Meeting Summary
Joint Meeting of SAFECOM and the
National Council of Statewide Interoperability Coordinators
December 5, 2018
National Center for Employee Development

DISASTER EMERGENCY COMMUNICATIONS: RESPONSE AND COORDINATION

Everett Kaneshige, Hawaii Statewide Interoperability Coordinator (SWIC); Melissa Nazzaro, Massachusetts SWIC; Chris Tuttle, Cybersecurity and Infrastructure Security Agency (CISA) Emergency Communications Division (ECD) Region II Coordinator; Tom Lawless, CISA ECD Region IX Coordinator

Panelists provided emergency communications perspectives on successes and lessons learned from states and territories during recent, significant disasters, including planning for and response and recovery to the Kilauea Volcano, natural gas explosions in Massachusetts, hurricanes affecting Puerto Rico and the U.S. Virgin Islands, and the 2018 Wildfire Season in the western United States. Panelists also addressed how capabilities and agreements, such as Emergency Support Function-2 (ESF-2) and the Emergency Management Assistance Compact, further supported the efforts. Everett Kaneshige provided an overview of the Kilauea East Rift Zone Eruption and subsequent communications and interoperability issues. He noted lava flows disrupted cellular network connectivity and cells-

Figure 1. Image of response personnel at cooled lava field across a road in Hawaii.

on-wheels (COWs) were required to provide access, backhaul, and coverage while multiple technologies were joined to allow internet connections to critical monitoring sensors. Everett noted difficulty obtaining roaming agreements with various service providers during the event.

Melissa Nazzaro presented on a "no notice" event: the Merrimack Valley Gas Explosion in northeast Massachusetts. The explosiuons were due to over-pressurization gas lines that destroyed 15 homes, started 60-80 structure fires, and resulted in one fatality. Response to the incident included fire mobilization from 15 regional task forces, law enforcement mutual aid from two regional law enforcement councils, and Emergency Medical Services (EMS) from 54 ambulances, causing interoperability challenges and overwhelming Public Safety Answering Points (PSAP). The incident provided opportunities to improve response through better notification processes and situational awareness, the use of the Incident Command Structure (ICS), and a more structured command and control network.

Figure 2. Image of downed power and communication lines caused by Hurricane Maria.

Chris Tuttle reviewed the impacts of Hurricanes Irma and Maria on communications in Puerto Rico and the U.S. Virgin Islands. Chris noted how over-utilized- and end-of-life-equipment contributed to the devastation. ESF-2 greatly enhanced coordinated response to the events. Lessons learned included getting to know vendors in advance of an event; engaging amateur radio operators in emergency communications planning; adequately researching innovative solutions in advance of

events; and providing clarity in documentation and messaging.

Tom Lawless discussed the recent California wildfires, which has affected over 270,000 acres. Tom highlighted the importance of anticipating longer response periods in the planning process. Lessons learned from the incident included deconflicting communications planning, co-locating federal and state ESF-2 personnel during response, preparing documentation and updating schedules in advance, and thinking proactively about how many personnel will be needed over the long term.

AN INTRODUCTION TO CRISIS EVENT RESPONSE AND RECOVERY ACCESS (CERRA)
Sheriff Paul Fitzgerald, SAFECOM (National Sheriffs' Association); Jim Byrne, CERRA Clearinghouse, Outreach Coordinator

Sheriff Fitzgerald and Jim Byrne provided introductory information on the CERRA Effort—a collaborative public-private initiative in coordination with DHS, FEMA, and the Emergency Services Sector Coordinating Council (ESSCC) to create a nationwide, interopable standard for access and re-entry before, during, and after emergency events and disasters. Local law enforcement agencies securing an impacted area have traditionally struggled to efficiently identify and verify critical response resources, which can lead to delays and increase the overall costs of response and recovery. The [CERRA Framework](link) acts as a foundational guide providing state, local, territorial, and tribal organizations with best practices for establishing their own access programs. The framework offers solutions, including tools, mechanisms, and process approaches, to ensure safe, secure, and reliable coordination for affected and responding entities. While CERRA is not an identity authentication program, it provides "phased entry access" to response capabilities using color-coded, QR-enabled tokens and mobile or paper placards. Entities can pre-register with localities to ensure their CERRA token/placard/QR code enables the authority to determine

Figure 3: Snapshot of the [CERRA Framework report](link) cover.

