



Harnessing the Power of FirstNet for Disaster Planning, Response and Recovery

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- FirstNet and Emergency Management
- Overview of Deployables Program
- 2023 Deployment Examples/Lessons Learned
- FirstNet Authority Planning Resources
- Wrap-up / Q&A



FirstNet and Emergency Management



First Responder Network Authority

- Independent entity within the Department of Commerce
- Responsible for overseeing the creation and delivery of FirstNet
- Ensures AT&T delivers on the terms of its contract and that FirstNet meets public safety's needs now and into the future, including by investing in further network enhancements

FirstNet: The Network

- Nationwide wireless broadband network for first responders being built and deployed across all 50 states, 5 U.S. territories, and the District of Columbia
- Offers public safety a communications network built and customized to meet their needs

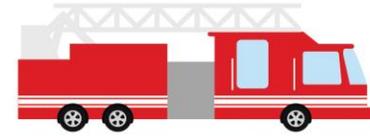
AT&T

- Telecommunications company
- Responsible for building, operating, deploying, and maintaining the FirstNet network in accordance with a 25-year contract with the FirstNet Authority
- As part of the agreement, access 20 MHz of spectrum licensed to the FirstNet Authority and \$6.5 billion in initial funding
- Will invest about \$40 billion into the network over the life of the contract

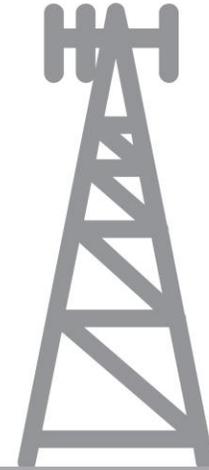


5.5M+
FirstNet connections

220+ 
unique apps in the
FirstNet App Catalog



100%
Band 14 initial
coverage buildout



725+
FirstNet Ready™
devices



180+
dedicated deployable
network assets, including
Flying COWs, SatCOLTs, and
Compact Rapid Deployables

1810+
solutions triaged and
deployed for public
safety in 2023



27,500+
public safety agencies and
organizations subscribed







MITIGATION

Mitigating Risks

Exercising Plans

Monitoring Conditions

Building Resiliency

How can FirstNet help to mitigate risks?

The Internet of Things helps emergency managers have constant “eyes on” situations through:

- Sensor monitors, such as flood gauges, weather stations, air quality, radiation detectors, etc.
- Traffic cameras and cameras in sensitive areas, which provide constant situational awareness in risk areas

THINK ABOUT:



Which devices are used in your community and how can sharing the information help public safety?



What data would help inform future mitigation efforts (e.g., flood maps, contours, repetitive loss locations, neighborhoods and demographics, functional needs)?

What can FirstNet do to assist preparedness measures?

Better outcomes happen when information is shared, collaborated on, and acted on with ALL involved stakeholders.

FirstNet promotes interoperability of voice, data, and video for integrated planning and information sharing and can escalate with regional/state/national mutual aid partners as needed.

THINK ABOUT:



Who does your agency talk with or share data with on a regular basis?



What data is being shared and what data do you want to share in the future?



PREPAREDNESS

Training

Testing

System Development

Planning

Prevention

Risk Assessment

How can FirstNet support response?

Overcoming Network Congestion

- Priority and Preemption

FirstNet Central

- Network Status
- Uplift

Deployables

- Extended coverage
- No additional charge

Situational awareness

- Common platform / uniform interface anywhere in the U.S.
- Apps specific to EM

THINK ABOUT:



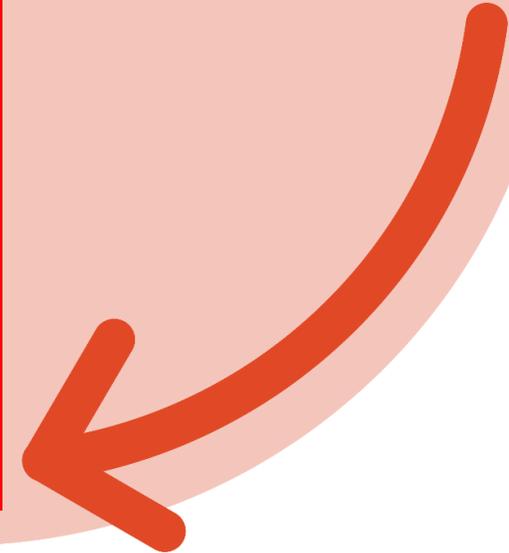
What non-traditional groups provide support in your emergency management plan (extended primary)?



How can FirstNet improve your situational awareness between the field and the EOC?

RESPONSE

<i>Warning/Alerts</i>	<i>Volunteer</i>
<i>Incident</i>	<i>Coordination</i>
<i>Management</i>	<i>Immediate</i>
<i>Evacuations</i>	<i>Assistance</i>
<i>Medical</i>	<i>Damage</i>
<i>Coordination</i>	<i>Assessment</i>
<i>Sheltering</i>	



RECOVERY

Ongoing Development

Financial Stability

Economic Recovery

Reconstruction

Infrastructure Restoration

Ongoing Assistance

Continuity of Government



How can FirstNet be used during recovery?

Getting a community back to normal requires data, such as:

- Damage assessments
- Disaster declarations
- Financial documentation
- Structural plans
- Insurance

Gathering and assimilating that data is dependent on communications.

THINK ABOUT:



What agencies do you work with to ensure rapid restoration after large-scale incidents?



What role could broadband play to expedite the restoration of normal living for your citizens?



