FirstNet Workgroups: Agenda

A. Kentucky FirstNet – Project Update

B. FirstNet Draft RFP & Consultation Process

C. Kentucky Collection of Data Elements

D. Data Collection Actions

Kentucky FirstNet Project Update

FirstNet Duties & Responsibilities

- 2012 Legislation created the First Responder Network Authority (FirstNet) to Administer the PS BB Network
  - Now a total of 20 MHz exists for PS BB
  - $7B for the network build-out
- Develop and implement a nationwide system configuration
- Issue system construction RFP(s)
- Ensure the ongoing maintenance, operation and improvement of the network
- The NPSBN would be designed with broad input from public safety agencies at the state, territory, county, municipal, and tribal levels
  - Input will come during the consultation process
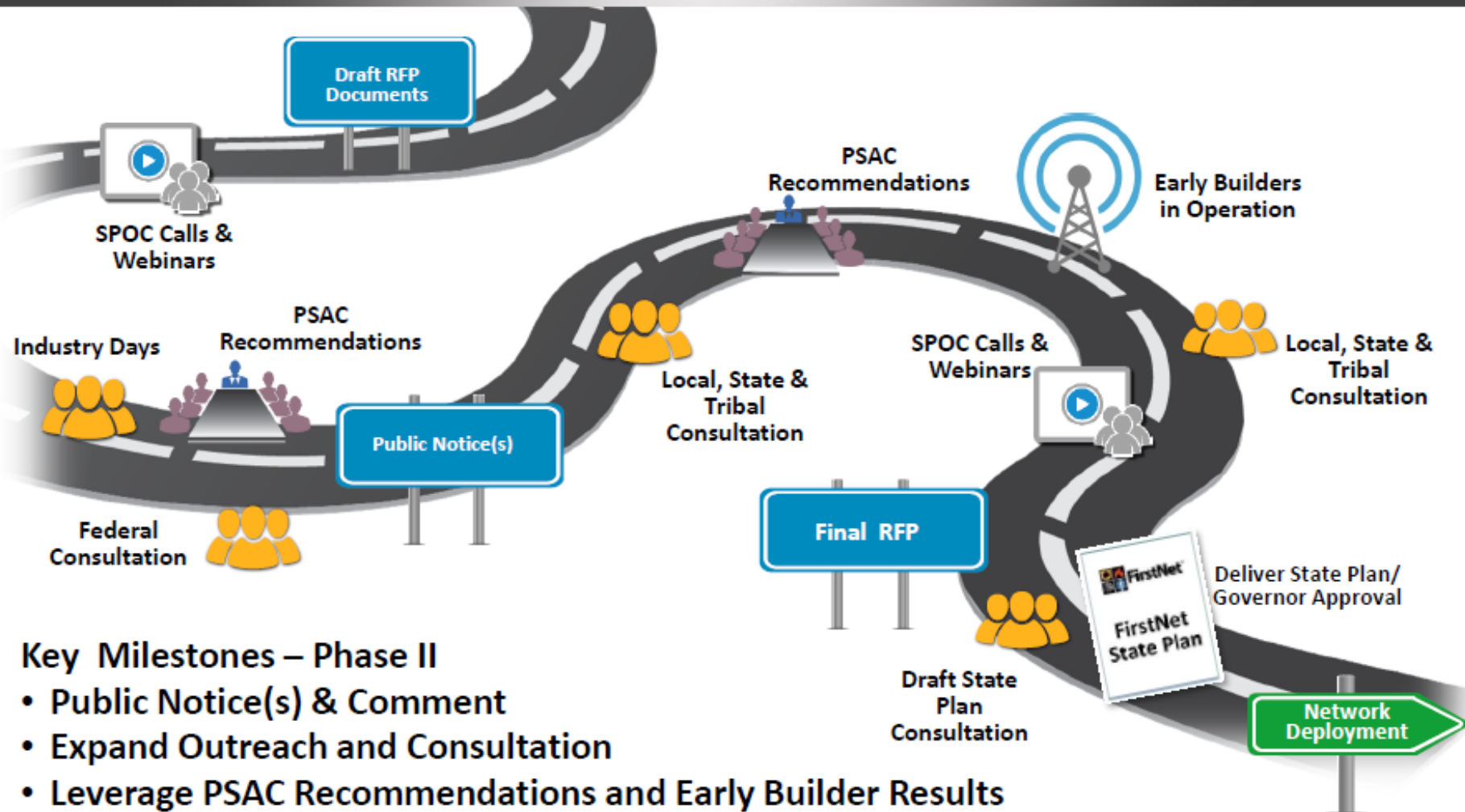
FirstNet High Level Timeline
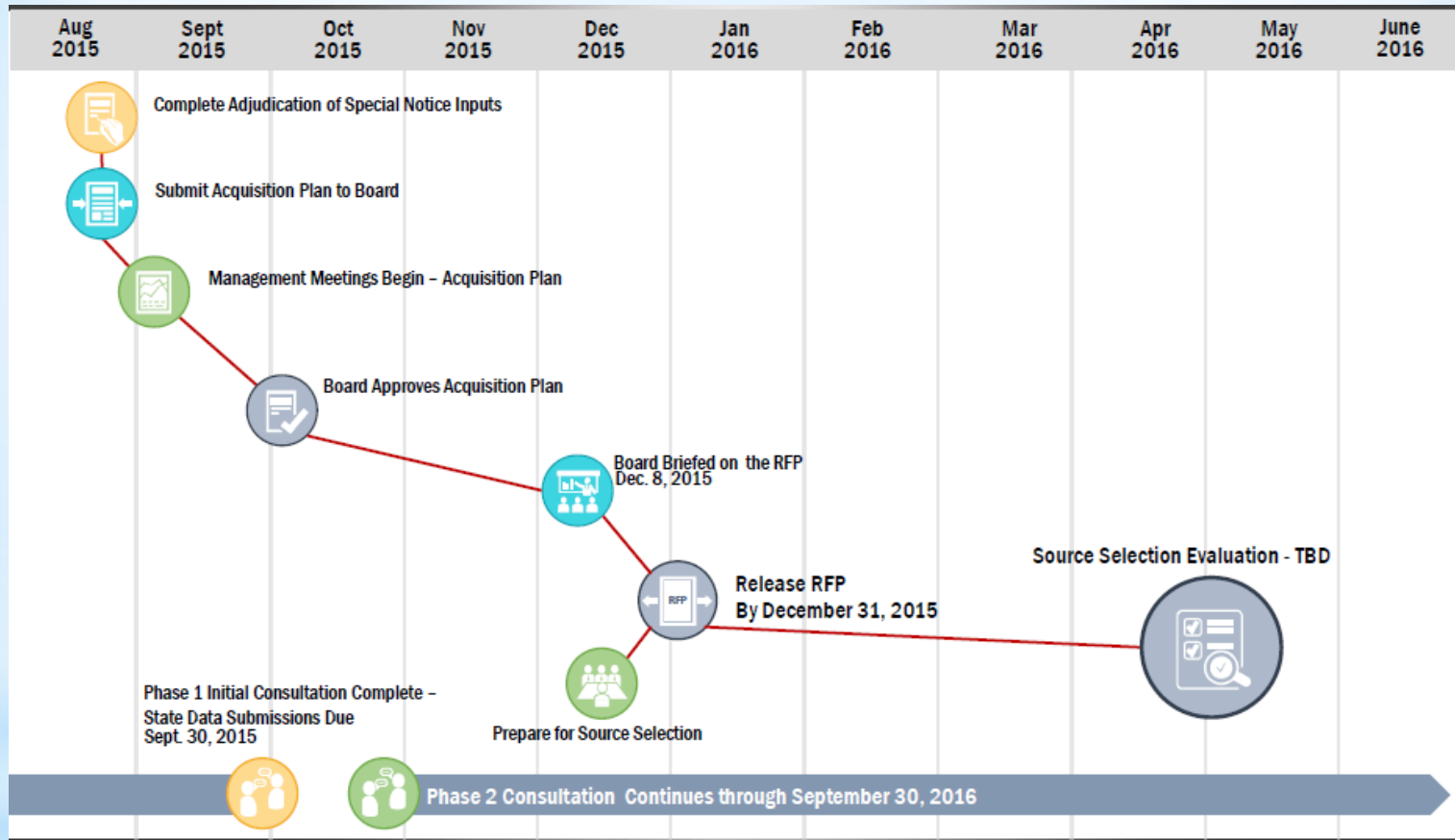
- RFP Release Targeted for End of 2015;
- Most of 2016 will be spent receiving RFP responses;
- FirstNet expects to provide governors with state plans in late 2016 or early 2017;
- Plans to begin making RFP deployment awards in 2017, with operations beginning in 2018;

