



**FirstNet**<sup>TM</sup>

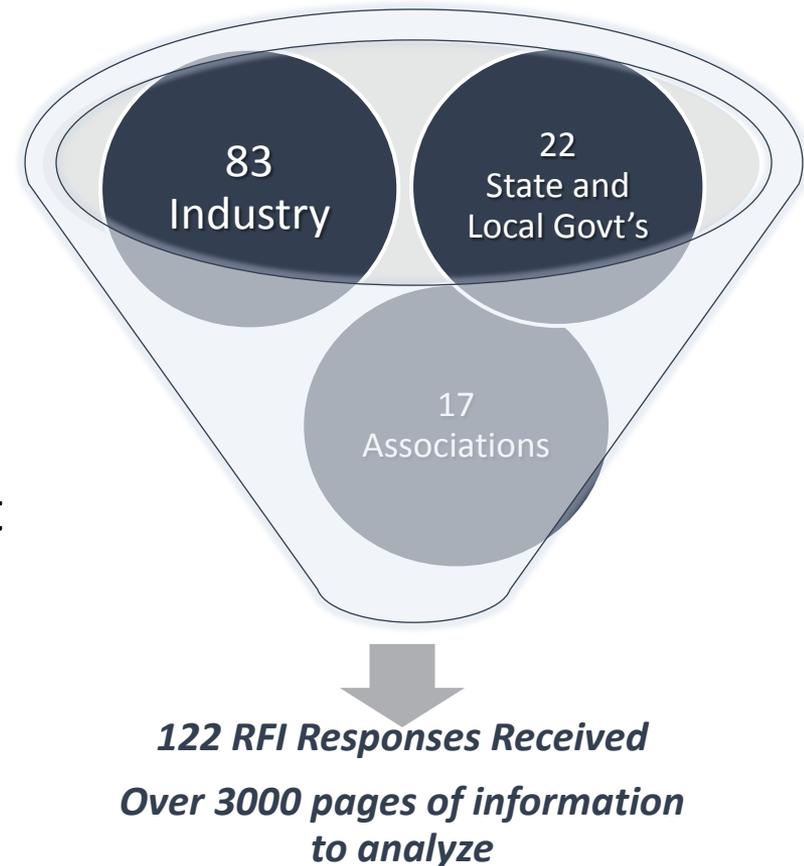


# Request for Information (RFI) Preliminary Findings for Technology Committee

**Michael Landry**  
Senior Program Manager

December 9, 2014

- 2014 RFI Achievements
  - Broad participation from industry, government, and associations
  - Thoughtful answers to most questions and objectives
  - Largely validated our Statement Of Objectives



