National Council of Statewide Interoperability Coordinators (NCSWIC)
Meeting Summary
May 12, 2015

Meeting Highlights

- NCSWIC members heard from the OEC Deputy Director on a new bill in support of the Statewide Interoperability Coordinators (SWICs) and a panel on SWIC succession planning, funding, and sustainment
- NCSWIC members heard from the Pennsylvania, District of Columbia, and Alabama SWICs on communications coordination and lessons learned during three separate real-world emergency incidents
- SWICs met in their committees to validate 2015 work products and identify mid-range goals for 2016 and 2017
- NCSWIC members received updates from the Department of Homeland Security, Office of Emergency Communications on Technical Assistance offerings and services, Project 25 (P25) standards and encryption, and opportunities for coordination with the Federal Partnership for Interoperable Communications (FPIC)

NCSWIC Action Items

#	Description	Status	Owner
1	Hold kick-off meetings for the 2015 NCSWIC Committees	Complete	DHS OEC
2	Continue to develop a SWIC website on the DHS OEC public-facing domain to share information and for SWICs to demonstrate the link between their role and coordination with the Federal government	In Progress	DHS OEC
3	Disseminate additional information on the *State Wide Interoperable Communications Enhancement Act of 2015* to NCSWIC as it becomes available	Not Started	DHS OEC
4	Distribute Ohio SWIC job description	Not Started	DHS OEC
5	Add committee designations and subject matter concentrations to the SWIC contact list and distribute to NCSWIC	Not Started	DHS OEC
6	Coordinate the NCSWIC shirt order	Not Started	George Molnar

Welcome and SWIC Introductions

Chris Essid, OEC Deputy Director, welcomed members to Jacksonville, Florida, and asked Michael Varney, NCSWIC Chair, to provide opening remarks. Mr. Varney thanked SWICs for attending, and introduced George Molnar, Nevada SWIC, as the new NCSWIC Vice Chair.

Adrienne Roughgarden introduced Jessica Kaputa as the new OEC NCSWIC Program Lead. Ms. Kaputa came to OEC from the DHS Office of Cybersecurity & Communications. She has over 20 years of federal information technology experience. During her career, Ms. Kaputa has supported the United States Navy, Federal Aviation Administration, and the Federal Emergency Management Agency. Ms. Kaputa looks forward to working with the NCSWIC and expanding her knowledge of statewide communications and the NCSWIC community. SWICs are encouraged to reach out to Ms. Kaputa with any questions at Jessica.Kaputa@hq.dhs.gov.

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Jessica Kaputa, OEC, welcomed the following new SWICs who have joined the NCSWIC since December 2014, and asked them to introduce themselves to participants:

Table 1. New Statewide Interoperability Coordinators

State	Name
Florida	Phil Royce
Idaho	Todd Herrera
Maryland	Ken Hasenei (acting)
Virginia	Adam Theil (acting)
Wisconsin	Gene Oldenburg

Opportunities to Enhance Statewide Interoperability

Chris Essid, OEC Deputy Director, kicked off the meeting by reviewing details of a new bill in support of the SWIC: the *State Wide Interoperable Communications Enhancement Act of 2015 (H.R. 2206 – SWIC Enhancement Act)*. Representative (Rep.) Payne (NJ) introduced the legislation to Congress on May 1, 2015, which aims to enhance interoperable communications for state and local responders. More specifically, the bill protects achievements made to improve interoperability following a variety of communications issues identified during responses to the terrorist attacks of September 11, 2001, and Hurricane Katrina. Rep. Payne first introduced the bill last November during a hearing on emergency communications. Also at the hearing, OEC Director Ron Hewitt and SAFECOM's Mark Grubb testified about the increasing demands on SWICs and reductions in the total number of full-time SWICs due to decreased funding.