FirstNet Draft RFP and Consultation Process

FirstNet Roadmap

Draft RFP Documents

PSAC Recommendations

Early Builders in Operation

SPOC Calls & Webinars

Industry Days

PSAC Recommendations

Local, State & Tribal Consultation

SPOC Calls & Webinars

Local, State & Tribal Consultation

Public Notice(s)

Federal Consultation

Final RFP

Deliver State Plan/ Governor Approval

FirstNet State Plan

Draft State Plan Consultation

Network Deployment

Key Milestones – Phase II
- Public Notice(s) & Comment
- Expand Outreach and Consultation
- Leverage PSAC Recommendations and Early Builder Results
- Release Final RFP

FirstNet Draft RFP Elements

- **Special Notice with Draft RFP Documents**
  - o Overview of contents of draft of RFP documents
  - o Request for feedback on the approaches
  - o Submission of capabilities statements

- **Section B Supplies or services and prices/costs**

- **Section C Statement of Objectives (SOO)**
  - o C-1 Baseline Coverage Objective Map
  - o C-3 Recommendations of the Interoperability Board (aka FCC Technology Advisory Board Report)
  - o C-4 System View and Standard Views (SV-1 and StdV-1)
  - o C-5 FirstNet Final Operational Capability– Features Standards Forecast (StdV-2)
  - o C-6 Quality Assurance Surveillance Plan (QASP)
  - o C-7 Operational Architecture Functional Descriptions
  - o C-8 Initial and Final Operation Capability Target Timeline
  - o C-9 NPSBN Use Case Definitions

- **Section J, Attachment J-3, Terms of Reference**

666 Questions Received – Comments Due July 27, 2015

FirstNet Network Objectives

- Build, Deploy, Operate and Maintain the NPSBN
- Financial Sustainability
- Compelling and Competitively Priced Services
- Device Ecosystem
- Application Ecosystem
- Accelerate Speed to Market
- User Service Availability
- Service Capacity

- Cyber Security
- Priority Services
- Integration Of Opt-out State RANs
- Integrate Existing State/Local/Commercial/Federal Infrastructure To Support NPSBN Services
- Lifecycle Innovation
- Program and Business Management
- Customer Care and Marketing
- Facilitate FirstNet's Compliance With the Act and Other Laws

Draft Operating Capability Timeline

Operating Capability	IOC-1	IOC-2	IOC-3	IOC-4	IOC-5	FOC
Projected Timeline	6 months after RFP award	12 months after award	24 months after award	36 months after award	48 months after award	60 months after award
Projected Band-14 (PS) Build-Out	None	15% of objectives	60% of objectives	80% of objectives	95% of objectives	100% of objectives
Projected Rural Milestones	None	15% of rural objectives	40% of rural objectives	60% of rural objectives	80% of rural objectives	100% of rural objectives
Devices	Commercial Off The Shelf (COTS) non-Band 14 devices Initial Band 14 devices Band 14 device portfolio development	Band 14 device portfolio available	Device to device / Proximity Services (ProSe) Direct mode service	Mobile communications unit (MCU) Mission critical services	Feature Evolutions	Meets all Objectives

FirstNet Baseline Procurement Strategy

Teams are Encouraged/A Hybrid Approach may be Required

FirstNet Business Case Structure
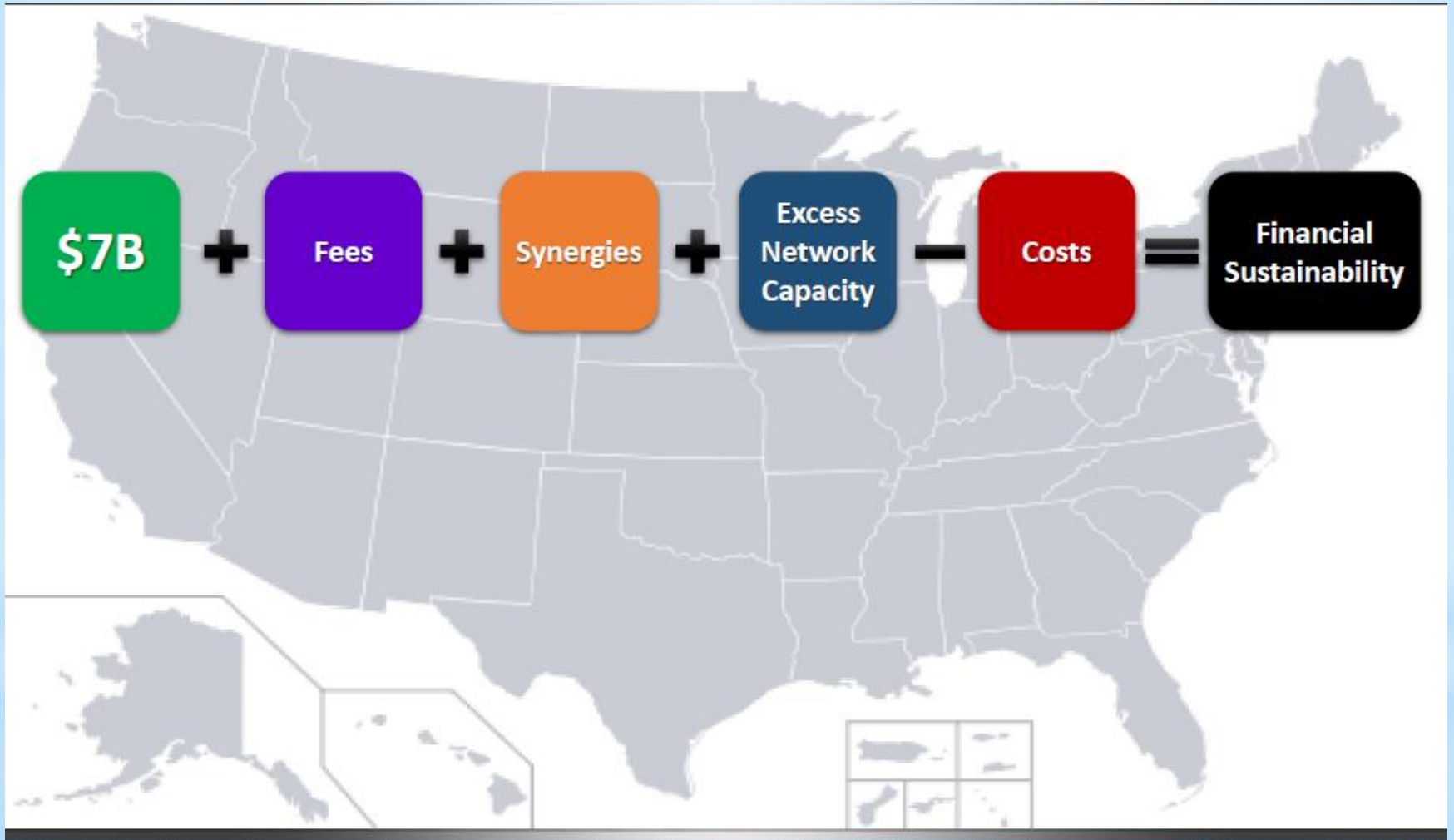
Per Legislation, the Network Must be Sustainable

