Combined Committee and Board Meeting
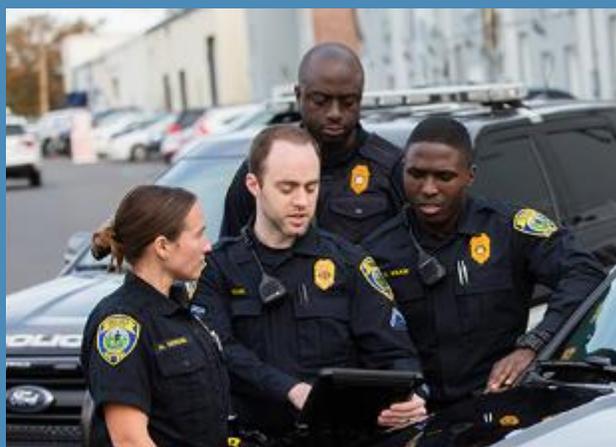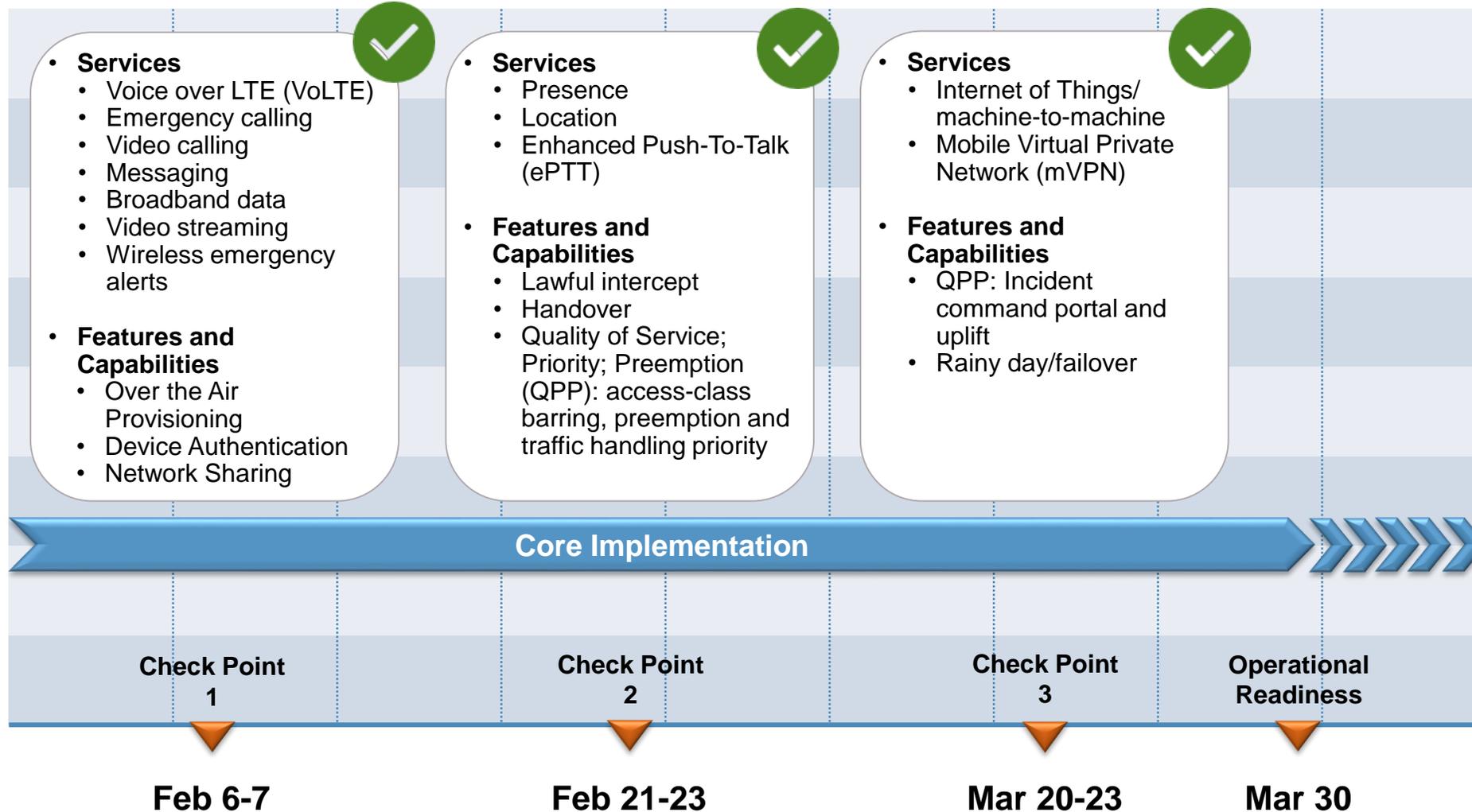
June 20, 2018
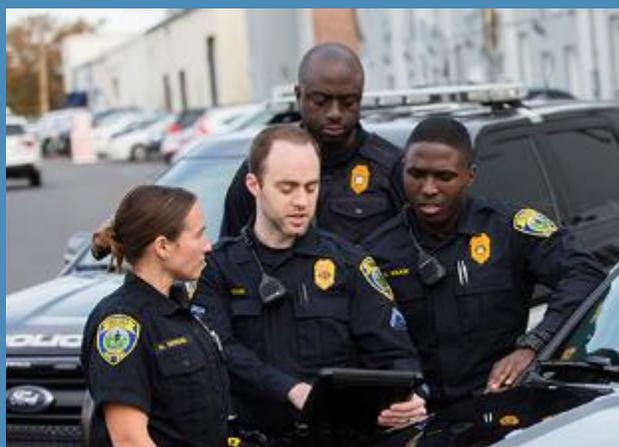
Technology Committee Update