# Analyzing the RFI Responses

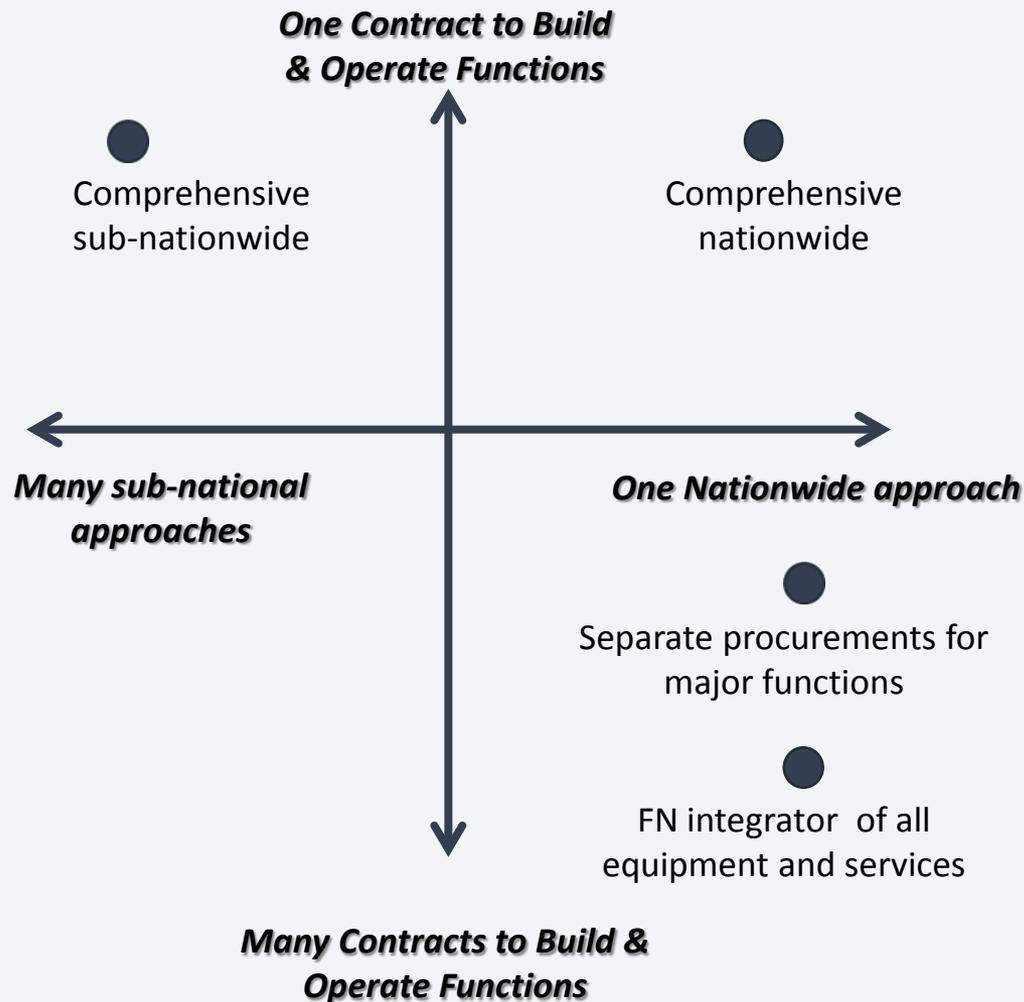


*122  
responses  
across 16  
major topics*



*Major themes  
Trends*

# The Marketplace Can Deliver a Network Meeting FirstNet Statement of Objectives



- Many firms possess the capability to build and operate the network
- Approaches suggested ranged from single comprehensive provider to FirstNet-led integration
- Many responses emphasized FirstNet's limited funding
- Respondents broadly validated FirstNet's objectives and approach

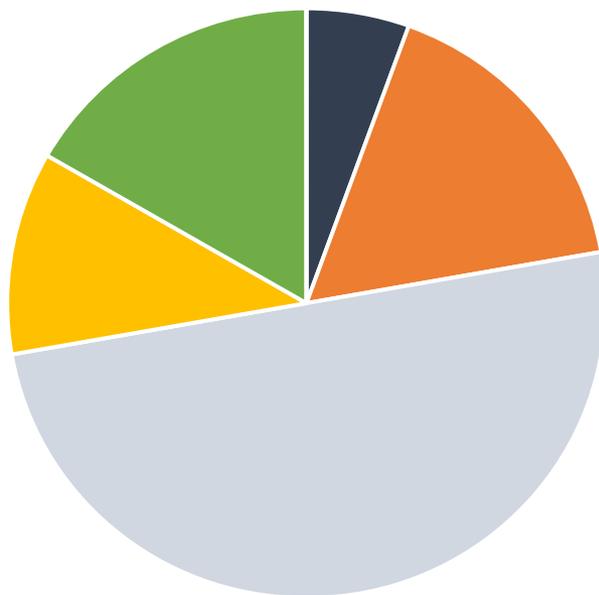
# Minimize Costs by Leveraging Mass Market Standards-Based Solutions



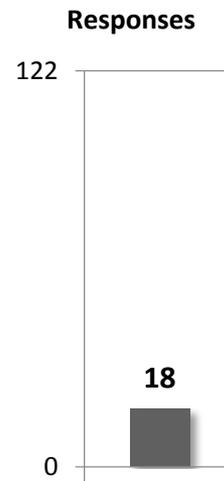
## Standards-based solutions support FirstNet's Statement of Objectives

- Financial sustainability
- Speed to market
- Opt-Out RAN integration
- Lifecycle Innovation
- Application Ecosystem
- Device Ecosystem
- Required by the Act

Respondent Profile

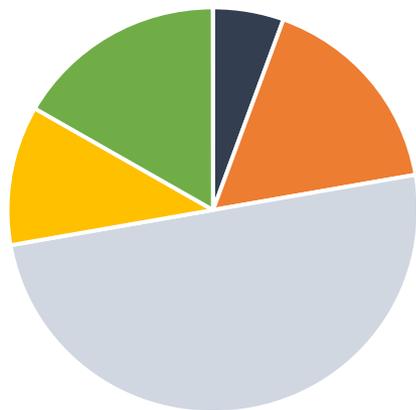


■ Consultants      ■ Govt/Labs  
■ Industry        ■ Sys Int  
■ Service Providers   ■ Trade Assoc