The bill requires, as a condition of State Homeland Security Program (SHSP) grant funding, that the Governor of each state certify he or she has designated a SWIC to:

1. Oversee the daily operations of the state's interoperability efforts
2. Coordinate state interoperability and communications projects, and grant applications
3. Establish or maintain working groups to develop and implement key interoperability initiatives (i.e. governing bodies)
4. Implement and update Statewide Communication Interoperability Plans (SCIPs), including cross-agency coordination for the state

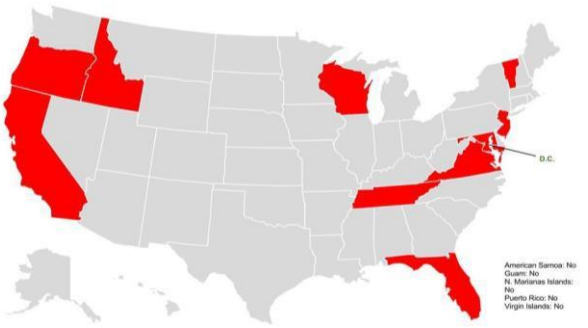

Figure 1. Recent SWIC Turnover

The bill would establish Congress' recognition of the SWIC position as a requirement for all states and territories, providing potential leverage to current SWICs and SWIC offices to request additional support. Additionally, the legislation provides an opportunity to raise awareness among new state governing bodies, especially regarding the SWIC's struggle to take on additional responsibility with little to no funding. Figure 1 highlights the increasing number of states that do not have a permanent SWIC position (i.e., vacant positions, temporary

appointments, or "acting" SWICs). Turnover is inextricably linked to a lack of requirements and funding, and is further complicated by the fact that SWICs continue to increase their planning, governance, and coordination responsibilities (e.g., preparation for FirstNet efforts). The bill would set a standard, helping to normalize the status of SWICs across all states and territories.

The 2014 NECP addresses the expanding Emergency Communications Ecosystem and increasing number of players involved in emergency response communications. States and territories need SWICs, more now than ever, to serve as the central point of contact for interoperability, to keep current systems up and running, and to serve as a resource for those who are planning the state's migration to broadband.

Table 2 reviews the benefits of the bill. While the bill does not provide explicit funding for SWICs, it creates a requirement linking large grant funds for state and local security initiatives directly to the appointment of the SWIC. Specifically, the condition requires applicants (i.e., the State Administration Agency [SAA] for the state) to submit certification that the Governor has designated a specific person to serve in the position and identify the person when filing the SHSP grant application. While there is no requirement to fund SWICs, states may use SHSP to fund the position. However, SHSP requires an 80% pass through to localities, leaving only 20% for the state or territory to manage the grant. For some, there may not be enough within the 20% to fully fund the SWIC position, resulting in partially-funded positions or part-time SWICs. Additionally, the bill states that if a SWIC has not been designated, the applicant can submit certification that the state is performing all of the duties (e.g., development of SCIP, coordination of emergency communications projects) or that the state has designated someone to serve as a primary point of contact for such activities.

Table 2. Benefits of the SWIC Enhancement Act

The Bill:	Benefit
Re-establishes a requirement for each state and territory to designate a SWIC	This approach has been proven to work in the past – if the state is required to designate a SWIC as a condition of grant funding, it will
Requires the Governor of each state to designate a person to the position	This requires attention and action by the Governor, elevating awareness of the position and its funding status
Requires the State to certify it has designated a person in its grant application, and as a condition of grant funding	Grant agreements are binding documents; certifications submitted to federal agencies are auditable
Spells out the duties of the SWIC	The bill spells out the duties of the SWIC including completion of the SCIP and involvement in grant applications

Mr. Essid encouraged SWICs to learn more about the bill and its ramifications by reading it, determining its effects on their states or territories, sharing the bill with elected officials, messaging support and concerns to Congress, and keeping apprised of updates, changes, and progress.

The Value of the SWIC Panel

Jessica Kaputa, OEC NCSWIC Program Lead, introduced speakers for the Value of the SWIC panel session, the goal of which was to hear from SWICs on recent initiatives geared toward SWIC succession

planning, funding, and sustainment. She announced that in place of Craig Allen, Illinois SWIC, who was delayed because of weather, Jeremy Knoll would share his experiences as Arizona SWIC. George Molnar, Nevada SWIC, began the discussion by highlighting the need for greater awareness and collaboration among the SWIC community in general, noting the benefits of understanding what the other SWIC s do and the experiences they bring to the table. Like Nevada, many SWICs are facing debilitating budget cuts, potentially eliminating the SWIC position or combining its duties with another position, thus diluting the SWICs ability to dedicate adequate time and attention to SWIC responsibilities. He called on SWICs, new and old, to review the various products OEC houses detailing the SWICs' roles and responsibilities (e.g., *The Statewide Interoperability Coordinator Roles and Responsibilities*, the SWIC Executive Summary [formerly known as the Elevator Speech]).