Overview of Deployables Program

FirstNet Deployable Program

150+ deployable assets dedicated to public safety and available nationwide to extend Band 14 coverage and expand capacity **at no cost to subscribing agencies**

- Strategically located throughout the country and available 24/7/365
- FirstNet deployables are equipped with Band 14
- FirstNet deployable assets typically restrict access to devices with FirstNet SIMs and only use Band 14, ensuring spectrum is completely dedicated to public safety



Large Deployable Form Factors

Compact Rapid Deployable



Antenna Height: **16 feet**
Coverage Radius: **up to 1 mile**
Spectrum/Backhaul: **Band 14/Satellite, Ethernet, LTE, or WiFi**
Capacity: **~50 Active Users**

Communications Vehicle



Antenna Height: **30 feet**
Coverage Radius: **~1+ miles**
Spectrum/Backhaul: **Band 14/Satellite, Ethernet, or LTE**
Capacity: **50+ Active Users**

SatCOLT



Antenna Height: **60 feet**
Coverage Radius: **~1-3 miles**
Spectrum/Backhaul: **Multi-Band/Satellite**
Capacity: **~350 Active Users**

Cell on Wings



Antenna Height: **400 feet**
Coverage Radius: **~5 miles**
Spectrum/Backhaul: **Band 14/Satellite or Fiber**
Capacity: **~350 (Sat)/350+ (Fiber) Active Users**

**Coverage Range will vary by deployment*

***Connected Users and backhaul are upper limits*

Cell Booster Pro



Capabilities: Indoor coverage solution. Coverage area is about 15,000 square feet. Requires “dirty” internet or low Earth orbit backhaul.

Emergency Communications Portable (ECP)



Capabilities: Provides satellite backhaul to macro sites when the standard backhaul is out of service.

Low Earth Orbit Satellite



Capabilities: Backhaul provider using low Earth orbit satellites.

Generator



Capabilities: Provides power to SatCOLTs/COWs, CRDs, and macro sites, as needed.

*Coverage Range will vary by deployment

**Connected Users and backhaul are upper limits

Other Deployable Form Factors

miniCRD™



Coverage Radius: Up to 0.5 mile
Spectrum: Band 14
Backhaul: Starlink, fiber, WiFi, LTE, LAN
Capacity: ~50 Active Users

Mobile Broadband Kit (MBK)



Capabilities: Portable, ruggedized CradlePoint that will provide WiFi capabilities using Band 14 coverage. One button setup and demobilization.

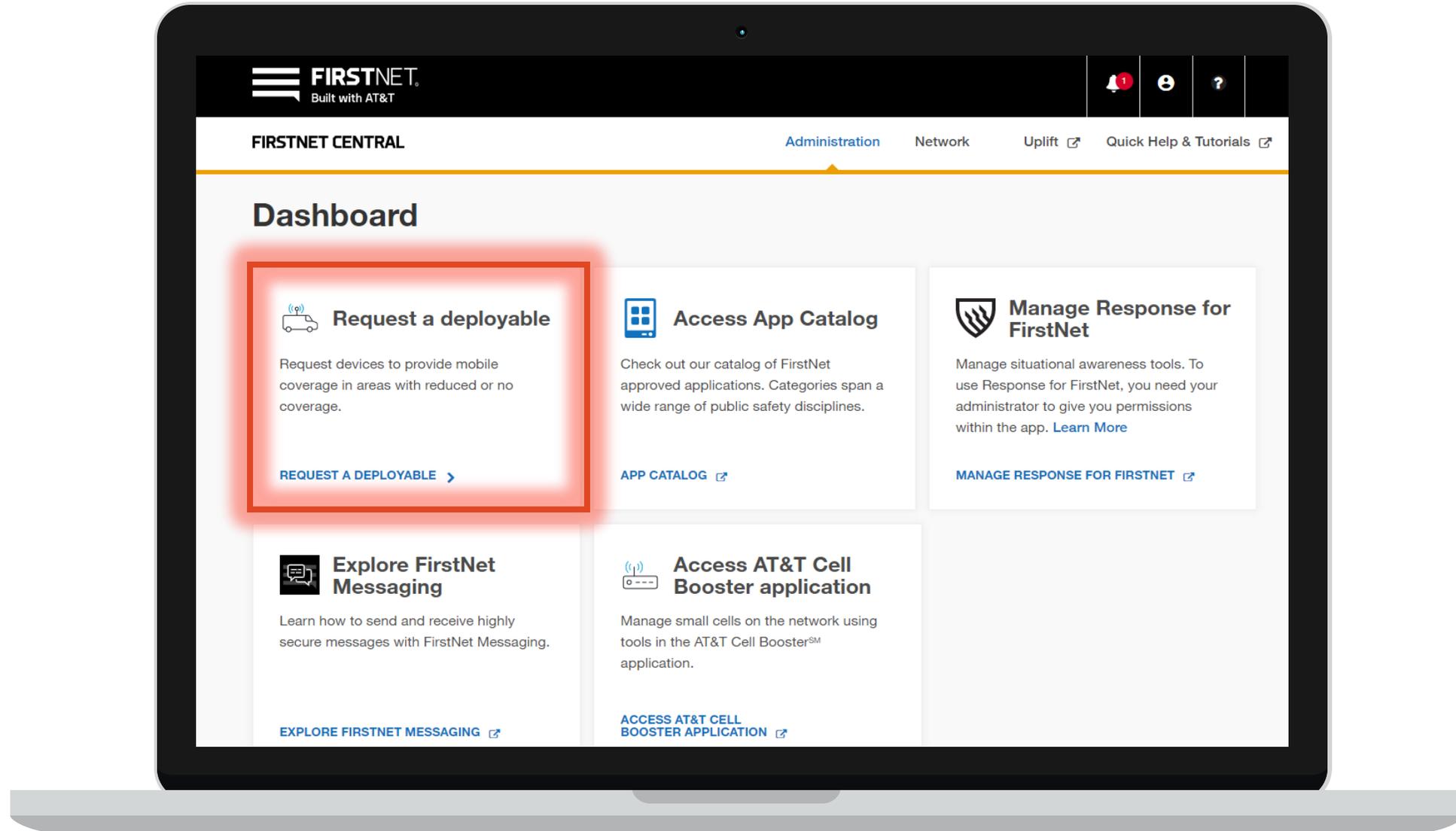
Cell-Fi Go Red



Capabilities: Cell signal booster that will bring outside cellular coverage indoors.

