www.firstnet.gov

FirstNet Committee Meetings

December 8, 2015

www.firstnet.gov

Performance Evaluation and Charter Review

Governance and Personnel
Technology
Consultation and Outreach
Finance

December 8, 2015

User Advocacy Update

Amanda Hilliard
Director of Outreach

David Buchanan
Director of Consultation

Rich Reed

Director of State Planning

December 8, 2015

New User Advocacy Staff

Outreach

Senior Advisors
- Bill Hinkle (9-1-1)
- Brent Williams (EMS)
- Mike Worrell (Fire)

Tribal Liaisons
- Margaret Muhr (Regions 1-8)
- Adam Geisler (Regions 9-10)

Consultation

Area Leads
- Jeff King
- Steve Smith

Regional Leads
- Mike Varney (Region 1)
- Lori Stone (Region 3)
- Jacque Miller (Region 6)

Federal Liaisons
- Tiffany Perry
- Charlotte Whitacre

User Advocacy Year End Summit Outcomes

- Updated messaging strategy
- Coordinated state and association engagement strategies
- Further defined team roles and responsibilities
- Strengthened User Advocacy team synergy

User Advocacy 2016 Goals

Broaden consultation and outreach efforts to:

- Obtain input from a wide range of stakeholders from local, state, tribal, territory and federal entities to inform network planning
- Prepare Governors for state plan decision
- Prepare stakeholders for adoption and use of the FirstNet network

Customer Relationship Management (CRM) Tool

✓ **Phase 1 Launched**
- Contacts Management: Logging contacts and activities with contacts
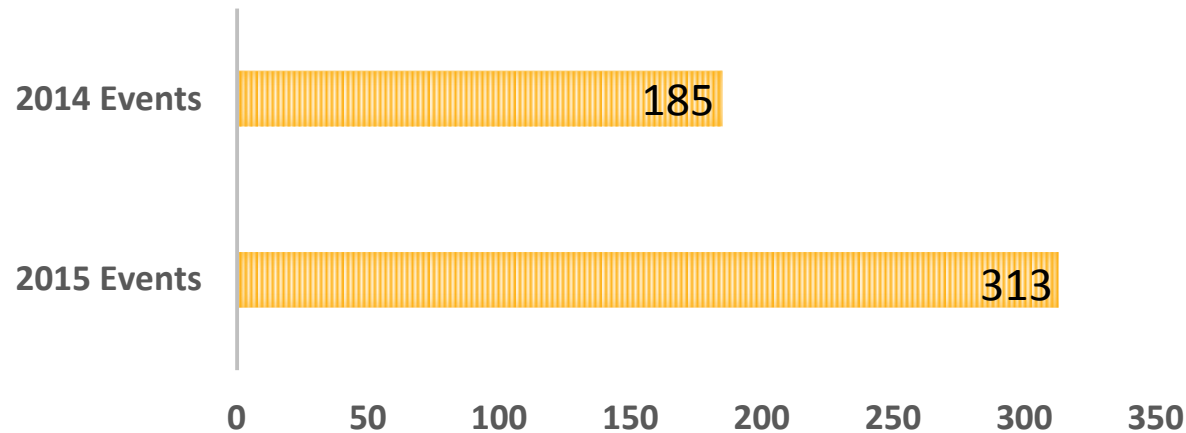- Event Management: Tracking events from initial planning through post event follow-up

■ **Phase 2**
- Enhanced reporting and other functionality
- Stakeholder Portals: Providing online forum for key stakeholder groups to collaborate
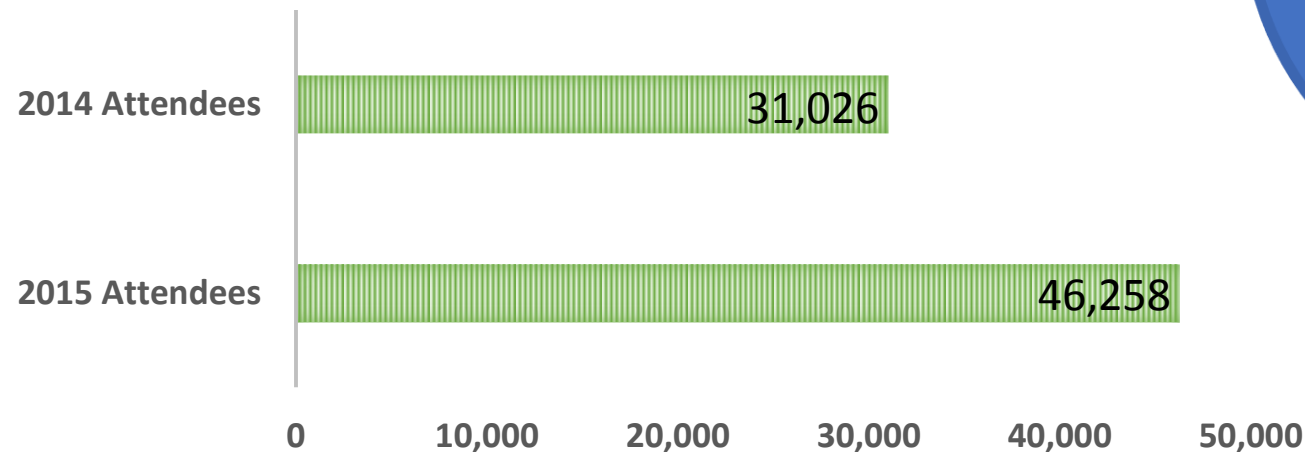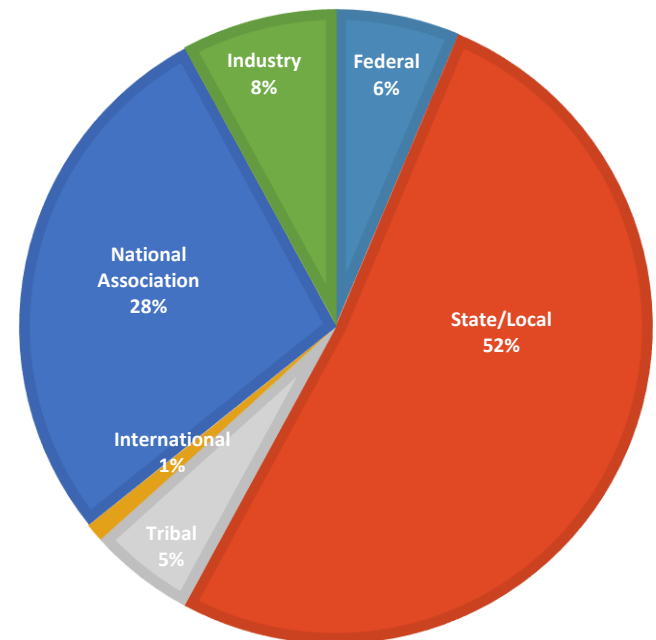
Summary of 2015 Events

EVENTS COUNT

2014 Events	185
2015 Events	313

(Scale: 0, 50, 100, 150, 200, 250, 300, 350)

ATTENDEES COUNT

2014 Attendees	31,026
2015 Attendees	46,258

(Scale: 0, 10,000, 20,000, 30,000, 40,000, 50,000)

2015 EVENT TYPE

- Federal 6%
- Industry 8%
- National Association 28%
- International 1%
- Tribal 5%
- State/Local 52%

Social Media 2015 Update

Breadth… How has interest and engagement for our social media accounts improved?