Consultation Tracker
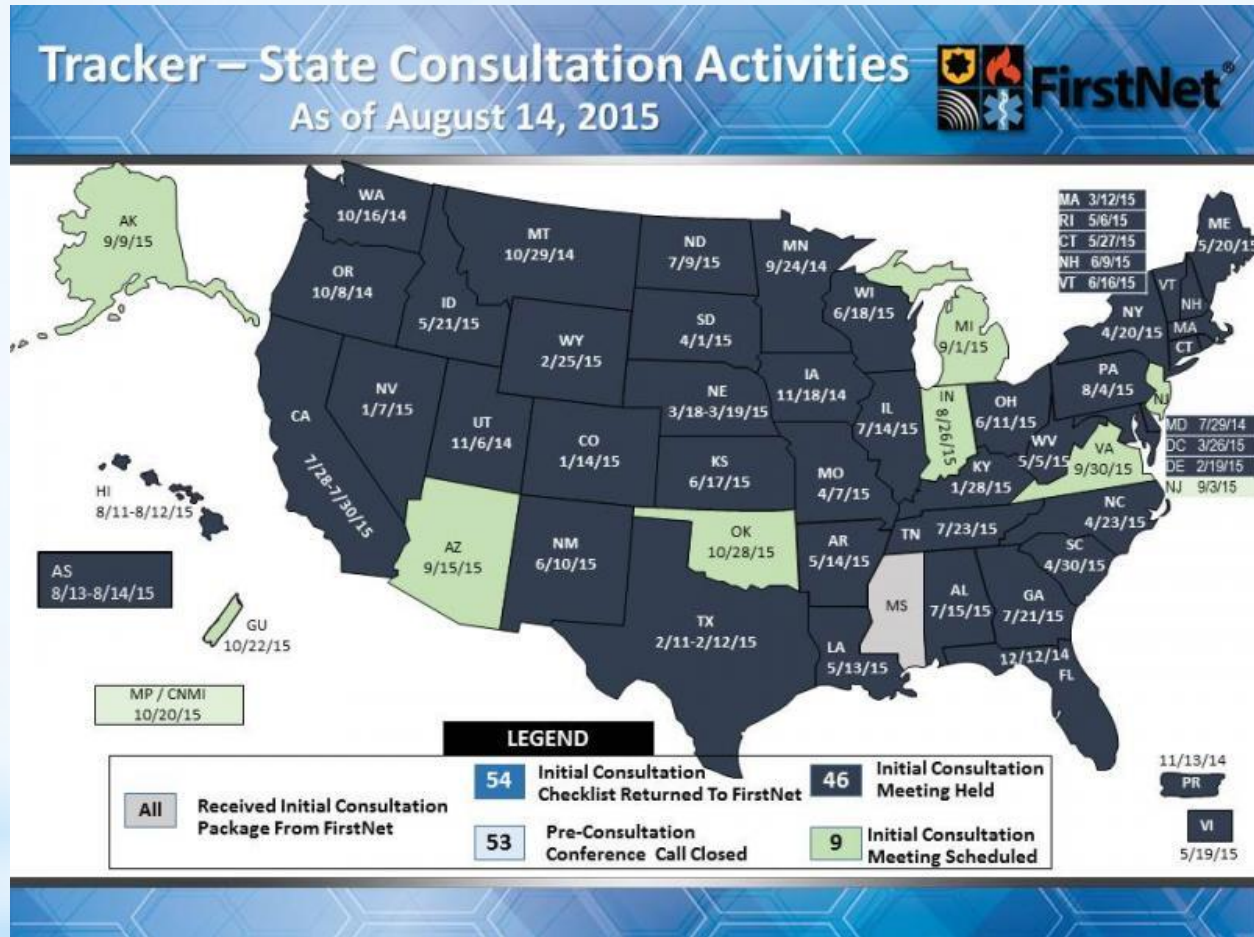
- FirstNet 1st Consultation Round in Progress
- Completion by 10/31/15
- Second round to begin early 2016

The Consultation Process

State Decision Process

FirstNet will collaborate with states to develop and deliver a RAN plan that meets their needs.

Consultation
- Regional Workshops
- State Visits
- Ongoing Dialogue

RFP Process

FirstNet Presents Plan to Governor

State Decision 2 Options

90 days to decide and notify FirstNet, NTIA and the FCC

Accept FirstNet Plan

FirstNet builds the RAN.

Opt Out

State seeks approval to construct its own RAN

State Requirements:
- Submit alternate plan to FCC and gain FCC approval
- Complete an RFP
- May apply for grant funding from NTIA
- Must apply to NTIA to lease FirstNet spectrum
- State RAN must connect to the FirstNet Core
- State must pay user fees to FirstNet

We Do Not Know When Plans Will be Delivered

Opting Out Will be a Big Challenge

- Upon notifying FirstNet of Opt-Out decision, states will have 180 days to "develop and complete requests for proposals for the construction, maintenance, and operation of the radio access network within the state"

- The FCC and NTIA must approve the state's plan, which must show:

  - The technical capabilities to operate, and the funding to support, the state radio access network;
  - Has the ability to maintain ongoing interoperability with the nationwide public safety broadband network; and
  - Has the ability to complete the project within specified comparable timelines specific to the state;
  - The cost-effectiveness of the State plan submitted under subparagraph (C)(i); and
  - Comparable security, coverage, and quality of service to that of the nationwide public safety broadband network.