legitimacy of the arriving capability to a checkpoint before, during, or afteran incident. Additionally, the CERRA program's tools and outreach are provided at no cost to public sector responders, while private sector organizations are required to pay a registration fee. Current participation in CERRA includes six active states, seven in-process states, twenty local jurisdictions, over a thousand private organizations, and approximately two thousand public organizations.
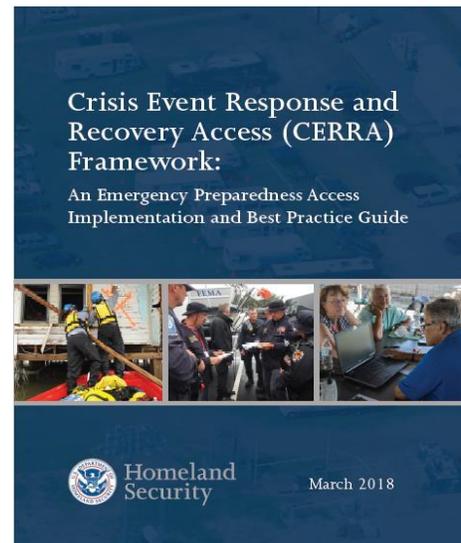
IDENTITY, CREDENTIAL, & ACCESS MANAGEMENT (ICAM) UPDATE
Ted Lawson, CISA; Gabriel Martinez, CISA

Ted Lawson and Gabriel Martinez provided an update on the Joint SAFECOM-NCSWIC ICAM Working Group activities. The ICAM Working Group organized an ICAM Sub-Working Group to bring together the public safety community and subject matter experts to develop educational documents and technical guidance for implementing ICAM solutions. The Sub-Working Group developed four value proposition two-pagers to discuss the benefits of a federated ICAM solution during real world scenarios and developed technical guidance documents for ICAM protocols, identity assurance, and ICAM attributes. With increased support and knowledge on federated ICAM, the ICAM Working Group launched a pilot to demonstrate the Trustmark

Framework in field tests with Personal Identity Verification Interoperable (PIV-I) and a Fast ID Online (FIDO) authentication. Dusty Rhoads, CISA, emphasized the need for authorized and authenticated access across the community to mitigate disparate data solutions.

DHS SCIENCE AND TECHNOLOGY (S&T) DIRECTORATE UPDATE
Denis Gusty, DHS S&T, First Responder Group

Denis Gusty provided a review of DHS S&T's Next Generation First Responder (NGFR) Apex Program—efforts to adopt and integrate public safety communications capabi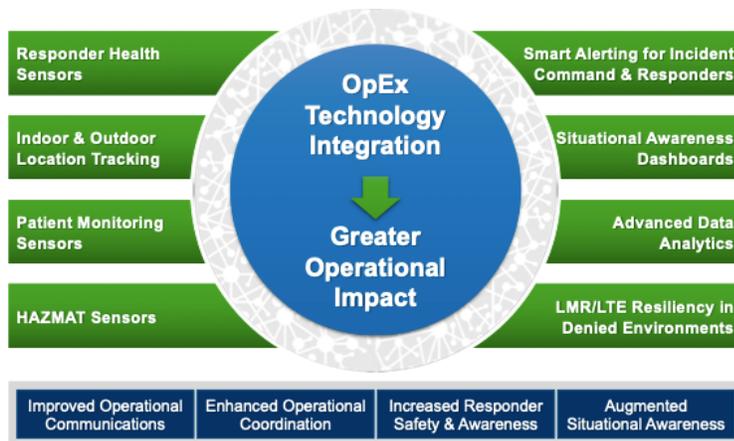lities using a standards-based approach and plug-and-play technologies. During the meeting, DHS S&T hosted the Harris County (TX) Operational Experimentation (OpEx) to test first responder technology integration using open standards detailed in the NGFR Integration Handbook. The aim of these activities was to enhance the mission capabilities of Houston-area responders and the U.S. Coast Guard during a HAZMAT scenario as well as collect first responder feedback on the technologies in an operational setting. The OpEx demonstration included thirteen responding agencies testing via live stream in the Resource Room during the Joint meeting on December 5th.

Figure 4. OpEx Technology Integration Infographic with additional information and resources available on the DHS S&T NGFR website.