Twitter: Our **followers** grew over 100% percent from to CY14 to CY15. On average, daily tweets reached 3,000 people (Impressions)

LinkedIn: We started our company page in June 2014. Number of **followers** has increased over 150%

Blog: The **frequency** of **media mentions** of our blog articles increased.

YouTube: We have more than 9,380 **views** of our **videos**.

Flickr: Total cumulative lifetime **views** of all the photo **albums** has improved to 6,856

Direct Engagement… How many followers do we have today on our top social channels?

| 2940	1154	177
twitter	LinkedIn	YouTube

October In-Person SPOC Meeting Highlights

- Over 125 individuals representing 51 states and territories, the PSAC and the Tribal Working Group
- Allowed FirstNet to share up-to-date information, including recent Board decisions and data collection results
- Provided opportunity to share best practices and lessons learned
- Helped FirstNet gather input on 2016 planned activities

Overall, the meeting met my expectations


Agree — 95%
Disagree
Neutral — 5%
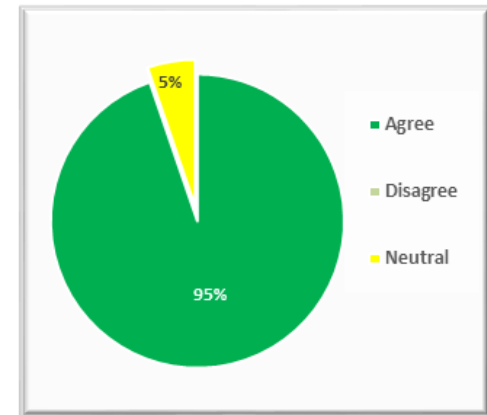
October SPOC Meeting Sessions and Topics

- Acquisition Update
- Public Notices
- 2016 Consultation Overview
- State Plan Process for 2016
- Technical Updates
- Early Builders Update
- Education and Outreach Lessons Learned
- Federal Engagement

- Governor and Elected Officials Engagement
- How to Meet and Document SLIGP Match Requirement
- Metropolitan Engagement
- Operational Architecture Overview
- Quality of Service, Priority, and Preemption
- Tribal Engagement

Data Submission Summary
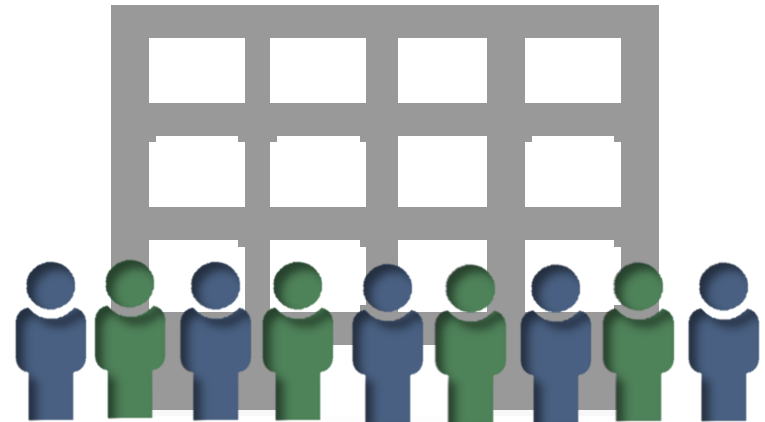
5,400+ files
15.1 GB of data
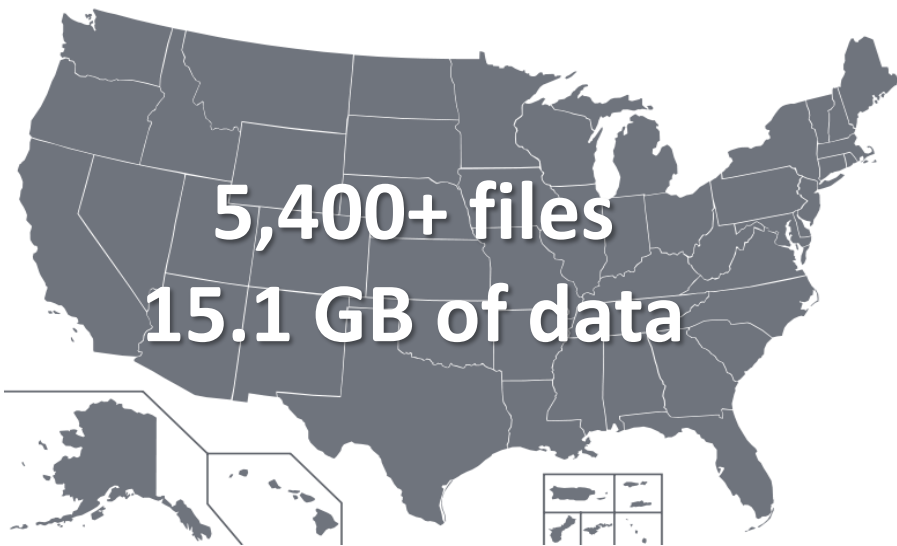
54 States and Territories

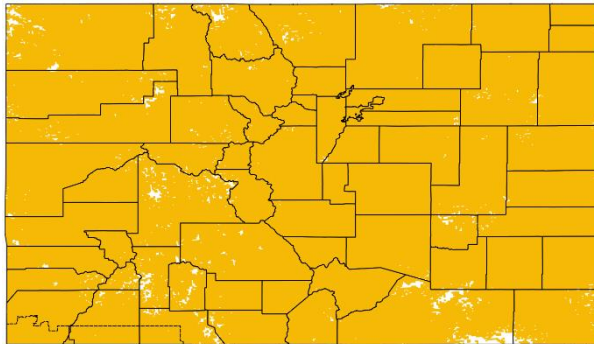**7** Federal Agencies

11,600+ Entities Surveyed

1.6m+ Personnel Represented

Coverage Example Inputs

Colorado Coverage Objective
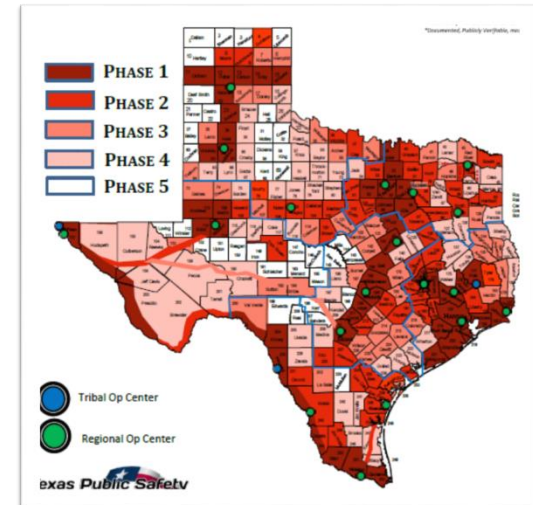
Texas Coverage Phasing
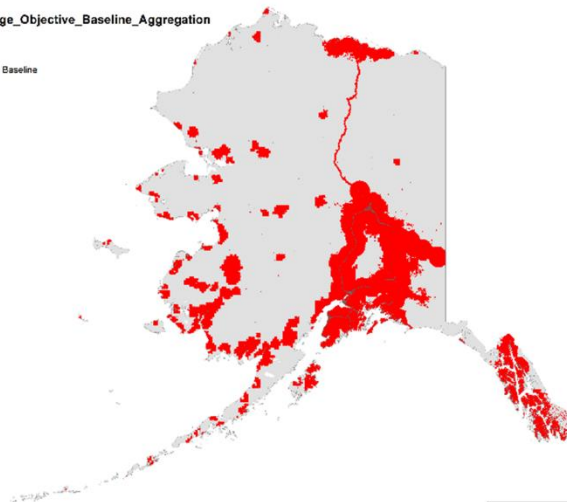
Alaska Coverage Objective
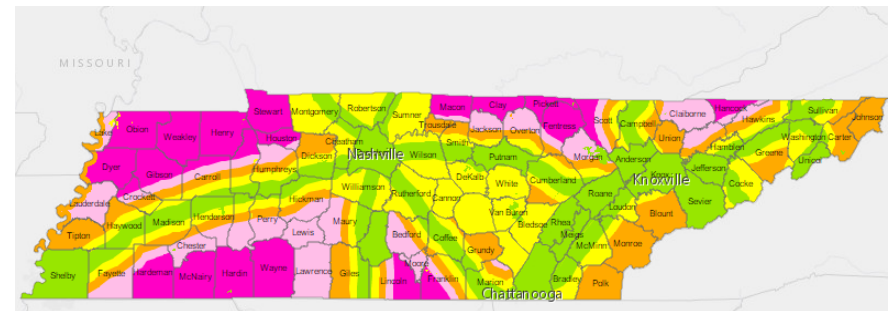
Tennessee Coverage Phasing

