



NEW MEXICO  
DEPARTMENT OF  
INFORMATION TECHNOLOGY



## PUBLIC SAFETY BROADBAND PROGRAM

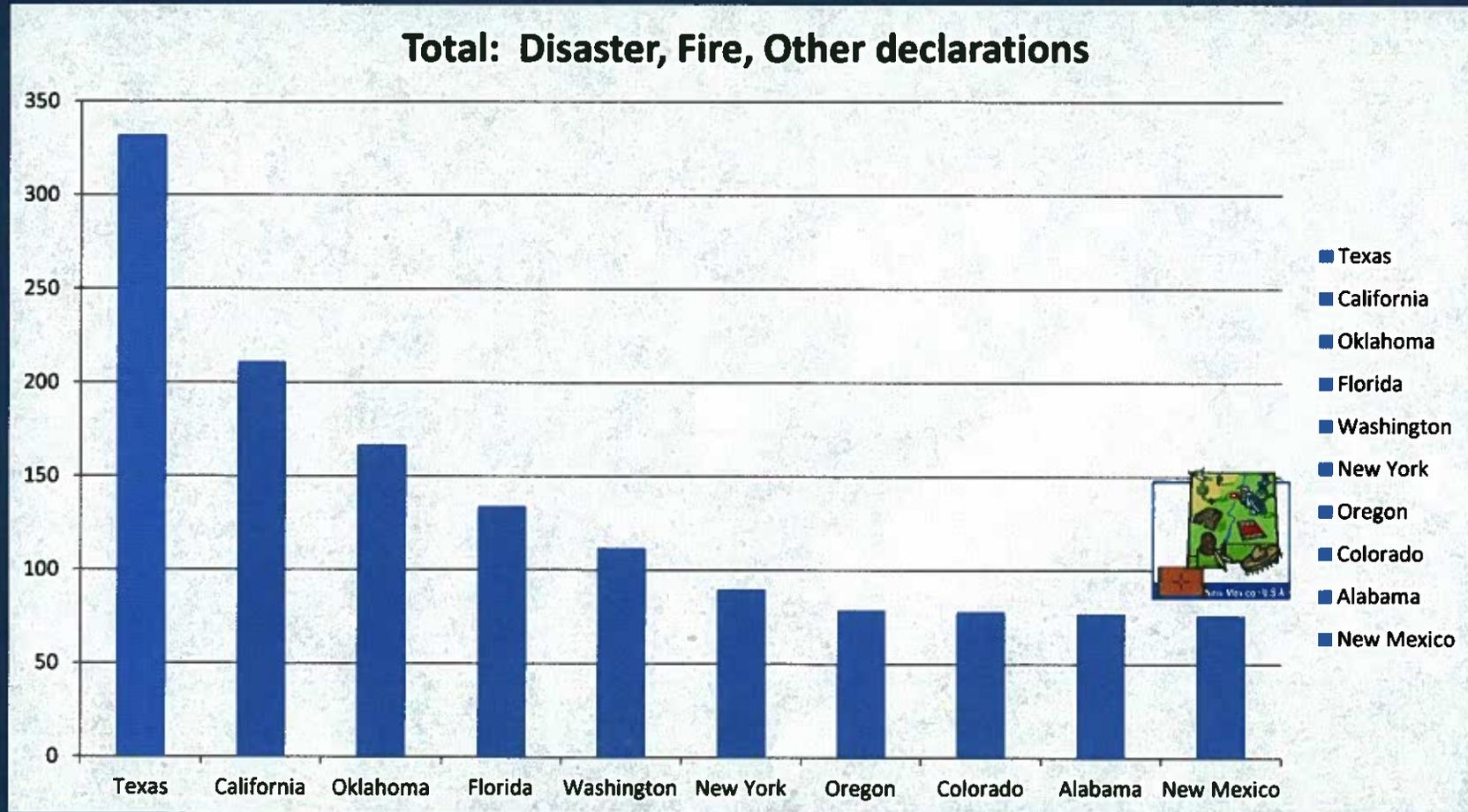
# New Mexico Public Safety LTE Overview & Early Builder Program