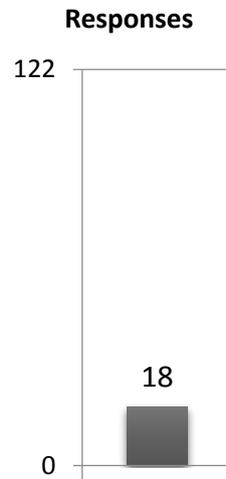


- Timing and availability of Band 14 devices driven by 3 factors
  - Release of software and update of chipset vendors
  - Mobile operator acceptance/certification standards
  - Economies of scale
- Partnerships and roaming agreements essential to economies of scale
- Fairly limited responses, given the importance of this objective

# Maximize Availability of Band 14 Devices



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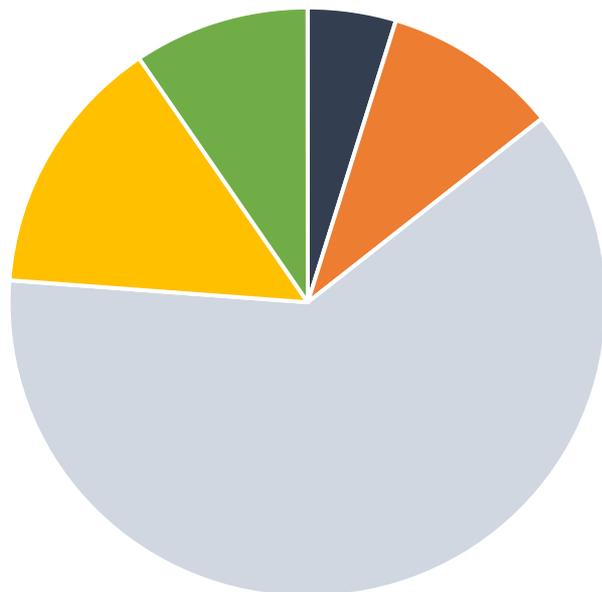


- RFI responses indicated a desire to include Band 14 in all devices reduces costs, enable volunteers and part time public safety personnel to bring your own device
- Comprehensive RFP scale should promote additional Band 14 enabled devices
- Leveraging excess capacity by carriers will help seed Band 14 device market for FirstNet users

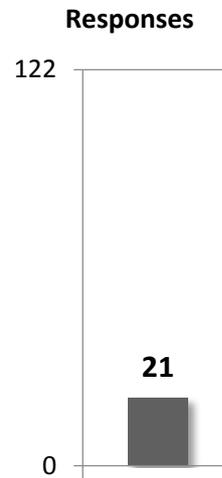
# Application Ecosystem



Respondent Profile

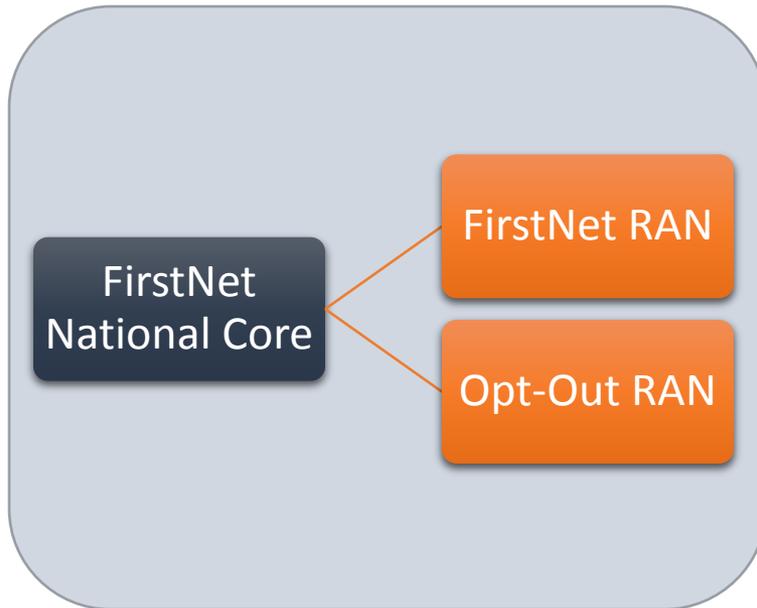


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- Respondents in all categories highlighted their key capabilities in apps store, mobile development, etc.
- Suggestions to ensure focus on integration between PSAPS and FirstNet APPS ecosystem
- Reinforced the necessity to define enough details to ensure that FirstNet APPS address key public safety areas
- Several large vendors, or teams, that are capable of providing a complete Application Ecosystem