- Only following approval with the state be allowed to:

  - Apply for a funding grant; and
  - Begin negotiation of a spectrum lease,

Kentucky Collection of Data Elements:

Data Collection Process

KY FirstNet Team Planning Activities to Date

- County work packets distributed (2014),
  - Initial OEC Coverage Suggestions,
- PSAP areas and incidents collection,
- Additional Public Safety Assessment in process,
  - Phone Outreach and follow-up
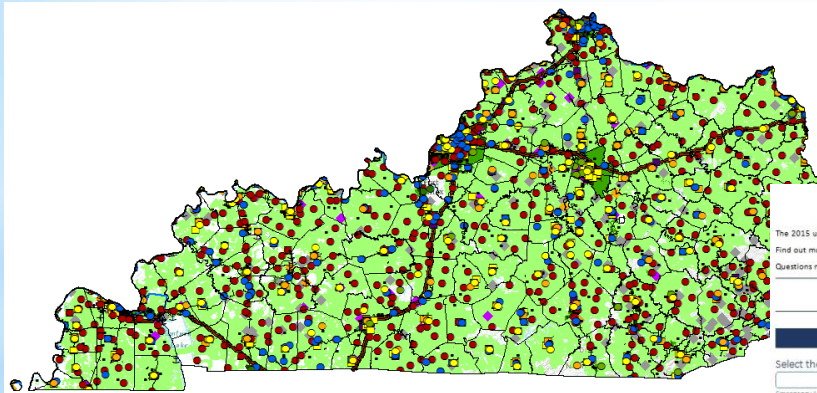
Current activities focused on Phase 2 Data Collection

Data Collection Categories
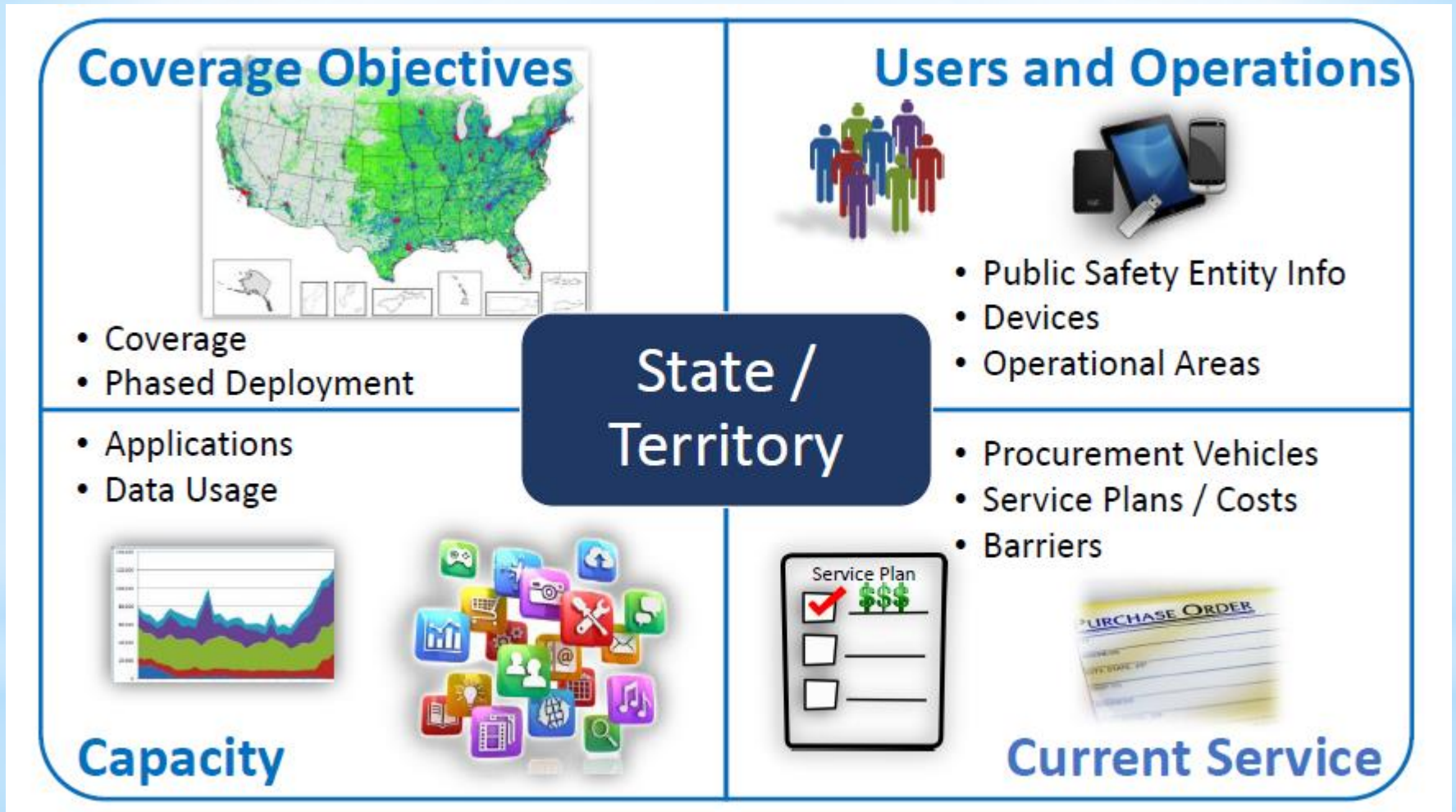
Initial Response Due September 30, 2015

Data to be Compiled: Coverage

1. Coverage		Identify desired coverage and proposed deployment phases within the State/Territory
1a.	Coverage Objectives	Identify State/Territory coverage by developing a baseline or providing feedback and changes to the FirstNet baseline
1b.	Phased Deployment Approach	Provide recommendations on targeted areas or objectives for each deployment phase (suggest a minimum of 5 phases)

🟥 High Concentration
🟦 Medium Concentration
🟩 Low Concentration

- Responses to the county work packages that were distributed in 2014 can be used to provide this input;

- Individual agencies will be contacted if clarifications are required;

