications issues and as a method by which to solicit feedback on initiatives.

Table 6 outlines New York's goals and initiatives for outreach and information sharing.

Table 6: Outreach and Information Sharing Goals and Initiatives

Outreach and Information Sharing Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
15.	Establishment of an outreach and information sharing program to facilitate planning and buy-in by informing stakeholders, soliciting feedback, and maintaining engagement	15.1 Distribute information regarding the impact of emerging Federal agency (e.g., Federal Communications Commission) policies including but not limited to: • T-band migration • Line A / Canadian border regarding frequency	OIEC / CIWG	June 2014, ongoing

Outreach and Information Sharing Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
		coordination • 6.25 kilohertz (kHz) efficiency		
		15.2 Present the SCIP vision and goals to key stakeholders (e.g., emergency management, non-communications focused decision makers, vendors)	OIEC / SWIC / Regional Consortiums / CIWG	September 2014, ongoing
		15.3 Share information on the emergency communications environment at key stakeholder conferences regarding: • funding availability (e.g., SICG) • continued need for planning and funding LMR • emerging technologies (broadband and NG911) • deployable assets (e.g., STR program) • succession planning	OIEC	September 2014, ongoing
		15.4 Increase public safety's awareness of deployable equipment assets (e.g., STR program) to fill gaps	OIEC / OEM	July 2015, ongoing

5.7 Life Cycle Funding

The Life Cycle Funding section of the SCIP outlines New York's plan to fund existing and future interoperable and emergency communications priorities.

DHSES OIEC implements the Statewide Interoperable Communications Grant (SICG) Program, a competitive grant that is designed to establish best practices for achieving interoperability within and between regions, provide for measurable outcomes and

performance of communications capability, and plans for long-range sustainability and compatibility with the broader public safety objectives of the State. The SICG is funded by cellular surcharge revenue and the funding level is determined by New York State statute. Since 2010, $225 million has been awarded to 57 counties and the City of New York.

The SICG has advanced improvements to interoperable and emergency communications efforts (e.g., deploying technology so that counties can link radio systems). The need for additional progress remains in areas such as incorporation of additional members into regional consortiums and partnerships, formalizing governance and operating procedures.

Table 7 outlines New York's goals and initiatives for life cycle funding.

Table 7: Life Cycle Funding Goals and Initiatives

Life Cycle Funding Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
16.	Promote and maintain the SICG Program	16.1 Evaluate acceptable allowable costs (e.g., governance, training, CASM, TICP, open standards) for future rounds	OIEC / SIEC Board	September 2014, ongoing
		16.2 Evolve the SICG Program to a sustainment program (i.e., technology refresh)	OIEC / SIEC Board	September 2016
		16.3 Report to key stakeholders and decision makers on the success of the SICG Program	OIEC / SIEC Board	March 2015, annually thereafter
17.	Identify and document long-term funding for State communications systems and assets (e.g., operations and maintenance of existing systems, STR program, reserve funds")	17.1 Identify systems and assets that are reaching end of life cycle or require a technology refresh	State Agency Working Group	July 2016
		17.2 Prioritize systems and assets that require replacement or refresh	State Agency Working Group	September 2016
		17.3 Identify available funding and determine if additional funding is needed	Individual Agencies' Finance Division	September 2016
		17.4 Establishing partnerships for investment in life	Stakeholders/Individual Agencies	September 2016

Life Cycle Funding Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Estimated Completion Date
		cycle funding		
		17.5 Initiate budget request process	Individual Agencies' Finance Division	September 2016

6. IMPLEMENTATION

6.1 Action Plan

The Action Plan section of the SCIP describes the process New York will use to determine a plan to execute the initiatives in the SCIP. There are 17 strategic goals, corresponding initiatives, and measures for success that have been developed through the SCIP revision process. Following an initial review, the SWIC will submit the revised SCIP to the Communications and Interoperability Working Group (CIWG). The CIWG will modify the plan (with assistance from DHSES OIEC) as appropriate and report it to SIEC Board for adoption.

6.2 Measures of Success

The Measures of Success section of the SCIP defines the measures that New York will use to monitor progress and indicate accomplishments toward achieving the vision for interoperable and emergency communications. Measures of success are used to meaningfully assess the outcomes and impacts of program functions and processes in meeting strategic goals. Many of New York's measures of success were derived to align to the 2014-2016 New York State Homeland Security Strategy, which articulates the Governor's vision for homeland security and emergency preparedness in New York State.

Table 8 outlines these measures for New York. More information on how these measures are managed is included in Section 6.3.