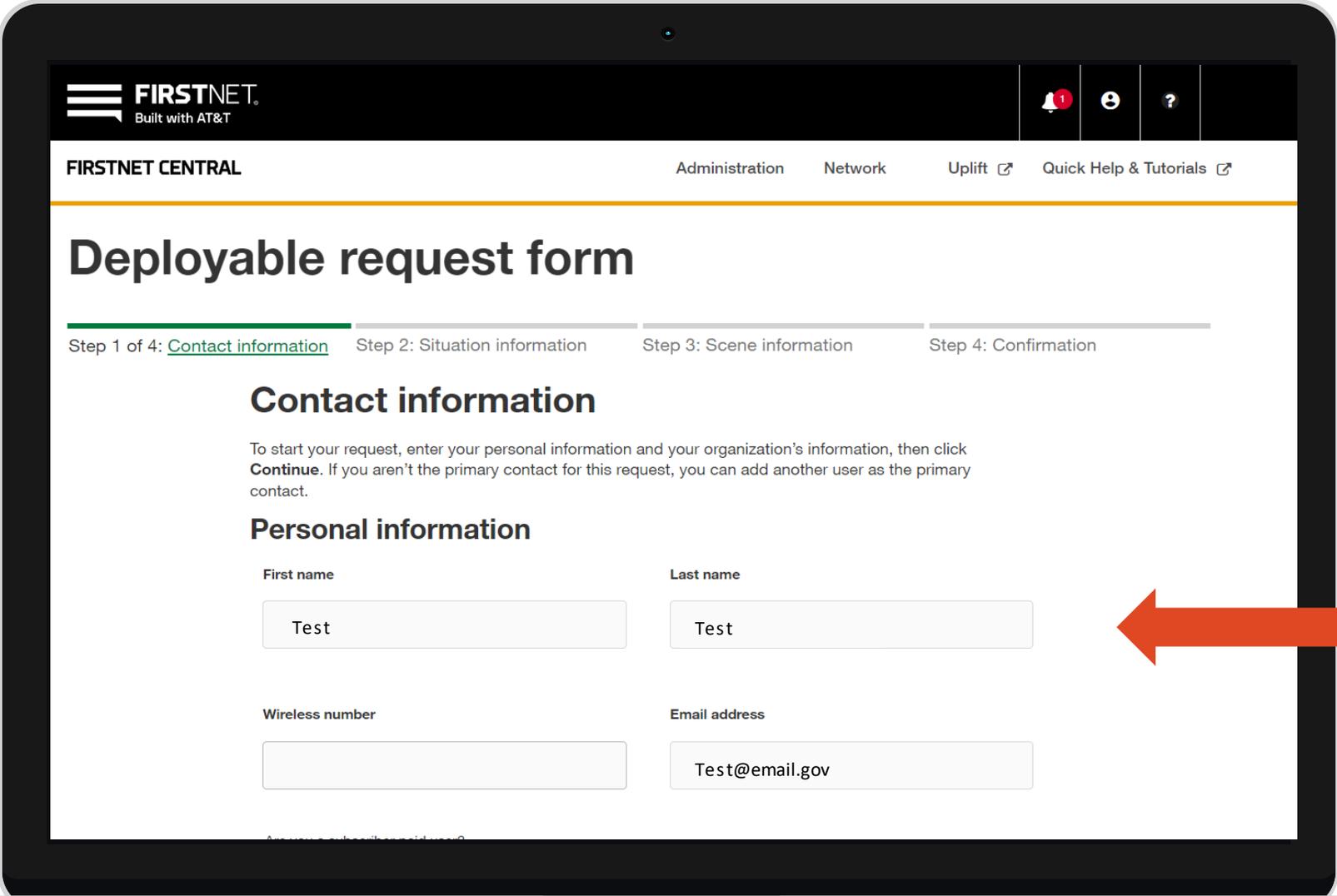
*Coverage Range will vary by deployment

**Connected Users and backhaul are upper limits



Step 1 of 4: Contact Information (Personal)

Advantage to using the form is you do **not** need to know your foundation account number (FAN).



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FIRSTNET CENTRAL Administration Network Uplift Quick Help & Tutorials

Deployable request form

Step 1 of 4: Contact information Step 2: Situation information Step 3: Scene information Step 4: Confirmation