- Initial criteria for phased deployment has been established – maps to be developed for delivery to FirstNet:
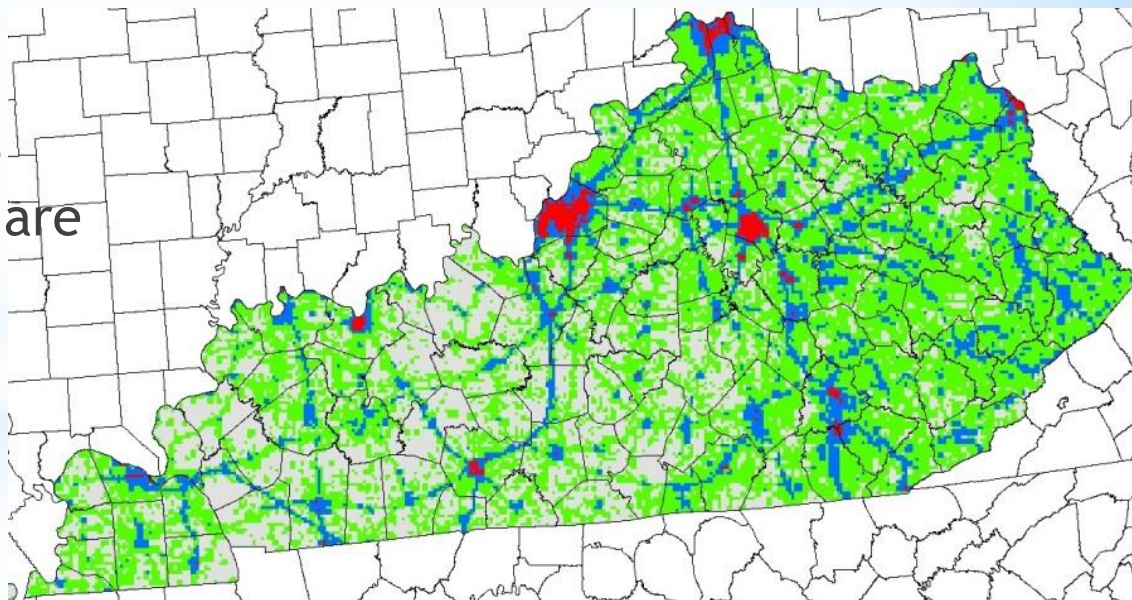
Kentucky Preliminary Phased Deployment (build out) Recommendations

Coverage Build-Out Methodology

- Work at regional level to take into account local input and measure objectives across multiple counties;

- Incorporate high level suggestions provided;

- Utilize concentration data provided by FirstNet but updated as necessary from local input;

- Also incorporate incident data where available

- Base targets on proposed milestones from FirstNet.

Kentucky Data Collection Target Areas

Coverage Build-Out -- *Suggestions*

Phase	FirstNet Guidelines (% of Objectives) from Draft RFP	Recommended Criteria
1	20% of total 20% of rural	High Concentration focus in target areas plus some rural coverage (addressed by county)
2	60% of total 40% of rural	Medium Concentration focus and additional rural (addressed by county)
3	85% of total 60% of rural	Interstate and major roads to connect High/Medium areas
4	95% of total 80% of rural	Address largest remaining gap areas
5	100% of total 100% of rural	Complete build-out of coverage objectives

Proposed Phase 1 Build-Out

Legend:
- High Concentration
- Medium Concentration
- Low Concentration
- Phase 1
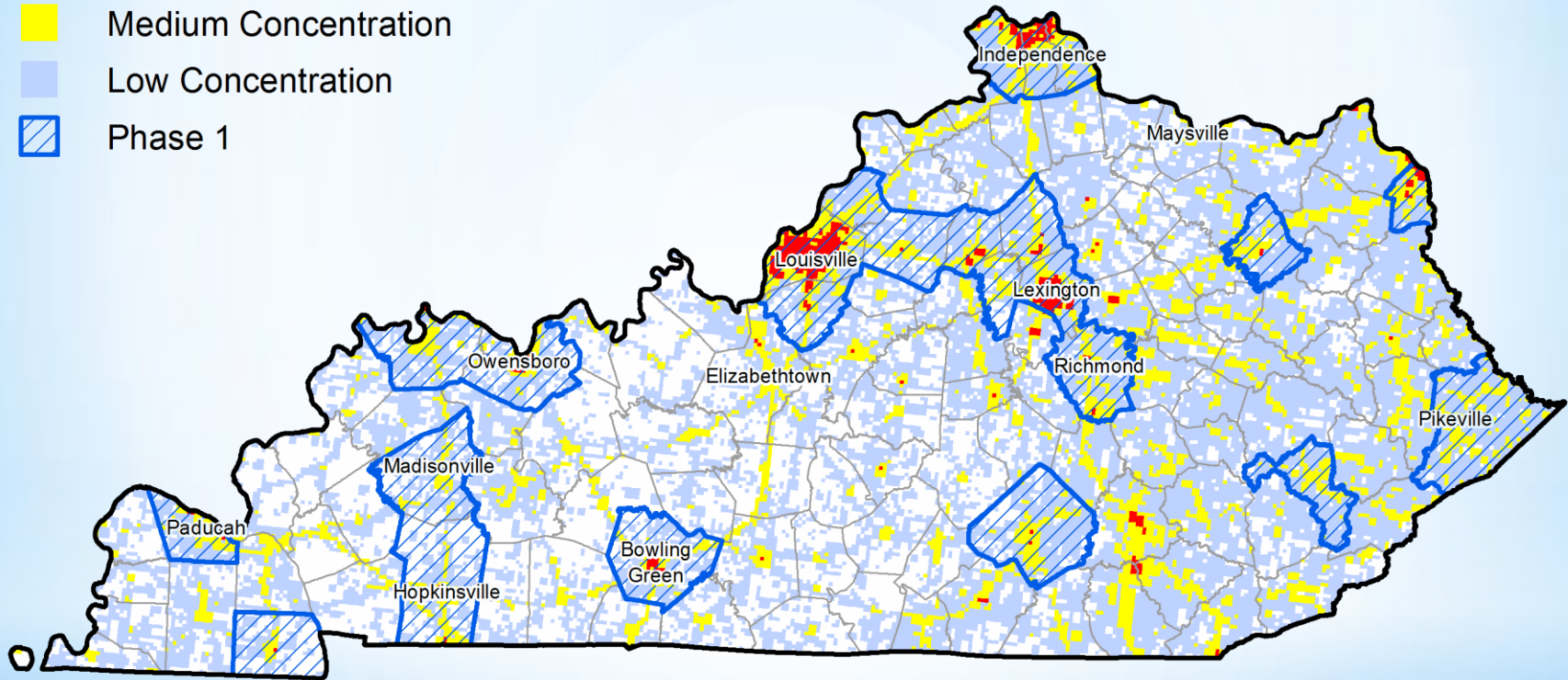
	Percentage of Coverage
High Concentration	86.96%
Medium Concentration	36.13%
Low Concentration	21.90%
Total	25.82%
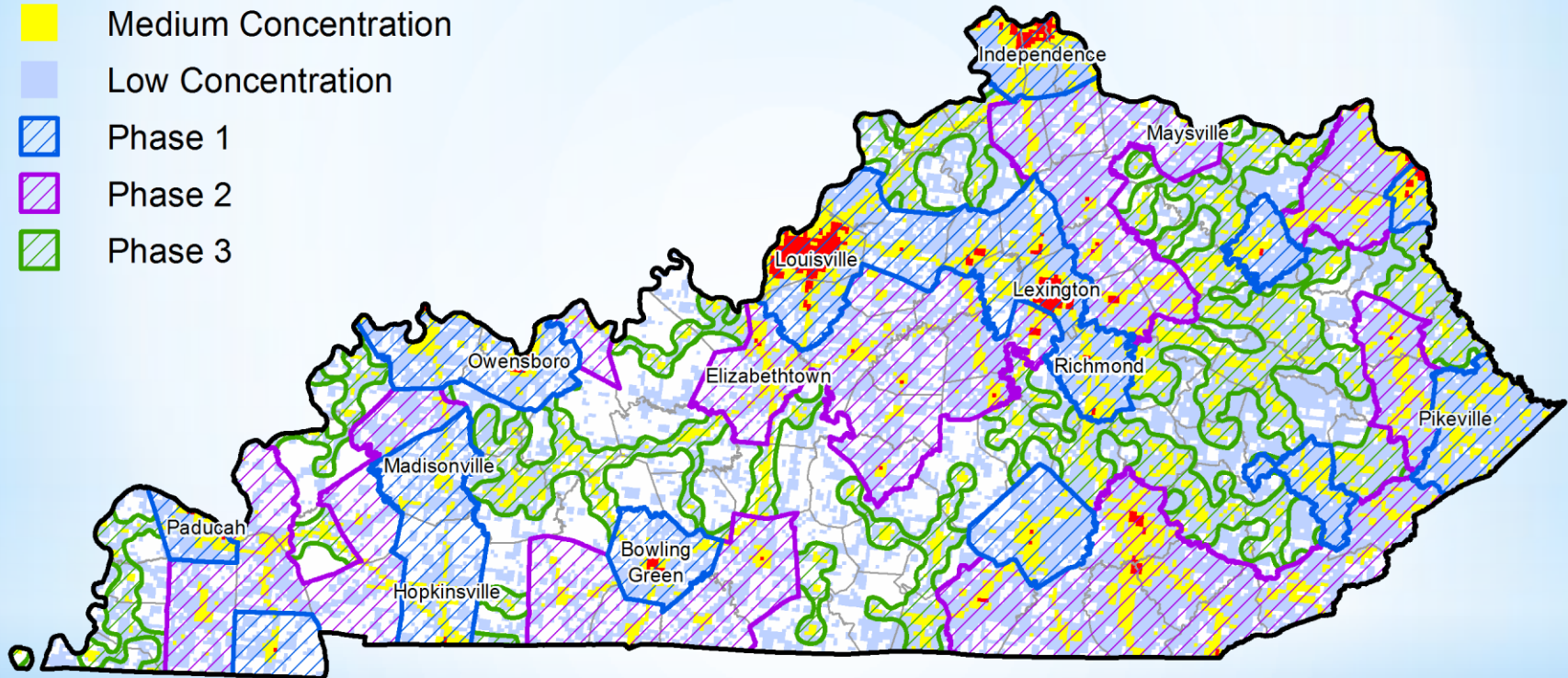
Proposed Phase 1 & 2 Build-Out