Neil Cox | Technology Committee Chair

Mark Golaszewski | Director, Technology and Innovation
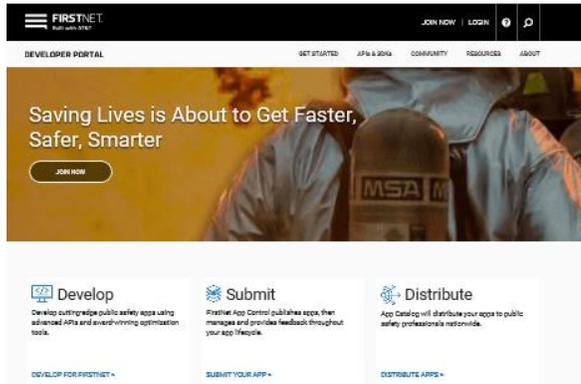
FirstNet-Dedicated Core Network

- **Services**
  - Voice over LTE (VoLTE)
  - Emergency calling
  - Video calling
  - Messaging
  - Broadband data
  - Video streaming
  - Wireless emergency alerts

- **Features and Capabilities**
  - Over the Air Provisioning
  - Device Authentication
  - Network Sharing

- **Services**
  - Presence
  - Location
  - Enhanced Push-To-Talk (ePTT)

- **Features and Capabilities**
  - Lawful intercept
  - Handover
  - Quality of Service; Priority; Preemption (QPP): access-class barring, preemption and traffic handling priority

- **Services**
  - Internet of Things/ machine-to-machine
  - Mobile Virtual Private Network (mVPN)

- **Features and Capabilities**
  - QPP: Incident command portal and uplift
  - Rainy day/failover

Core Implementation

- Dedicated Core operational
- Phased turn-up of existing agencies
- Completed Preliminary Design Review (PDR) of next release