Mr. Knoll explained changes to the Arizona SWIC position as a result of state funding cuts. Arizona's legislature defunded the position and its support staff, asking specifically not to come back later with requests for funding in support of the position. Although collaboration among stakeholders has helped to ease the burden, Mr. Knoll echoed Mr. Essid's sentiments from the previous session, emphasizing the need for concrete legislative language supporting full-time SWIC positions. Mr. Knoll's office, the Wireless Systems Bureau at the Arizona Department of Public Safety, provides design, coordination, construction, and maintenance services for statewide radio, voice, and data telecommunication systems. One of the biggest challenges, he noted, is getting the appropriate people to listen and gaining respect and trust for the position and its responsibilities among respective colleagues, stakeholders, organizations, and the state.

Darryl Anderson, Ohio SWIC, agreed that trust among colleagues is key when performing and sustaining the role of the SWIC. The SWIC has been able to succeed in Ohio because it has remained relatively insulated from budget cuts. The position itself, however, is separated from the SAA, limiting the SWIC's ability to contribute to state funding approaches. In general, Ohio has benefited from avoiding a "smoke stack system" as the state evolved into a 700-800 MHz P25 statewide system. Now, interoperability and the duties of the SWIC have a strong presence in every county. After 45 years, Mr. Anderson is retiring from his position with the state. One of the key tools for driving successful turnover, he noted, is the development and implementation of a transition plan. Ohio benefited during its search for a candidate because of political interest in the position and its pay grade. During the transition, Region V OEC Coordinator, Jim Jarvis, will meet with the new SWIC often, providing greater understanding of the position's various responsibilities and role within and outside of the state. As much as it is important for SWICs to support inter-state coordination and partnerships at the Federal level, he also emphasized the importance of staying close to one's smaller community, starting local, and expanding networks from there. Mr. Anderson also reminded SWICs to leverage OEC service offerings to support major projects and collaborating with fellow SWICs.

George Molnar reminded SWICs of their varied and versatile backgrounds. Mr. Molnar noted that he is not a "radio person," unlike many NCSWIC members who benefit from long-term radio system management experience, but brings a broader, more theoretical background in emergency communications to the position. In an exercise to illustrate the group's diversity, he asked SWICs to raise their hands if they had certain backgrounds (e.g., military, industry, boots on the ground, radio systems managers, 9-1-1 coordination, vendors, policy makers) or types of experiences as a SWIC (e.g., radio systems, large staff, budget increases, increased responsibilities).

Mr. Anderson gave the following recommendations to long-term and incoming SWICS: 1) act as the face of interoperable communications, 2) coordinate with the governor's office as often as possible, translating technical jargon into policy terms, 3) gain familiarity with the state's radio systems, 4) serve as project manager, ensuring projects are completed on time and within budget, and 5) strive for longevity within the position. Mr. Knoll noted that it was his unique experience with land-mobile radio (LMR) and public safety that gave him an advantage in gaining the trust of public safety agencies across the state when he took on the role of the SWIC. Future SWICs, both Mr. Knoll and Mr. Anderson agreed, will increasingly need backgrounds and knowledge in broadband and data sharing. In a closing note, Mr. Anderson advised SWICs to take an approach similar to Henry Kissinger, former Secretary of State, by inspiring collaboration and constructive interaction.

Technical Assistance Branch Updates

Dick Tenney and Annie Glenn from the Technical Assistance (TA) Branch provided updates on program offerings. Mr. Tenney shared that OEC's public safety support of FirstNet enterprises includes initial consultation preparation workshops, overseeing data collection of public safety personnel, implanting the Mobile Data Survey tool, and planning and executing SCIP workshops and initiatives. Additionally, Mr. Tenney reviewed new trainings including Radio Operator (RADO), Incident Tactical Dispatcher (INTD), and Incident Communications Center Manager (INCM) courses.

