



FirstNet and Public Safety Broadband

**2014 ANNUAL 911 SPRING
TECHNOLOGY FORUM**

April 14, 2014

Speakers: Bradley Stoddard, Director, Office of Michigan's Public Safety
Communications System (MPSCS)

Laura Blastic, MiPSB Program Director (DTMB)



NPSBN Primer



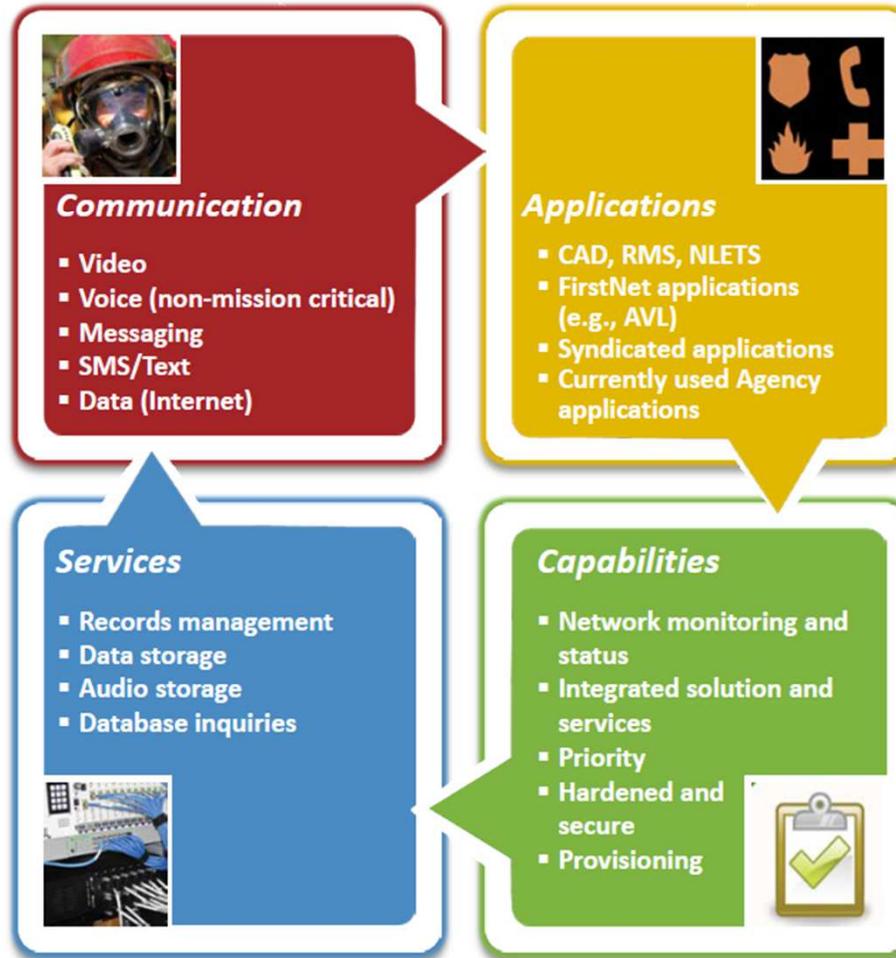
- Nationwide 4G LTE Network using dedicated 700Mhz spectrum
- LTE is based upon the global 3GPP standard
- Will be built to meet needs of Public Safety
- Governed by FirstNet which is the independent authority created by Congress to govern, construct and manage the NPSBN
- Over \$7B in funding for initial build-out
- Intended to be self-sustaining fee-based network which will leverage existing government, state and local assets



“FirstNet Network” (FNN) Objectives

- The FirstNet Network (FNN) will be “Public Safety Grade” so network is available when needed most
- The FNN will maintain local management and controls including prioritization and access privileges
- FNN coverage will be extensive, covering jurisdictional, tribal and rural areas currently under-served by broadband.
- By law, the FN must be a self-sustaining fee-based network with
 - Potential for public/private partnerships and sharing of State, local and Tribal infrastructure to lower costs

FirstNet Will Support



NG911 and FirstNet PS LTE

TODAY Low BW Apps like SMS, LOC, OTAR, can be sent to PS Data

VOICE, SMS, TEXT TO 9-1-1

911 VIA BROADBAND MULTI-MEDIA

Low speed pipes prevent big data files & Apps to PS Data.