Table 8: SCIP Measures of Success

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Estimated Measure Completion Date	Owner or Source

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Estimated Measure Completion Date	Owner or Source
1.	Review and update the State Interoperable and Emergency Communication (SIEC) Board membership, working groups, and subcommittees to validate that members are fully representative and actively participating	As of June 2014, six board vacancies exist and an informal onboarding process for incoming members exists, as well as an undefined process to assign work products	Strong SIEC board that oversees committee work products and assigns 100% of responsibilities/ initiatives to subcommittees/ members	December 2015	DHSES OIEC / Commissioner
2.	Assist the Regional consortium groups to achieve a baseline common governance structure through the standardization of principles for SOPs, technology, training and exercise, and usage	Inconsistent participation in regional consortium structures and policies, as well as participation in meetings	Quarterly meetings in each regional consortium culminating in a regional consortium annual report	December 2015	DHSES OIEC
3.	Identify interoperability coordinator points of contact	Limited counties / agencies have an identified point of contact; however during significant events, they are often active responders	100% of 57 counties have identified an interoperability points of contact (aligns to Homeland Security Strategy metric)	December 2015	DHSES OIEC
4.	Revise operating standards for PSAPs in accordance with New York State County Law Article 6A and ensure consistency and compliance	Lack of consistency in PSAPs across the State; need to have a State 911 coordinator to lead the effort	100% of PSAPs operating under appropriate standards and lead by State 911 coordinator	April 2016	DHSES OIEC

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Estimated Measure Completion Date	Owner or Source
5.	Develop and update Tactical Interoperable Communications Plans (TICP)	Some Regional consortiums have TICPs, but most are outdated	100% completion of county, consortium and State TICPs; and % completion and distribution of NY State Field Operations Guide (aligns to Homeland Security Strategy metric)	December 2016	DHSES OIEC
6.	Continue to promote statewide technology standards/guidelines	No established technology standards/guidelines for consortiums	100% of Regional Consortiums adopting the Statewide Public Safety Network Common Internet Protocol for communications systems (aligns to Homeland Security metric)	December 2015	DHSES OIEC / Regional Consortiums
7.	Develop interoperability channel plan	Inconsistent use of national interoperability channels; some local systems have channels programmed into radios but do not understand the use for them	100% of emergency response organizations adopt statewide channel plan	December 2016	DHSES OIEC / Regional Consortiums
8.	Establish requirements and prepare the State to interface the National Public Safety Broadband Network (NPSBN)	Conducted initial planning call for NPSBN, awaiting information from FirstNet to guide formal outreach plan	SLIGP implementation is in accordance with the schedule and grant requirements (aligns to Homeland Security Strategy metric)	December 2015	DHSES OIEC

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Estimated Measure Completion Date	Owner or Source
9.	Establish requirements and prepare the State to interface with emerging technologies (e.g., NG911, alerts and warnings)	Some awareness and understanding of the evolving emergency communications landscape	100% of counties adopting NG911 standards (aligns to Homeland Security Strategy metric)	December 2016	DHSES OIEC
10.	Implement the system of systems approach to interoperability by assuring deployment of open-standards based technologies (e.g., P25 for digital systems)	System of systems approach to interoperability; encouragement of equipment procurement using SICG funds must be non-proprietary	100% of counties deploy open standards-based technologies to achieve interoperability (aligns to Homeland Security Strategy metric)	December 2016	DHSES OIEC
11.	Improve communications infrastructure resiliency in New York	Inadequate back up capabilities across the State	100% of counties have mobile, back up, and/or redundant communications in place (aligns to Homeland Security Strategy metric)	December 2018	DHSES OIEC / Regional Consortiums
12.	Establish the COMU as a response asset	Trained personnel across the State; however, most are active first responders and unavailable to be deployed during a significant event	100% of counties provided with COML and COMT (aligns to Homeland Security Strategy Metric)	February 2016	DHSES OIEC / Regional Consortiums
13.	Support ongoing communications exercises	Individualized approach to communications training and exercise to evaluate interoperability	70% of counties and appropriate state agencies participating in exercises (aligns to Homeland Security Strategy metric)	December 2017	DHSES OIEC