Massachusetts Total Personnel Table

Maryland Monthly Cost Chart

South Dakota Device per User Data

North Carolina Application Data

Data Collection – Next Steps…

OBJECTIVE: Ensure we understand the data that has been submitted

SEPTEMBER 30

Regional Lead Review

Data Analyst Review

→

Follow-up Call (Oct/Nov)

FirstNet Data Aggregation → **FirstNet RFP Package** → **Consultation & State Plans**
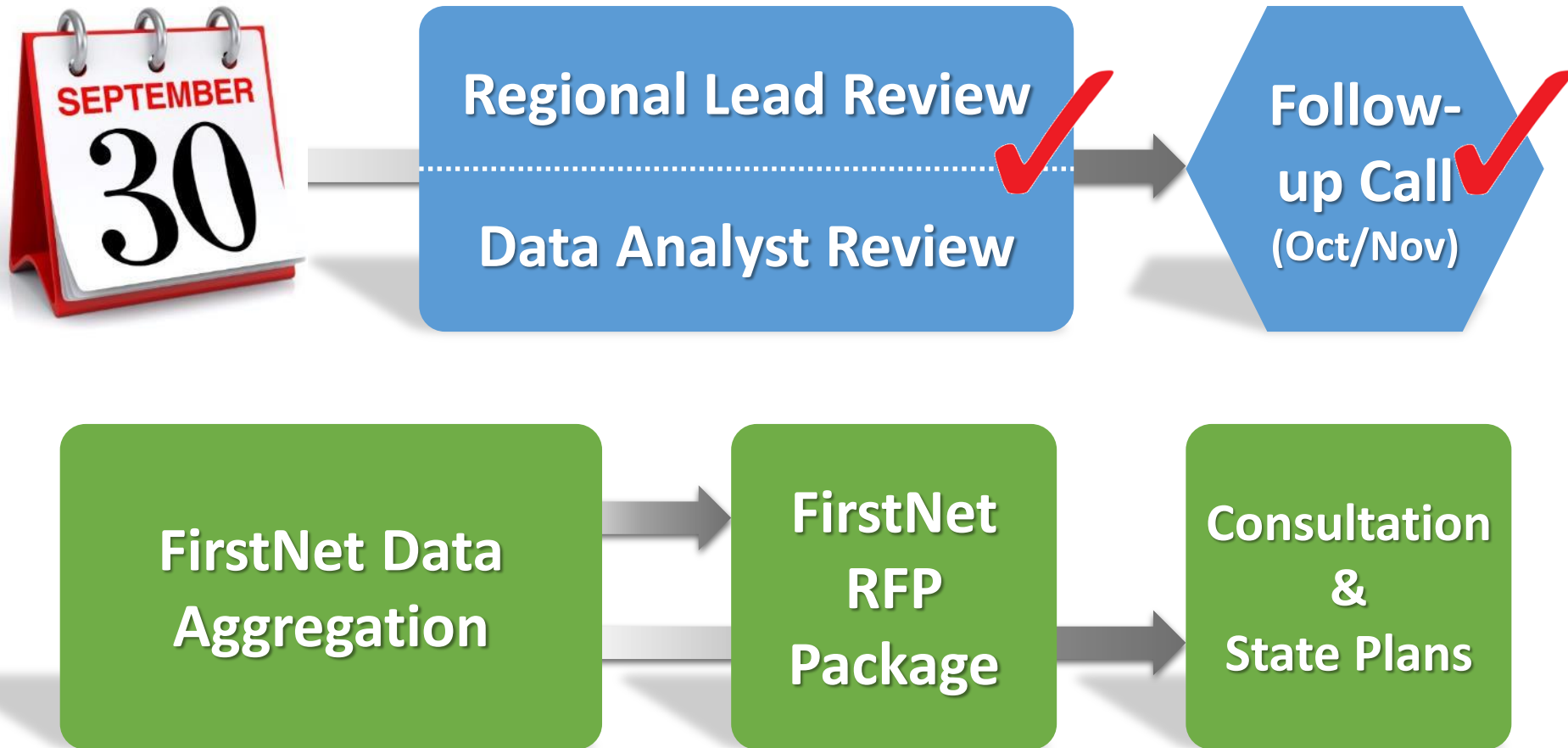
Aggregating Coverage Inputs