Denis also discussed recently-published Alert, Warning, and Notifications (AWN) guidance materials. S&T seeks to further coordinate with emergency alerting stakeholders to discuss requirements and formulate strategies for more effective alerting. S&T is also developing Social Media Emergency Management Guidance tools based on step-by-step guidance for integrating social media into emergency management operations.

STATE INTEROPERABILITY MARKERS UPDATE
Lauren Strange, CISA

Lauren Strange provided an overview of draft State Interoperability Markers, developed by the CISA Performance Management Program, which seek to align national, state, and local interoperability goals. The markers are meant to assist states and territories with justifying funding requests, improving coordination, and helping decision makers understand the impact of work conducted in coordination with CISA. The Performance Management Team will work with SWICs to update 24 State Interoperability Markers and conduct an in-person workshop with interested SWICs in January or February to gain feedback and buy-in from the stakeholder community. Lauren announced CISA expects to implement the markers in summer 2019. States interested in participating in a pilot for the markers were encouraged to contact Mark Grubb, CISA, at mark.grubb@hq.dhs.gov.

FIRSTNET QUESTION AND ANSWER (Q&A) SESSION

Jennifer Harder, Senior Director of Products and Services; Lori Stone, Senior Public Safety Advisor; Kenzie Capece, Senior Public Safety Advisor; Paul Patrick, FirstNet Board Member

Image. FirstNet logo downloaded from the website on December 20, 2018.

Panelists from the First Responder Network Authority (FirstNet) Public Safety Advocacy Team provided clarity on the FirstNet and AT&T partnership, including information on organizational roles and responsibilities and the focus of both sides. The panel provided information regarding contractors and vendors utilizing the nationwide public safety broadband network. Currently, more than 50 percent of the data being shared on the network is video and not considered mission critical. FirstNet is working with the public safety community to better understand, define, and prioritize mission critical video needs, including exploration into video analytics and applications.

SAFECOM and NCSWIC members reinforced the importance of interoperability across broadband and the need to prioritize public safety agreements with vendors. Members asked about improving coverage maps to relfect more accurate covereage areas. FirstNet encouraged members to report gaps and areas of poor performance. Members asked about applications and how agencies can provide information to FirstNet. Users can search for applications that have been reviewed and certified by FirstNet in the FirstNet App Catalog, available to FirstNet subscribers. Members also asked if there are additional charges for roaming beyond FirstNet. Paenlists emphasized that roaming agreements exist with local carriers and suggested reaching out to AT&T Corporate with questions about a national roaming agreement. FirstNet noted their intent to release embedded subscriber identity modules (eSIM) for wearables and other Internet of Things (IOT) devices in 2019. They continue to work closely with AT&T to advocate for the public safety community and encouraged members to share specific challenges, experiences, and use cases to improve this collaborative effort.

PANEL SESSION: CYBERSECURITY

Walter Tong, Certified Information Systems Security Professional (CISSP), Office of Information Security, Director, Cyber Security, Georgia Technology Authority; Jon "Wally" Prather, Lead Threat Research Analyst, McAfee Advanced Programs Group

Panelists provided information on the newly-constructed Georgia Cyber Center and McAfee efforts with regard to cybersecurity. Walter Tong began with a video introduction of the Georgia Cyber Center, including capabilities and attributes of the Center and their mission. Walter also introduced the physical and cyber vulnerabilities public safety and their information technology systems face today. Wally Prather discussed vulnerabilities related to human interaction and accessibility. McAfee's Advanced Programs Group developed a doctrinal approach to cybersecurity and is using data management and merging to profile underlying malicious attacker details. Using these details allows McAfee to develop cyber defenses, while helping the community to better understand attackers and their intent. Wally used the Democratic National Convention to demonstrate the cyber threat, including subsequent data intelligence and targeting a malicious actor may perform. Wally offered cyber protection advice, including (1) establishing and using a virtual private network (VPN) for all devices and (2) having dedicated resources address an organization's cybersecurity threat as malicious actors are constantly looking for vulnerabilities and simple access into networked systems.

During the Q&A session, participants were interested in the influence of artificial intelligence (AI) on cybersecurity. Wally explained AI does well recognizing abnormalities in traffic patterns on systems being actively monitored, but does not deter attack from other systems that may be connected—resulting in continued vulnerability of the monitored system. Social network analysis also remains a significant vulnerability, which has not been fully addressed through the use of AI. Members also wanted to understand what to do once they had already suffered a cyber attack. However, panelists explained that once a system's crypto-keys are compromised, they remain compromised, requiring continuous testing and monitoring for abnormalities.

