



FirstNet®



FirstNet Board and Committee Meetings

June 29-30, 2016



FirstNet®



FirstNet Board Meeting

June 30, 2016



FirstNet®



State of Illinois Presentation

Don Kauerauf
Chairman of the Illinois Terrorism
Task Force (ITTF)

Illinois Emergency Management Agency



FirstNet Board Meeting
Chicago, IL
June 30, 2016



Illinois FirstNet

- Created 120-person multi-discipline, multi-jurisdictional membership forum
- Completed outreach in 82 counties, to 66 public safety agencies, at 31 state conferences, reaching over 15,000 public safety officials
- Conducted initial Illinois/FirstNet State Consultation meeting (July 2015)
- Submitted to FirstNet a report titled, “Illinois Submission Of Phase II Data to FirstNet for Analysis and Inclusion in the State of Illinois Plan.”
- Issued RFI to understand the options for an “Opt-Out” decision
- Worked with FirstNet to clear incumbent Starcom21 users from the Band 14 spectrum allocation
- Created website to communicate statewide program goals and objectives to public safety officials (www.firstnet.illinois.gov)



Illinois' Vision for Interoperability

Illinois will have a continuing and sustainable interoperable and emergency voice/data communications environment in which all public service providers will be able to seamlessly communicate across disciplines and jurisdictions when necessary and appropriate.



Key Dates in Statewide Interoperability

- **2003** – Governor’s statewide homeland security advisory committee develops first statewide interoperability strategy
- **2004/2005** – Procurement of state/local equipment to implement statewide strategy
- **2006** – Illinois’ State Interoperable Emergency Communications (SIEC) formalized by statute
- **2007** – Illinois’ Statewide Communications Interoperability Plan (SCIP) completed
- **2011** – 100% of Illinois’ counties have approved Tactical Communications Interoperability Plan



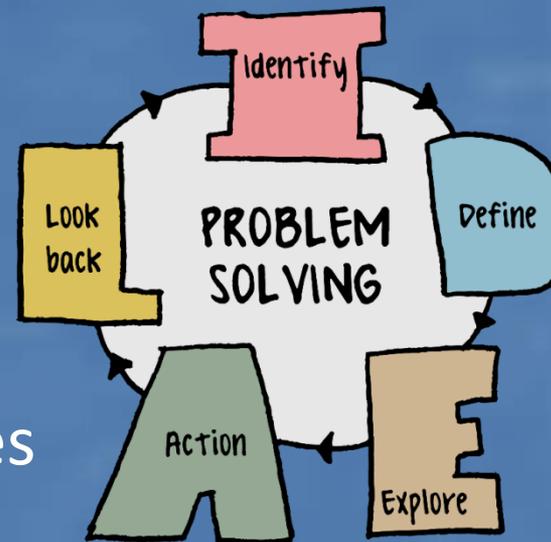
Illinois' Major Comms. Initiatives

- Established STARCOM 21 (SC21) system, a statewide Project 25 (P25) 700/800 megahertz (MHz) interoperable trunked radio network
 - Developed emergency communication's Standard Operating Procedures (SOPs) for the use of the SC21 system, state and national interoperability channels and for the activation and deployment of Strategic Technology Reserves (STR)
- Conducted a gap analysis of governance structure and inventory of statewide interoperable equipment
- Provided outreach and education to over 15,000 public safety first responders regarding the development and implementation of FirstNet broadband initiatives



Communications Governance

- Comms ecosystem is evolving into a very complex environment – Systems didn't evolve with governance
 - IT and Data increasing importance
 - GIS
 - 911 integration
 - FirstNet
 - Software
 - Emerging Technologies



Description of Problem

- No overarching strategic oversight
- Governance systems mandated by law didn't evolve with technology or national priorities
- Complete for limited financial resources
- Multiple meetings, similar goals, same people attend
- Technology is 'easy' compared to governance



Challenges

- Sustained funding
- Statewide adoption
- Some governance 'silos' are statutorily enabled
- Existing governance 'authorities' may feel threatened
- Diversity in membership sometimes polarizes goals
- Difficulties in implementing policy and legislative changes



Illinois' Governance

- Current Situation
 - Passionate membership
 - Multiple structures
 - SWIC is common link holding it together
 - Too many tactical thinkers part of current structures



NGA Policy Academy

- Desired Outcome
 - Establish linkages between groups to make the overall structure more efficient
 - Legislative/Governor support and backing for the structure and related positions.
 - The entire structure reporting directly to one public safety state agency to foster a “one voice” perception among constituents and stakeholders.
 - Clear definition of group responsibilities to reduce redundancy and to provide functional clarity to constituents and stakeholders.

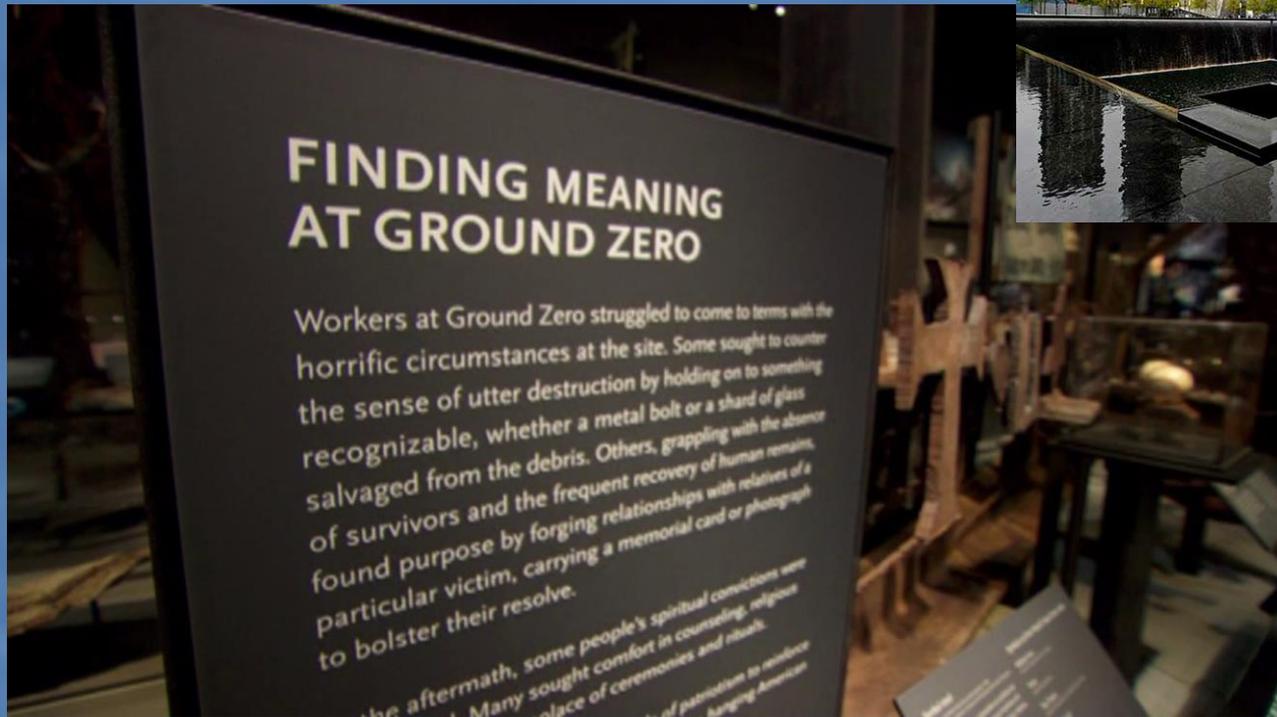


Project Goals

- Align and create linkages for comms governance issues
- Visibility within Illinois state leadership
- Streamline multiple governance structures
- Increase effectiveness of outcomes
- Staff with correct members so we can start to hand new and emerging technologies



Why is it important?