Contact information

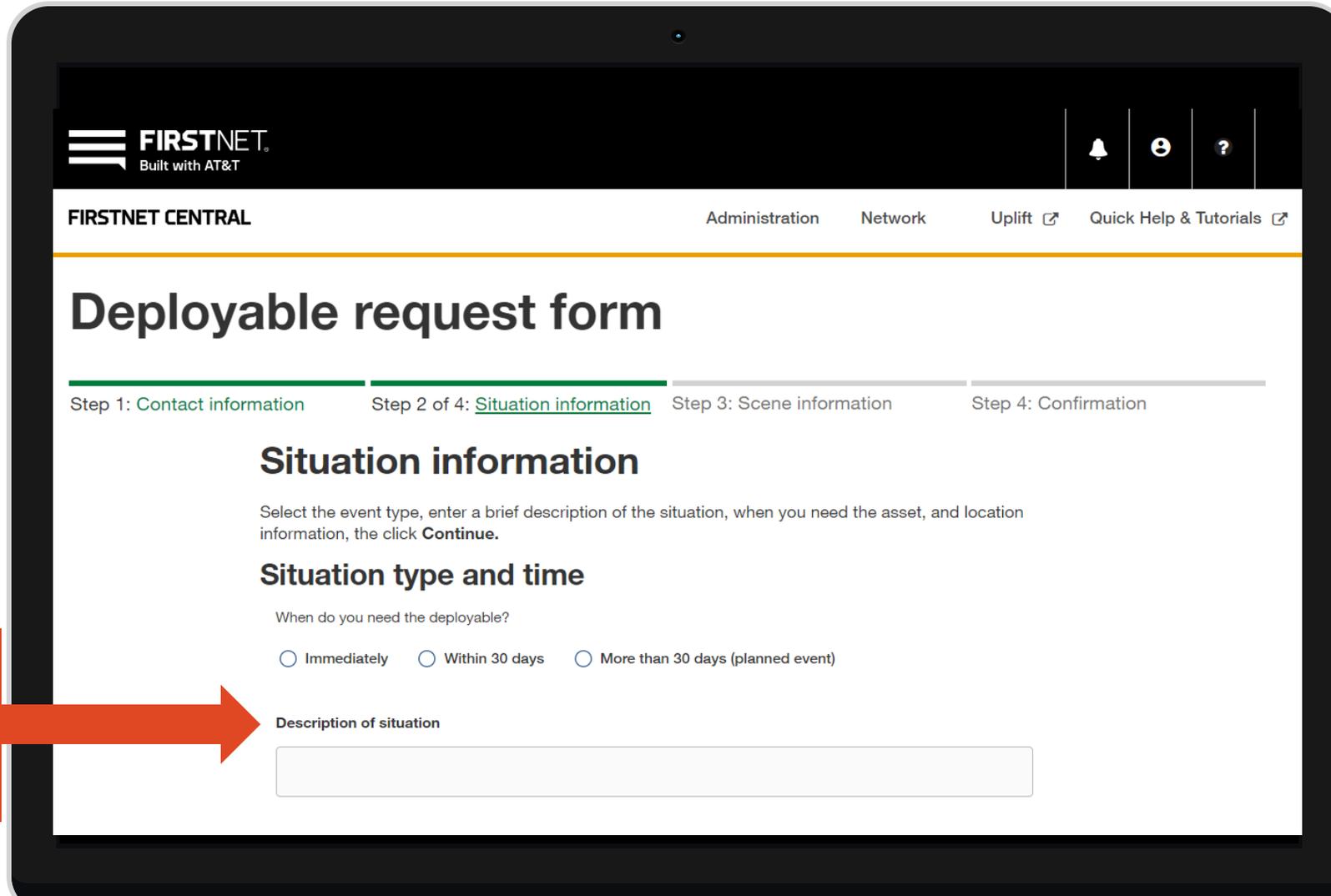
To start your request, enter your personal information and your organization's information, then click **Continue**. If you aren't the primary contact for this request, you can add another user as the primary contact.

Personal information

First name	Last name
<input type="text" value="Test"/>	<input type="text" value="Test"/>
Wireless number	Email address
<input type="text"/>	<input type="text" value="Test@email.gov"/>

Some information is filled in automatically

Step 2 of 4: Situation Information (Type and Time)