Figure 5. Georgia Cyber Center, the largest government investment in a cybersecurity facility to date.

COMMUNICATIONS SECTION TASK FORCE: NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) INCIDENT COMMAND SYSTEM (ICS)

Chris Lombard, Communications Section Task Force Chair; John Miller, Communications Section Task Force Vice Chair; Wes Rogers, CISA

Task Force leadership provided an update on work accomplished and planned by stakeholders on the Communication Section Task Force and the NIMS ICS Communications Governance Group. The main goal of the Task Force is to determine the best path forward for managing the span of control at incidents and events. Chris Lombard reviewed the proposed changes to establish a Communications Section within NIMS ICS to manage incident and event voice, data, and video communications requirements.

> **Information Technology Service Unit Leader (ITSL) Courses**
>
> - 10 ITSL classes planned for in FY 2019
> - 15 ITSL classes planned for FY 2020

Chris provided an overview of the recently-established Incident Communications Advisory Council (ICAC). Public safety stakeholder stood up ICAC to review and build upon the Task Force's recommendations and to assist with coordinating efforts at the national level to restructure the NIMS ICS. Chris and John Miller discussed the ICAC's membership and stated they are seeking participation from law enforcement organizations.

Incident Communications Advisory Council (ICAC) Membership

- All-Hazards Incident Management Teams Association (AHIMTA)
- Federal Emergency Management Agency (FEMA) Disaster Emergency Communications (DEC), FEMA National Integration Center (NIC)
- FEMA Urban Search and Rescue (USAR)
- Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE)
- National Council of Statewide Interoperability Coordinators (NCSWIC)
- National Interagency Fire Center (NIFC)
- National Interagency Incident Communications Division (NIICD)
- National Wildfire Coordinating Group (NWCG)
- Cybersecurity and Infrastructure Security Agency (CISA)
- SAFECOM
- U.S. Coast Guard

John provided information on a draft Letter of Support the Communications Section Task Force developed allowing SAFECOM associations and member organizations, NCSWIC members, and other state and local public safety agencies to show their support for establishing a Communications Section within NIMS ICS and creating new information technology positions to manage the span of control. John encouraged SAFECOM and NCSWIC members to socialize the letter with their associations and organizations and requested support for the creation of a Communications Section within NIMS ICS. The letter is expected to be finalized in February 2019. A greater level of support, especially across disciplines and regions, will engender more attention from the Federal Emergency Management Agency (FEMA) National Integration Center.

2019 NATIONAL EMERGENCY COMMUNICATION PLAN (NECP) UPDATE
Serena Reynolds, CISA; Michael Murphy, SAFECOM; Joe Galvin, NCSWIC

Panelists provided an update on progress made toward drafting the 2019 NECP, including major efforts to engage a variety of stakeholders and relevant organizations during the development and review periods. In June, volunteers from SAFECOM and NCSWIC convened to initiate efforts. Over the summer, CISA engaged hundreds of stakeholders through a series of ongoing activities to review, revise, and validate content, which included establishing and convening the SAFECOM-NCSWIC working group, a national development working group, and content-specific ad hoc working groups; conducting interview with key SAFECOM associations; and hosting public webinars on proposed changes and issues. Following an intense development period, stakeholders were provided an opportunity to revew and cmoment on the draft. Following the meeting, CISA will adjudicate SAFECOM and NCSWIC feedback and prepare the draft for public distribution and comment. Major changes to the document include updated national priorities, a revised Emergency Communication Ecosystem graphic and supporting text, new goals for Technology and Infrastrcuture and Cybersecurity, the reorganization of research and development objectives under existing goals, and other revisions to the goals and objectives. Readers are now provided with additional information on the proposed end state of objectives through success indicators, which describe the desired state of public safety communications toward which organizations should work during implementation.