State/Local + Federal = FirstNet Baseline

Federal Datasets

1. Border Crossings & Roadways
2. HQ & Field Offices
3. Key Facilities / Locations
4. Federal Buildings

State/Local Datasets

1. LE, Fire, EMS Personnel
2. Public Safety Risk/Areas of
3. US Population
4. Developed Areas/Buildings
5. Roadways

State Input
Federal Input
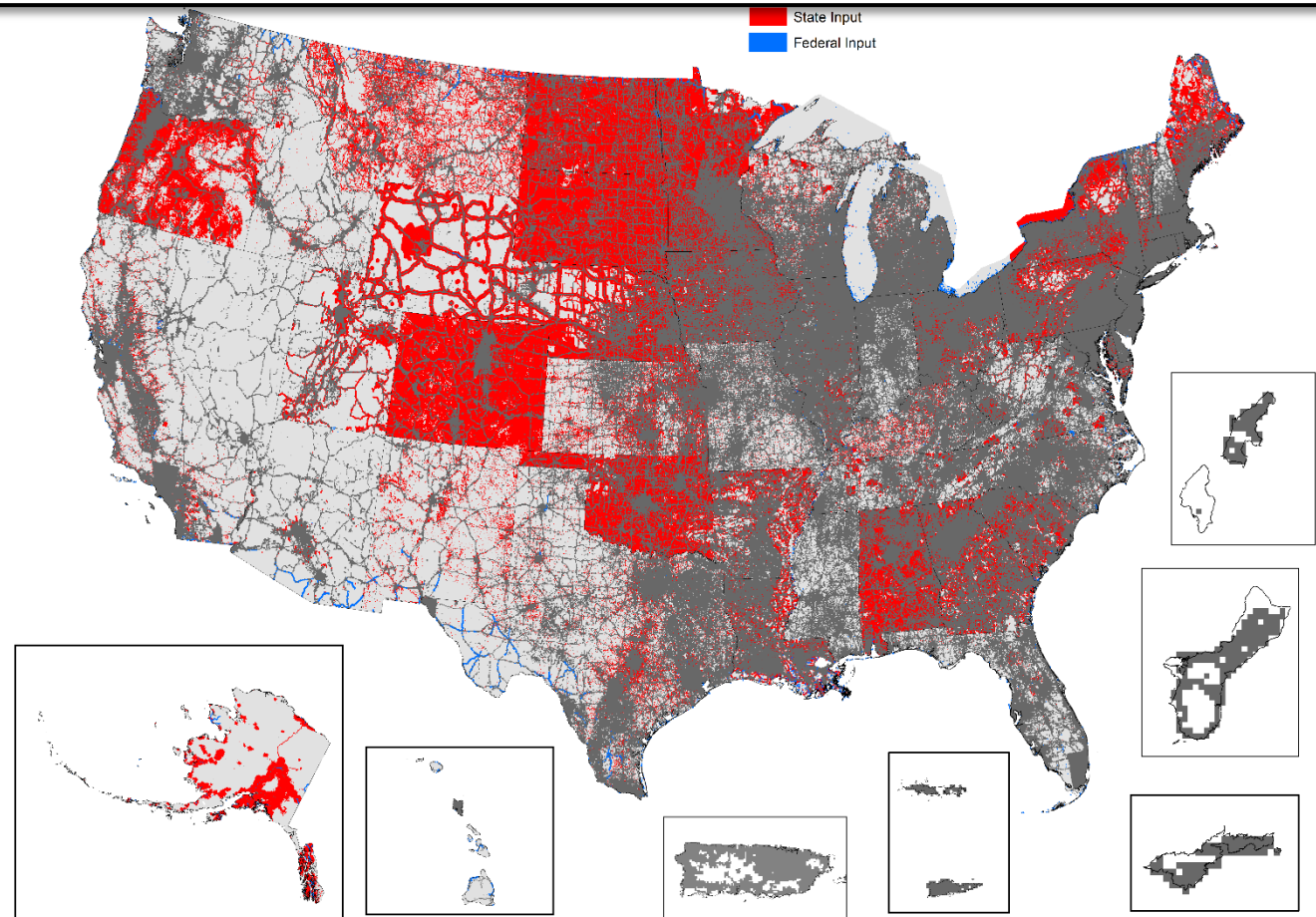
Use of the Data

RFP / Acquisition

Readers' Room
(All States/Territories)

State Data

RFP *(Nationwide data)*
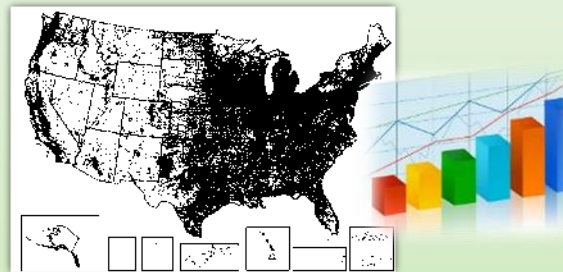
Evaluation Approach

FirstNet®
RFP Evaluation
✓Coverage
✓Users
✓Devices
✓Deployment

Consultation

FirstNet and Texas: Initial Consultation Meeting
February 11, 2015
Omni Hotel - Austin, Texas

National Report

Tribal Future Device Plans
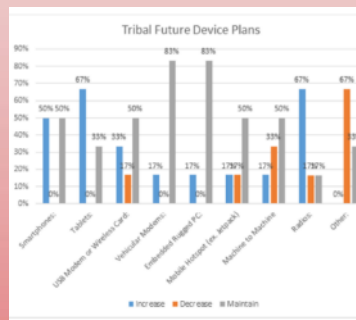
State Plan

2016 Consultation Vision

1 • Expanded outreach and education with state, local, and tribal public safety entities

2 • Obtaining state and territory input to inform state plans and network deployment policies, processes, and procedures

3 • Preparing key decision makers for state plan delivery and network deployment

2016 Consultation Elements

SPOC Kick-Off Meeting

Regional Lead ⟷ SPOC

Governance Body Meeting

Regional Lead ↕ Governance Body
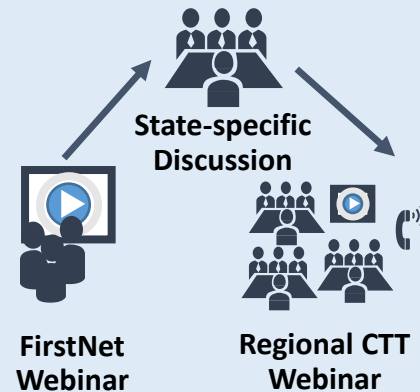
Consultation Task Teams

State-specific Discussion

FirstNet Webinar — Regional CTT Webinar

Executive Consultation Meeting

FirstNet ⟷ Key Decision Makers
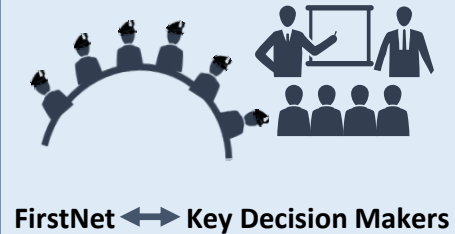
EXPANDED NATIONAL OUTREACH

EXPANDED FEDERAL CONSULTATION

2016 – Expanded Outreach and Engagement

State Engagement Strategy will identify expanded customer base for aligned state/territory and FirstNet outreach, such as:

Emergency Medical Services	Metropolitan Leaders	Chief Information Officers	Attorney Generals	Tribes	Emergency Management Directors
Governor's Staff	FirstNet Champions	Key Executives	Key Decision-Makers	Rural Communities	Future User Communities
State-Level Professional Associations	Local Public Safety	Chiefs of Staff	Cabinet Secretaries	County Supervisors	City Councils
Police Chiefs	Mayors	Fire Chiefs	Homeland Security Directors	Public Safety Directors	PSAPs

2016 Consultation Milestones

	2015	2016	2017

SPOC Kick-Off Meeting
- FirstNet and SPOC Meetings
- Continued Outreach

Governance Body Meeting
- Statewide Governance Body Meetings

CTT Webinars
- PSAC Initial Input on PP and PSG Complete
- Kick Off Webinar
- State CTT Meetings
- Regional CTT Engagements

Executive Consultation Meeting
- Governor's Office Meetings
- Executive Consultation Meetings

www.firstnet.gov

Technology Update

Jeff Bratcher
Chief Technology Officer

December 8, 2015

Agenda

- CTO Hiring Updates

- RFP Development – CTO Focus

- Recent Highlights

- Early Builder Update

- PSCR Efforts

FirstNet Boulder at a Glance

- Current Headcount: 33
  - CTO: 20
  - User Advocacy: 1
  - IT: 2
  - PMO: 2
  - Contractors: 8
- Facility: 28,614 sqft
  - Office: 14.6K sqft
  - Warehouse: 10K sqft
  - Test & Validation Lab: 4k sqft

CTO Hiring Update

New CTO Team members since the October Technical Committee brief:

- Ebony Murray   Administrative Assistant
- Murry Westall   Senior RAN Design Engineer
- Brigitte Horner   Lead Systems Engineer
- FNU Rajan   Sr. Applications Sec. Architect
- Qumars Eghaneyan   Senior RAN Design Engineer
- Peter Rachad   Network Services Analyst
- Erickson Trejo-Reyes   Lead End to End Architect
- Swaran Singh   RAN Design Engineer
- Jeff Posner   Sr. Applications Architect

RFP Statement of Objectives

Building, Deployment, Operation & Maintenance of the NPSBN

Financial Sustainability

First Responder User Adoption

Device Ecosystem

Applications Ecosystem

Accelerated Speed to Market

User Service Availability

Service Capacity

Cyber Security

Priority Services

Integration Of Opt-out State RANs

Integration of Existing Commercial/ Federal/ State/Tribal/Local Infrastructure To Support NPSBN Services