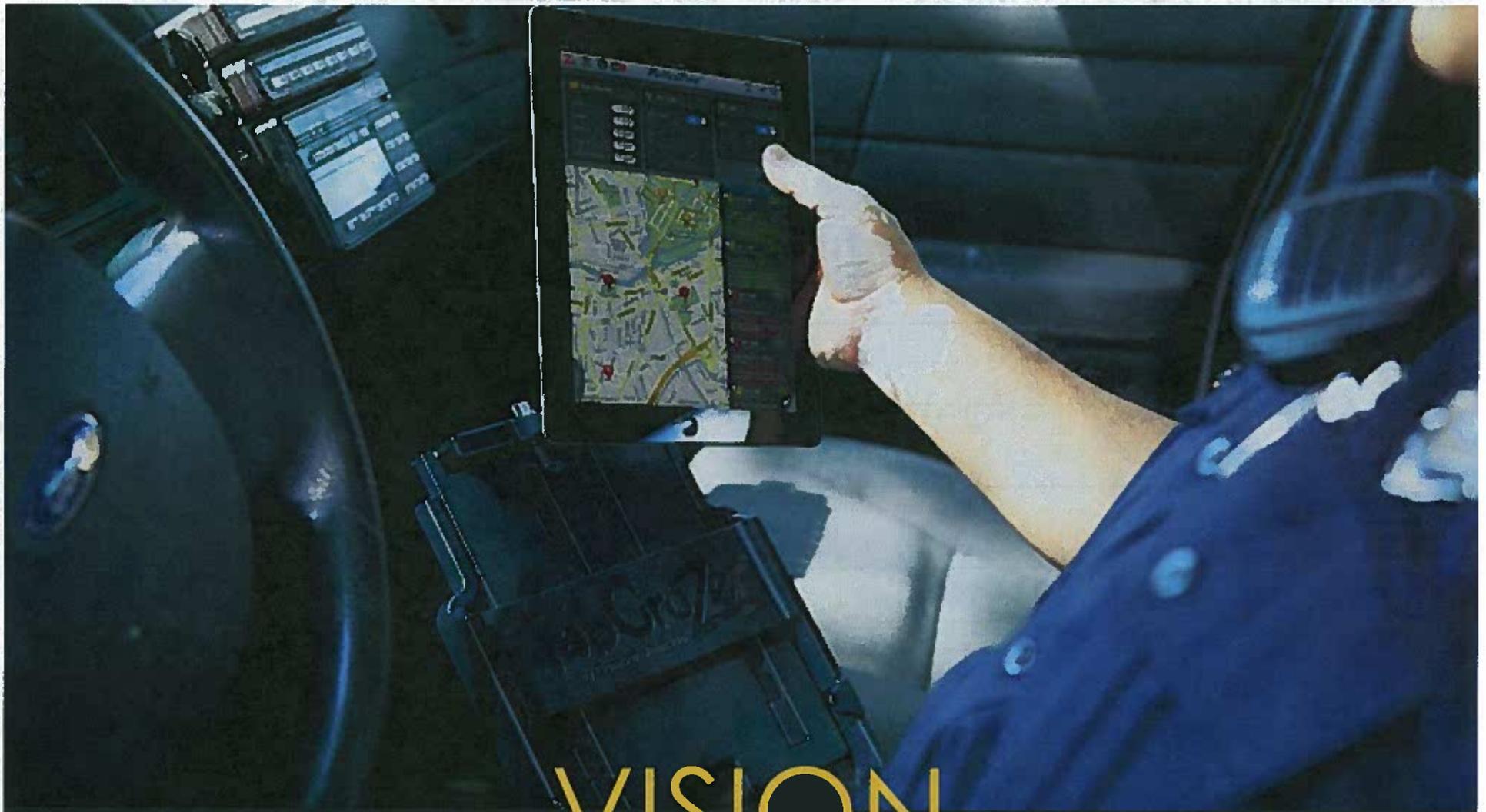


# PS LTE Overview



# New Mexico Risks





# VISION

Provide emergency responders with the first nationwide, high-speed, wireless broadband network dedicated to public safety

## Public Safety LTE Goal:

Public Safety responders require the  
**RIGHT INFORMATION**  
in  
**REAL-TIME**  
to save lives and  
property.



# St. Peter's Square: The Vatican

Pope Benedict Debut

2005

Only 9 Years Ago It Was Still Uncommon...

Look! A Flip Phone!

# St. Peter's Square: The Vatican

2013

Pope Francis Debut

Now, Data and Devices are EVERYWHERE!



Except here...