Contact Information

Donald G. Kauerauf, Chief
Bureau of Preparedness and Grants Administration
Illinois Emergency Management Agency
217/557-4831
Don.Kauerauf@illinois.gov

www.ready.illinois.gov





FirstNet®



Public Safety Advisory Committee (PSAC) Update

Harlin McEwen
PSAC Chairman

Both task teams expect to conclude their meetings at the end of June 2016 and submit their formal recommendations by **July 28, 2016.**

**Identity,
Credential
and Access
Management
(ICAM)**

Captain Chris Lombard
(Interagency Board), Chair

**Local
Control**

Barry Fraser (National Association
of Telecommunications Officers
and Advisors), Chair

Identity, Credential and Access Management (ICAM) Task Team



Goals

- Understand the issues that public safety agencies experience due to the lack of an interoperable ICAM solution
- Document guidance and recommendations for ICAM use in public safety
- Establish a framework for onboarding agencies into use of federated identity
- Examine potential working ICAM solution(s)

Members

- Chris Lombard, Chair
- Doug Aiken
- Todd Early
- Niles Ford
- Trey Forgety
- Jimmy Gianato
- Michael Jacobson
- Brent Lee
- Phil Mann
- Harlin McEwen
- Charlie Sasser
- Joe Sastre
- Tom Sorley
- Reid Vaughan
- Michael Gilmore (FBI/DOJ), non-PSAC member
- Tom Bojito (ICE/DHS), non-PSAC member

Goals

- Provide recommendations to further define and refine the operational guidance of the local control application that FirstNet will provide
- Define the processes that support operations, which are not expected to be supported by the Local Control application directly

Members

- Barry Fraser, Chair
- Doug Aiken
- Larry Amerson
- Todd Early
- Len Humphries
- Chris Lombard
- Gary McCarraher
- Harlin McEwen
- Jonathan Olson
- Paul Patrick
- Mark Ryckman
- Tom Sorley
- John Sweeney
- Richard Taylor
- Michael Gilmore (FBI/DOJ), non-PSAC member
- Tom Bojito (ICE/DHS), non-PSAC member

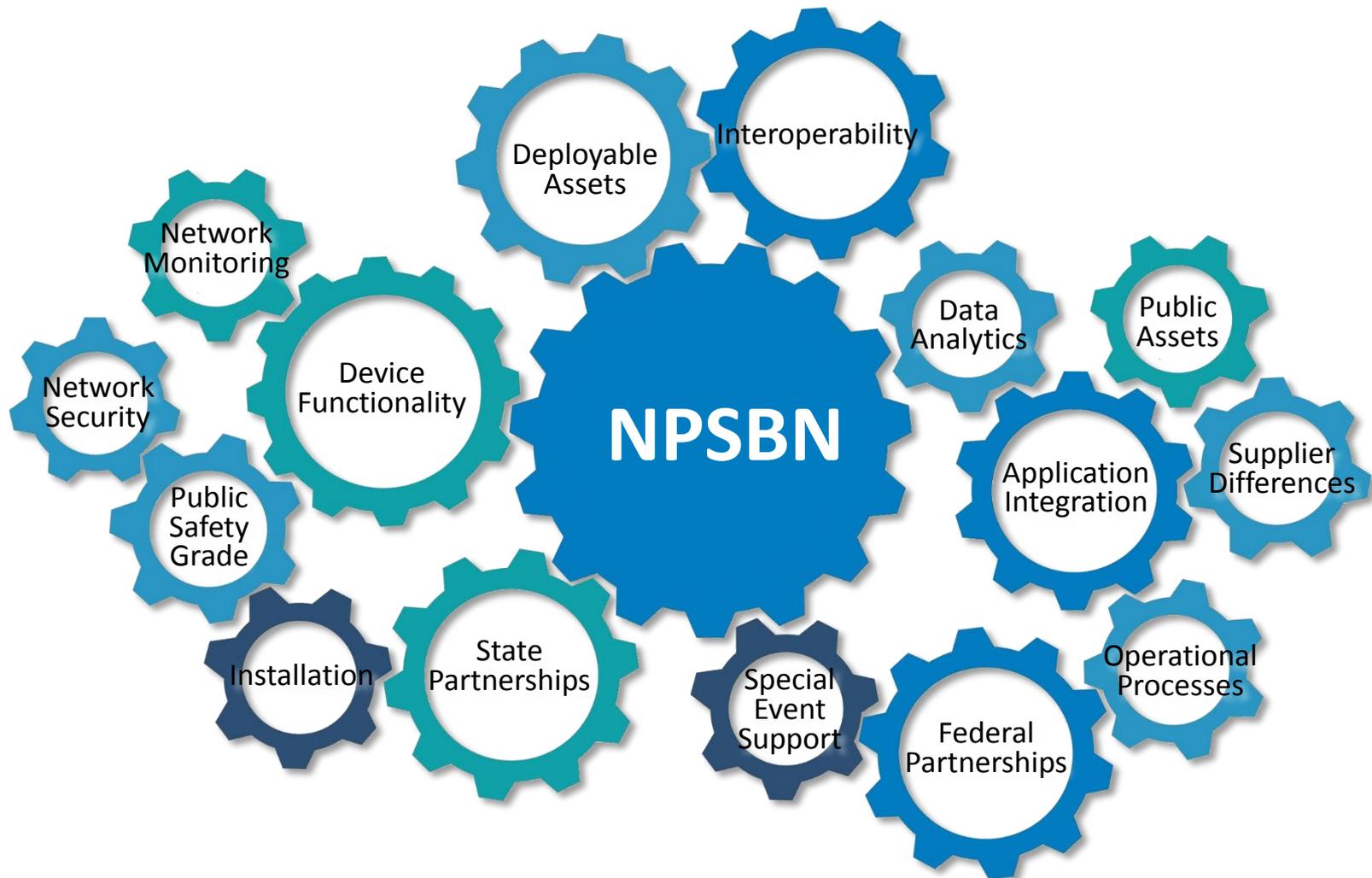
Early Builders Working Group (EBWG)



- Todd Early – Chair
- Darryl Ackley – Vice Chair
- Objectives:
 - Share progress on Key Learning Conditions (KLCs)
 - Share Informal Key Lessons (IKLs) learned
 - Openly discuss issues to leverage collective experience
 - Contribute to current PSAC task teams