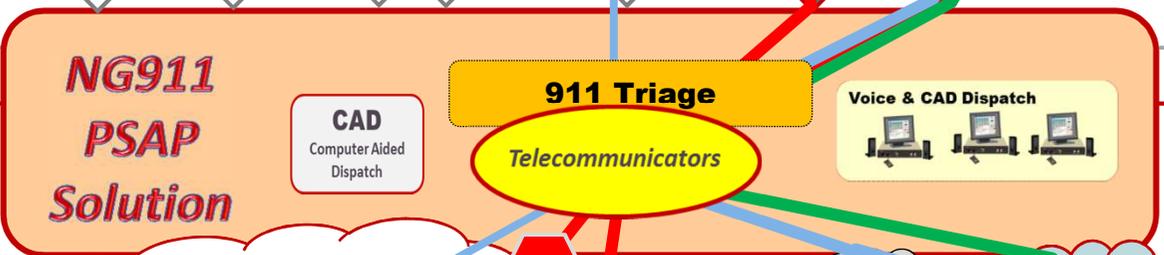
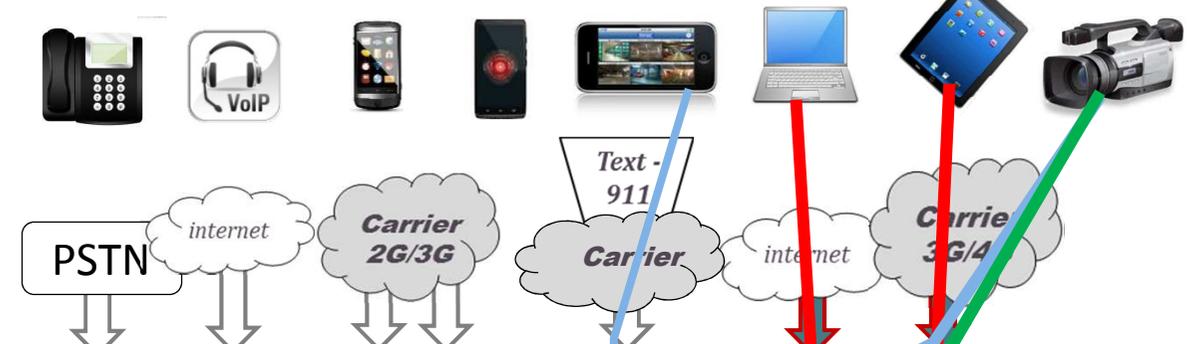
No wide area limits usefulness of WiFi or Mesh-based solutions.

Carrier solves these problems but can be expensive and not designed to be reliable during congestion or disasters.

FN w/PSLTE very high BW, secure, resilient, and prioritized

CITIZEN USERS ON COMMERCIAL PUBLIC NETWORKS

PS USERS ON PUBLIC SAFETY AND CARRIER NETWORKS





“Voice” and the NPSBN

- The term “Voice” is ambiguous as there are different “flavors”, such as:
 - **Cellular Telephony Voice** – Dial 10 digits, ring, answer, one-to-one communications
 - **Non-Mission Critical Voice** – One to many, push a button and talk, does NOT have MC features. NEXTEL Direct Voice, AT&T PTT, Harris BeOn are examples
 - **Mission Critical Group Voice** – One to many, push a button and talk, has all features for support of mission critical operations
- Today’s commercial LTE providers (ie VzW, AT&T, T-Mobile, etc) do not use LTE for voice yet, only data. Voice is carried on legacy networks.
- Future LTE systems will “natively” support cellular telephony voice called VoLTE
 - Since FirstNet has no legacy network (CDMA or WCDMA) VoLTE will be deployed over time.
- Most technologists concur that deployment of a Mission Critical Group Voice service, which is at least roughly equivalent existing P25 networks is roughly 10 years away

First Responder Network Authority



FIRSTNET OFFICES AND DIVISIONS

Chief Administrative Officer
FRANK FREEMAN

- Human Resources (Jamesa Moone)
- Recruitment & Staffing
- Payroll & Benefits
- Workforce Development
- Facilities Management
- Emergency & COOP
- Operations Support
- Records Management & Training

Chief Financial Officer
RANDY LYON

- Deputy CFO (David Socolof)
- Budget and Finance
- Budget Operations & Controls (Alice Suh)
- Finance & Accounting
- Strategic Fin. Planning (John Quinlan)
- Performance Measurement & Risk Management (Lea-Ann Bigelow)

Office of Chief Counsel
STUART KUPINSKY

- Board Secretary (Uzoma Onyeije)
- Commercial Division
- Compliance Division
- Regulatory Division
- NEPA (Genevieve Walker)
- Regulatory Affairs
- Spectrum Management (Lance Johnson)