# HISTORY & THE ACT

Established by Middle Class Tax Relief and Jobs Creation Act of 2012

## Spectrum

- Allocated the “D-Block” to public safety
- 20MHz (10+10 MHz) for Public Safety in 700 MHz range

## Governance

- FirstNet Board

## Funding

- \$7B for deployment and operations
- \$135M for state implementation planning



Data network based on the 3GPP LTE standard currently used by commercial carriers.



Nationwide Public Safety  
Broadband Network

Exclusive for  
Public Safety

Band Class 14

PS LTE will provide responders with real time data to do their jobs safely and more efficiently through...



Real-time Video

Public Safety "App Stores"

Push-to-Talk

Coordinated Response Tools

GPS Tracking and Mapping Tools

ICS Forms on Handheld

Shared Applications

License Plate Readers

Facial Recognition Software

Field Fingerprinting

Field Reporting/Database Queries

Infrastructure Information (i.e. Blueprints)

...and **MUCH** more

Boston, MA  
April 15, 2013

Delta 984 sir, go.

>> Get help up from the medical tent. Get as many people up here as you can from the medical tent.

Alright.

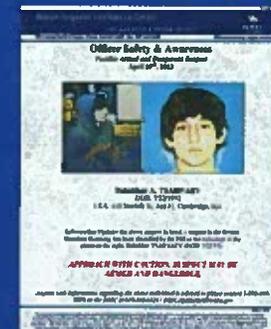
>> Delta 984. Send more to the corner of Green (unintelligible) and Huntington... (unintelligible)...We're gonna need more ambulance here....

We need more ambulances....

>> They're goin'.

For 90 minutes following the explosion, cellular and landline services were down due to congestion

# With Public Safety Broadband...



# West, Texas - April 17, 2013



# Now...

It's out West Fire, The uh West Fertilizer is uh... one of their mills is on fire...there's uh heavy smoke coming out of the top of it.

>> Stand by, was just about to do that.

<Volunteer Fire Tone Goes Out>

>>...61, fire. 61, fire. We need you to respond to the West Fertilizer Plant. They have uh...fire out there. Again, West fire (unintelligible)...West Fertilizer Plant.



# Highway Traffic or Carrier Traffic....



Either way, public safety is stuck!



# How will PS Broadband be funded



## Infrastructure Build-out

FirstNet will fund the public safety broadband infrastructure, NOT local jurisdictions.

FirstNet will offer network access pricing that is comparable to commercial carrier networks.