Lessons Learned Touch All Aspects of the NPSBN



- Following the Spring SPOC Meeting, the TWG met to strategize how to address ongoing outreach challenges
- Goal: To ensure tribes are included in draft State Plans
- Key Activities include:
 - Review essential materials, e.g., Tribal Outreach Guidance for SPOCs and FAQs for Tribes
 - Identify additional tribal points of contact to encourage tribal participation in FirstNet planning

Federal Working Group (FWG)



Objectives

- Engage on current and previous PSAC task team efforts
- Further integrate FirstNet's federal outreach and consultation activities with the PSAC's work
- Provide perspective on the operational experiences of federal public safety practitioners

Timeline/Next Steps

- Invitations to the US Department of Homeland Security and US Department of Justice for representatives to join the PSAC
 - Appointed members would also serve as Co-Chairs of the FWG
- Targeted invitations to 10-15 federal public safety practitioners via Federal Agency Points of Contact (APOC) for appointment to the FWG





FirstNet®



City of Chicago Office of Emergency Management and Communications

Alicia Tate-Nadeau
Executive Director



OEMC

City of Chicago
OFFICE OF EMERGENCY MANAGEMENT AND COMMUNICATIONS

Alicia Tate-Nadeau
Executive Director

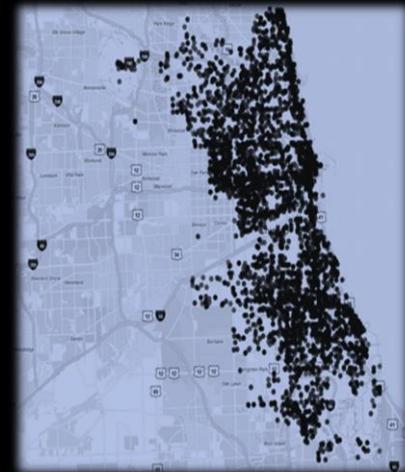
Jonathan Lewin
Deputy Chief, Bureau of Support Services, Chicago Police Department

Dan Casey
Deputy Director, Public Safety Information Technology



Operational Areas

- 9-1-1 Operations
- 3-1-1 City Services
- Office of Emergency Management (OEM)
- Traffic Management Authority (TMA)
- Public Safety Information Technology (PSIT)



Coordination Centers

- **Operations Center (OC)**
 - 24/7/365 public safety monitoring and coordination
- **City Incident Center (CIC)**
 - 24/7/365 public works monitoring and coordination
- **Emergency Operations Center (EOC)**
 - Information and resource coordination during large-scale events and incidents
- **Joint Information Center (JIC)**
 - Coordination of emergency public information to ensure clear and consistent communication during an emergency
- **Chicago Public Schools Security Center**
 - Co-located in the OEMC for increased information-sharing



Equipment Deployment

- 2,000 police mobile data terminals
- 450 fire mobile data terminals
- 5,000 public safety smart phones
- Network of 29,000 federated cameras
- Other cellular devices
- Multiple command vehicles
- Over 25,000 land mobile radios
- 4,000 GPS devices

Large-Scale Events

Event	Attendance Figures
Chicago Marathon	45,000 runners, 2 million spectators
Chicago Blackhawks Rally & Parade	2 million
Air & Water Show (2 days)	2 million
Mag Mile Lights Fest	800,000-1 million
Bud Billiken Parade	1.5 million
Taste of Chicago (5 days)	1.4 million
Pride Parade	1 million
Numerous Large-Scale Events throughout the Summer	300,000-500,000
Neighborhood Festivals and Weekend Events	60-80 events per weekend at 5,000+



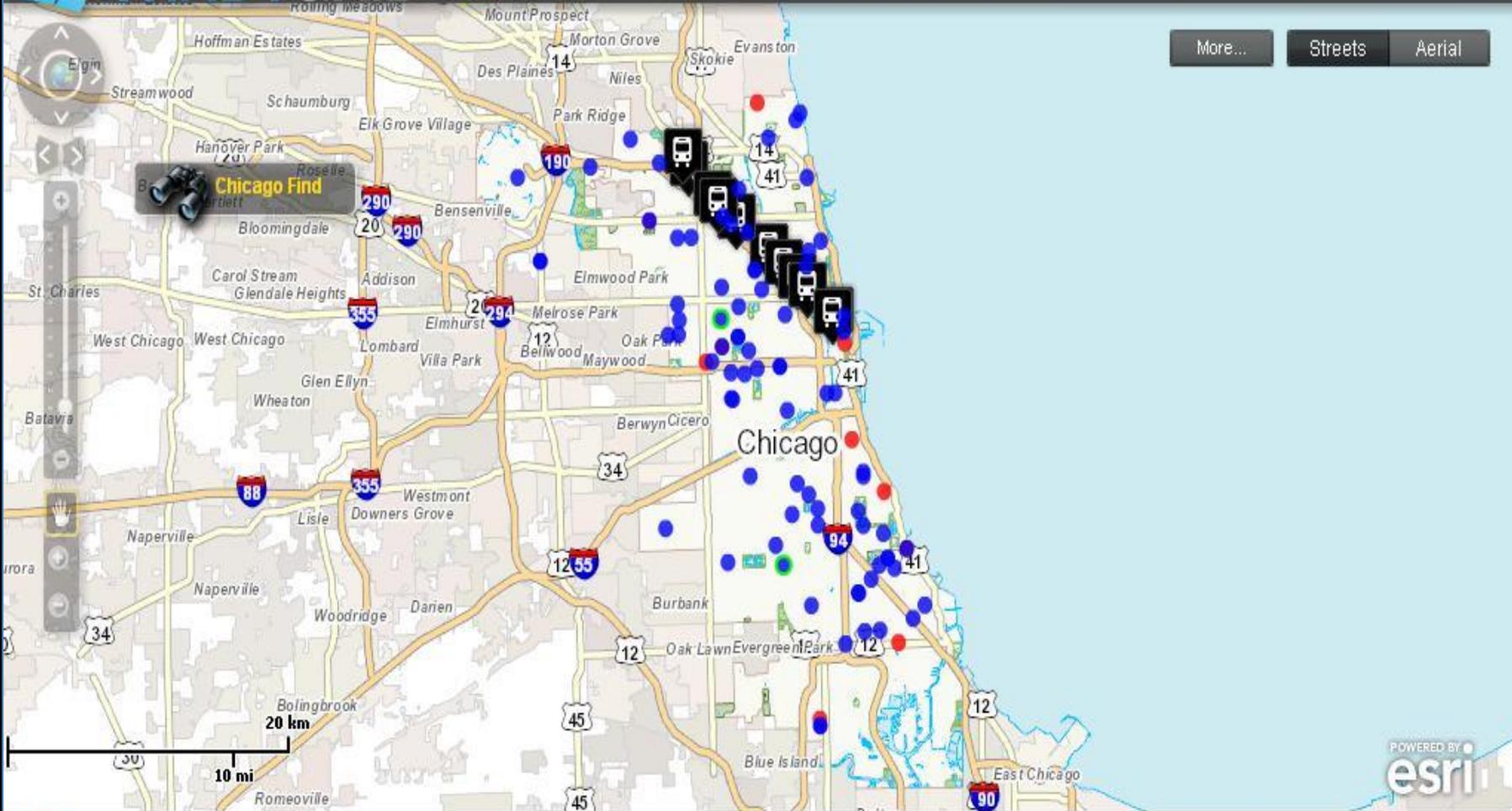
Jonathan Lewin

*Deputy Chief, Bureau of Support Services,
Chicago Police Department*

Current Data Capabilities

- Computer-aided dispatch
- Pictures (TXT2TIP)
- CLEAR & CABOODLE
- In-car camera
- Automated License Plate Recognition (ALPR)
- Patient tracking