Life-cycle Innovation

Program and Business Management

Customer Care and Marketing

Facilitation of FirstNet's Compliance With The Act & Other Laws

RFP Major Sections – CTO Work

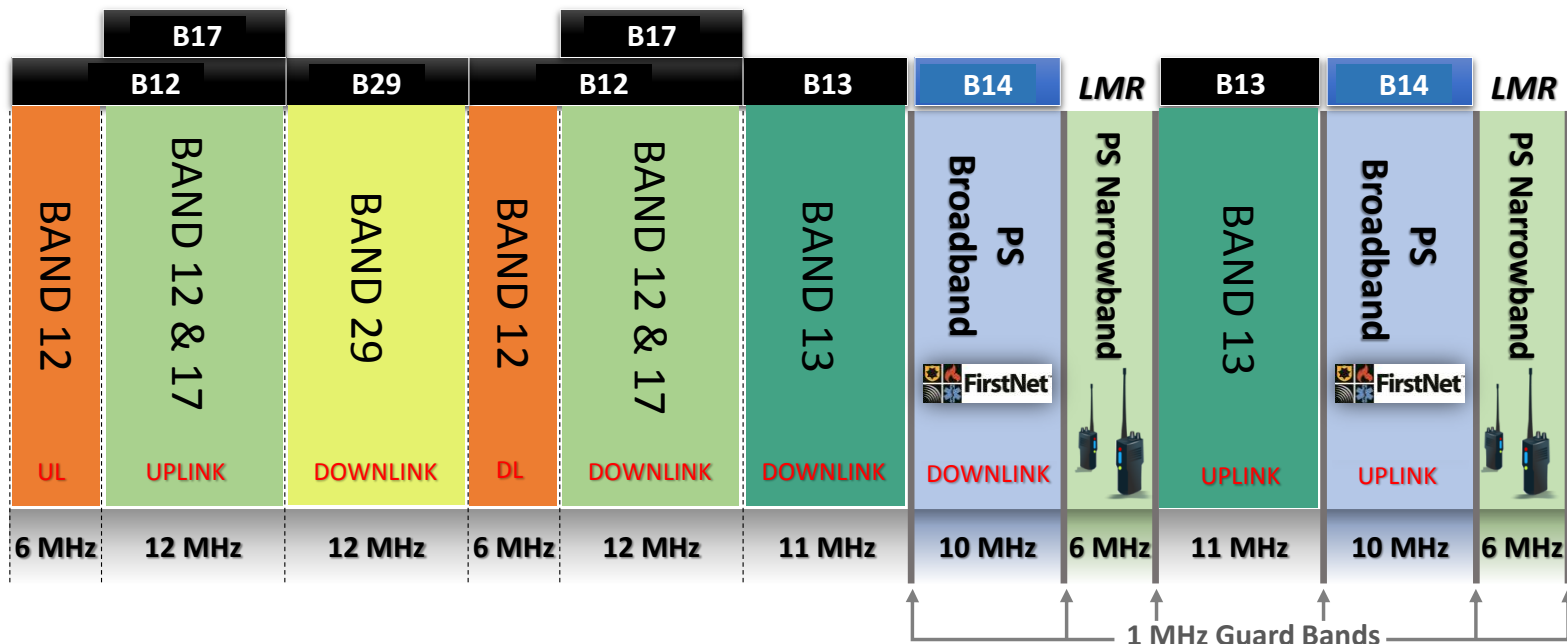|			
A Information to Offerors	**B** Pricing	**C** Statement of Objectives	**D** Packaging & Marking
E Inspection & Acceptance	**F** Deliverables	**G** Contract Administrative Data	**H** Special Contract Requirements
I Contract Clauses	**J** Attachments (1-26)	**K** Representations, Certifications	**L** Instructions to Offerors
	M Evaluation Factors for Award		

LEGEND — Reviewer — Provided Input — Heavily involved

FirstNet Spectrum – Band 14

20 MHz of Spectrum @ 700MHz

- 3GPP standardized as LTE "Band 14"   10 MHz Downlink + 10 MHz Uplink
- Spectrum licensed to FirstNet from the **FCC** under call sign "WQQE234"
- Governed by **PART 90** rules "Private Land Mobile Radio Services" not Part 27 which governs commercial cellular in other bands
  - Allows higher power portable/mobile devices – benefit to rural
  - 3GPP Standards already in place for 1.25W devices

B12 / B17	B29	B12 / B17	B13	B14	LMR	B13	B14	LMR
BAND 12 (UL) / BAND 12 & 17 (UPLINK)	BAND 29 (DOWNLINK)	BAND 12 (DL) / BAND 12 & 17 (DOWNLINK)	BAND 13 (DOWNLINK)	PS Broadband — FirstNet (DOWNLINK)	PS Narrowband	BAND 13 (UPLINK)	PS Broadband — FirstNet (UPLINK)	PS Narrowband
6 MHz / 12 MHz	12 MHz	6 MHz / 12 MHz	11 MHz	10 MHz	6 MHz	11 MHz	10 MHz	6 MHz

1 MHz Guard Bands

Early Builder Projects

Project	SMLA	KLCP	Sites	Primary Focus Areas / Key Learning Conditions	On-Air
1. **LA-RICS**	Yes	Yes	77	Secondary responders partnerships, Quality of Service, priority/pre-emption	Now*
2. **NM**	Yes	Yes	7	Hosted core, int'l border spectrum management, Federal partnerships	Now*
3. **NJ**	Yes	Yes	29	Deployable assets, Disaster Recovery, training exercises, Network Operations Center notification	Now*
4. **ADCOM**	Yes	Yes	20	Public Safety Communications Research program/FirstNet test support, Band Class 14 device testing, demonstration access	Now
5. **TX**	Yes	Yes	93	Core migration, data analytics, rural coverage, special events, LTE training	Now

* On-air testing commenced

Recent Updates

- **New Mexico**
  - Optimization and project closeout continues. The team is focusing on engaging federal users and sustainability
- **New Jersey**
  - Successful B14 LTE demonstrations and operations continue. Team is focused on optimization and operational readiness
- **LA-RICS**
  - Construction complete on all but one site. Focus is on delivery of power and backhaul. Optimization has commenced along with Rose Bowl event support and planning. Recent Opt-out news related to JPA not FirstNet
- **ADCOM-911**
  - 3 DIA sites still awaiting power. Usage continues to increase providing valuable data insights
- **Texas (Harris County)**
  - $5.8 million approved local funding. Brazos County Sheriffs Office providing many users and valuable insight. Good information came out of Texas A&M Winter Institute on deployables and applications

Current PSCR Tasking

- Vehicular Network System
  - Primary Lab/Field Research Topics
    - Bandwidth requirements of deployable eNodeB/EPC
    - LTE network tolerance of mobile satellite links
- Inter-Network Mobility
  - Focusing on Mobility Between Independent Networks
  - Visiting JerseyNet in December
- Near/Far Radio Measurements
  - Preliminary Testing
  - Developing Test Methodology
    - Classic radio measurements
    - 3GPP-defined measurements
- Local/Dynamic QPP
  - Dynamic Controller Capabilities Assessment
- Mobile Application Security
  - Provided feedback on FirstNet's high level objectives related to mobile application security
  - Facilitating briefing by the Federal CIO Council's Mobile App Security Vetting Working Group (MASVWG) on their efforts
  - Discussion of the mobile application development and vetting process for FirstNet
- Formal Standards Development
  - 3GPP Focus
- RAN Modeling and Simulations