# How will PS Broadband be funded

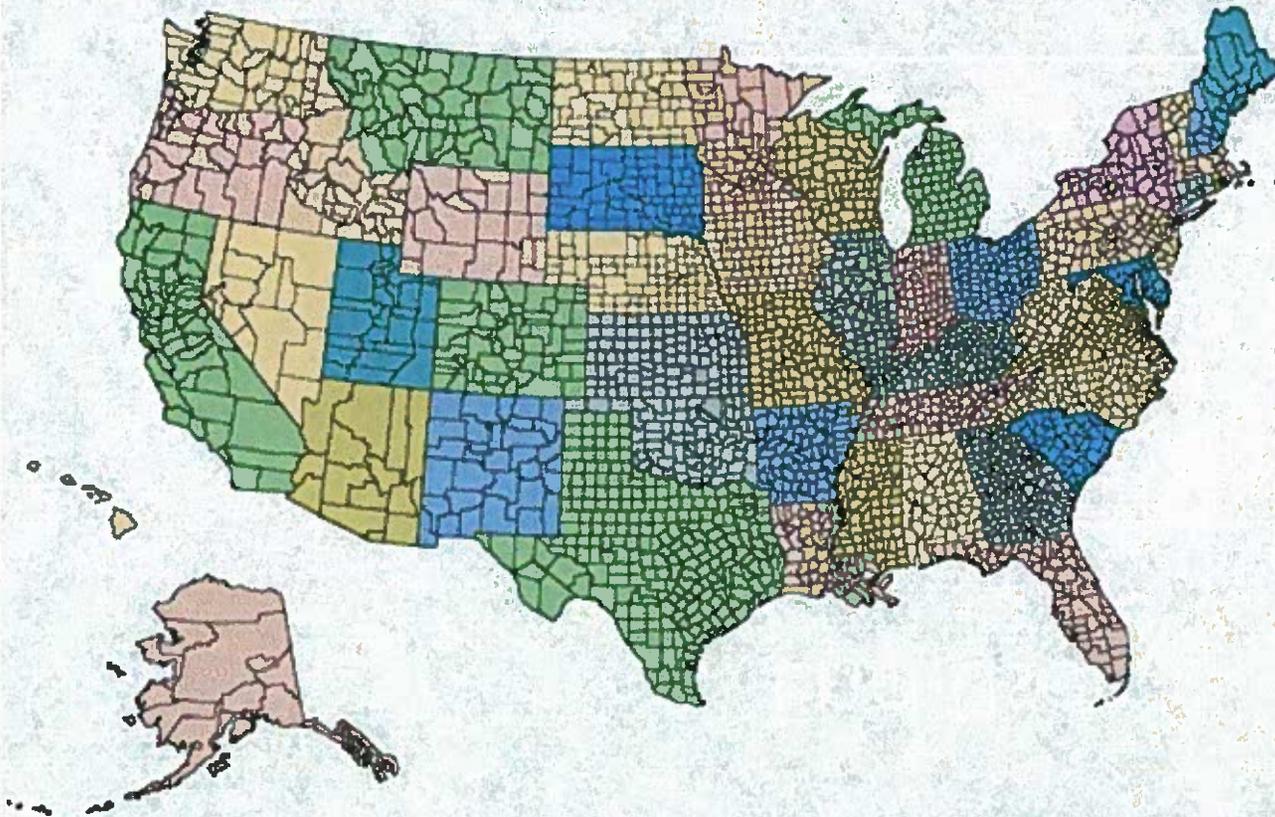
## End Users

At this time, the plan assumes that jurisdictions will purchase the end-user devices (aircards, modems, handhelds)



# Design and Coverage Requirements

FirstNet must be dedicated to public safety and providing priority access



The network must meet public safety standards of reliability:

- ✓ Security
- ✓ Hardening
- ✓ Resiliency
- ✓ Backhaul

Redundancy

North

Mariana

Islands

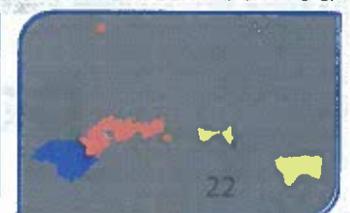
American Samoa

Guam

Puerto Rico

DC

Virgin Islands



# New Mexico BTOP Early Builder Program



## NM Grant Overview

\$4 million BTOP grant awarded to New Mexico to be an early builder for PS LTE

Grant network must be completed no later than September 2015

Design and coverage areas will be New Mexico's choice as long as the Key Learning Conditions (KLCs) are met

# Key Learning Conditions

- KLC 1: Use of a network core located remotely
- KLC 2: Spectrum management and network use issues along the U.S.-Mexico border
- KLC 3: Shared use of a state network with local, state, tribal and federal users