More... Streets Aerial



911 Fire * 911 Police *

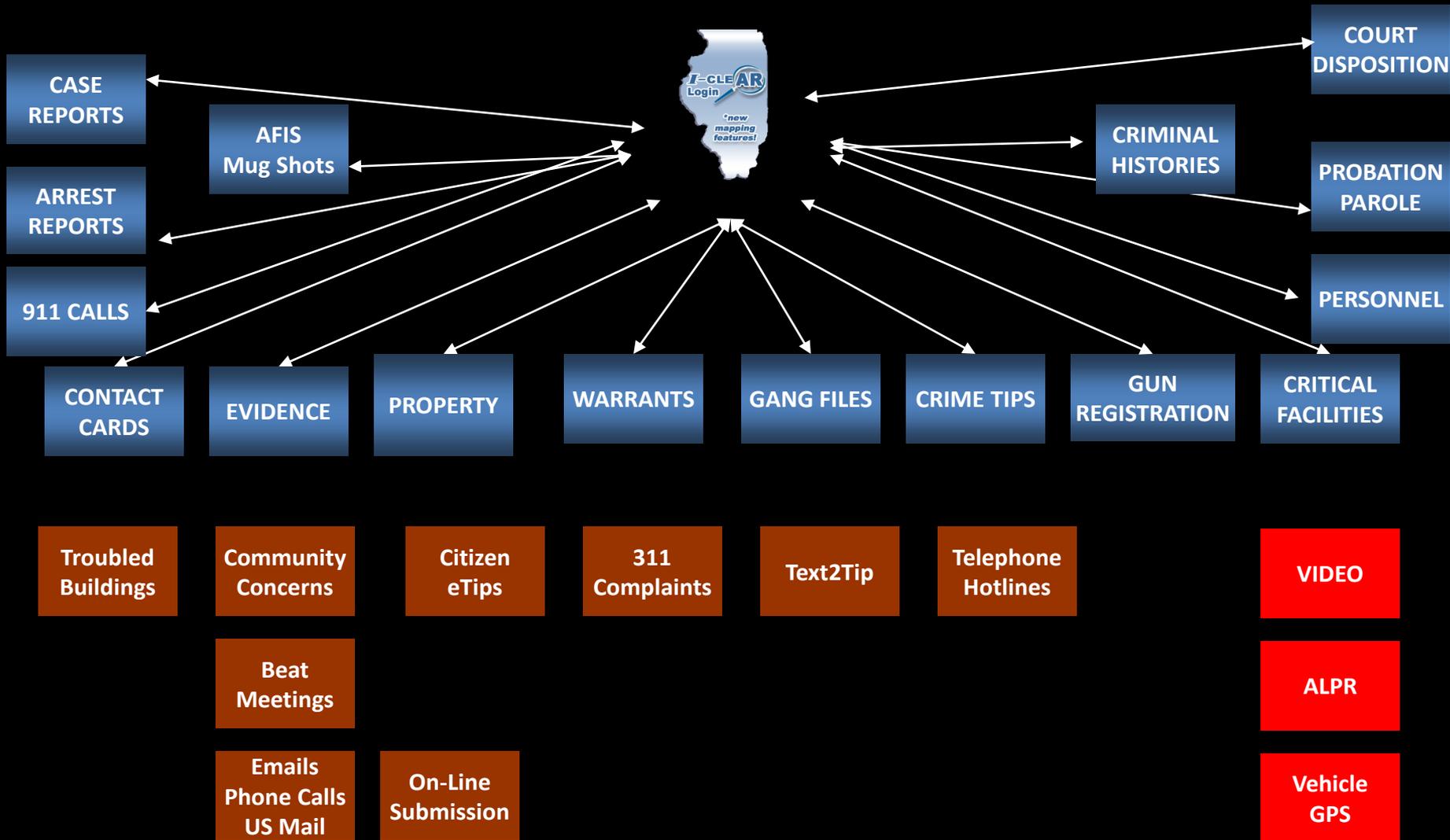
Event Number	Creation Date	Address	Description	Initial Priority	Status	Beat	District
1213505662	5/14/2012 9:54	KELLY	TRUANT	3D	ONS		

Rainbow View Heat Map 138 Record(s) found at 9:54:49 Pause Zoom PDF Save Graph by Event Num... Show

CLEAR Regional Platform

- 33,000 total users
 - 13,000 internal
 - 450 local, state, federal user agencies
- Processes arrests for all police departments in Cook County (120)
- Now in partnership with Cook County Sheriff to expand case management and incident reporting to the region