# Near Unanimous Support for National Core



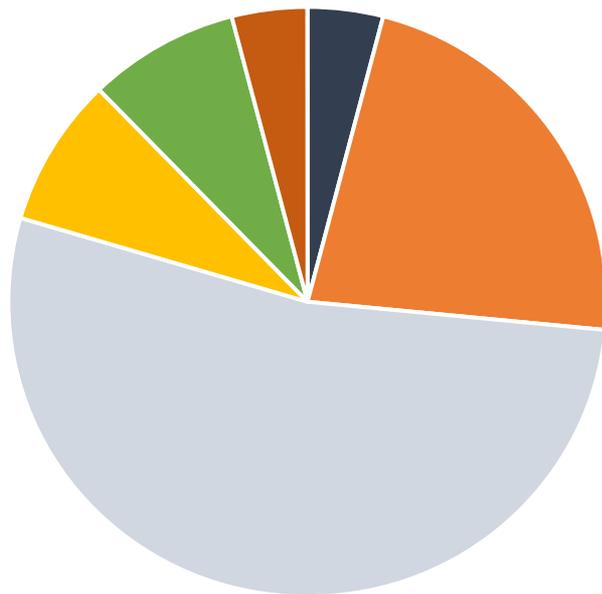
**Support for a national core came from states, carriers, associations and industry**

- Consistency and interoperability in service and user experience
- Security and subscriber management
- Public safety specific features
- 3GPP standard interfaces for equipment interoperability with multiple radio networks and vendors
- Distribution for performance and reliability

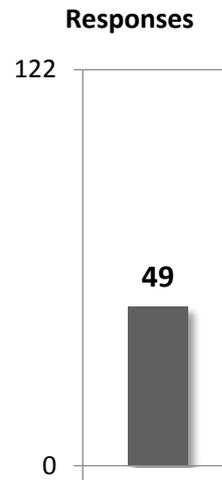
# Opt-out RAN Integration



Respondent Profile



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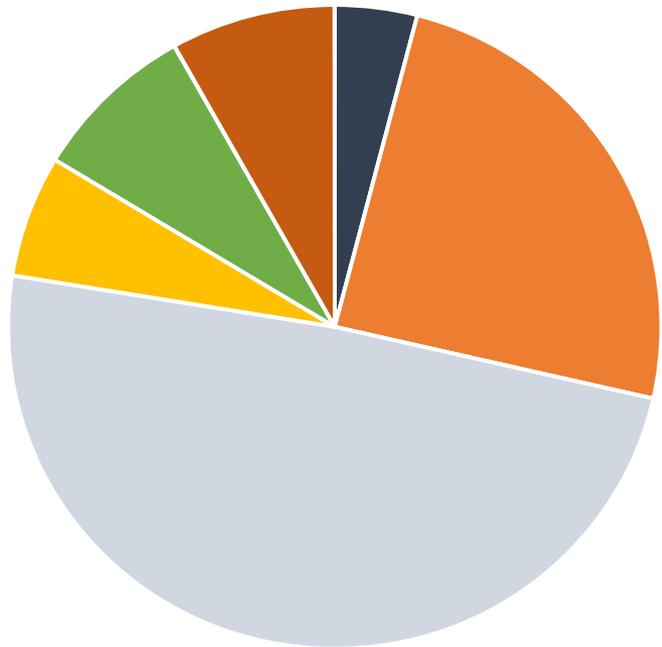


- FirstNet must establish clear minimum technical requirements spec for opt-out states to comply with
- Opt out states must be required to deploy and upgrade 3GPP compliant products

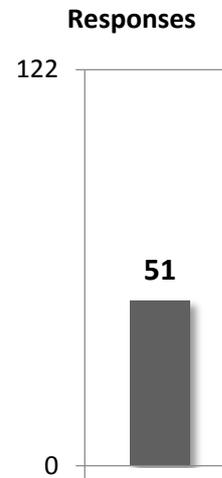
# Integration of RAN and Infrastructure - Cost Reimbursement