# Proposed Public Safety LTE Sites



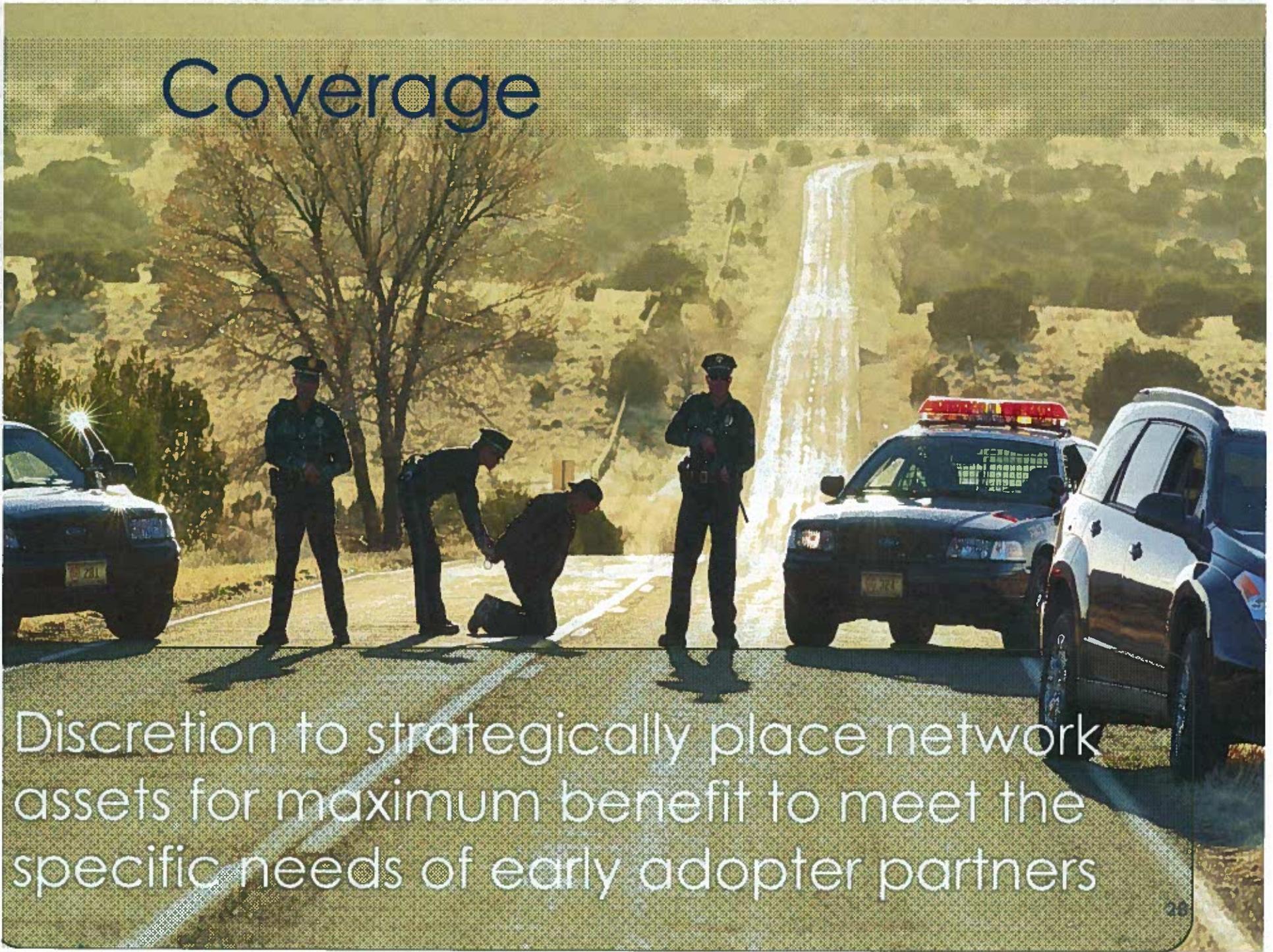
**Gateway:**  
**Santa Fe Data Center**

**Tower Sites:**  
**Santa Fe Capital**  
**"A" Mountain**  
**Santa Theresa**  
**1. Point of Entry Site**  
**2. Administration site**  
**FLETC**  
**1. Data Center**  
**2. Training Range**  
**3. Eddy County (3 sites)**  
**East Portillos**

