



FirstNet Overview
SECB Strategic Planning Session
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Speaker:

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Background on FirstNet

FirstNet was created by Middle Class Tax Relief and Job Creation Act of 2012, passed Congress on February 17, 2012

- Will build, maintain Nationwide “Public Safety” Broadband Network (“NPSBN”) for use by first responders
- FirstNet adopted LTE as the standard for the NPSBN
- The Act doubled the amount of spectrum allocated to public safety from 10 MHz to 20 MHz, which will roughly double the performance of the network

\$7 billion in funding to build out the NPSBN;

- \$2B available now
- \$5B after successful FCC spectrum auctions





FirstNet: Goals & Objectives

To promote competition in the network and subscriber equipment market

To require equipment on the network to:

- Be built to open, non-proprietary commercial standards
- Capable of being used by any public safety entities and multiple commercial partners across NPSBN
- Backwards-compatible with existing commercial networks to the extent that such capabilities are necessary and technically and economically reasonable

To require deployment phases with substantial rural coverage milestones as part of each phase of the construction and deployment of the network



Why is it better than commercial services?

- Carrier networks are often overwhelmed with commercial traffic during emergency events
- For obvious reasons public safety does not want to preempt this communication





FirstNet's Mission

From their website:

- First responders deserve the best network
- Reliability must be built-in
- Public safety needs priority access
- Special events attract big crowds
- Rural emergencies pose coverage challenges
- Flying blind is dangerous
- Sharing one network improves communications
- Mass markets fuel innovation
- Budgets are tight
- Battling enemies requires coordinated response

<http://firstnet.gov/why-firstnet>

Consultation Process



FirstNet Consultation

- FirstNet is required to consult with states in design and build of the network
 - Governor “signs off” on each state’s plan
 - FirstNet will operate like a cellular carrier, so:
 - FirstNet needs a business plan that meets your needs
 - FirstNet needs to be competitive
 - FirstNet needs your input
 - State of MN is executing on the consultation to:
 - Articulate stakeholder needs
 - Help build a sustainable business case for FirstNet
 - Advise the governor
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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