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Estimated Measure Completion Date	Owner or Source
14.	Establish and maintain a schedule for the systematic testing and use of interoperable systems, STR/cache equipment, and channels or talk groups	STR and other cache equipment is tested and used to varying degrees	STR and other cache equipment is routine tested, used and successfully deployed without major issues in 70% real-world deployments, as reviewed in incident After Action Reports (AARs)	April 2017	DHSES OIEC / Regional Consortiums
15.	Establishment of an outreach and information sharing program to facilitate planning and buy-in by informing stakeholders, soliciting feedback, and maintaining engagement	Inconsistencies occur among distributing information to Regional Consortiums, but general information sharing is strong and should be continued.	Information disseminated from the State and from Regional Consortium meetings is consistently disseminated to other regions and down to the municipal level , as well as to State decision-makers	December 2015	DHSES OIEC / Regional Consortiums
16.	Promote and maintain the SICG Program	SICG program established and operating; need to understand and promote the impact of the investments	Funding maintained and enhance and annual report submitted to the State legislature on SICG impact	March 2015	DHSES OIEC

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Estimated Measure Completion Date	Owner or Source
17.	Identify and document long-term funding for State communications systems and assets (e.g., operations and maintenance of existing systems, STR program, reserve funds")	Decreased funding for emergency communications has altered planning	Long-term funding for all major systems in the State obtained	September 2016	DHSES OIEC

6.3 Management of Success

The Management of Success section describes the iterative, repeatable method New York will follow to add, update and refine the measures of success. To evaluate its progress, the SCIP will be evaluated annually in conjunction with the existing SICG reporting process DHSES is responsible for reporting on progress on the New York State Homeland Security Strategy, and will do a review of the measures of success at the same time to evaluate progress.

6.4 Strategic Planning Review

The Strategic Planning Review section outlines the process New York will use to conduct reviews of the SCIP to ensure it is up to date and aligned with the changing internal and external interoperable and emergency communications environment, as well as to track and report progress against the defined initiatives and measures of success. Each year in conjunction with the SICG reporting process, DHSES OIEC will make adjustments to the plan as needed and submit the updated plan to the CIWG for review. The CIWG can also use the annual review and update process to make recommendations to the SIEC Board on progress.

7. REFERENCE MATERIALS

The Reference Materials section outlines resources that contribute additional background information on the SCIP and interoperable and emergency communications in New York. Table 9 includes the links to these reference materials.

Table 9: SCIP Reference Materials

Title	Description	Source/Location
New York State Interoperable and Emergency Communication Board 2013 Annual Report	Annual report to the Governor and the temporary president of the Senate, the minority leader of the Senate, the speaker of the Assembly and the minority leader of the Assembly on the Board's prior year activities	http://www.dhses.ny.gov/oiec/siec/documents/SIEC-Annual-Report-2013.pdf
New York State Homeland Security Strategy	The 2014-2016 strategy articulates the Governor's vision for homeland security and emergency preparedness in New York State.	http://www.dhses.ny.gov/media/documents/NYS-Homeland-Security-Strategy.pdf
Division of Homeland Security and Emergency Services Website	Office of Interoperable and Emergency Communications website hosts many reference materials	http://www.dhses.ny.gov/oiec

APPENDIX A: LIST OF ACRONYMS

In this section, list the acronyms used throughout the document.

APR	Annual Progress Report
CASM	Communications Assets Survey and Mapping
CEPA	County Emergency Preparedness Assessment
CIWG	Communications and Interoperability Working Group
COMC	Communications Unit Coordinator
COML	Communications Unit Leader
COMT	Communications Unit Technician
COMU	Communications Unit
DHS	U.S. Department of Homeland Security
DHSES	Division of Homeland Security and Emergency Services
FEMA	Federal Emergency Management Agency
FirstNet	First Responder Network Authority
KHz	Kilohertz
LMR	Land Mobile Radio
MHz	Megahertz
NECP	National Emergency Communications Plan
NG911	Next Generation 911
NIMS	National Incident Management System
NPSBN	Nationwide Public Safety Broadband Network
NTIA	National Telecommunications and Information Administration
NYPA	New York Power Authority
OEC	Office of Emergency Communications
OEM	Office of Emergency Management
OIEC	Office of Interoperable and Emergency Communications
P25	Project 25
PPD	Presidential Policy Directive
PSAP	Public Safety Answering Point
PSBWG	Public Safety Broadband Working Group
SIEC	State Interoperable and Emergency Communication Board
SCIP	Statewide Communication Interoperability Plan

SICG	Statewide Interoperable Communications Grant
SLIGP	State and Local Implementation Grant Program
SOP	Standard Operating Procedure
STR	Strategic Technology Reserve
SWIC	Statewide Interoperability Coordinator
TICP	Tactical Interoperable Communications Plan
UHF	Ultra High Frequency
VHF	Very High Frequency