Legend:
- **High Concentration** (red)
- **Medium Concentration** (yellow)
- **Low Concentration** (light blue)
- **Phase 1** (blue hatched)
- **Phase 2** (purple hatched)

	Percentage of Coverage
High Concentration	100.00%
Medium Concentration	72.09%
Low Concentration	57.85%
Total	61.34%

Proposed Phase 1 - 3 Build-Out

	Percentage of Coverage
High Concentration	100.00%
Medium Concentration	100.00%
Low Concentration	80.84%
Total	84.83%

Proposed Phase 1 - 4 Build-Out

	Percentage of Coverage
High Concentration	100.00%
Medium Concentration	100.00%
Low Concentration	92.99%
Total	94.45%

Proposed Phase 1 - 5 Build-Out

Terrestrial Coverage
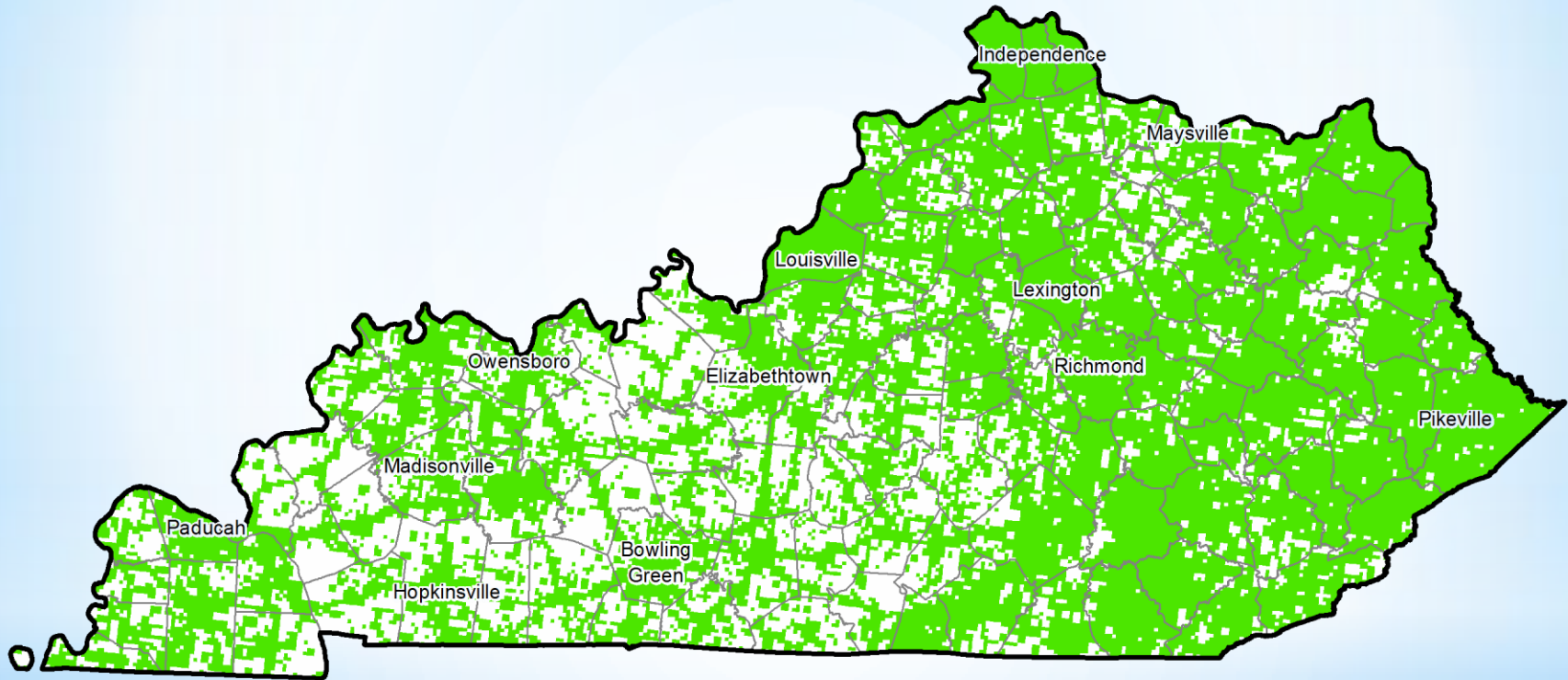
	Percentage of Coverage
High Concentration	100.00%
Medium Concentration	100.00%
Low Concentration	100.00%
Total	100.00%

KY Public Safety Assessment --
Respondent Information

- Released early July 2015
- Email notification to 438 contacts in KY Public Safety
- Fire/EMS/Law Enforcement/EM and 911 Dispatch
- Assessment designed to gather info using straight-forward questions
- Info is for FirstNet data elements
- Data used by FirstNet as input into the network RFP process
- Additional data collection used for input into KY State Plan during the consultation process;

Data to be Compiled: Users/Devices

- Data from the county work packages in 2014 provided initial info

- Specific information on devices and how they are assigned.