Network Congestion Topics

www.firstnet.gov

FirstNet Board Meeting Finance Update

Kim Farington
Acting Chief Financial Officer

December 8, 2015

Table of Contents

- FYE 2015 Obligations and Expenses Budget Review

- FY 2016 Obligations and Expenses Budget Review

- FY 2016 Milestones Review

- Internal Control Program Update

- Strategic Plan Update

FYE 2015 Budget Obligations

- **Obligations were about 96% of our total obligations planned for the fiscal year**

- **All variances were within Board approved allowances**
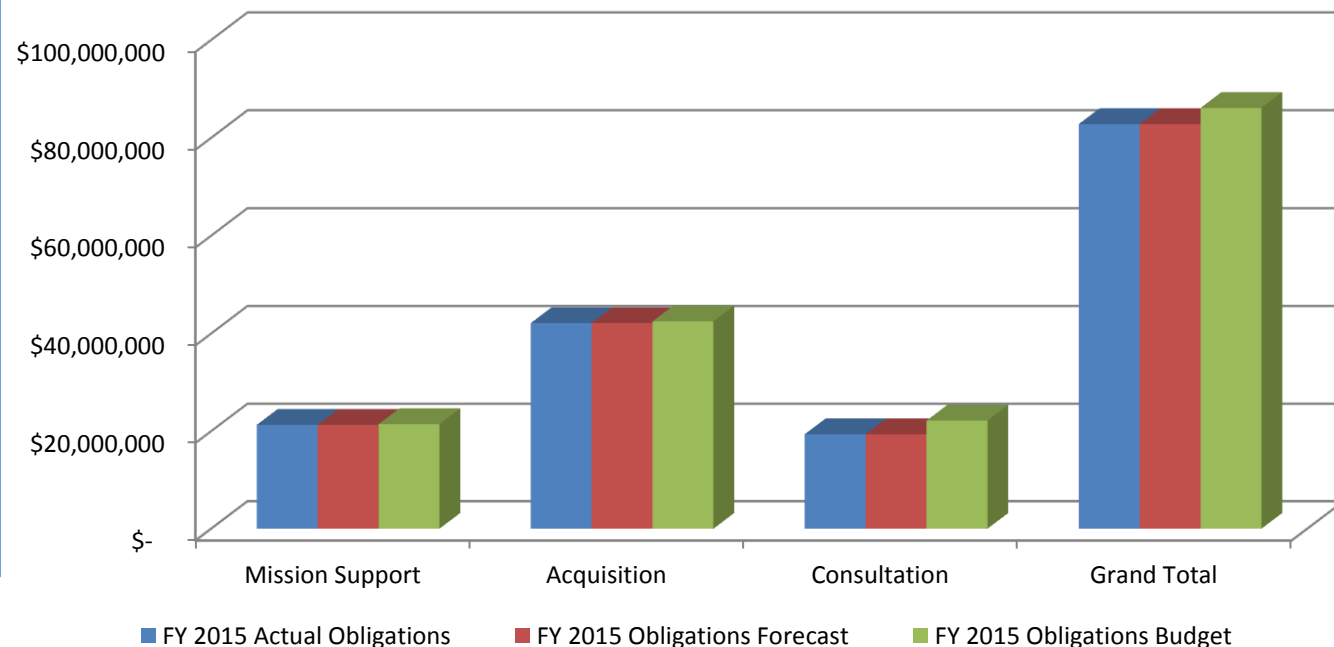
Legend: ■ FY 2015 Actual Obligations ■ FY 2015 Obligations Forecast ■ FY 2015 Obligations Budget

| September 30, 2015	Acquisition Total	Consultation Total	Mission Support Total	Grand Total
Obligations				
FY 2015 Actual Obligations	$ 42,134,938	$ 19,382,633	$ 21,303,656	$ 82,821,227
FY 2015 Obligations Forecast	$ 42,300,117	$ 17,446,756	$ 23,345,546	$ 83,092,420
FY 2015 Obligations Budget	$ 42,504,633	$ 22,173,376	$ 21,444,735	$ 86,122,744

FYE 2015 Budget Expenses
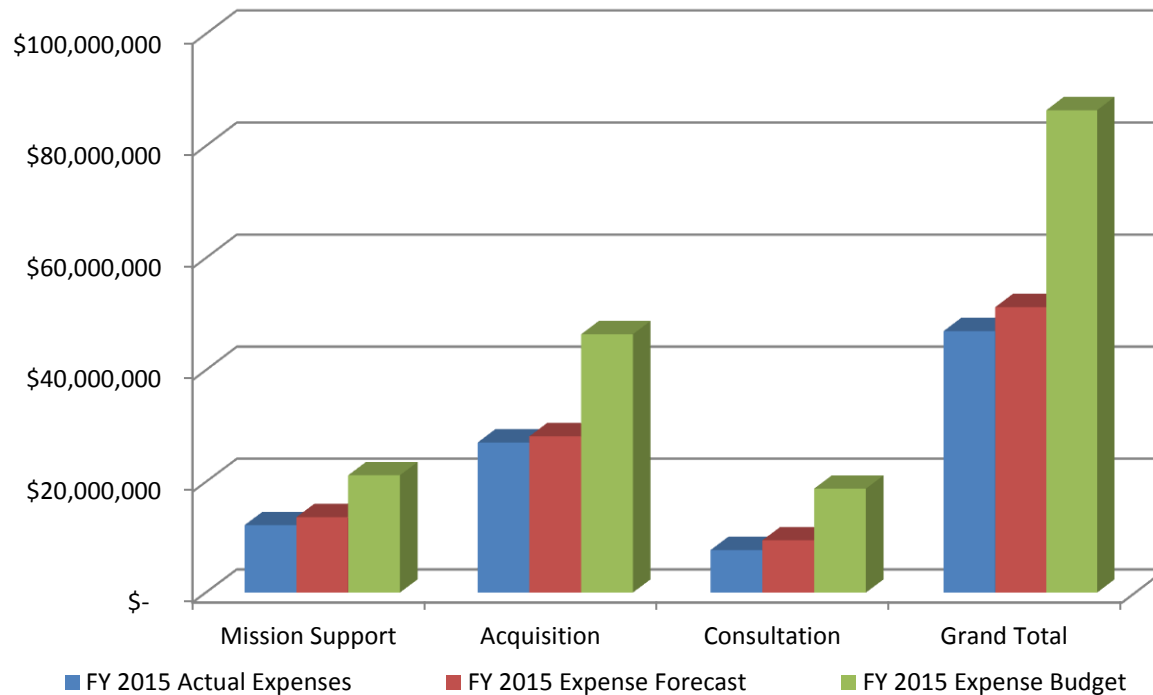
- **92% of our expense forecast was utilized during FY15**

- **Expenses lagged by 55% at the end of the fiscal year compared to budget**

- **The remaining 45% will carry over and be utilized during FY16**

| September 30, 2015	Acquisition Total	Consultation Total	Mission Support Total	Grand Total
Expenses				
FY 2015 Actual Expenses	$ 27,102,106	$ 8,011,778	$ 12,029,404	$ 47,143,288
FY 2015 Expense Forecast	$ 28,177,446	$ 9,437,963	$ 13,629,516	$ 51,244,924
FY 2015 Expense Budget	$ 46,400,361	$ 18,784,026	$ 21,204,889	$ 86,389,276