Mr. Tenney explained TA's support for and investment in Body-Worn Cameras (BWC) originated with Philadelphia Police Commissioner Charles Ramsey's request. Commissioner Ramsey chairs the President's Task Force on 21st Century Policing. TA Branch personnel have since visited Philadelphia twice to assess BWC successes and challenges as well as develop a survey of Major Cities Chiefs Association. Personnel have spoken with BWC experts from around the country. Currently, the Branch is focusing on overcoming data transfer and storage issues, the eventual integration of BWC data and function into Nationwide Public Safety Broadband Network, and developing operating standards for police departments looking to implement BWC. At this time, the TA Branch is not involved in policy issues surrounding BWC.

Ms. Glenn thanked SWICs for their involvement in the 47 SCIP workshops hosted throughout the 2013-2014 year. She then explained how the customized approach of the 2015 SCIP Update Workshops validates and updates SCIP goals, considers NECP alignments, and supports facilitated discussions. SWICs also benefit from SCIP revision workshops by fulfilling either recommendations or funding requirements by SAFECOM, NTIA, and FirstNet to develop a SCIP. The TA Branch has conducted nine SCIP workshops this year, with eight more scheduled.

Ms. Glenn highlighted SWIC successes and challenges states and territories reported through the submission of an annual SCIP Snapshots. Key successes include expanding the scope of governance

membership, developing field operation guides and increased application of COMU training. Reported challenges included maintaining legacy systems while preparing for the future recruitment of Statewide Interoperability Governing Body members and purchases of non-P25 standard equipment. SWICs provided accounts of successes as well, including aiding Hawaii in developing an inventory system, providing radio support, working with the OEC to develop a strategy to generate collegiate interest in emergency communication technology, offering two E-911 workshops along the east coast, educating partnered associations and others about NCSWIC, and improving training and exercises.

Lessons Learned: Real World Events

The SWICs from Pennsylvania, the District of Columbia, and Alabama presented on communications coordination and lessons learned during three separate real-world emergency incidents: the Pennsylvania manhunt following the shooting of two State Troopers, the Washington Navy Yard Shooting, and planning and operations surrounding the 50th Anniversary of the Dream March in Selma, Alabama.

Northeast Pennsylvania Manhunt **–** Pennsylvania's SWIC, Mark Wrightstone, described the events leading up to and following the shooting of two Pennsylvania State Police officers. On September 13, 2014, Corporal Bryon Dickson was ambushed and fatally shot by an individual with a high powered rifle outside the rural Blooming Grove, Pennsylvania State Police barracks. Upon coming to the aid of Corporal Dickson, Trooper Alex Douglass was also shot and grievously injured. The suspect fled the scene and took up hiding in the heavily wooded and mountainous terrain across two nearby counties. Federal, state, and local agencies were engaged in the manhunt which concluded with the capture of the suspect on October 30, 2014. The manhunt presented a less than ideal scenario for the state's 800 MHz communications system which included: the use of heavy portable radios in a challenging terrain; a multi-agency response that resulted in a large concentration of law enforcement in a relatively small area competing for the same resources; difficulties filling coverage gaps and enhancing capacity; battery depletion due to fringe coverage; and a tactical interoperability channel that did not provide anticipated augmentation. Additionally, the State Police dispatch center was located in the middle of the crime scene and needed to be relocated four times. The pre-existing partnerships with other agencies established during prior events, and working relationships with other agencies (such as the Federal Bureau of Investigations; the Bureau of Alcohol, Tobacco, Firearms, and Explosives; and the U.S. Marshals Service) made it possible to respond quickly. Lastly, previous enhancements to the Very High Frequency (VHF) system improved communications during the manhunt.