Data to be Compiled: Capacity Planning

- Usage data is critical for the design of the KY network/state plan;

- Number of users of specific applications are requested;

- Responses helps determine capacity and network needs

Data to be Compiled: Current Service and Barriers

- Specific issues or major procurement barriers are requested prior to the September deadline to provide input to the FirstNet RFP;

- Other info about plans and costs used for input into the State plan.

Progress Report on Data Collection

Data Collection Respondents – 2014

- Data Collection Work Packages from 2014
  - Work packages collected feedback on coverage needs; locations of facilities; special events; etc.
  - Some national data is out of date – need local input/updates
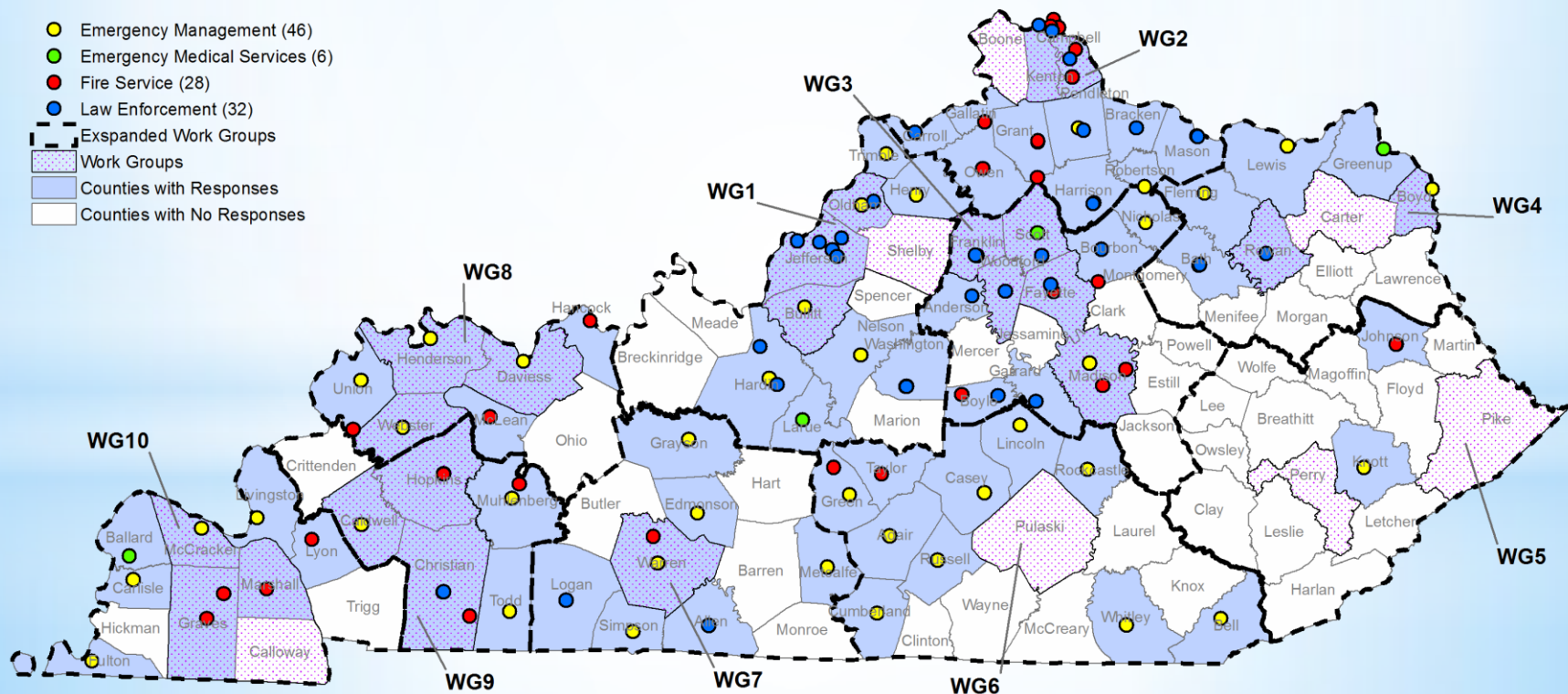
Data Collection Respondents - 2015

- Current Data Collection Survey to provide input to FirstNet
  - Updates on number of users and data devices
  - Procurement practices
  - Applications and capacity needs
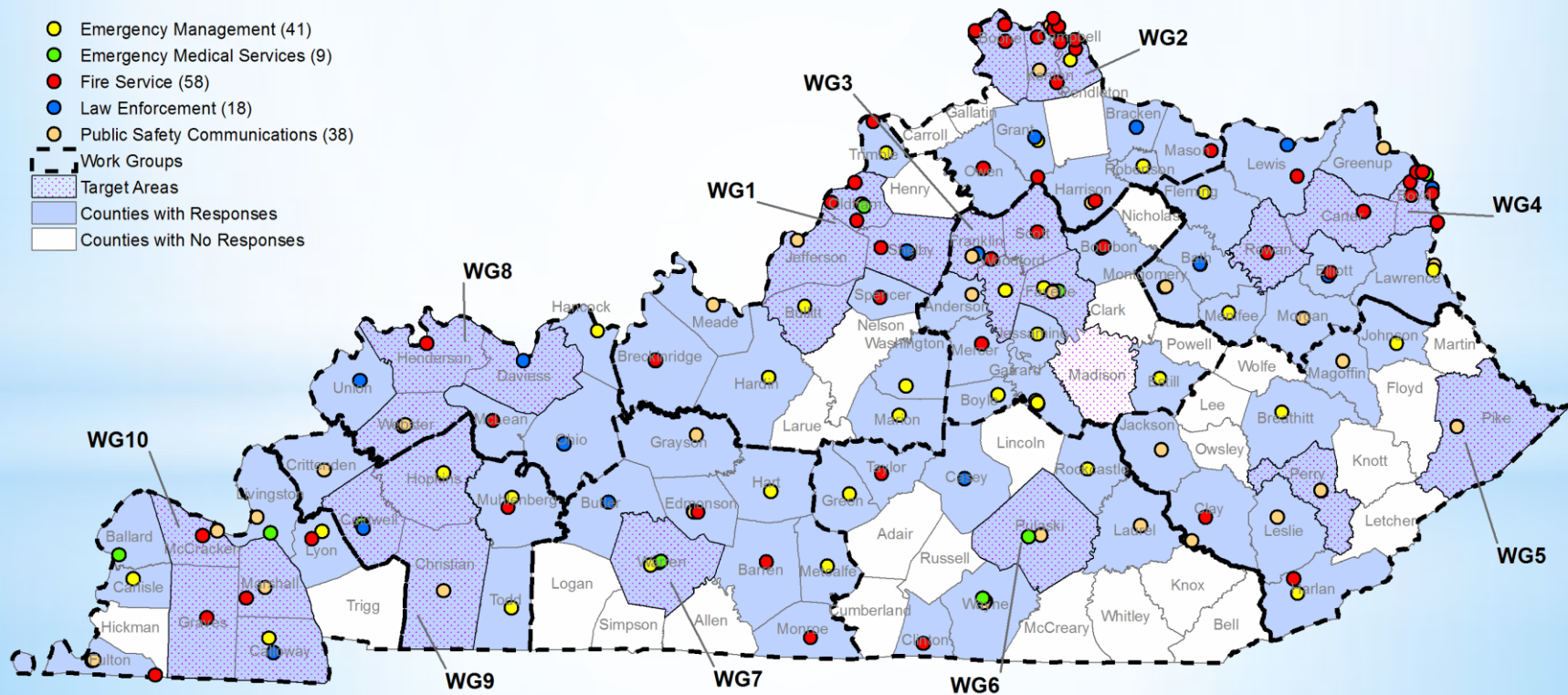
PSAP Respondents - 2015