Respondent Profile



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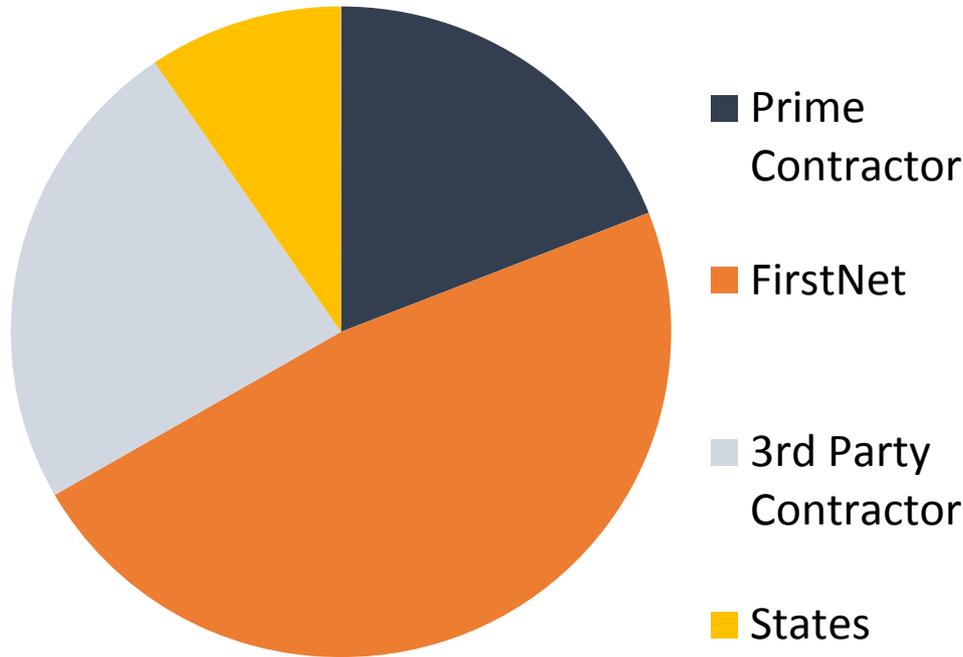


- Universal advocacy for using existing infrastructure; few respondents tackled analysis of economic desirability
- Some suggested having states collect inventory after baseline RFP award – due to scope and time required
- Several states suggested an approach where a state, or locality, could fund their own site additions for coverage improvement
- Those that considered speed-to-market generally prioritized existing commercial infrastructure

# Respondents Prefer that FirstNet Determine Economic Desirability



## Economic Desirability Lead

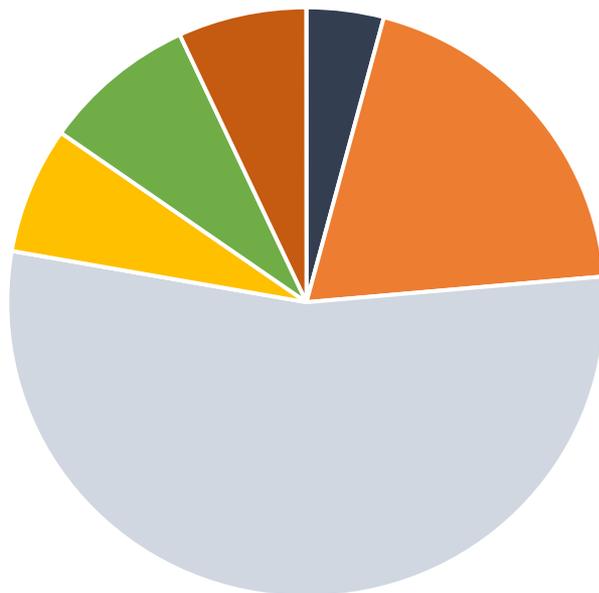


- Respondents preferred that FirstNet make the ultimate economic desirability determinations
- States generally voiced support for a greater role in the determination

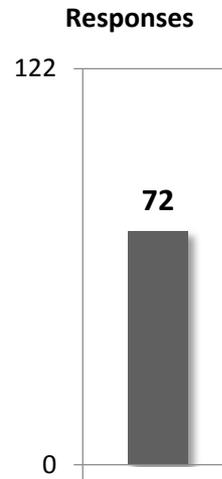
# System Hardening



Respondent Profile



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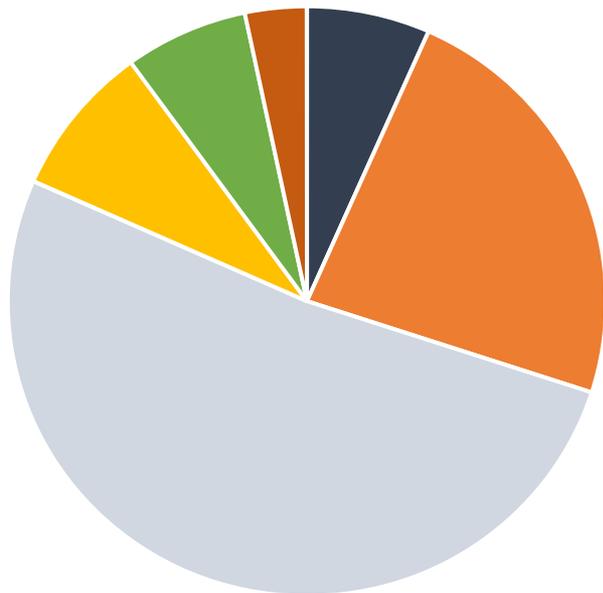