Washington Navy Yard Shooting **–** The District of Columbia's SWIC, Jeff Wobbleton, explained the challenges faced in response to the shooting at the Washington Navy Yard, a military base in Washington, D.C. In September 2013, the suspect, a civilian contractor, arrived at the Navy Yard and was granted access with valid identification. The shooting, which lasted an hour, resulted in the deaths of 12 people, injured 3 others, and ended when the suspect was killed by police. After the Fort Hood shooting in November 2009, the Navy Yard built its own Emergency 9-1-1 system, which according to protocol, was called first. Following the deadly event, there was a lot of controversy about who should respond to events on military installations, and how to allow first responders to gain access to the installation, including secured areas, such as Sensitive Compartmented Information Facilities (SCIFs). Responders also faced encryption issues using a single tactical channel with over 1,000 people, including the media, who listened in unimpeded. The incident displayed a lack of cohesive communications between

responding units (including the Metropolitan Police Department, the Federal Bureau of Investigation, and the Naval District Washington Police), and highlighted additional challenges with reuniting family members after employees were evacuated without their cell phones. D.C. utilized patient tracking systems, similar to those used in hospitals, for law enforcement purposes, such as mass witness identification. Police were able to track large quantities of witnesses, record their perspectives, and send them to family notification centers.

***50th Anniversary of the Dream March* –** Alabama's SWIC, Chuck Murph, described the challenges and successes of the 50th Anniversary of the Dream March in Selma, Alabama. The Edmund Pettus bridge crossing is remembered and reenacted annually and locals were planning to handle the 50th Anniversary just like previous events – in which an average attendance would be around 5,000-10,000 people. Separate events, high-profile individuals, and estimated attendance began to grow in size and scope beginning in January and by late February 2015, some 15 additional events, spanning four jurisdictions, were scheduled and estimated attendance numbers began to top 100,000. High-profile individuals included the President of the United States and the First Family, former Presidents and First Ladies, other heads of state, cabinet members past and present, over a 100-person Congressional Delegation, and numerous celebrities due to the recent movie release of the movie, "Selma." The COMU planned this event based on many assumptions. The city initially rejected assistance from the state, but as the scope and size began to grow, the Governor asked the state to be prepared to assist, resulting in a divided planning process. The state requested that OEC provide support in the form of event planning and critique with the development of an After Action Report (AAR). OEC provided Communications Quick Reference Cards with important law enforcement channel codes, which proved to be very helpful. The AAR found that a divided planning process isolated the City of Selma's public safety planning bodies from their counterparts at the State level for mutual aid purposes resulting in several challenges for the COMU. Command staff and public safety planning personnel for the March did not incorporate the COMU into their logistical planning efforts. This omission left nearly 50 response personnel without adequate provisions for water, food, housing, or transportation. Despite these issues, the COMU performed successfully, and the March was conducted without incident.

2015 NCSWIC Committee Meetings and Updates

SWICs met with their committees to validate 2015 work products and develop mid-range goals for 2016 and 2017, and provided updates to the entire group.

Governance
The Governance Committee's mission is to focus on emergency communications governance, including governing processes and structures internal and external to NCSWIC. This includes management of and modifications to organizational documents, such as the NCSWIC Charter and Strategic Plan. As recommended in the 2014 NECP, the Committee will update governance structures and processes to address the evolving operating environment, review NCSWIC initiatives, and identify best practices and lessons learned. Governance Committee work products for 2015 include:

- Introduction to NCSWIC Presentation
- 2015 NCSWIC Strategic Plan Update
- NCSWIC Monthly Bulletins

- NCSWIC Website
- SWIC Orientation
- Maintenance of NCSWIC's internal governance structure (i.e., Charter updates)

During the working session, members approved the Committee meeting cadence (Fourth Thursday of every month at 1:30 pm ET) and the Committee's mission description. Members also discussed NCSWIC's internal governance structure, to include the development of a SWIC contact list with committee designations; and ensure continued education of the NCSWIC program, particularly for legislators, and ensure NCSWIC and Regional Emergency Communications Committee Working Groups are not duplicating efforts. Members decided to further engage with the National Governors' Association to leverage their expertise. At the next committee conference call, members will approve the Introduction to NCSWIC Presentation and the June NCSWIC Monthly Bulletin, and begin discussions on updating the 2015 NCSWIC Strategic Plan.

Training, Exercises, and Standard Operating Procedures (SOPs)
Members of the Training, Exercises, and SOPs Committee met for the first time to validate the mission, confirm meeting cadence, and provide member introductions. Work performed through the Training, Exercises, and SOPs committee aims to focus on developing standard operating procedures and summarizing lessons learned from trainings, exercises, and real-world events relevant to the SWIC community. The committee will meet on the fourth Tuesday of every month at 3pm.