- CMRS Request to PSAPS for:
  - Jurisdictional Boundaries
  - ESN Boundaries
  - Incident Data
- Credit for Annual GIS Data Submission to the CMRS Board
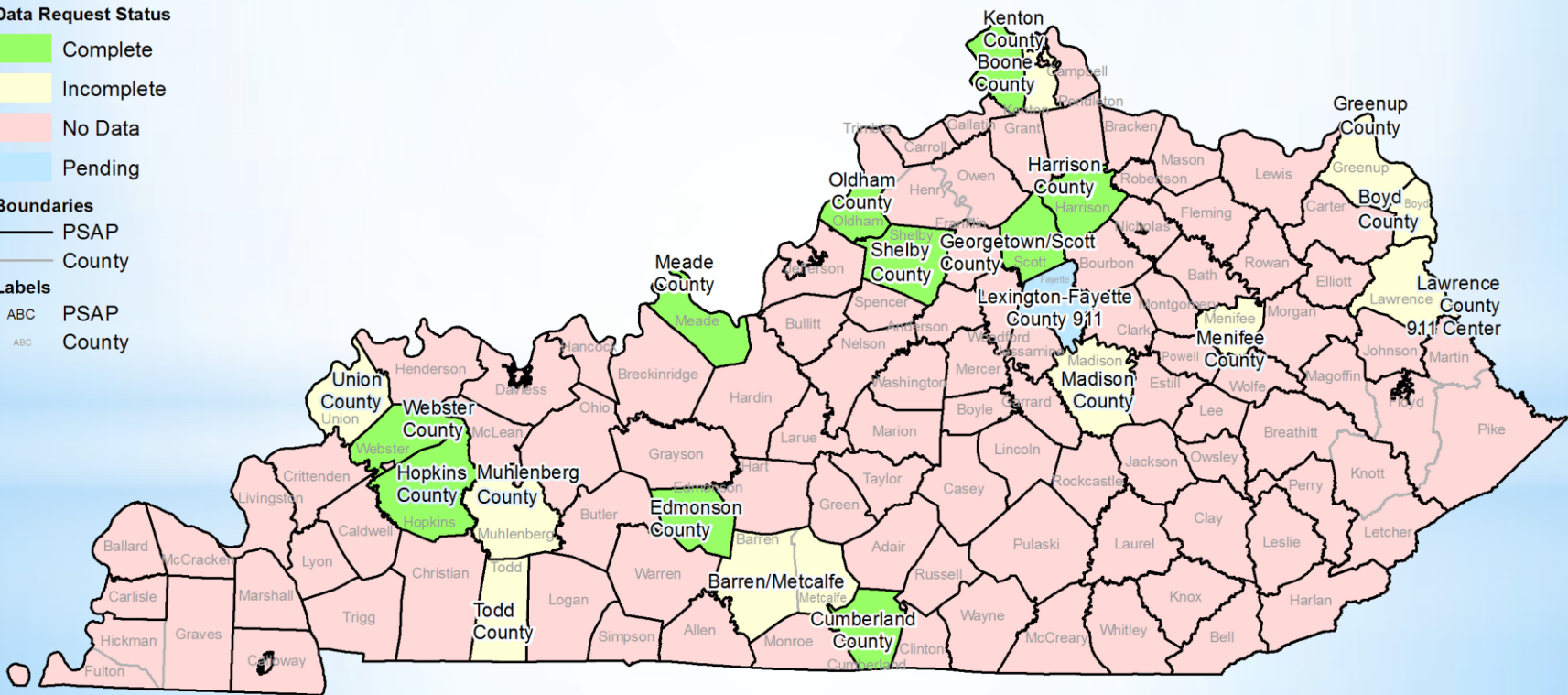
Data Collection Responses: Device Usage

Agency Type	# of Responders Statewide/Local	Data Devices Statewide/Local	Ratio
EMA	624/69	190/15	0.3/0.2
EMS	399/0	137/0	0.3/0
Fire	3619/60	727/2	0.2/0
Law Enforcement	438/111	187/32	0.4/0.3
911/Dispatch	6575/10	389/0	0.1/0
State Users	0/0	0/0	0/0
Other	0/0	0/0	0/0

- Need input from law enforcement and state users;
- How does cumulative data compare with local data?

Data Collection Responses: Personal Devices

Agency Type	# of Responders Statewide/Local	# that are Volunteers	Use Personal Data Devices (Y/N)
EMA	297/26	352/43	23/2
EMS	418/0	34/0	6/0
Fire	2437/90	1340/30	41/2
Law Enforcement	431/103	27/8	10/2
911/Dispatch	6508/10	101/0	20/0
State Users	0/0	0/0	0/0
Other	0/0	0/0	0/0

- How important for adoption will it be for the network to allow use by a non-agency supplied, but approved device?
- Use of personal devices will drive the need for a FirstNet BYOD policy.

Data Collection Responses: Technology Applications

AT	Txt	OTT	AVL	Map	CAD	Db	Rpt	Inter	Intra	Vid	Tlm
EMA	444	72	12	63	91	60	77	289	37	10	3
EMS	295	0	59	85	17	34	148	100	85	2	100
Fire	2089	179	144	437	563	189	393	772	282	7	9
Law	229	0	47	76	262	65	163	204	39	65	0
911	1377	15	205	706	398	357	64	325	3616	42	4
State	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0

- What applications are important locally?
- Are there additional applications in use?
- What is average data usage per month?

Data Collection Responses: Barriers

Agency Type	Cost	Reliability	Security	Coverage	Expertise
EMA	25	14	8	16	12
EMS	7	5	3	4	2
Fire	24	17	12	17	10
Law Enforcement	13	8	6	5	5
911/Dispatch	13	9	7	12	4
State Users	0	0	0	0	0
Total	82	53	36	54	33

- What drives adoption most?
- How important is a fixed rate plan?

Data Collection Actions

- Gaps Identified In-Region:

- Critical Areas Where Data is Needed

- Workgroup knowledge of area

- Outreach POC within Workgroup Membership

- Set Response Timeline and Project POC for Workgroup

Questions/Feedback?