- Universal agreement that security and resiliency are critical distinguishing factors
- Respondents generally cautioned against the cost of across the board hardening – instead suggesting selective hardening of critical sites
- Some suggested back-up sites, and redundancies can create resiliency with potentially lower costs than hardening
- Roaming agreements and deployable use can lower hardening needs

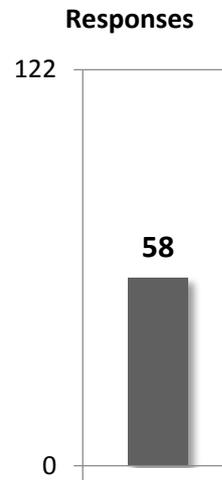
# Priority and Preemption



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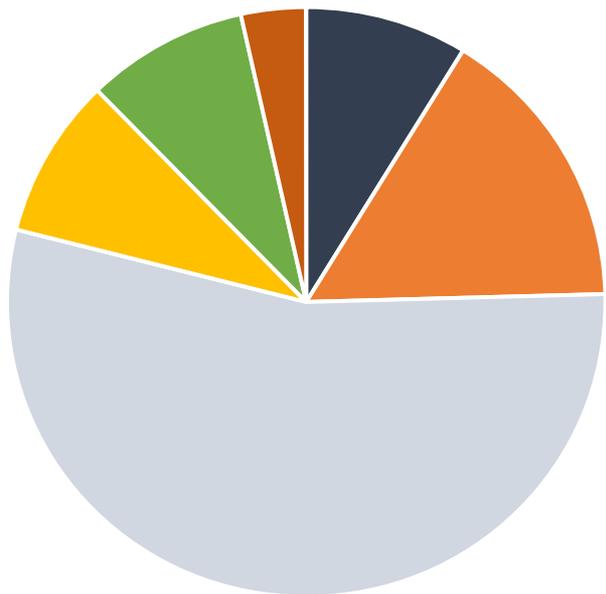


- States described existing governance structures that can be used for local control of priority and preemption
- Respondents encouraged FirstNet to develop standards on preemption and how dynamic allocation of priority will be implemented
- Will require regional governance with multiple agencies' competing interests
- Local control must be clearly defined
- One integrator described the difficulties in implementing dynamic priority and preemption in a crisis

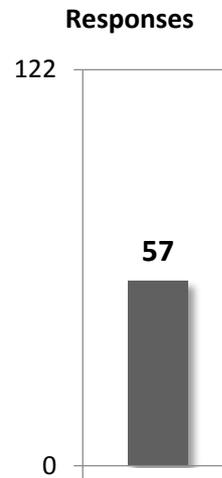
# System Reliability and Restoration



Respondent Profile

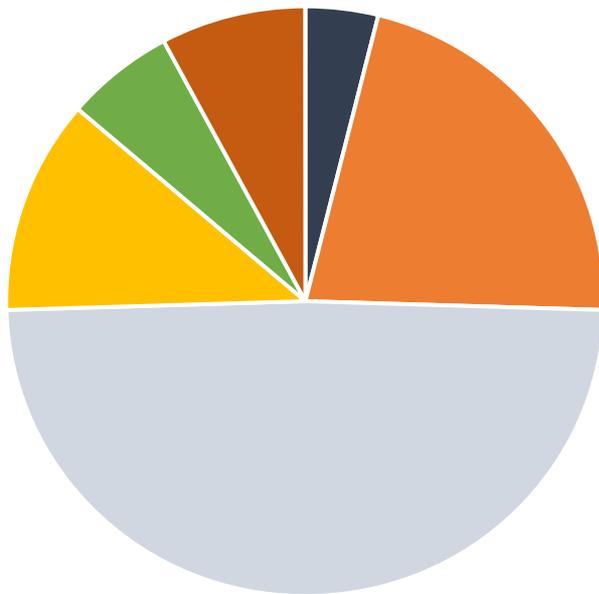


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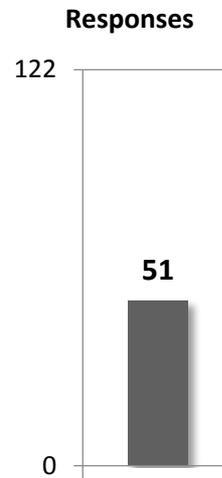