CLEAR System



Summary: Major Tech Grants

DHS: Urban Area Security Initiative (UASI) 2014, 2015

CLEAR infrastructure, mapping, cameras, radios, vehicle tech

DHS: Broadband Pilot

Test broadband communications (LTE) in 007 District, Purdue

BJS: NCS-X (National Criminal Statistics Exchange- NIBRS), 2015, 2016

NIBRS compliance

BJA: Body Worn Cameras, 2015

1,500 BWCs in six (6) districts, University of Illinois

BJA: Smart Policing, 2015

Expand predictive policing model, Illinois Institute of Technology

NIJ: Predictive Policing, 2013

Develop predictive policing model, Illinois Institute of Technology

NIJ: Optimizing Use of Video Technology, 2014

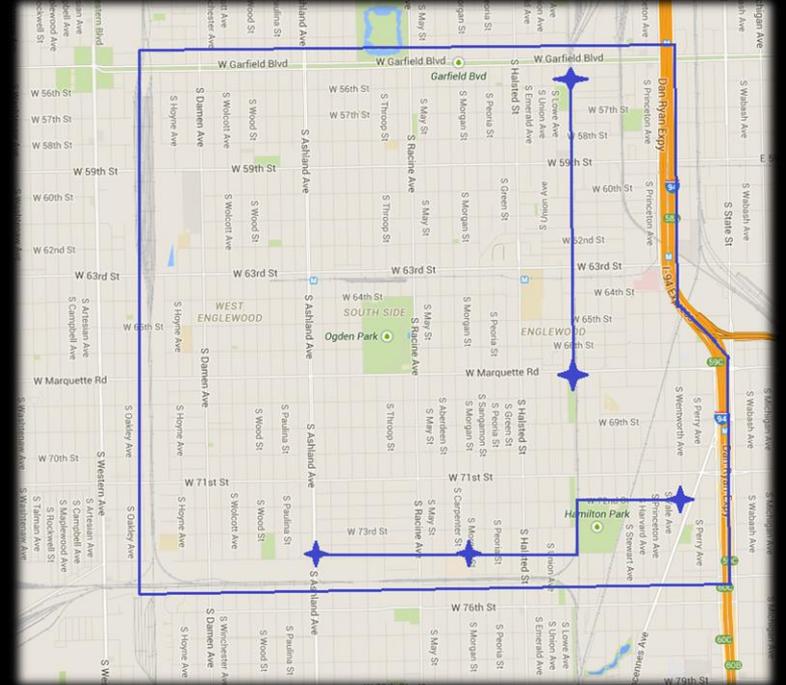
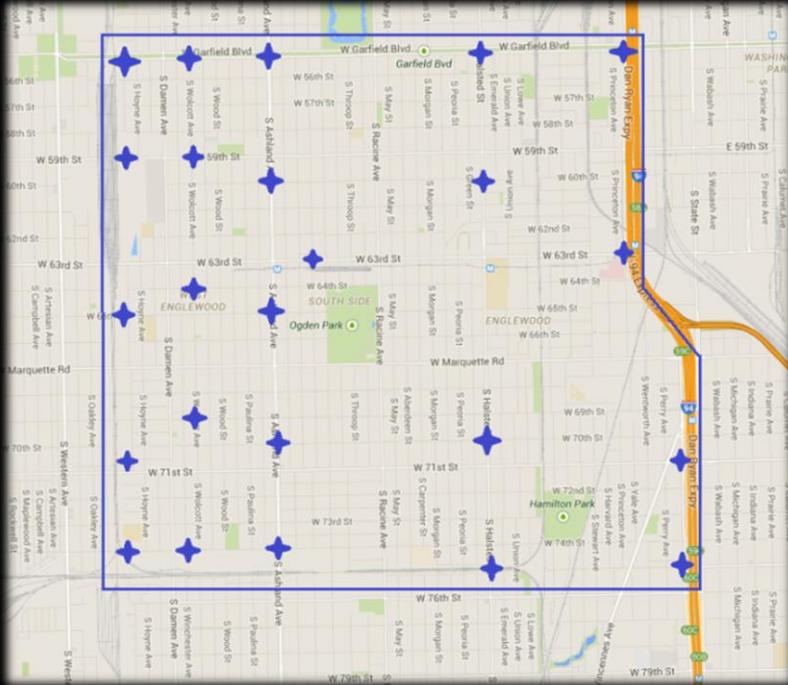
Test video analytics, develop camera deployment model, IIT

Dan Casey
*Deputy Director,
Public Safety Information Technology,
Chicago OEMC*

Chicago LTE Pilot Program

Testing Conducted by Purdue University

Khalid Tahboub and Edward J. Delp



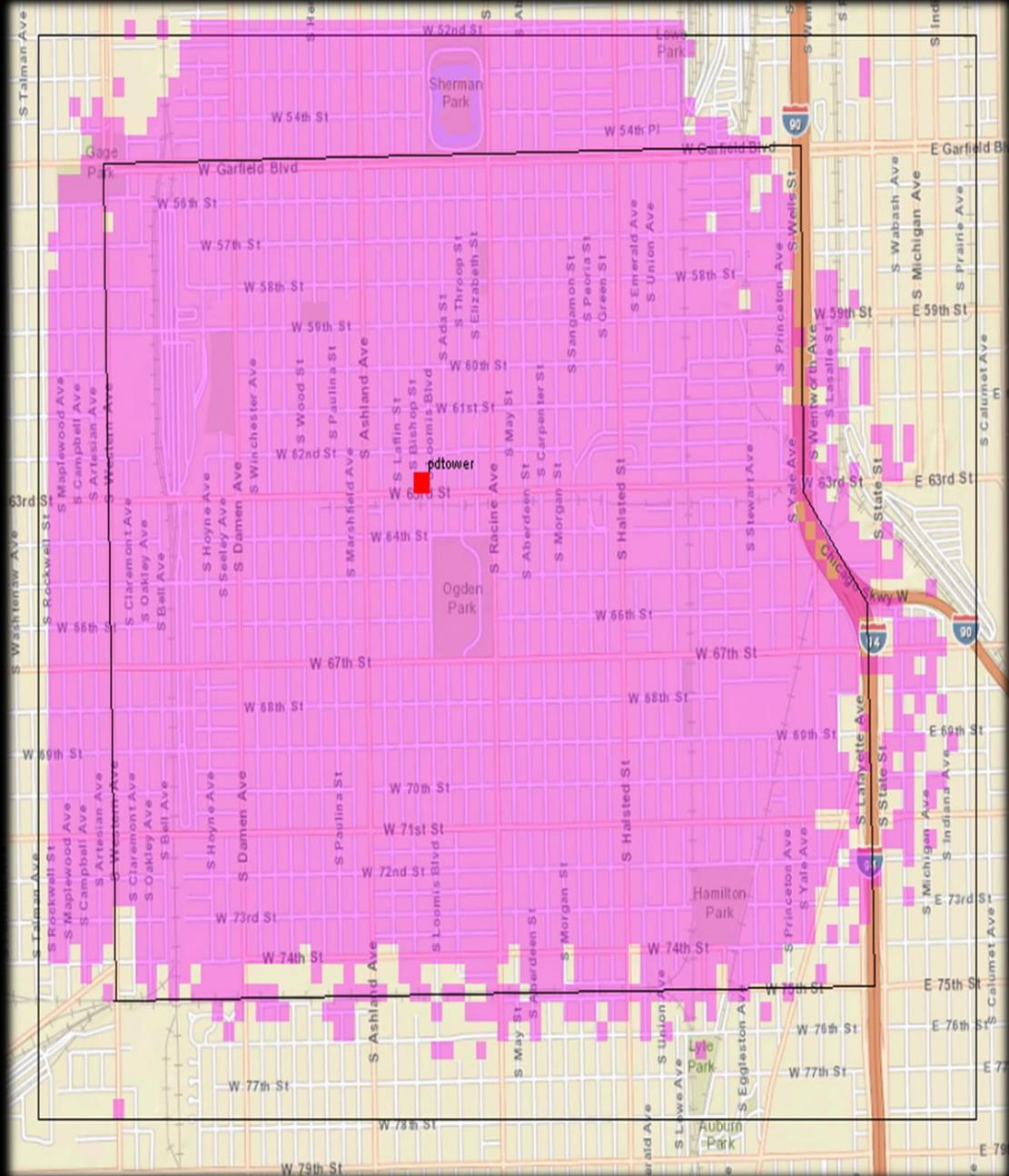
VIPER
Video and Image Processing Laboratory