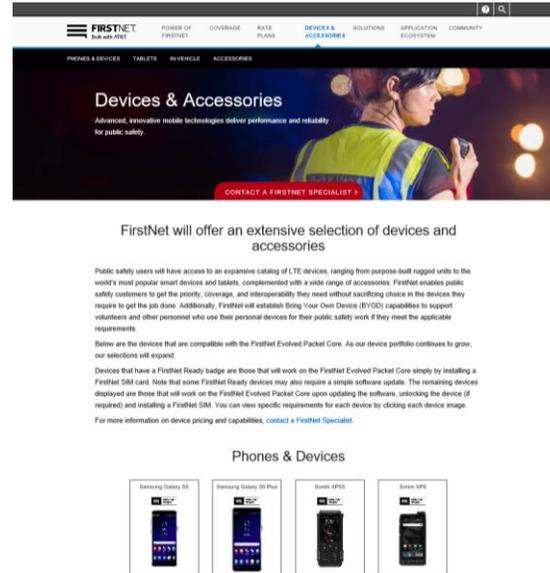| Check Point 1	Check Point 2	Check Point 3	Operational Readiness
Feb 6-7	Feb 21-23	Mar 20-23	Mar 30

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Recent Results

Applications Ecosystem

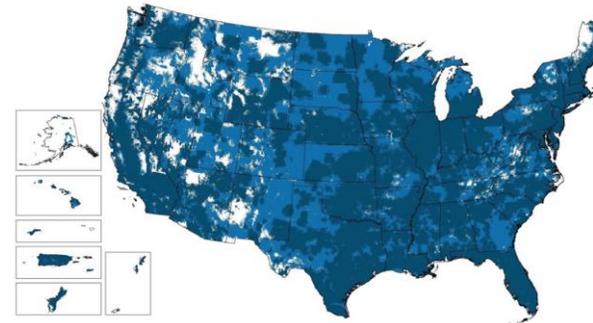**New functionality and enhancements**

Devices Ecosystem

Growth in Band 14 devices

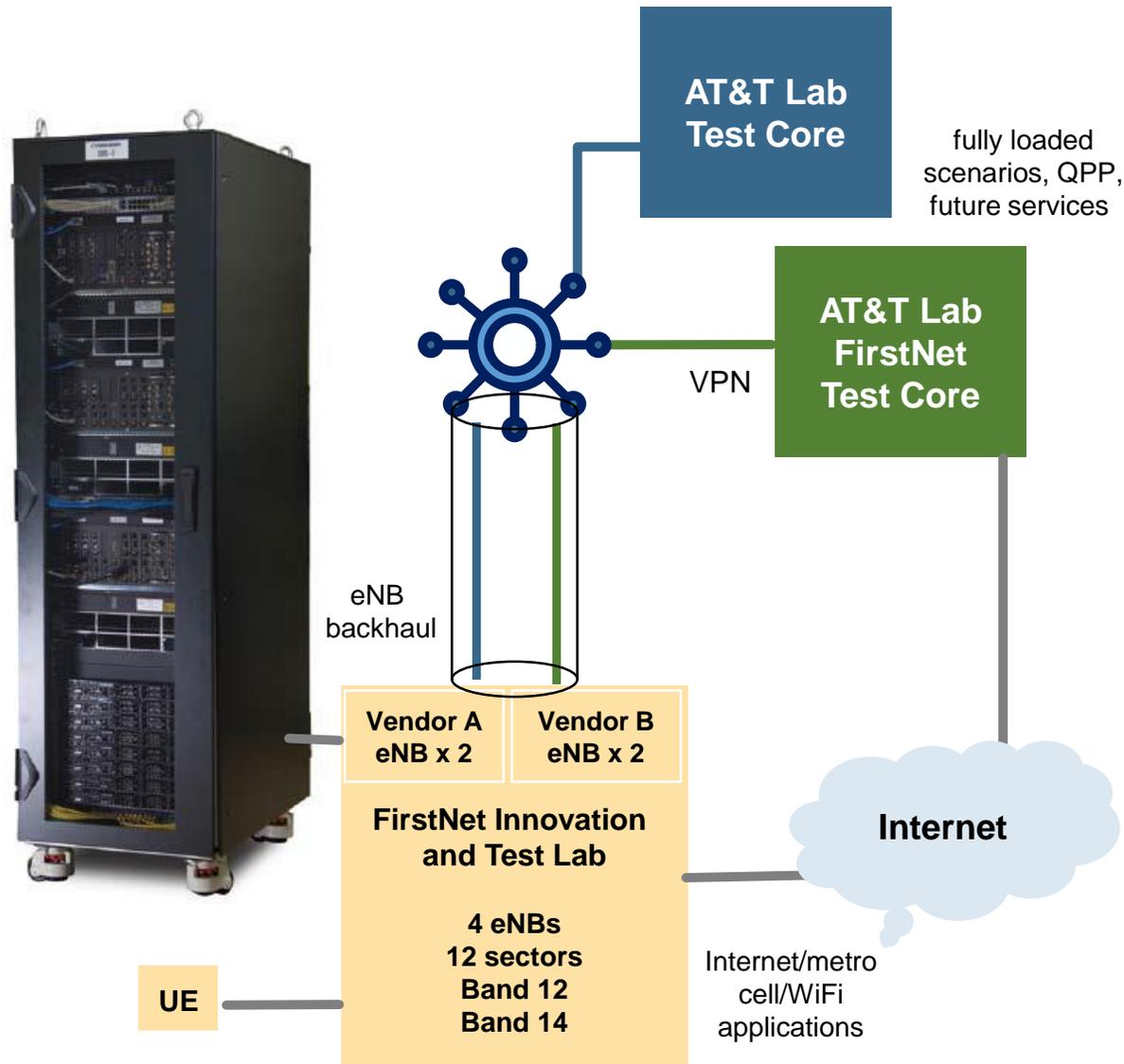
Radio Access Network

Network sharing, QPP, and uplift

Standards

Mission-critical services, 5G architectures

FirstNet Innovation and Test Laboratory