During the session, members prioritized products for 2015. The committee will begin by identifying states with model Communications Unit Leader (COML) certifications programs and develop a set of SOPs. Additionally, members requested developing a position paper advocating for the standardization of interoperability training at national public safety academies (i.e. fire service academies). Members also showed interest in participating on SAFECOM's COMU Working Group under the Education and Outreach Committee.

Funding and Sustainment
For 2015, the Funding and Sustainment Committee remains a joint committee with members of SAFECOM and NCSWIC, and aims to identify innovative ways to fund and sustain current programs, activities, and roles pertinent to the public safety community. The committee approved quarterly goals as a way to divide work product development for the year (see Table 3).

Grants funded in fiscal year (FY) 2015 are at approximately the same levels as FY 2014 (~ $2.3B). Congress emphasized the following priorities related to funding: investment in Project 25 to improve interoperability, investment in multi-band radios within DHS and by state and locals through grants, focus Urban Area Strategic Initiative (UASI) funding on highest-risk areas, and allow border states to use SHSP and UASI funding to pay for reimbursement costs related to humanitarian relief to unaccompanied minors crossing the border.

On Wednesday, May 20, the Funding and Sustainment Committee will hear from a DHS Science and Technology representative on the Radio Internet Protocol Communications Module (RIC-M) device, which enables disparate systems to communicate over an Internet Protocol bridge. The committee plans

to develop several products in the near future, including cost-saving methods, grants best practices, lessons learned, and innovative sustainment methods.

Table 3. Quarterly Funding and Sustainment Initiatives

2015 Initiatives	
Quarter 1	**Keep Members Informed of Federal Grants** • Review and provide input to SAFECOM Guidance • Update and host a webinar on the Grants-Lifecycle
Quarter 2	**Identify and Share Innovative Funding Methods** • Identify creative financing examples • Invite localities to speak on innovative funding methods
Quarter 3	**Update System Life-Cycle Guide** • Review 2011 System Life-Cycle Guide • Insert Funding Considerations into the Guide
Quarter 4	**Compile State Profiles** • Develop State Funding Profiles • Verify and Validate with States

Technology Policy

The Technology Policy Committee is also a joint committee with members from both NCSWIC and SAFECOM. Its mission is to promote the use of technologies, resources, and processes related to emergency communications and interoperability. Specifically, the Technology Policy Committee will continue to support LMR systems, promote broadband technology and deployment, and work with Federal partners to further various technologies within the emergency communications ecosystem. The committee's current focus areas are cybersecurity (e.g. primer, vendor interaction best practices), Next Generation 9-1-1 (NG 9-1-1) (i.e., review NG 9-1-1 Governance Case Studies), and the role of the COML within the Incident Command System (ICS). Dan Wills volunteered to draft a letter to the Federal Emergency Management Agency that will present two key points: 1) elevate the COML to a general staff position or higher within the ICS to account for broadband and the increasing complexity of communications systems, and 2) increase exposure of COML within ICS through training and education. While SAFECOM's Education and Outreach Committee will be addressing a majority of the COMU (Communications Unit) and COML stakeholder concerns, the Technology Policy Committee will provide technical recommendations for these initiatives.

During the working session, NCSWIC Technology Policy Committee members reviewed their initiatives from 2015 through 2017. The Committee discussed the importance of creating education and outreach materials for policy makers and command level staff about the role of the COMU and COML. Members agreed that elevating the role of the COML begins with educating leaders/command staff about the COML. Additionally, NCSWIC Technology Policy committee members discussed shifting the initiatives with Canada (SOP templates) from 2015 to a later year. Members also discussed the need to monitor policy developments and changes around "bring your own" device policies, an initiative that may not be undertaken until 2018. Members also added that the NG 9-1-1 Governance Case Study needs to be added to the 2015 initiatives and they would like to develop an Encryption Guide in 2016 geared toward state and local leadership, so they can make more informed decisions about encryption and security. Members

also discussed completing the LMR and IP Transition Paper in 2016 versus 2017. Table 4 provides committee contact and meeting information.