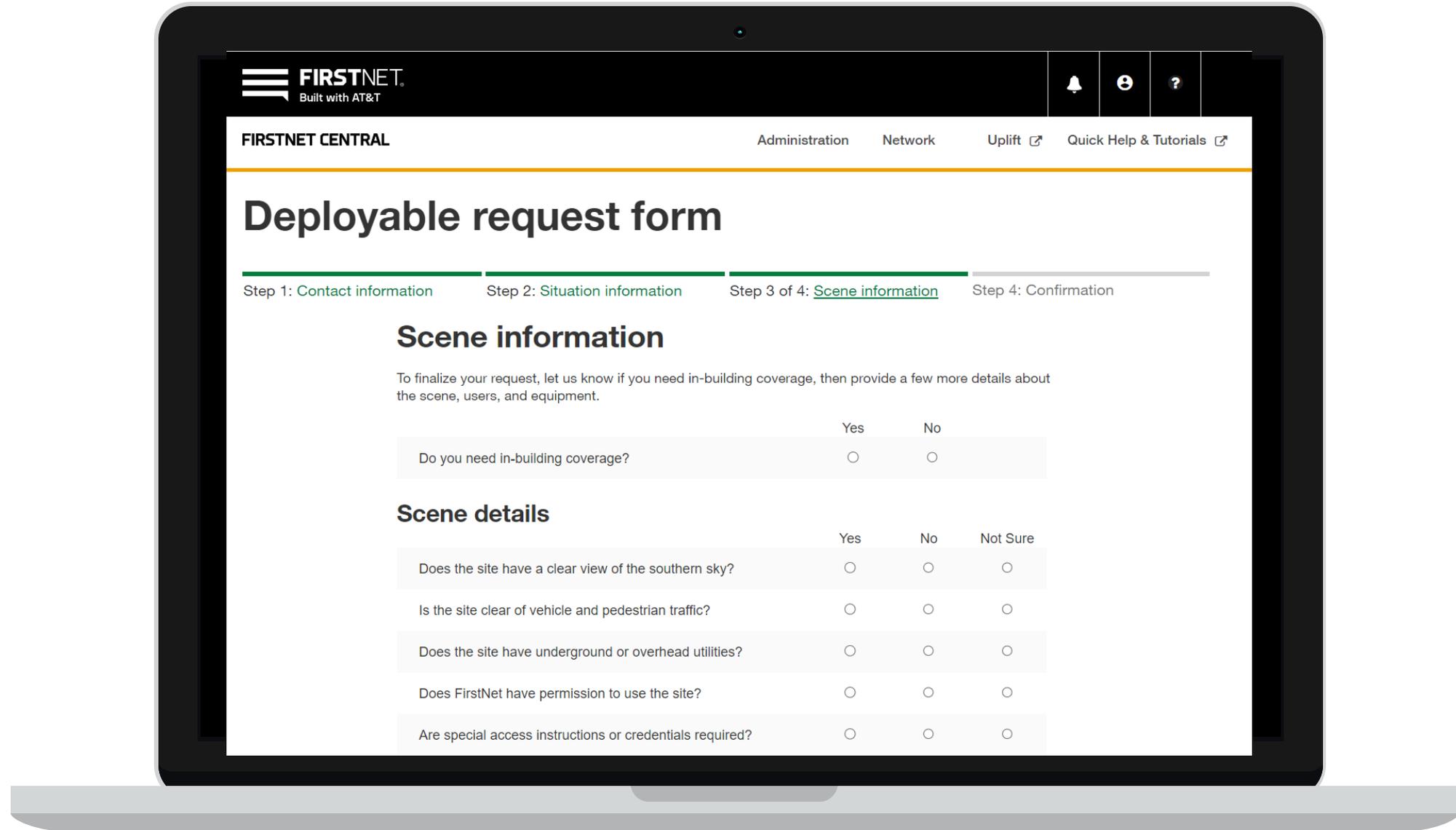


The screenshot shows the 'Deployable request form' in the 'FIRSTNET CENTRAL' interface. The form is divided into four steps: Step 1: Contact information, Step 2 of 4: Situation information (current step), Step 3: Scene information, and Step 4: Confirmation. The 'Situation information' section includes a sub-section 'Situation type and time' with radio buttons for 'Immediately', 'Within 30 days', and 'More than 30 days (planned event)'. Below this is a 'Description of situation' text input field.

Explain the problem; do not describe the desired solution.



Step 3 of 4: Scene Information (Scene Details)

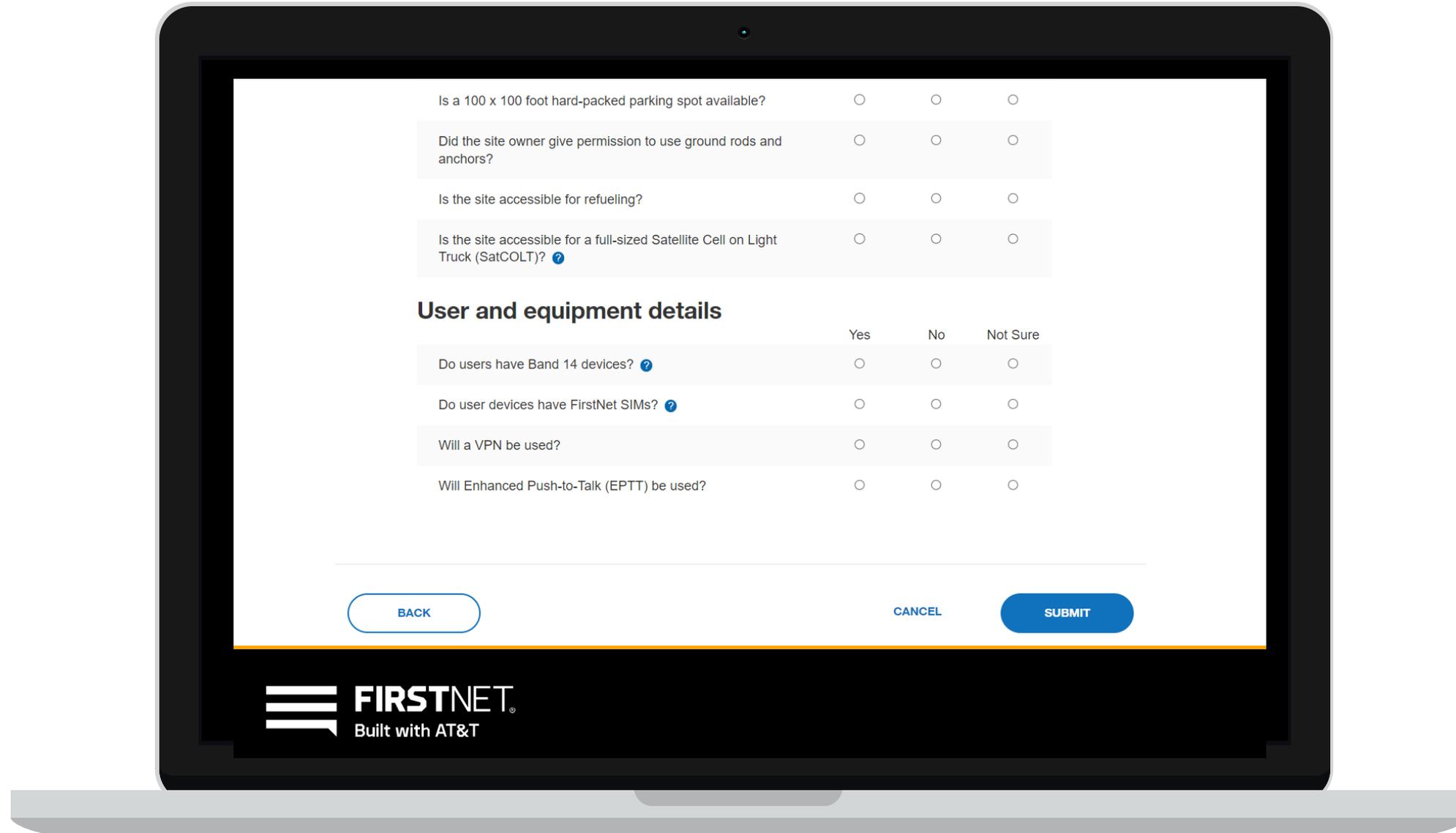


The screenshot shows the 'Deployable request form' in the 'Scene information' step. The form includes a progress bar with four steps: Step 1: Contact information, Step 2: Situation information, Step 3 of 4: Scene information (highlighted), and Step 4: Confirmation. The 'Scene information' section contains a heading, a descriptive paragraph, and a table of questions with radio button options.