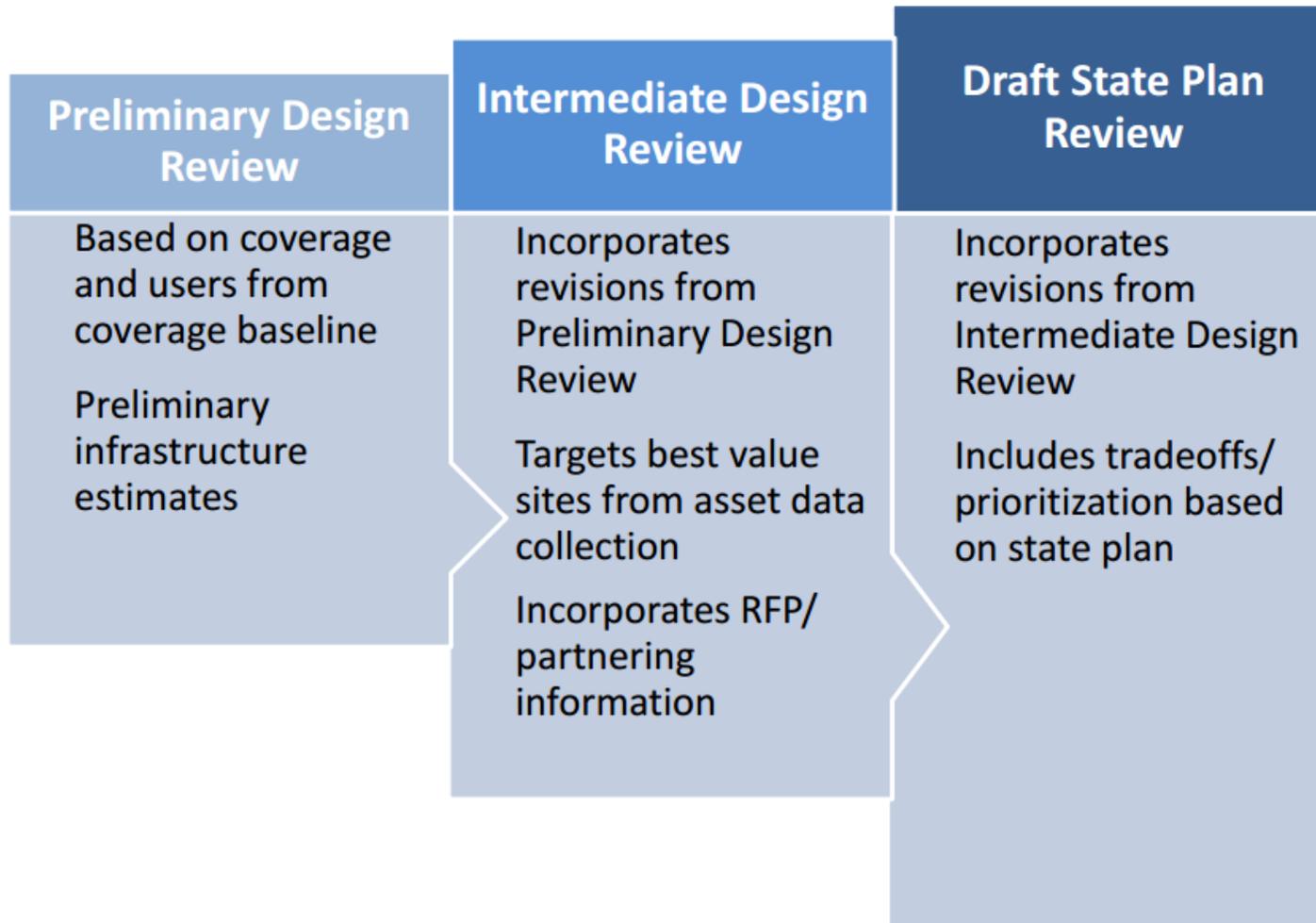
Key MnFCP Tasks

MnFCP; “Minnesota-FirstNet Consultation Project

- Governance Recommendation
 - Tribal Representation
 - Education and Outreach
 - Stakeholder Entity Assessment
 - MOU and MOA
 - State and Stakeholder Volunteers (Work Groups)
 - Requirements Gathering
 - Financial Sustainability Plan
 - SCIP Recommendations
 - Data Discovery and Collection
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Design Process





State Objectives

- Prepare the State of Minnesota and its public safety communications governance for FirstNet consultation.
 - Governance Recommendations
 - MOA / MOU Sharing Agreements
 - SCIP Recommendations
 - Equip the State with the necessary information to engage with FirstNet; that accurately supports the needs of its stakeholders and sustainability.
 - Stakeholder Working Groups
 - County-by-County Assessments
 - Partner Evaluation / Sustainability Plan
 - Perform the Minnesota-FirstNet consultation process required under The Act.
 - Collect and Aggregate Stakeholder Entities Statewide
 - Tribal Outreach
 - Education and Outreach
 - Facilitate the deployment of the NPSBN
 - Data Discovery and Collection
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Why not use
commercial service?



FirstNet Advantages – Reliability & Coverage

Resiliency and Reliability

- Built to Public Safety grade (back-up power, redundant components, no single points of failure)
- Expectation is 5-9s (99.999%) – similar to Radio/ARMER

Coverage

- Commercial carrier networks are built around population centers and often do not provide sufficient coverage in rural areas
 - Usually good indoor coverage in urban and suburban areas
 - However, carrier coverage not ubiquitous, many rural areas without service
- FirstNet is to be built to support the coverage objectives of first responders



FirstNet Advantages – Greater Control

- Local control to manage the access to the network
 - Manage the priority and Quality of Service (QoS)
 - Manage the user priority; i.e., ability to give one type of user priority over another
 - The ability to preempt other users with active sessions
 - Ability to deny access to “secondary users”
 - Ability to provide dynamic real-time priority changes based on incident response procedure
 - Top priority during an incident for first responders
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FirstNet Advantages – Better Cost & Flexibility

- The NPSBN will complement the mission critical voice communications of ARMER
- Competitive with Commercial Service
- Regional, National & International Roaming
- NG-911



An Ecosystem for Innovation & the Future

Ten years ago, would you have asked for these?

- Mobile email
- Social media
- Snapchat
- An app that maps constellations in the night sky

A new ecosystem

- Ten years ago, consumers would not have asked for the apps that have transformed modern life
- Likewise, public safety is not asking for the apps that will transform first response
- A nationwide, shared public safety network is a new ecosystem in which unexpected, innovative ideas will flourish—and save lives



Challenges/Decisions

- When will FirstNet will be available?
- How will it interface with ARMER and how long do we need to support that investment?
- Will the network be designed to address Minnesota coverage concerns and will it be compelling enough to encourage subscribers to use
- Will there only be a per month per device charge or will there be a huge capitol investment like ARMER?
- What will the cost of the device (s) be?
- How capabilities must we invest in NG9-1-1 for FirstNet to be effective?



Questions?

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