VACCINE

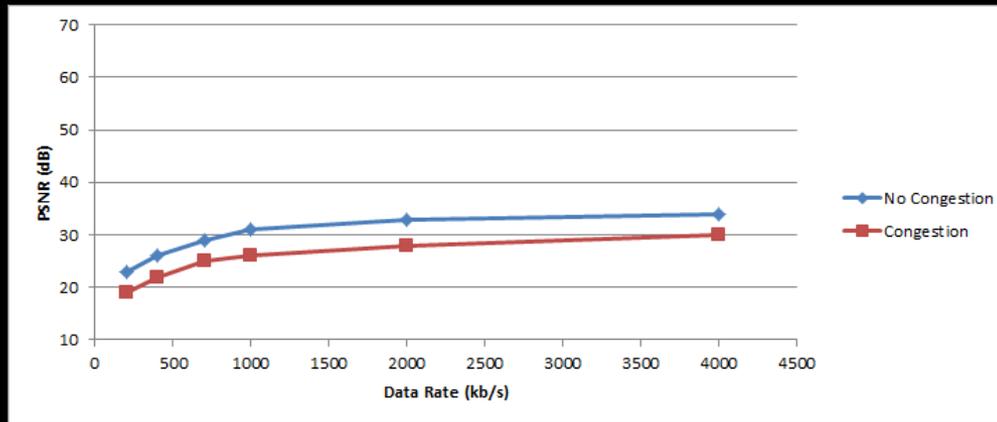
Visual Analytics for Command, Control and Interoperability Environments
A U.S. Department of Homeland Security
Science and Technology Center of Excellence



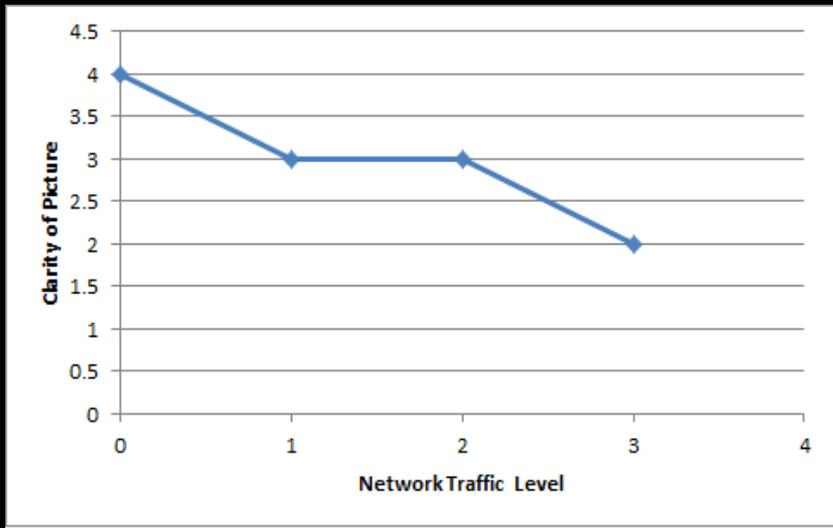
MOTOROLA SOLUTIONS



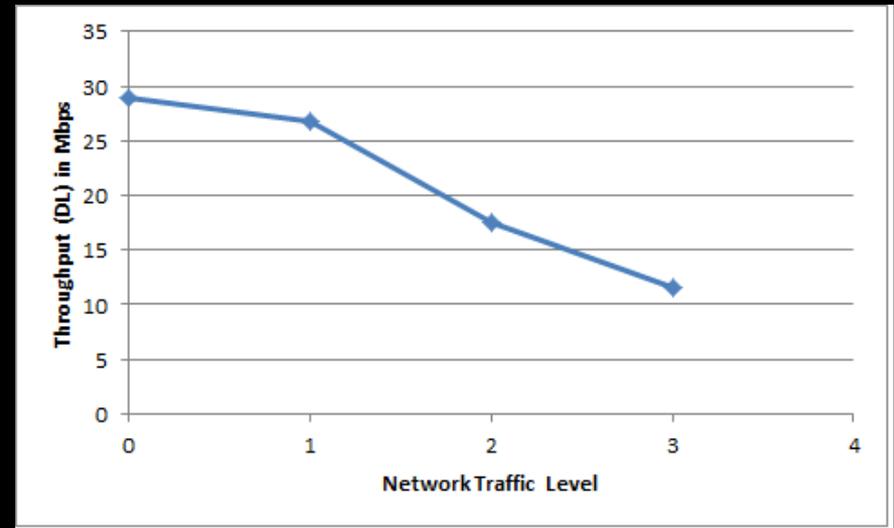
Objective Video Quality Measurement



Subjective Quality Assessment of CPD Apps



Network Performance Measurement





Chicago's Experience: Challenges

- Demand in high density crowd situations
- Urban canyon environment
- In-building coverage
- Maintenance and support



Opportunities: What Chicago Can Offer FirstNet

- Experience with a first responder only data network (RDLAP)
- Experience with scale
 - A perfect testbed
 - NATO LTE
 - LTE Pilot Program



An aerial night view of the Chicago skyline, showing numerous illuminated skyscrapers and buildings. The city lights are reflected in the dark sky, and the overall scene is a vibrant display of urban architecture.