FY 2016 Budget Obligations
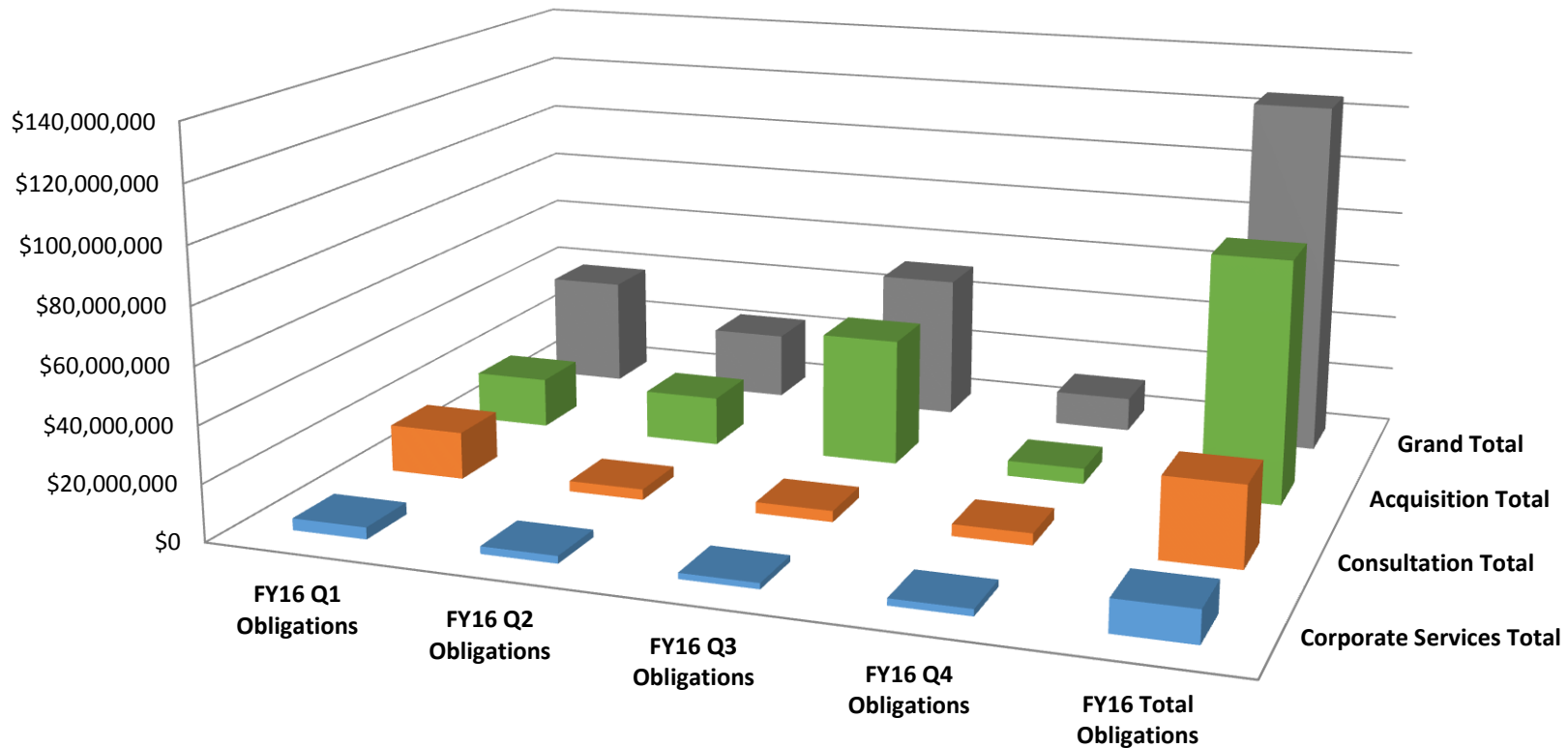
	FY16 Q1 Obligations	FY16 Q2 Obligations	FY16 Q3 Obligations	FY16 Q4 Obligations	FY16 Total Obligations
Corporate Services Total	$4,181,955	$2,643,332	$2,101,157	$2,412,001	$11,338,445
Consultation Total	$16,820,792	$3,743,396	$3,915,509	$4,178,635	$28,658,332
Acquisition Total	$17,812,382	$17,403,373	$45,238,462	$5,524,236	$85,978,453
Grand Total	$38,815,129	$23,790,101	$51,255,128	$12,114,872	$125,975,230

FY 2016 Budget Expenses
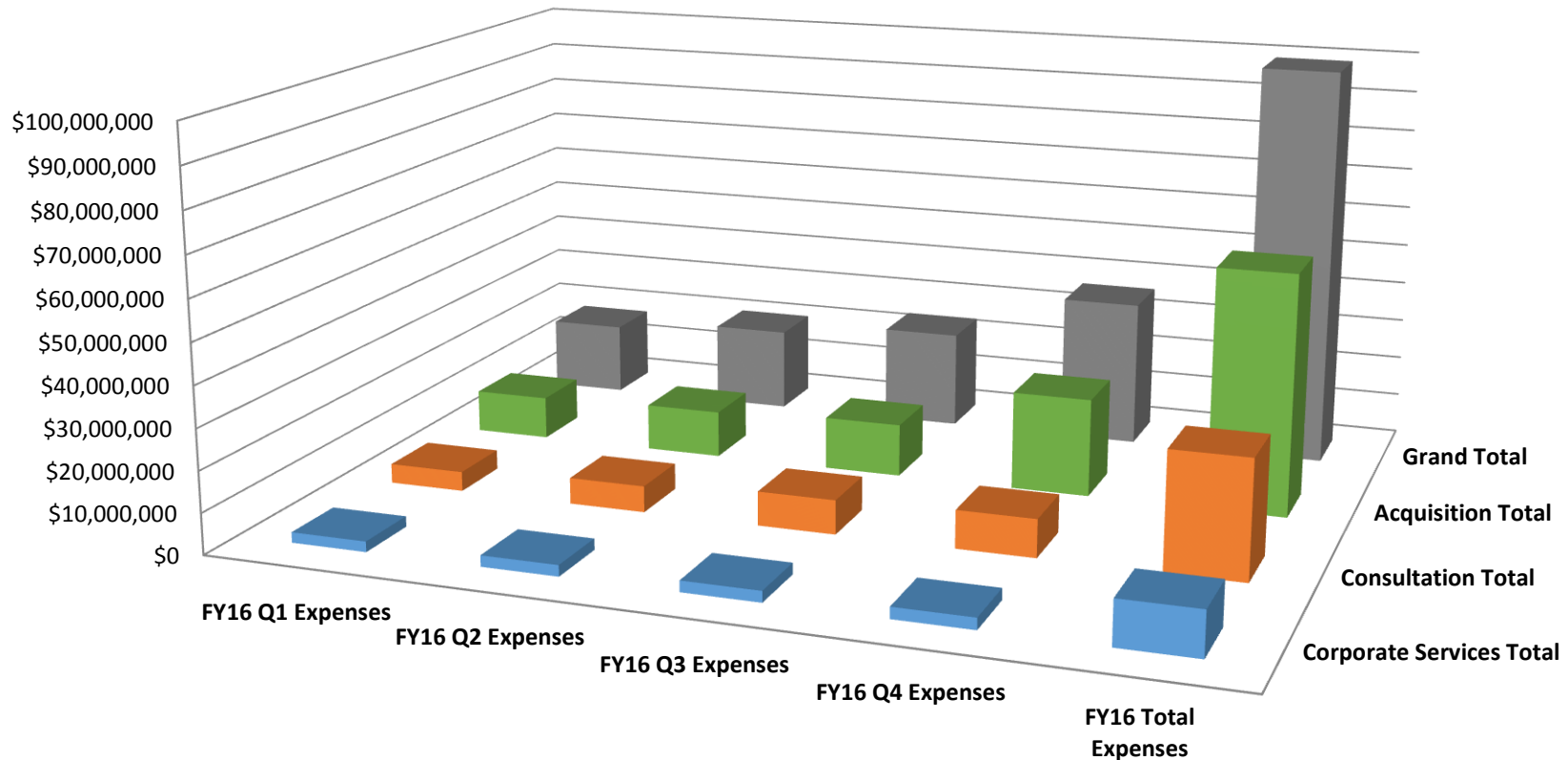
	FY16 Q1 Expenses	FY16 Q2 Expenses	FY16 Q3 Expenses	FY16 Q4 Expenses	FY16 Total Expenses
Corporate Services Total	$2,549,924	$2,725,350	$2,722,869	$2,807,857	$10,806,000
Consultation Total	$4,781,504	$6,441,225	$8,385,267	$9,331,651	$28,939,647
Acquisition Total	$10,556,427	$11,524,839	$13,028,186	$24,235,824	$59,345,276
Grand Total	$17,887,855	$20,691,414	$24,136,322	$36,375,332	$99,090,923