- States most vocal in advocating higher minimum thresholds in reliability
- Most respondents supported the use of deployable assets
- Respondents advocated distributed architectures to enhance reliability and restoration
- Some elements should be centralized (IMS, some APPS)
- Several suggested that FirstNet should leverage NPSTC guidelines

## Respondent Profile



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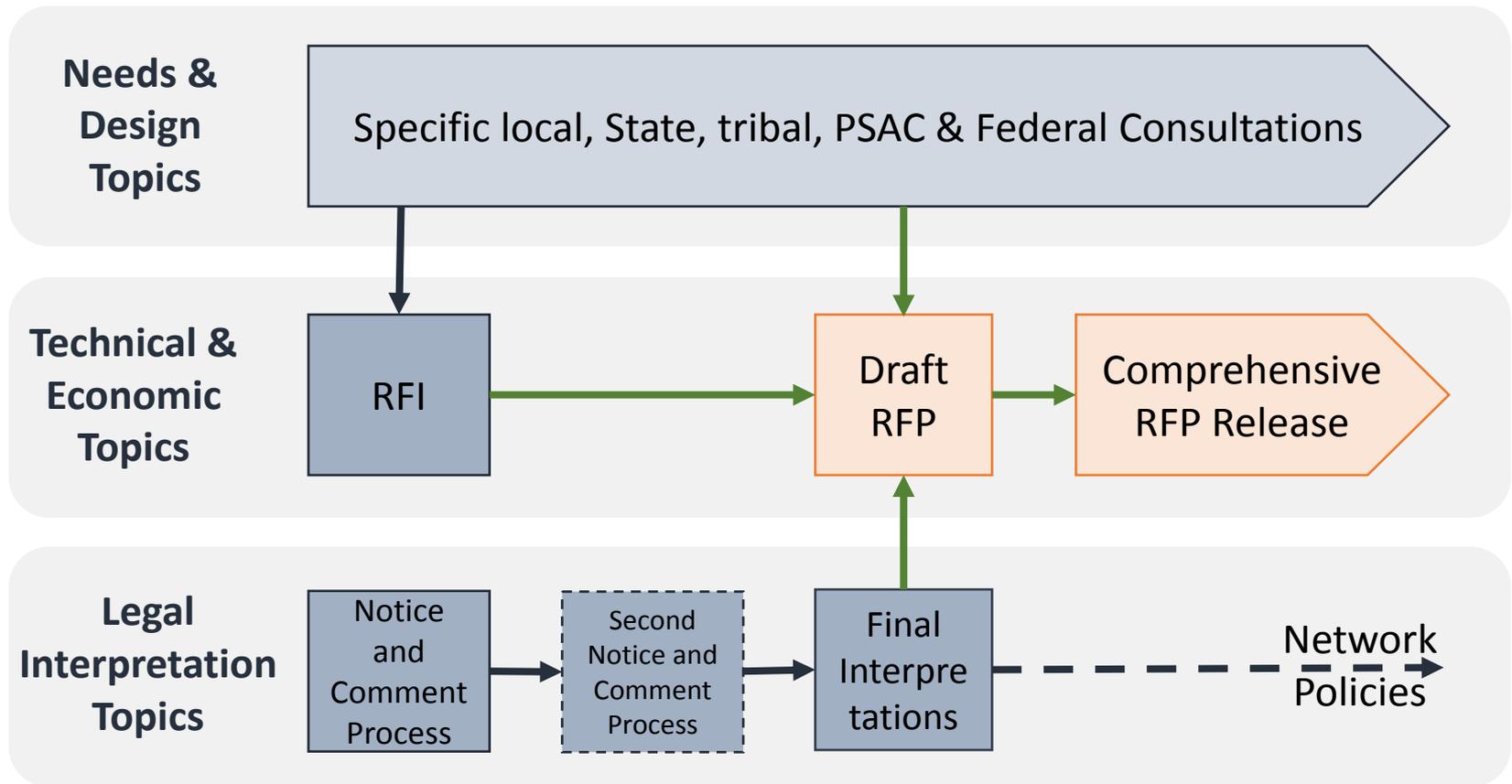
- Several suggested that FirstNet communicate a technology vision within the RFP
- Commenters said offerors should include their roadmap in proposals
- Strong support for a FirstNet testbed
- Several suggestions regarding collaboration with industry, research institutions, public safety and other entities in the form of advisory boards
- Substantial agreement in recommending that FirstNet establish a set of policies and standards that Opt-Out States must adhere to in order to Opt-Out