Table 4. NCSWIC Committee Contact and Meeting Information

Funding and Sustainment (Joint)	Technology Policy (Joint)
OEC Lead: Ken Bradley Co-Chair: Mark Grubb Co- Chair: Victoria Garcia SAFECOM Chair: Steve Proctor Vice Chair: Tom Roche Conference Bridge: 866-756-2264 Pin: 536 2181 Call: Third Wednesday at 4:00 pm ET	OEC Lead: Ted Lawson and Jessica Kaputa NCSWIC Chair: George Molnar SAFECOM Chair: Gerald Reardon Conference Bridge: 866-756-4505 Pin: 447 4295 Call: Third Tuesday at 3:00 pm ET
Governance	**Training and Exercised & SOPs**
OEC Lead: Miriam Montgomery Chair: Bob Symons, Vice Chair: Craig Allen Conference Bridge: 866-649-1284 Pin: 648 3890 Call: Fourth Thursday at 1:30 pm ET	OEC Lead: Robin Beatty Co-Chair: Michael Varney Co-Chair: Nick Brown Conference Bridge: 866-648-8504 Pin: 688 7012 Call: Fourth Tuesday at 3:00 pm ET

Introduction to NCSWIC Presentation Working Session

During this working session, Ms. Kaputa and Ms. Roughgarden presented the draft "Introduction to NCSWIC" slides to NCSWIC members, including feedback incorporated from the December Joint In-Person meeting. The purpose of the session was to revise the presentation and obtain additional feedback from SWICs. The current version of the presentation is meant to provide stakeholders with a brief overview of what the NCSWIC is, the projects its members are working on, and what individual state stakeholders can accomplish through a partnership with NCSWIC.

NCSWIC members made the following suggestions for updating the draft:

- Incorporate information received during the Lessons Learned from Real-World Events session into the "What is Interoperability?" slide [Slide 3]
- Replace the phrase "directs" with "strongly advocates" on the "What is a SWIC?" slide [Slide 4]
- Include links to additional resources, such as the SWIC/State Point of Contact White Paper link, and other helpful websites [Slide 13]
- Add language providing further detail on the roles and responsibilities of the SWIC. Members suggested including references to the fact that many SWICs wear "multiple hats" and responsibilities outside of their role as SWIC

OEC will incorporate these changes and submit the presentation to the NCSWIC Governance Committee for review at their June conference call.

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Emergency Communications Community Updates

Michael Varney, NCSWIC representative to the Public Safety Advisory Committee (PSAC), asked that those who would like to receive FirstNet weekly updates email him contact information. The next PSAC meeting is on June 1 in San Diego.

Major PSAC activities include three task teams that will identify specific requests from FirstNet. These task teams will look into user equipment providing public safety further resilience and security. The group will be coordinating with the National Public Safety Telecommunications Council (NPSTC) to analyze quality of service scenario planning.

PSAC is working to define "public safety grade" in relation to security and ability to provide quality service. Those interested in providing input toward the definition and NPSTC document should contact Mr. Varney. The FirstNet Board and PSAC are also working together on how to increase coordination among states.

George Molnar, NCSWIC representative to SAFECOM, highlighted the release of recent SAFECOM products, including the Joint NCSWIC-SAFECOM Quarterly Newsletter and the SAFECOM Monthly Bulletin. For 2015, SAFECOM has four standing committees: Funding and Sustainment (joint), Governance, Education and Outreach, and Technology Policy (joint). Mr. Molnar also shared information about the broadband mapping initiative, which aims to map public safety broadband efforts currently in progress by public safety associations and organizations. Mr. Molnar volunteered to place orders for NCSWIC Polo Shirts with the logo.

FPIC

Jimmy Downes, OEC, provided an update on P25 standards and encryption, and discussed the suggested SWIC coordination with the FPIC. The FPIC serves as a coordination and advisory body to address technical and operational wireless issues relative to interoperability within the federal emergency communications community and state and local agencies. The FPIC includes more than 200 federal, state, local, and tribal public safety representatives focused on improving interoperability among all levels of government and addressing common public safety related communications issues. FPIC addresses topics and questions concerning interoperable communications, security services, spectrum, and standards.