Table 1. New Members

New SAFECOM Members	
Name	**Association/Organization**
Brandon Allen	International Association of Fire Chiefs (IAFC) [Alternate]
Darryl Anderson	SAFECOM At-Large, Stark County Sheriff's Office
Eric Boyette	National Association of State Chief Information Officers (NASCIO)
Chris Carney	SAFECOM At-Large, Orange County Department of Emergency Services
Jeremy DeMar	SAFECOM At-Large, Springfield Emergency Communications Department
Sean Fensterwald	SAFECOM At-Large, Fairfax County Fire and Rescue
Ashley Gonzalez	SAFECOM At-Large, City of Houston- Public Safety Radio
Mark Hogan	SAFECOM At-Large, City of Tulsa
Walt Magnussen	SAFECOM At-Large, Texas A&M University
Rodney Mendes	SAFECOM At-Large, Hoopa Valley Tribe
J.M. Rowe	SAFECOM At-Large, Arkansas Department of Emergency Management
Steve Staffier	SAFECOM At-Large, Massachusetts Port Authority
Chad Steffen	SAFECOM At-Large, City of Red Wing & Lower Sioux Indian Community
John Stevens	SAFECOM At-Large, New Hampshire Department of Safety
Adam Thiel	Metropolitan Fire Chiefs Association (Metro Chiefs) [Alternate]
Keith Victor	SAFECOM At-Large, Town of West Hartford, CT

New NCSWIC Members	
Name	**State**
Thomas Crabbs	Virginia
Arnold Hooper	Tennessee
Kevin James	Louisiana
David Neal	West Virginia
Michael Nix	Georgia

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Participants

Table 2: Meeting Participants

NCSWIC Attendees	State
Arnold Hooper	Tennessee
Brad Stoddard	Michigan
Brent Larson	Idaho
Bryan Courtney	Missouri
Bryan Shields	Idaho Guest
Chris Maiers	Iowa
David Parris	Virgin Islands
Dennison Coomer	South Carolina
Derek Nesselrode	Kentucky
Everett Kaneshige	Hawaii
Glen Klaich	Colorado
Greg Hauser	North Carolina
Jacinta Brown	American Samoa
Jason Bryant	Kansas
Jeb Hargrove	Alabama
Jeremy Knoll	Arizona
Jim Stromberg	Minnesota
Joe Galvin	Illinois
John Miller	New Jersey
John Stevens	New Hampshire
Karla Jurrens	Texas
Kevin James	Louisiana
Mark Wrightstone	Pennsylvania
Melissa Friend	Nevada
Melissa Nazzaro	Massachusetts
Michael Nix	Georgia
Michael Sprague	New York
Molly Boss	Wisconsin
Nathan Smolinski	Wyoming
Nikki Cassingham	Oklahoma
Penny Rubow	Arkansas
Phil Royce	Florida
Richard Schmahl	Ohio
Sally Fay	Indiana
Stephen Verbil	Connecticut Guest
Sue Krogman	Nebraska
Thomas Crabbs	Virginia
Thomas Czaja	Wisconsin
Thomas Gonzalez	Texas Guest
Troy Babbitt	Wyoming

Vicki Helfrich	Mississippi
Wynn Brannin	New Mexico

Guests	Organization
Jim Byrne	CERRA Clearinghouse
John Contestabile	John Hopkins University
Walter Prather	McAfee
Walter Tong	Georgia Cyber Center

Federal Attendees	Organization
Ralph Barnett, III	CISA
Robin Beatty	CISA
Bruce Belt	CISA
Kenneth Born	CISA
Don Bowers	CISA
Vincent DeLaurentis	CISA
Rob Dew	CISA
Jim Downes	CISA
Ken Bradley	CISA
Chris Essid	CISA
Ryan Felts	CISA
Mark Grubb	CISA
Dan Hawkins	CISA
James Jarvis	CISA
Jessica Kaputa	CISA
Michelle Lauzon	CISA
Tom Lawless	CISA
Ted Lawson	CISA
Jim Lundsted	CISA
Cary Martin	CISA
Gabe Martinez	CISA
Marty McLain	CISA
Bess Mitchell	CISA
Pam Montanari	CISA
Steve Noel	CISA
Serena Reynolds	CISA
Dusty Rhoads	CISA
Bruce Richter	CISA
Wes Rogers	CISA
Adrienne Roughgarden	CISA
Lauren Strange	CISA
Deante Tolliver	CISA

Dick Tenney	CISA
Deante Tolliver	CISA
Chris Tuttle	CISA
Linda Ward	CISA
Chris Lewis	Department of the Interior
Kenzie Capece	FirstNet
Lori Stone	FirstNet
Hank Rowland	FEMA
David Hupp	United States Coast Guard
Mike Tuomenin	United States Forest Serivce
Denis Gusty	DHS Science & Technology Directorate
Dan Wills	CISA