AT&T Lab Test Core

fully loaded scenarios, QPP, future services

AT&T Lab FirstNet Test Core

VPN

eNB backhaul

Vendor A eNB x 2

Vendor B eNB x 2

FirstNet Innovation and Test Lab

4 eNBs
12 sectors
Band 12
Band 14

Internet

Internet/metro cell/WiFi applications

UE

In progress:
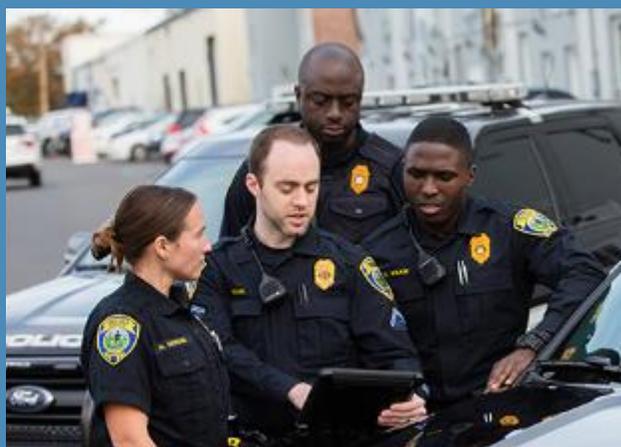Max cell loading and preemption of secondary users

Planned:
Verify public safety end-user experience

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Public Safety Advocacy Committee Update