***Chicago's OEMC:
Building resilience through collaboration.***



FirstNet®



Board Resolutions



FirstNet®



Committee Reports



FirstNet®



Consultation and Outreach Committee

Rich Reed
User Advocacy

Spring 2016 In-Person SPOC Meeting Outcomes



Strong Attendance

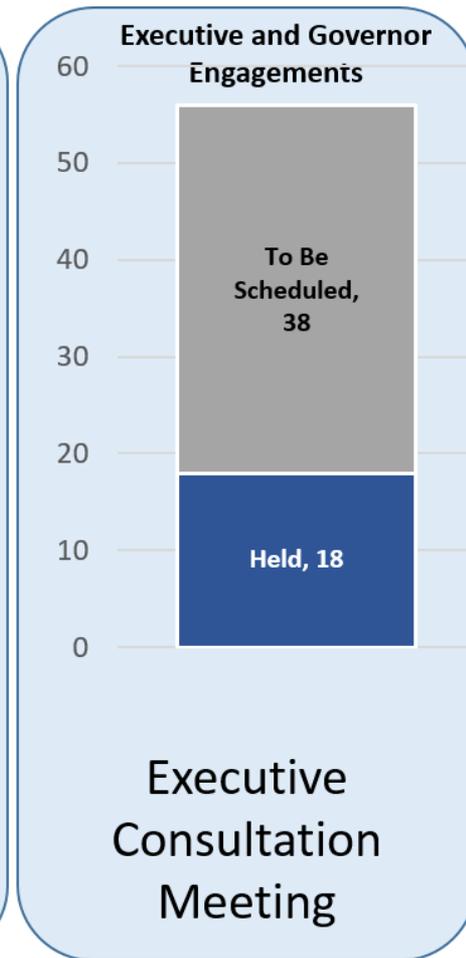
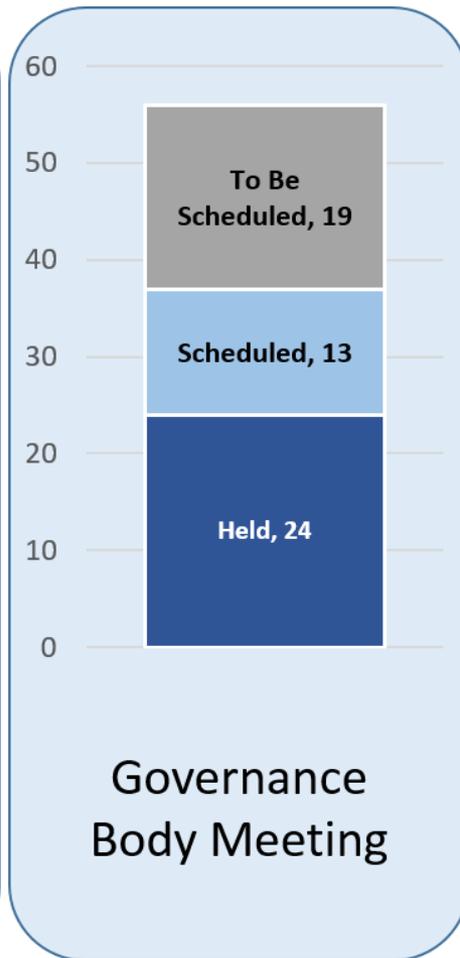
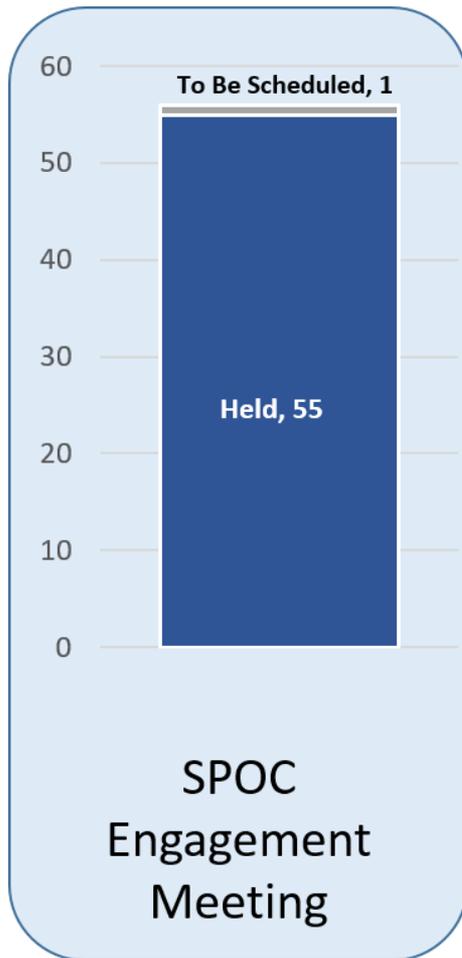
- 175+ attendees from 55 states and territories
- Participation from 6 federal agencies, the PSAC, Tribal Working Group, NTIA, and PSCR

Strong Program

- Focused Sessions Provided
 - Clarity on the State Plans Process
 - Update on the RFP
 - Kick Off of Consultation Task Teams
 - Guidance on Tribal and General Outreach
 - Details on Research and Technology Efforts
 - Forum for Networking and Q&A
- Positive Feedback from Attendees



Consultation Progress



State Plans Development and Delivery



FirstNet Contract Award



Develop State Plans & Prepare for Delivery

Feedback Received

Awesome!!
EXCELLENT
GOOD
AVERAGE
POOR



Final Prep for Delivery to Governor

State Plan Delivery to Governor (90 Day Review)