# Benefits for LTE Early Adopters

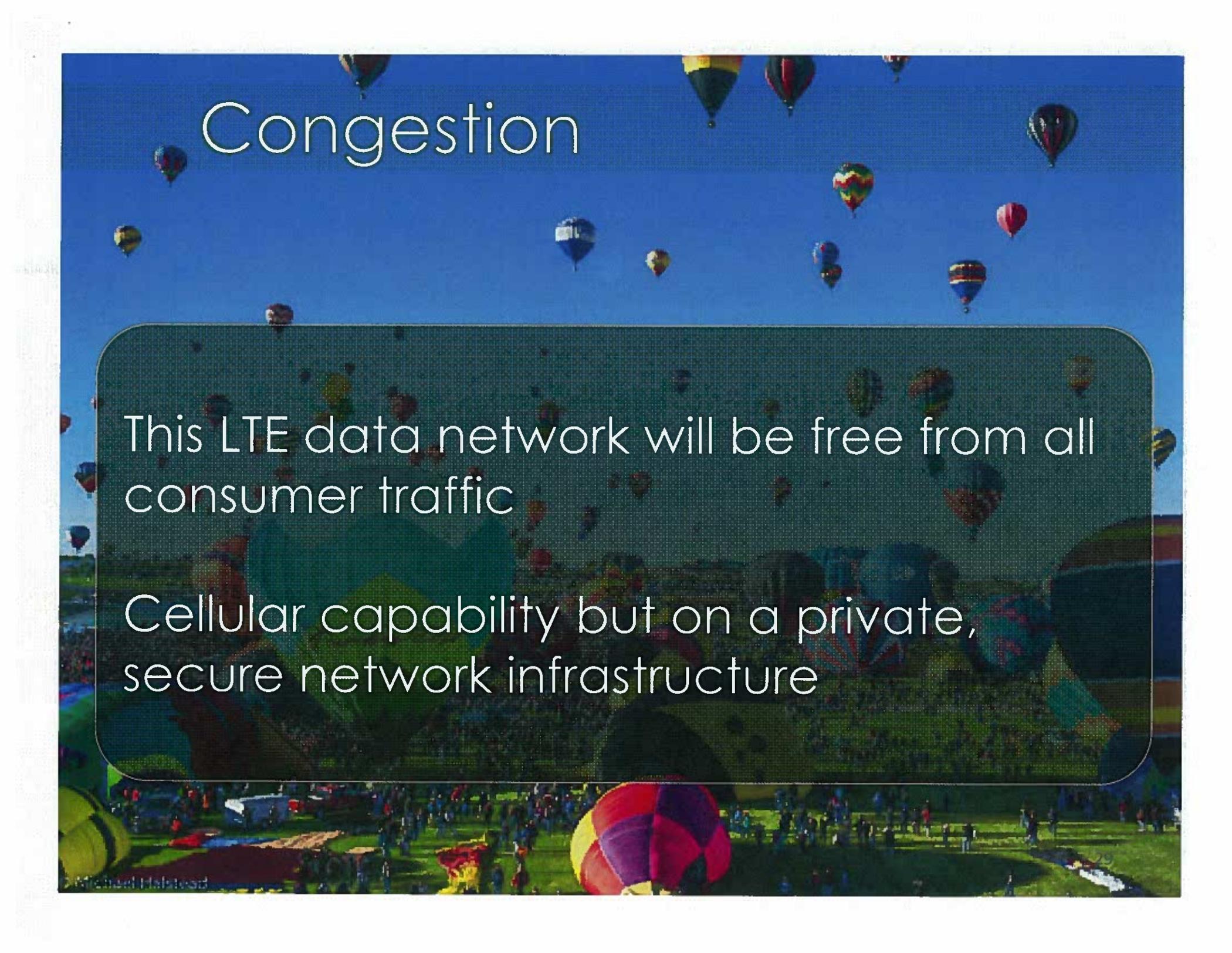


# Coverage



Discretion to strategically place network assets for maximum benefit to meet the specific needs of early adopter partners

# Congestion



This LTE data network will be free from all consumer traffic

Cellular capability but on a private, secure network infrastructure

# Speed

Network capable of up to 30 megabits per second (varies due to distance and other factors)