Jeff Johnson | Public Safety Advocacy Committee

Amanda Hilliard | Public Safety Advocacy Division

Stakeholder Engagement Highlights

Since March 15, 2018

More than **300** engagements

More than **10,000** stakeholders reached

Credit: Brookline PD

Credit: Jason Karp

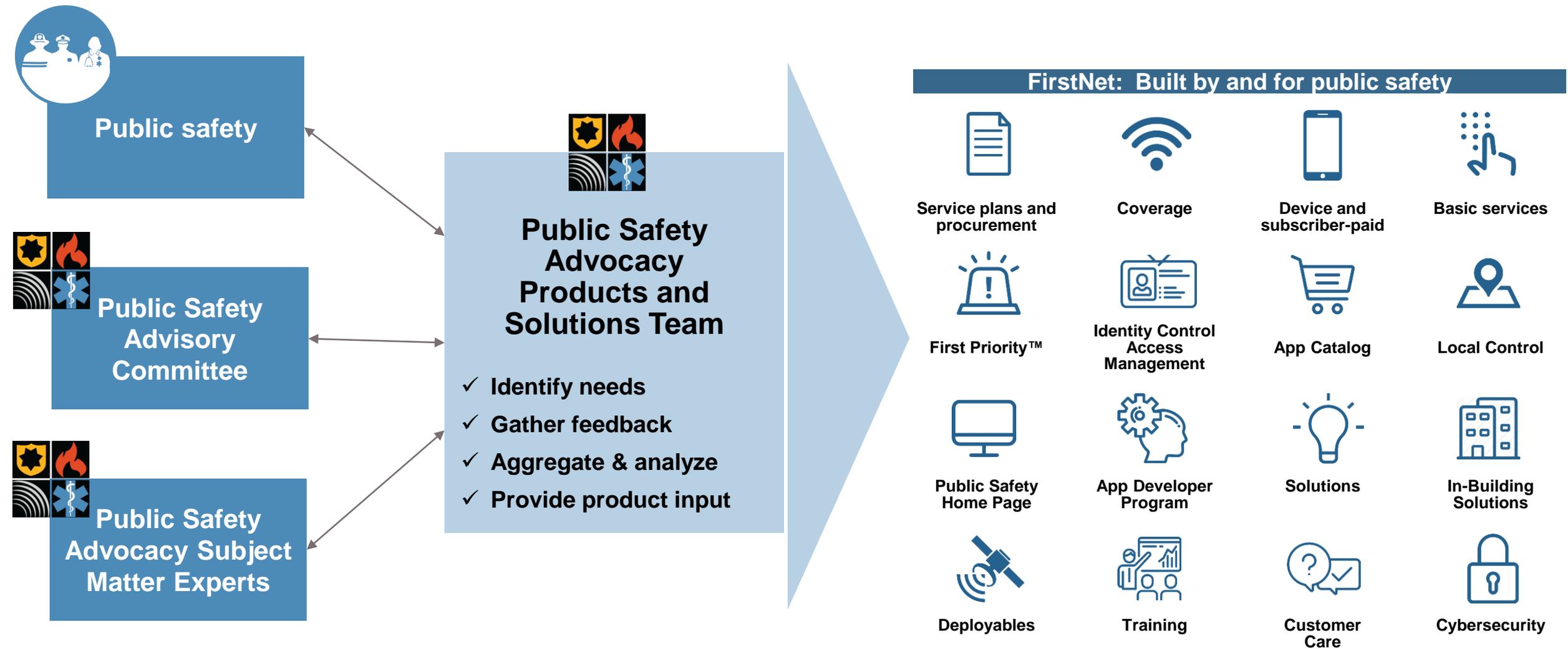| Type	Example
Major conferences	• CJIS ISO Symposium • Mountain Connect
National/state association meetings	• APCO Public Safety Broadband Summit • IACP Technology Conference • Michigan APCO/NENA Conference
Planned events/ demos	• Boston Marathon • Volvo Ocean Race • Bonnaroo Music and Arts Festival
General outreach	• Connecticut SIEC • DoD Public Safety Communications Working Group • Navajo Nation
Agency-focused engagements	• Phoenix Fire Department • Mesa Fire Department • Hartford Fire Department

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Bringing Value to Public Safety Through Engagements