Nov 2016

Set during contract negotiation

Fixed timeframe

ASAP

Release of Draft State Plans



State Plan Draft Review





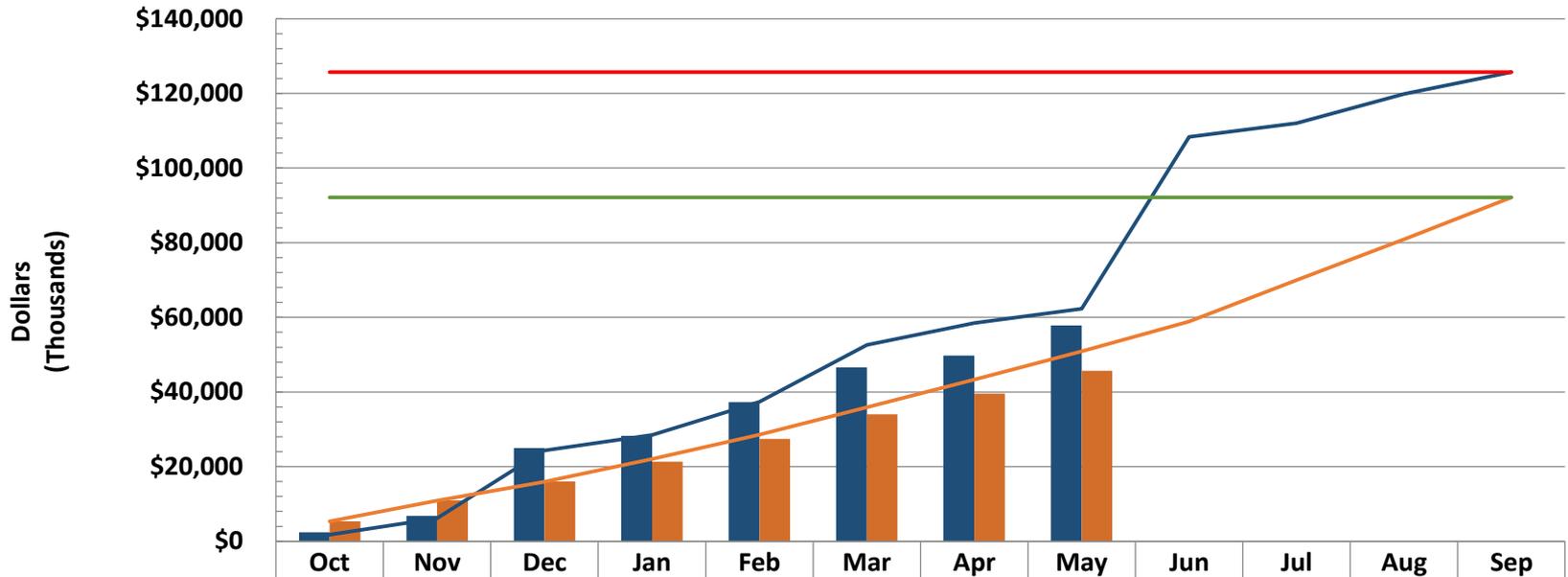
FirstNet®



Finance Committee

Kim Farington
Chief Financial Officer

FirstNet Overall Cumulative



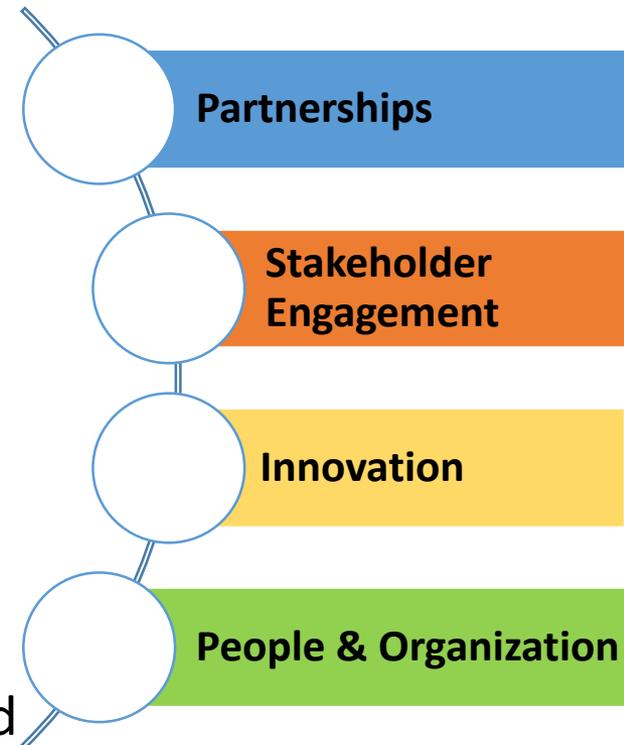
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Actual Obligations	2,446	6,805	24,994	28,209	37,300	46,565	49,761	57,796	-	-	-	-
Actual Expenses	5,354	10,945	16,006	21,348	27,410	34,032	39,578	45,700	-	-	-	-
Budgeted Obligations	1,772	6,131	24,320	28,526	37,353	52,605	58,459	62,312	108,353	111,984	119,846	125,734
Budgeted Expenses	5,342	10,923	15,972	22,072	28,581	35,869	43,345	50,938	58,881	69,935	80,884	92,104
Total Obligations Target	125,734	125,734	125,734	125,734	125,734	125,734	125,734	125,734	125,734	125,734	125,734	125,734
Total Expense Target	92,104	92,104	92,104	92,104	92,104	92,104	92,104	92,104	92,104	92,104	92,104	92,104

% Obligated = 46.0% **% Expensed = 49.6%**

FY 2017 Budget Formulation Timeline



- 2016-2020 Strategic Plan
 - Four strategic goals and seventeen objectives
 - Key activities that help us achieve the objectives
 - Key performance indicators (KPI's) and metrics
 - Captures critically important strategic human capital initiatives
 - Performance management and evaluation planning
- Provides strategic direction for FirstNet as an enterprise beyond the NPSBSN contract award and Strategic Roadmap milestones



- Strategic plan and supporting operational plans help us measure performance across the organization
 - Includes the management of the NPSBN contract, but goes beyond it
 - KPIs reflect critical activities within FirstNet
 - Facilitates measurement of success for those activities

- Performance management facilitates better decision making
 - Increased insight to resource allocation and needs
 - Captures linkages and coordination of effort across business units
 - Validates that activities work in unison towards common goals and objectives
 - Provides transparency and enables accountability



FirstNet®



Technology Committee

Jeff Bratcher
Chief Technology Officer

- The Middle Class Tax Relief and Job Creation Act of 2012 requires FirstNet to “establish network policies”
- FirstNet policies to include:
 - Core and RAN technical and operational requirements
 - Network management standards and procedures
 - Back office and user requirements (e.g., billing)
 - Monitoring and compliance requirements regarding network management, operation, and use
 - Public safety and user training
- Initial policy set be released in conjunction with the delivery of State Plans

- Boulder Lab cleared for construction, to be completed December 2016

- Requesting that Partner provide the production environment, i.e., the LTE network equipment, devices, applications, and services such as:
 - LTE core network capability
 - Local Band 14 radio base stations
 - Ruggedized handheld devices and vehicle modems
 - Mission Critical services - Quality of service, priority, preemption

- FirstNet provides:
 - **Quality Assurance** prior and during deployment (IOC/FOC milestones), e.g., verifying network resilience to a hardware failure or the priority of public safety users during incidents
 - **Validation and Verification** of NPSBN features and functions including end users' experience with devices and applications, e.g., a firefighter's use of an application with gloved hands
 - **Band 14 Device Approval** activities including ensuring security, radio performance and resiliency, and the safety of devices used on the NPSBN
 - **Acceptance Testing** of Partner-provided capabilities, e.g. local control solutions, identity and credentialing access management
 - **Future NPSBN application development environment**



FirstNet®



Governance and Personnel Committee

Mike Poth
Chief Executive Officer

Evolving From a Start-up To Public-Private Partnership



Start Up Priorities

- \$7 Billion in Funding
- Roadmap to RFP
- Consultation, Outreach, Education
- Budget & Staffing

Recent Progress

- ✓ Draft RFP
- ✓ NTIA & FCC Synergies
- ✓ State, Territory, and Federal Outreach
- ✓ RFP Issued / Evaluation



FY 17-18 Planning

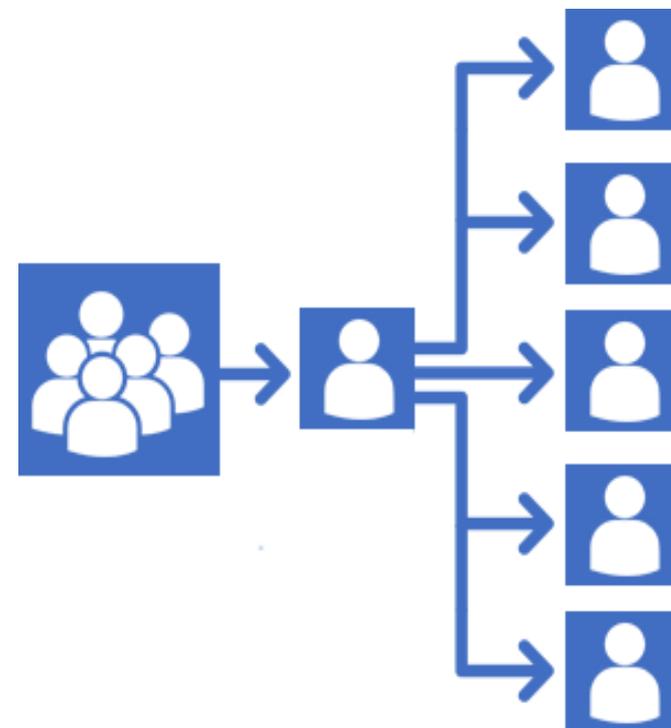
- Lean, Innovative, Independent
- Drive Creativity and Flexibility

Organizational Structure & Human Capital Plan

- Key FirstNet Roles and Responsibilities
- Validation, Verification, Administration

Partnership Structure

- Ensure Financial Stability
- “Win-Win-Win” Business Model



Key Tenets

- Partnership Support and Integrated Coordination
- Maintain Lean, Cost Effective Structure
- Maximize Revenue for Maximum Network Reinvestment
- Innovation, Ingenuity, Urgency





FirstNet®



CEO Update

Mike Poth

Top 3 Takeaways

1. Evaluation Underway
2. Targeting November Award
3. Competitive, Fair, Balanced Deal For Public Safety | FirstNet | Partner



Positioning FirstNet for **Partnership** and the Network for **Deployment** and **Adoption**

■ **The Organization**

- Strategic Plan
- Chief Customer Office, Network Program Office
- Risk Management Enterprise
- World-Class Lab



■ **The Network**

- State Plans
- Spectrum Relocation
- Network Policies