FPIC is committed to enhancing encrypted communications, as federal agencies have had long standing requirements to provide encrypted communications. Security policies vary by department and component, but are typically driven by the National Institute of Standards and Technology (NIST) Federal Information Processing Standards (FIPS) guidelines and recommended requirements. FIPS requirements have been addressed in the Project 25 Standards. FPIC continues to be an active participant in the development of security services within the P25 Suite of Standards as it introduced the requirements for the Inter-Key Management Facility Interface (IKI) and is driving updates to the Over-the-Air Rekeying (OTAR) standards and test procedures, link layer encryption, and the Security Services Overview. There has been a recent surge in encrypted communications as state and local agencies begin to implement security services, resulting in:

- Increased requirements for privacy to protect law enforcement operations and personal identifiable information (PII),
- Increased response to academia white papers discussing challenges with land mobile radio security,
- Significant coordination between agencies requiring encrypted interoperable communications,
- Reduced cost delta in providing encryption with digital technologies although the system complexity increased, and
- Problems with analog encryption, such as coverage loss and reduced audio quality, are no longer relevant for digital encryption.

Mr. Downes explained the requirements for encrypted interoperability, including a desire to interoperate and coordinate between agencies the knowledge and understanding of encryption and key management, coordination with the National Law Enforcement Communications Center (NLECC) and SWICs for interoperability keys, and a key distribution system. He also described some security terms to be familiar with, including:

- *Traffic Encryption Key (TEK):* Unique hexadecimal key used to encrypt and decrypt voice and data traffic.
- *Key ID (KID):* Provides a unique key to identify a TEK. This is expressed as a hexadecimal value between 0000 and FFFF (65,535 keys total, some are reserved for OTAR system use). The KID, along with an algorithm identification value, is provided as part of the P25 data stream. The radio uses the KID to understand which key to use to decrypt information received.
- *Storage Location Number (SLN):* A common method to refer to an encryption key slot in a subscriber unit. In an OTAR system, each SLN contains two TEK keysets (one active/one inactive). This is a decimal value between 0 and 4095. The SLN is used mostly for subscriber programming. When the radio is trying to decrypt messages, the radio ignores the SLN. NOTE: Motorola uses the term Common Key Reference (CKR) interchangeably with SLN.

Theoretically, different entities could use different SLNs to refer to the same TEK, so even though the SLNs do not match across agencies, the radio will decode the audio if the KIDs and TEKs are the same. Different agencies with uncoordinated SLN/KID/TEK assignments can create interoperability problems. The same SLN and KIDs assigned to different TEKs refer to different traffic keys and the radio will attempt to decode audio with unsuccessful results and will not interoperate; see Table 5 below for examples.

Table 5: Encryption Interoperability Planning - SLN/KID/TEK Assignments

	Interoperable			**Not-Interoperable**		
	SLN	**KID**	**TEK**	**SLN**	**KID**	**TEK**
Agency A	0001	12AF	1234567890ABCDEF	0001	0001	ABCDEF1234567890
Agency B	1234	12AF	1234567890ABCDEF	0001	0001	1234567890ABCDEF
Agency C	4095	12AF	1234567890ABCDEF	0001	0001	ABC1234567890DEF

Encryption interoperability is managed at a national level by the DHS Custom and Border Protection (CBP) NLECC in Orlando, Florida. The NLECC generates, manages, and distributes operable and interoperable encryption keys and SLN/KID assignments, and it is recommended this assignment be coordinated with OEC Coordinators and SWICs. FPIC established a security working group that developed recommendations to develop a nationwide best practices white paper for the use of SLNs and associated KIDs. The working group also recommends the use of interoperability keys generated by the NLECC, as well as the adoption of the SLN and KID Database for national use for federal, state, and local agencies by working closely with SWICs to distribute and populate the database among user agencies to minimize duplication of SLN and KID assignment and minimize potential programming clashes.

Upcoming Meetings

The NCSWIC or NCSWIC EC will convene on the following dates in 2015:

- June 30, 2015; EC Conference Call
- August 5, 2015; In-Person EC Meeting, Boulder, Colorado
- October 13, 2015; EC Conference Call
- November 2-6, 2015; Joint In-Person Meeting; TBD *(pending approval)*
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The Joint Committees will convene on the following dates in 2015:

- August 4, 2015; Technology Policy Committee Meeting, Boulder, Colorado
- September 17, 2015; Funding and Sustainment Committee Meeting; Norman, Oklahoma