First Responder Network Authority and AT&T: Working Together to Produce Results

Public safety

Public Safety Advisory Committee

Public Safety Advocacy Subject Matter Experts

Public Safety Advocacy Products and Solutions Team

- ✓ Identify needs
- ✓ Gather feedback
- ✓ Aggregate & analyze
- ✓ Provide product input

FirstNet: Built by and for public safety

- Service plans and procurement
- Coverage
- Device and subscriber-paid
- Basic services
- First Priority™
- Identity Control Access Management
- App Catalog
- Local Control
- Public Safety Home Page
- App Developer Program
- Solutions
- In-Building Solutions
- Deployables
- Training
- Customer Care
- Cybersecurity

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Stakeholder Engagements: Highlight of What's Next

June

- Southeastern Association of Fire Chiefs Leadership Conference
- Alabama Disaster Preparedness Conference
- Missouri SIEC Meeting
- South Dakota Communication Board
- Colorado Wireless Association
- IAEM-USA Region 3 Symposium

July

- ESRI National Security and Public Safety Summit
- PINNACLE EMS Conference
- West Virginia FirstNet Outreach Meeting
- Colorado 911 Task Force
- CLINCON 2018
- Arizona Law Enforcement Summit
- San Diego Fire Chiefs Technical Committee
- Tennessee Association of Chiefs of Police Annual Conference

August
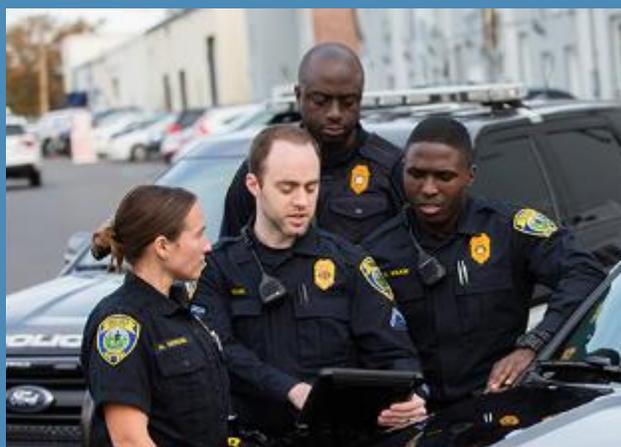
- APCO International
- IAFC Fire-Rescue International
- NASTD Conference and Technology Showcase
- Kansas EMS Association Conference
- Wyoming Trauma and EMS Conference
- Kentucky Cable and Telecommunications Conference

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New PSAC Members

Blake DeRouchey

(NASNA)

Maj. Gen. Arthur Logan

(GHSAC)

Daniel Henry

(NENA)

Chief Mike Duyck

(Metro Chiefs)
EC Member

June 4 In-Person Meeting – San Diego, CA

- Products and services roadmap, brand and messaging

- Challenges, use cases and value proposition

- Outreach and engagement opportunities; strategy

- Future PSAC webinar topics

- PSCR prize challenge updates

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PSAC Webinar Series Schedule

June	July	August
Network Status Tool	Quality of Service, Priority and Preemption (QPP)	Uplift Request Tool
September	**October/ November**	**December**
Internet of Things (IoT)/Internet of Lifesaving Things	TBD/Year in Review	In-Person Meeting
January		
ICAM Trustmarks/ Framework		

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Finance Committee Update

Ed Horowitz | Finance Committee Chairman

Kim Farington | Chief Financial Officer
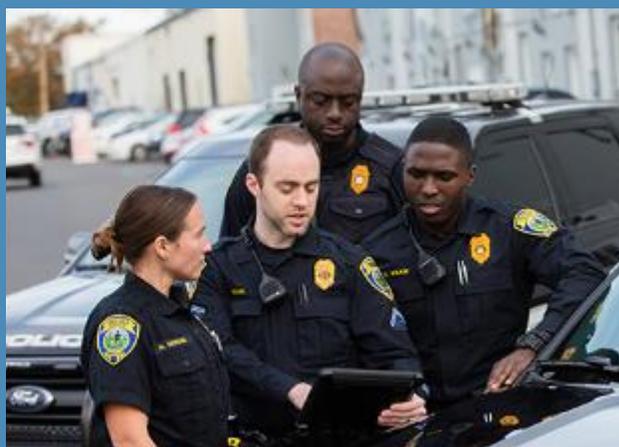
FY 2018 Cumulative Financial Results