Chief Information Officer
Starts March 24th

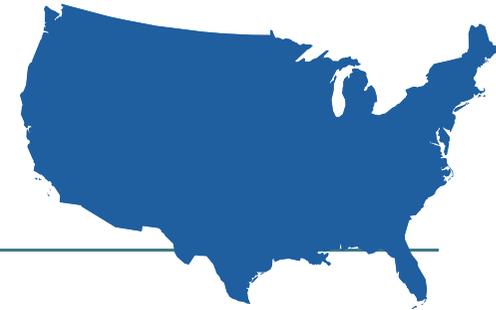
Jim Gwinn

- IT Services
- Office Systems and Applications
- IT Network Security
- ERP

Chief Technical Officer
JEFF BRATCHER (Acting Deputy)

- Applications
- CORE Network and Service Platform
- Deployable Systems
- Quality / Tech Performance
- Device Development Standards
- RAN Planning & Engineering
- Standards & Research & Development
- Technical Project Management
- Technical Support to State Plans

As of March 2014



National News Highlights

- NTIA has ramped up SLIGP \$118M Grant Program to 57 States and Territories [<http://www.ntia.doc.gov/slignp/slignp-awards>]
- FCC completed a successful spectrum auction, generating \$1.56B in revenue for FirstNet
- FirstNet has staffed executive positions and has begun releasing task orders to bring in consultants
- Four entities have FirstNet Spectrum Management Lease Agreements approved: LA-RICs, New Mexico, New Jersey and Adams County.
 - Texas received an extension until July 2014
 - Charlotte, MS and BayRICs are not proceeding with early buildout

April 2014



SLIGP Grant Program Overview

NTIA National Allocation

- Award period is 3 years
- Only states and territories can apply
- Total Federal Share is about \$118M¹
- Formula-based, not competitive
- Each state given flat \$500K PLUS
 - Allocation by population and land mass

State of Michigan

- Max Federal Share: \$3,347,673*
- Req'd Match (20%): \$837,574
- Match can include In-Kind
- Total Grant Amt.: **\$4,184,591**

**Amounts above reflect adjustments for 2013 sequester (~3%).
1- SLIGP update FN Board Meeting 13 Aug*

Expected Deliverables

- Establish **governance structure** to consult with FirstNet
- Ensure **local and tribal representation** and participation in FirstNet consult. process
- **Education & Outreach** on PS Broadband network among local, tribal and PS users
- **Identify potential PS users** for PS Broadband network
- **Develop MOAs** to facilitate use of existing infrastructure with private sector entities
- **Staffing Plans** that include local and tribal representation **for governance** and preparation of **data collection**
- Comprehensive plan as part of or complementary to SCIP to **describe PS needs** for nationwide network



SLIGP Phases

Phase 1

- Focuses on awareness and engagement of the Public Safety Broadband stakeholders and users