Scene information					
To finalize your request, let us know if you need in-building coverage, then provide a few more details about the scene, users, and equipment.					
Do you need in-building coverage?	<table><tr><td>Yes</td><td>No</td></tr><tr><td><input type="radio"/></td><td><input type="radio"/></td></tr></table>	Yes	No	<input type="radio"/>	<input type="radio"/>
Yes	No				
<input type="radio"/>	<input type="radio"/>				

Scene details			
Does the site have a clear view of the southern sky?	Yes	No	Not Sure
Is the site clear of vehicle and pedestrian traffic?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the site have underground or overhead utilities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does FirstNet have permission to use the site?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are special access instructions or credentials required?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Step 3 of 4: Scene Information (User and Equipment Details)



The screenshot shows a mobile application interface for collecting scene information. It features a list of questions with radio button options. Below the questions is a section titled "User and equipment details" with a table of options. At the bottom, there are three buttons: "BACK", "CANCEL", and "SUBMIT". The FirstNet logo and "Built with AT&T" are visible in the bottom left corner of the application screen.

Is a 100 x 100 foot hard-packed parking spot available?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did the site owner give permission to use ground rods and anchors?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is the site accessible for refueling?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is the site accessible for a full-sized Satellite Cell on Light Truck (SatCOLT)? ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
User and equipment details			
	Yes	No	Not Sure
Do users have Band 14 devices? ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do user devices have FirstNet SIMs? ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will a VPN be used?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will Enhanced Push-to-Talk (EPTT) be used?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[BACK](#) [CANCEL](#) [SUBMIT](#)

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How to Request a Deployable

Who: Any FirstNet Agency Administrator may request a deployable

How: Use the “Request a Deployable” tile on the FirstNet Central landing page

Or call your local FirstNet Consultant

Or FirstNet Customer Care (800-574-7000)

...with your Foundation Account Number (FAN)

When: Any time service is needed

>30 days for planned events

What:

- Describe communication needs
- Identify the location
- Describe incident conditions and terrain
- Provide a point of contact for coordination
- Provide any other information to help the deployable team access the site





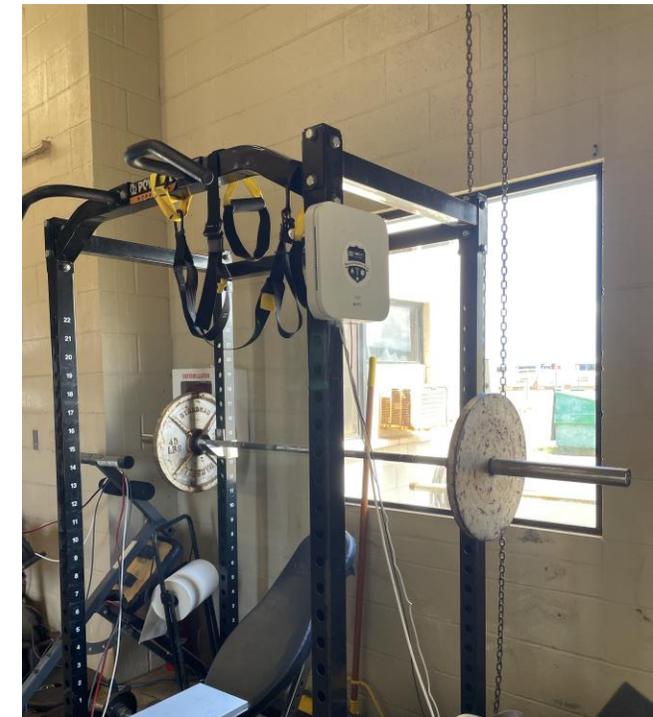
2023 Deployments: Lessons Learned

Example Deployment: Barrow, AK Undersea Fiber Cut

- **Issue:** Undersea fiber was cut ~50km north of Barrow, AK
- Deployed miniCRD and Cell Booster Pros
- Located at key public safety locations (e.g., police department)