FY 2016 FirstNet Milestones
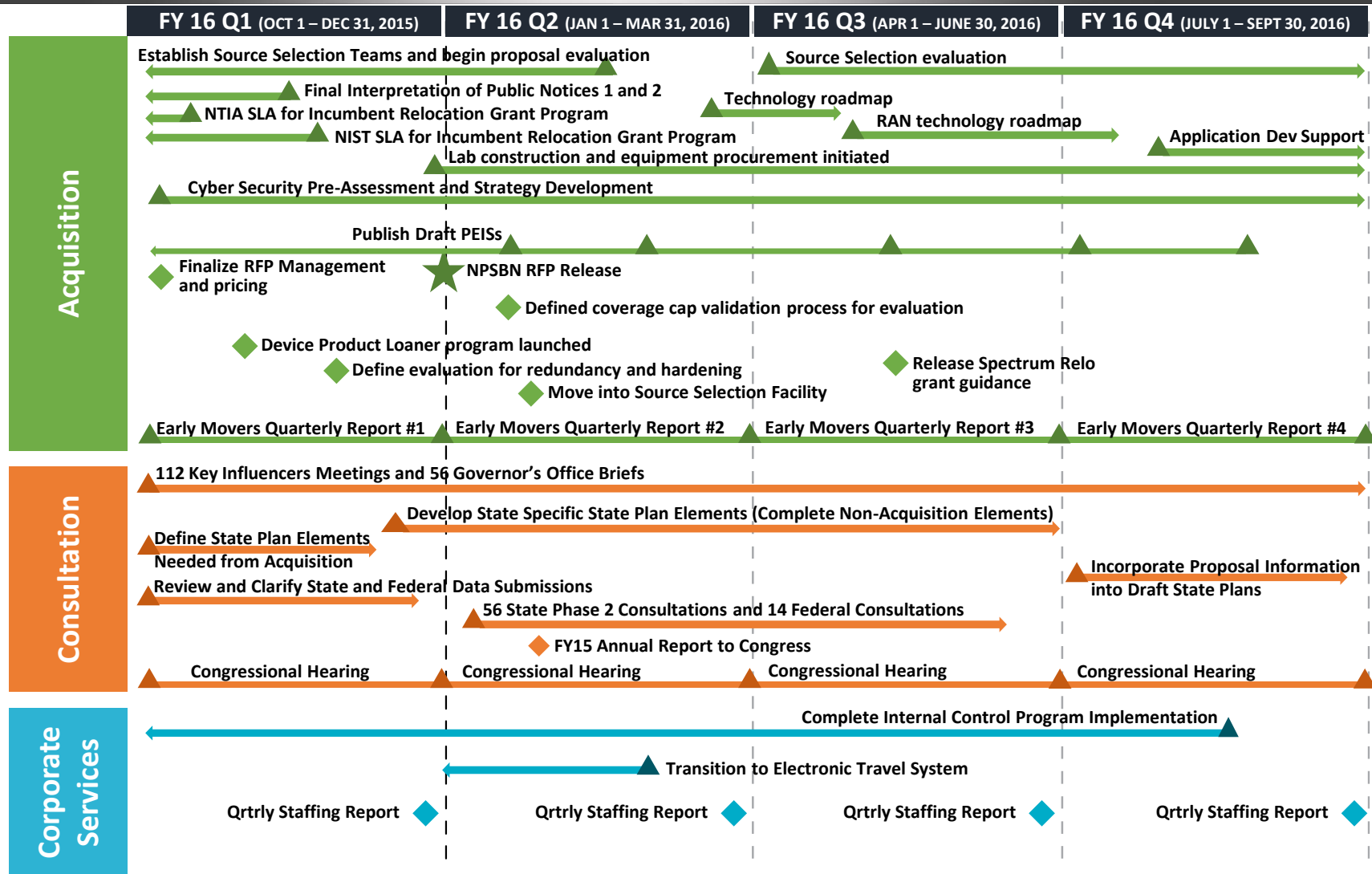
Internal Control Program

- Completed documenting the Internal Control Framework and Plan

- Established a new Policy and Internal Control (PIC) organization within the Office of the CFO

- Completed an entity-level risk assessment with positive results

- Began compiling the FirstNet Financial Manual

Five Year Strategic Plan Goals and Objectives

FirstNet®

FY 2016 – 2020 Strategic Goals			
Partnerships	**Stakeholder Engagement**	**Innovation**	**People and Organization**
Effectively manage resources and partners to acquire, build, deploy, and operate a reliable, self-sustaining, and interoperable nation-wide public safety LTE broadband network	Leverage consultation and communication opportunities to build and maintain strong partnerships with local, state, tribal, and federal public safety agencies and industry	Serve the 24/365 needs of public safety and be the leader in emerging communication technologies by establishing and sustaining an entrepreneurial culture of innovation and excellence	Meet the needs of public safety by recruiting, hiring, and retaining the best talent and maintaining a high-performance organization dedicated to the achievement of the FirstNet mission
FY 2016 – 2020 Objectives			
▪ Successfully complete the public/private partnership agreement in a timely manner ▪ Evolve NPSBN policies, requirements, technical designs, standards and operations ▪ Advocate for public safety to ensure the network is built according to public safety needs	▪ Maximize value to public safety subscribers through the establishment, refinement, and achievement of robust engagement goals ▪ Meet all legislative mandates as required by The Act ▪ Provide timely, open, transparent, and consistent communication ▪ Conduct ongoing consultation to ensure customer needs are being met ▪ Identify, inform, and influence key decision makers to achieve FirstNet's programmatic and financial goals ▪ Build, maintain, and expand ongoing industry partnerships	▪ Establish and deploy rewards that promote and recognize innovation and excellence ▪ Establish and sustain an environment that promotes learning and collaboration ▪ Identify and leverage emerging technologies to deliver ever-improving public safety features and capabilities ▪ Utilize tools to ensure that innovation is commensurate with public safety needs	▪ Utilize all hiring flexibilities and authorities strategically to acquire and retain the best talent ▪ Evolve a strategic organizational plan to meet FirstNet's mission ▪ Institute programs and practices to promote optimal employee performance, engagement, and satisfaction ▪ Be responsible stewards of Government resources