$ Thousands

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Actual Obligations	6.6	10.4	14.6	22.5	26.5	31.3	35.9	41.2
Actual Expenses	7.8	14.1	24.7	32.8	38.9	46.7	52.7	59.7

$101.8M

$73.5M

Legend: Actual Obligations, Actual Expenses, Budgeted Obligations, Budgeted Expenses, Total Obligations Target, Total Expense Target
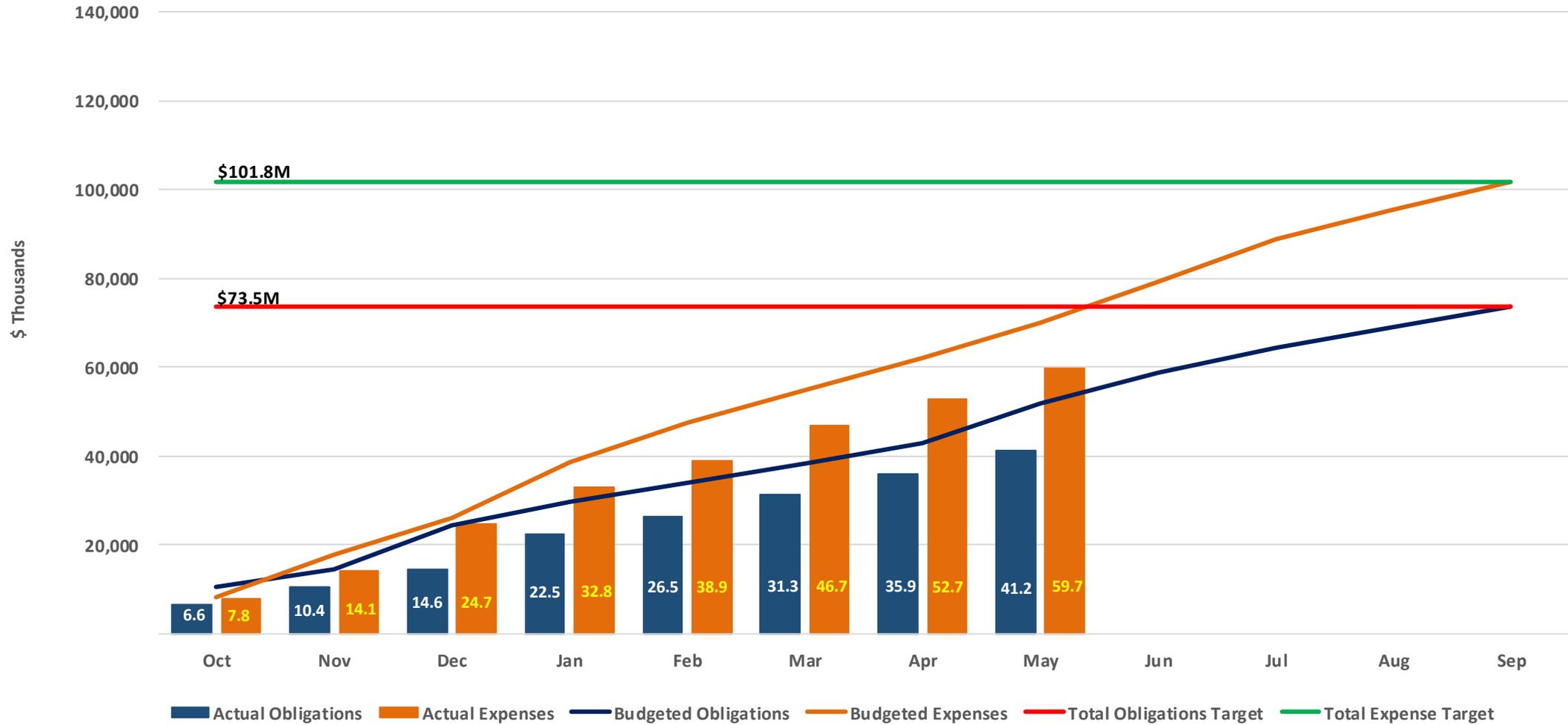
FirstNet's FY 2019 Budget Formulation Timeline