Example Deployment: Maui Wildfire

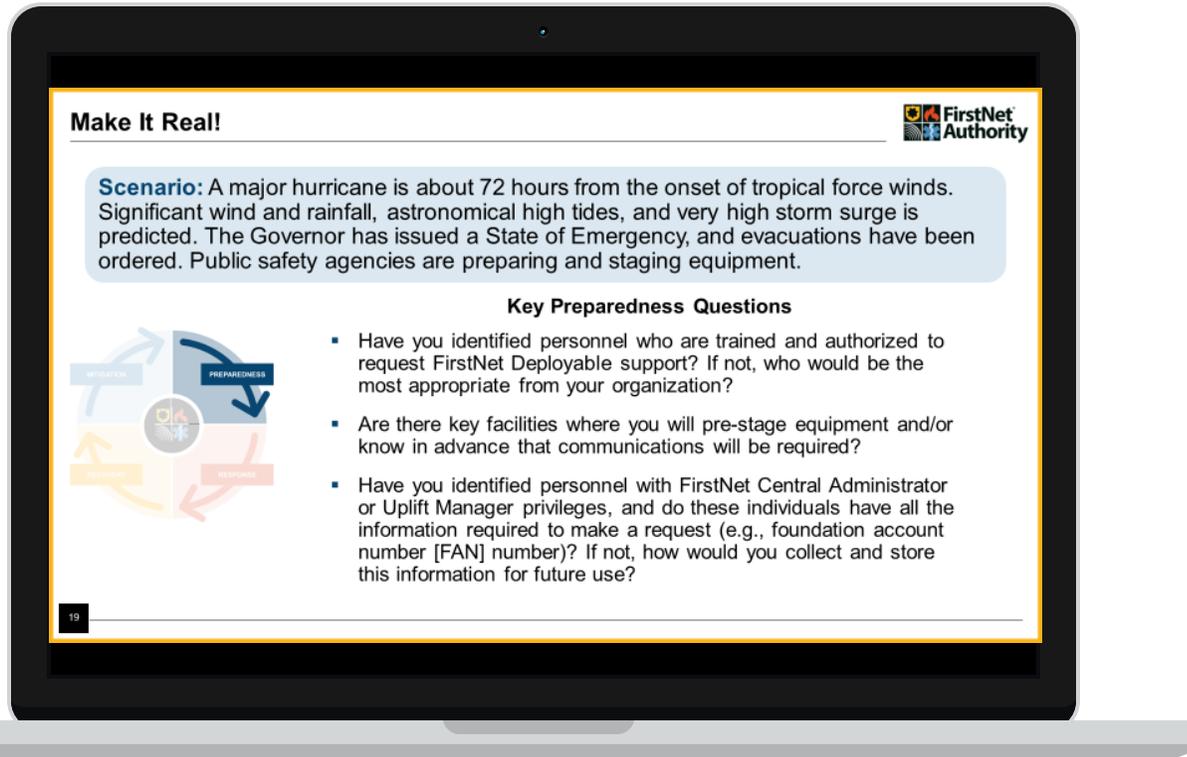


New Equipment to Support Response Capabilities





FirstNet Planning Resources



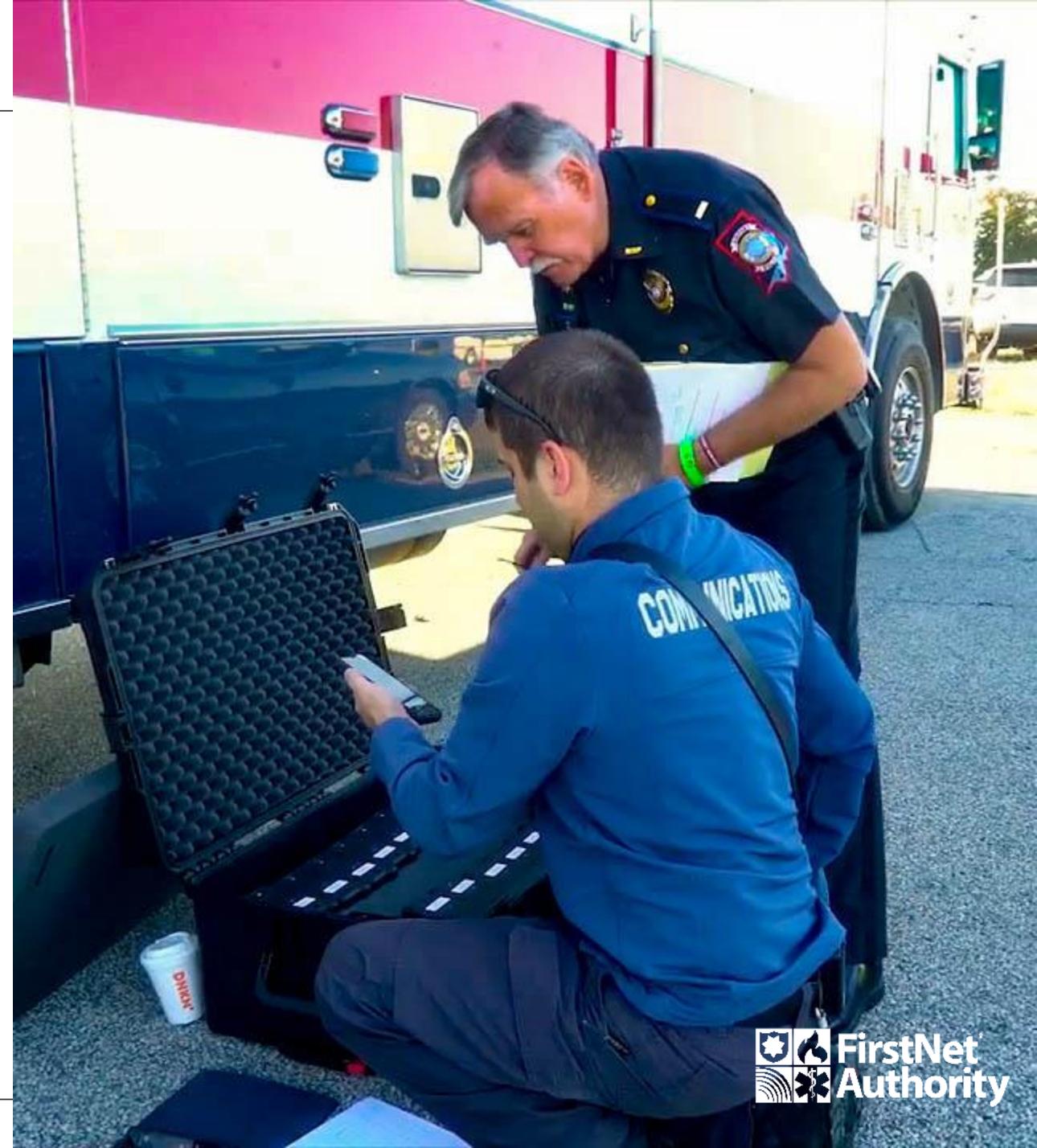
Scenario-based discussions facilitated by FirstNet Authority

- Customizable scenario based on common hazards
- Using FirstNet in the EOC and in the field
 - Preparedness
 - Response
 - Recovery
- Discussion topics include:
 - Requesting a FirstNet deployable
 - FirstNet Central mapping tools
 - FirstNet Uplift and FirstNet Assist App