# Acquisition Accomplishments Since Last Board Meeting



Step	Timeframe	Status
Draft RFI/SOO	August/September	✓
Review RFP Approach at Board meeting	September	✓
Approve RFI/SOO	September	✓
Release RFI	September	✓
Review RFI responses	October/November	✓

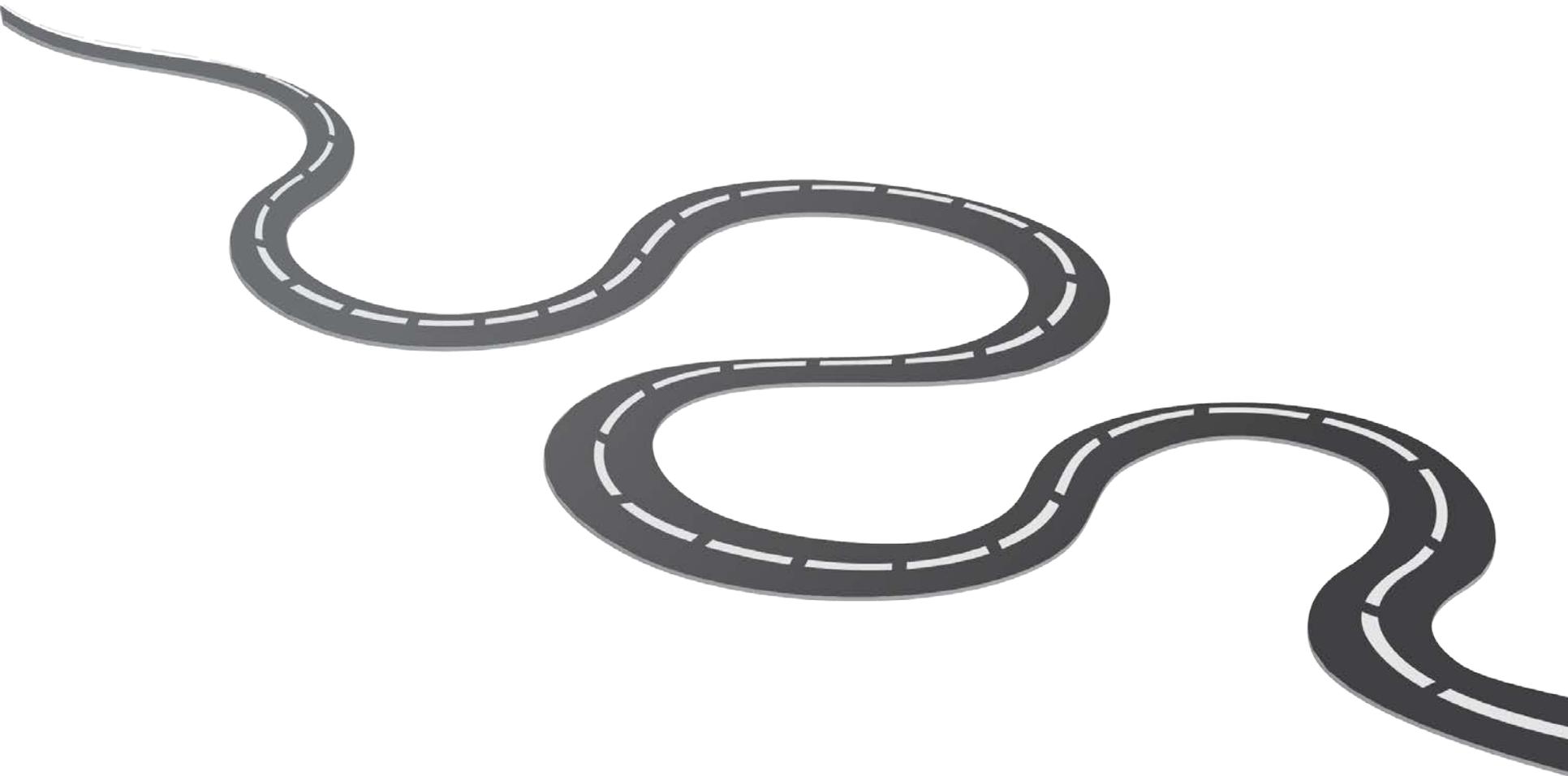
# Consultation Inputs to RFP



RFP Processes

Consultative Processes

# Next Steps





**FirstNet**™



**Thank You**