Task	Date
Release Budget Guidance/Annual Priorities and Templates	Mar 28th
FY 2018 Budget Formulation Kickoff Meeting	Apr 9th
Business Units Prepare FY 2018 Budget Requests	May 4th
Business Units Refine Budget Requests	Jun 1st
OCFO Creates the Budget Model	Jun 13th
OCFO Presents Budget to CEO	Jun 20th
OCFO Presents Final Budget to CEO	Jul 16th
OCFO Initiates NTIA Fee Review Process	Aug 1st
CFO Presents Budget Requests to Finance Committee Chairperson	Aug 3rd
CFO Presents Budget to NTIA and DOC	Aug 10th
Budget Presented to Finance Committee	Aug 14th
Budget Presented & Approved by Board	Sep 13th

NPSBN Program Status

FirstNet Core

- Completed validation of all 288 Requirements Traceability Matrix (RTM) items for Task Order 3 IOC-2, and full service now available on FirstNet Core
- Preliminary Design Review (PDR) for Task Order 3 IOC-3 completed May 30-31 in Oakton, VA

Devices and Applications

- Initial NIST list published with 17 approved devices to date, with evaluation of new devices continuing

RAN Deployment and Operations

- Initial RAN operations review held May 31 in Oakton, VA
- FirstNet assessing/qualifying Task Order 4 RTM and deliverables for TO4 IOC-1 and IOC-2, which will run in parallel

Firstnet Innovation and Test Lab

- AT&T completed the installation and testing of vendor eNB equipment in the FirstNet Innovation and Test Lab

State Plan Content

- Task Order 1 period of performance expected to continue through March 2020
- Task Order 2 period of performance ended and closed out

FirstNet

Summary Operational Highlights

Highlights

- 60,000+ customers at 650+ agencies onboarded to FirstNet service since launch

- Service launched on FirstNet Core, including for self-pay and volunteer public safety

- Device offerings include Band-14-capable smartphones and Band 14-capable mobile hotspot

- Awarded Task Order 4 in March; includes build, deployment, and maintenance of state RANs

Next steps

- Critical Design Review (CDR) scheduled for week of September 9 at Boulder office

FirstNet Operations Milestones

April 2018	May 2018	June 2018	July 2018	August 2018	September 2018

Quarterly Maintenance

Today

Quarterly Maintenance

Apr 1 — TO1 (Ongoing State Plan Portal Updates) — Oct 1

IOC2 Acceptance Notification to AT&T

TO3 IOC-3 Initial RTM Delivered

IOC3 CDR Artifacts Submitted

Apr 1 — TO3 (Core Infrastructure) — Oct 1

IOC3 PDR delivered to FRNA

FirstNet IOC3 PDR Review

Boulder Lab Stand Up Complete

IOC3 CDR Complete

Apr 1 — TO4 (RAN Deployment) — Oct 1

TO4 Kick off

First TO4 Payment to FRNA

Initial On-Air Coverage Maps Delivered to FRNA

TO4 Payment to FRNA

◆ Major Milestones   ◆ Upcoming   ◆ Complete   ◆ At Risk   ◆ Late

As of June 18th 2018

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CEO Update

Mike Poth | Chief Executive Officer