Exercise Inject Catalog

FirstNet has created a catalog of injects/questions for operations based and discussion-based exercises

- Injects/questions cover a wide range of public safety activities
- Catalog is easily searchable by public safety activities to be exercised
- Injects/questions are able to be modified
- Homeland Security Exercise and Evaluation Program (HSEEP) compatible format





Identify the agencies frequently supporting incidents

- Law enforcement, fire service, emergency medical services, emergency management, 9-1-1/dispatch
- Healthcare, essential services, transportation, utilities or other secondary users

Identify locations where public safety has needed broadband capabilities in the past

- Command posts
- Emergency operations centers
- Operational areas (e.g., medical facilities, staging areas, camera locations)
- Headquarters buildings (e.g., police, fire, EMS, PSAPs)
- Staging areas

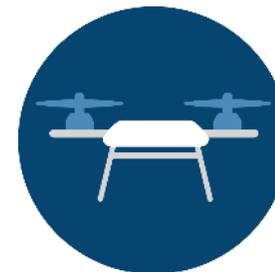
Identify broadband capabilities needed

- Voice, text, or email
- EPTT/FirstNet Push-To-Talk
- CAD
- Situational awareness
- GPS/LBS
- Many others

Identify which devices and technology will be used

- Smartphones, tablets, and laptops
- Video cameras, body worn cameras
- Hotspots/MiFi
- In-vehicle routers

Post Incident or Event Review (PIER) Process



Pre-planning

- Was there any pre-planning that occurred
- If there was, who conducted it and how effective was it?

Logistics

- Request process
- Arrival of the deployable
- Setup
- Technical support, if it was needed

Operations

- What was your FirstNet Experience?
- Did the NPSBN meet your operational needs?

Technology

- What devices (make and model) were used?
- What were their configurations?
- What applications were used?

Emergency Management Take: Quarterly newsletter

- [FirstNet.gov/Newsletters](https://www.firstnet.gov/Newsletters)

Emergency Management page: One-stop-shop for EM

- [FirstNet.gov/EM](https://www.firstnet.gov/EM)

FirstNet in Action: Sortable use cases and examples

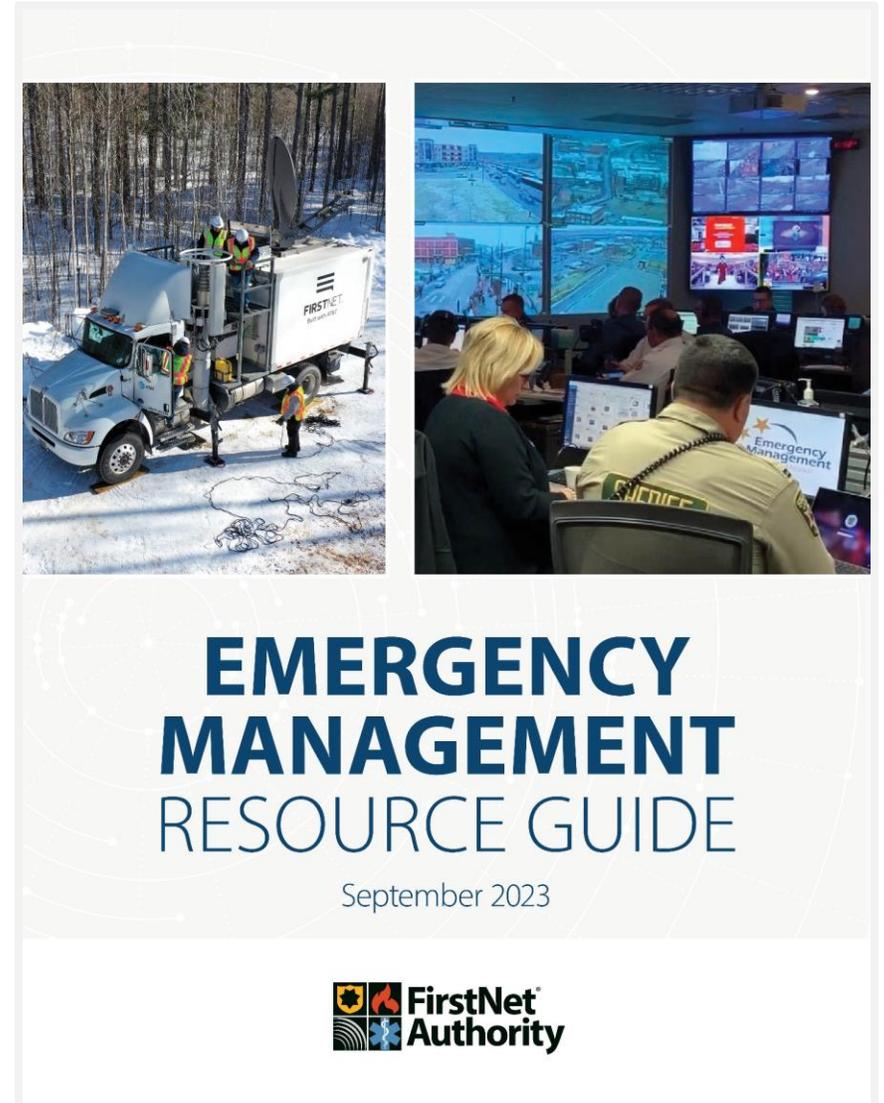
- [FirstNet.gov/FirstNetInAction](https://www.firstnet.gov/FirstNetInAction)

FirstNet Authority Public Safety Advisors: State resources

- [FirstNet.gov/Advisor](https://www.firstnet.gov/Advisor)

FirstNet Deployables: Deployable information

- [FirstNet.gov/Deployables](https://www.firstnet.gov/Deployables)



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