Phase 2

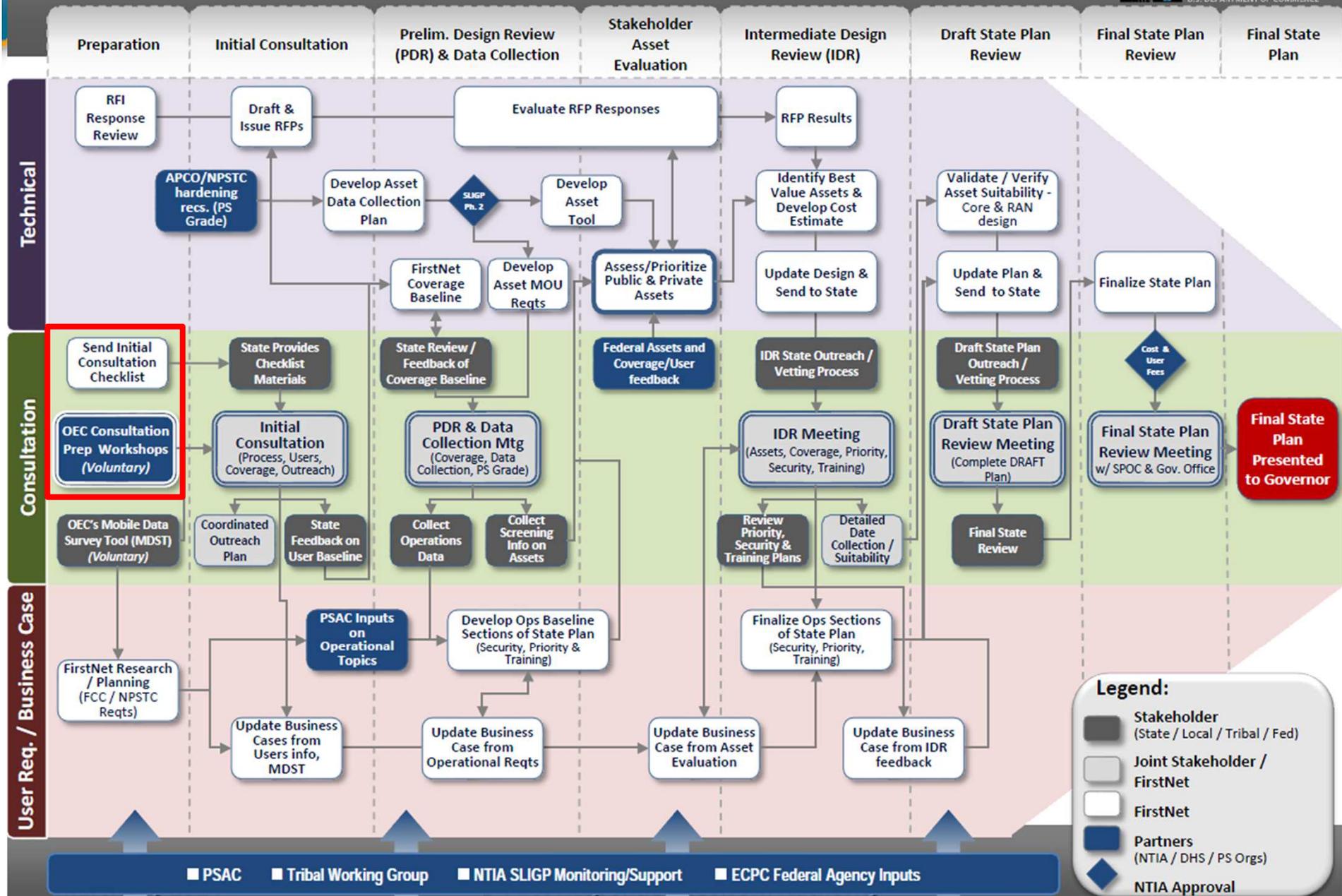
- Focuses on FirstNet consultation and preparing for the RFP



Continuous throughout SLIGP

- Outreach & Education
- Data Collection and User Requirements
 - Memorandums of Agreement
 - Interoperability

Preliminary Consultation and State Plan Process





Michigan's Public Safety Broadband Program (MiPSB) Current Activities



- State and Local Implementation Grant Program (SLIGP) Program Management Office (PMO) staffed and operational under Program Director, Laura Blastic
- Michigan delegation participated in 2nd FirstNet Regional Meeting. (FEB)
- Re-launching outreach and education efforts.
- Involvement and leadership positions with national organizations working on the PSBN, such as the APCO Broadband Committee
- Active coordination with other states' teams, especially in the Midwest region.

April 2014



High Level Objectives - Detail

Michigan's Public Safety Broadband Program – Work Group High Level Objectives by Group

State PMO

- Staffing
- Grant Mgmt
- Program Mgmt
- Coordination
- Resources
- Admin

MI PSBB WG

Exec Group

WG Leads

- Govern overall PSBN
- Policy development
- Gather input

SLIGP

Exec Leadership Team

- Manage Internal PMO
- Manage program staff
- FN State Point of Contact
- Interact with Gov
- Clear obstacles

Exec Sponsor: Brad

Technical Advisory

- Analyze specific tech issues
- Develop LTE knowledge
- Prepare for FN Consultation
- Establish coverage requirements

Exec Sponsor: Eric

Business Advisory

- Analyze specific business & Cost issues
- Tackle sustainability
- Prepare for FN Consultation
- Identify financial risks

Exec Sponsor: Laura

User Advisory

- Policy around official Points of Contact
- Coordinating Operational inputs, feedback
- Prepare for FN Consultation
- Identify business & application requirements



Preparing for FirstNet



- *Learn more about FirstNet and the NPSBN!*
- Think about your future coverage and operational needs
- Identify assets which could be leveraged by NPSBN
- Carefully examine investments in commercial or private narrowband data systems
- Make sure new purchases of 4G broadband devices are capable or upgradeable to Band 14 (B14)
- Consider that FirstNet may have cellular voice when negotiating long term cellular contracts
- FirstNet will not initially offer a Mission Critical Voice Solution – Continue to support your LMR systems!



Questions

Thank you

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Thank You!