# Mobile LTE Assets

Under consideration for maximum testing and coverage flexibility

Coverage and Capacity  
When Needed

Supporting Network  
Outages, Events and  
Incidents

Mobile Command  
Centers, Cell on Wheels  
and Network Extensions



# Cooperation

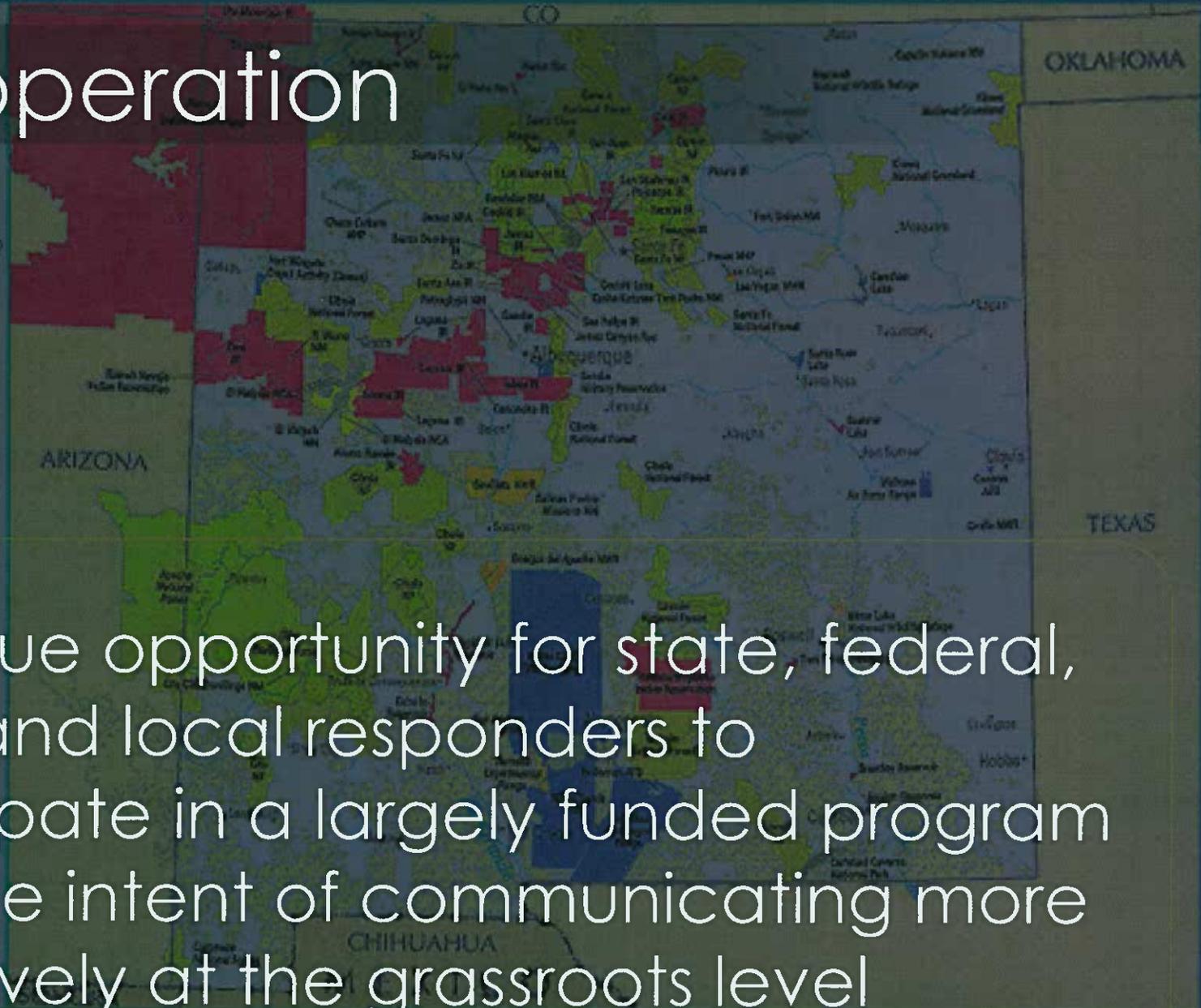
## FEDERAL LANDS AND INDIAN RESERVATIONS

- Bureau of Land Management / Wilderness
- Bureau of Reclamation
- Department of Defense (includes Army Corps of Engineers lands)
- Fish and Wildlife Service / Wilderness
- Forest Service / Wilderness
- National Park Service / Wilderness
- Other agencies

Some small sizes are not shown, especially in urban areas.

0 25 50 75 100  
MILES  
A Robinson equal-area projection

- Abbreviations
- AFB Air Force Base
  - IR Indian Reservation
  - NCA National Conservation Area
  - NF National Forest
  - NHP National Historical Park
  - NL National Monument
  - NMA National Memorial
  - NRA National Recreation Area
  - NWR National Wildlife Refuge
  - Rm



A unique opportunity for state, federal, tribal and local responders to participate in a largely funded program with the intent of communicating more effectively at the grassroots level

# Applications

- High speed access to current systems
  - CAD
  - Databases
- High quality, streaming video
- Interactive applications / shared applications “store”
- Collaboration tools
- GIS / Mapping
- Alerting
- Access and tracking
- LMR integration: Push to talk

# Timetable

Summer 2014  
Kick-Off

- Select partners: Federal, State, Local, Tribal

Summer 2014

- Select Coverage Area & Tower Assets

Summer 2014

- Select final design & vendor(s)
- Start NEPA, etc.

Fall 2014

- Determine applications & collaboration opportunities

Winter 2014-15  
Deployment

- Phase 1 installations

Winter-Spring  
2015

- Phase 2 installations
- Begin testing & use of system

Spring 2015

- Mobile deployment and testing
- Continue turn-up & testing

Summer 2015

- **Complete all sites by 8/31/15**

## What can it be used for?

- Everything public safety does today
- Add speed, reliability and coverage to an under-served area
- Special operations in a targeted region (mobile LTE assets)
- New applications
- Exercises / demonstrations

## State's Responsibilities

- Design and build the infrastructure
- Find federal and local partners who will utilize the system both internally and cooperatively
- Lead application sharing discussions among participants
- Report to FirstNet on outcomes

## Partners' Responsibilities

- Identify regional network needs which would benefit end users (See user questions on hand out)
- Share assets where possible in order to maximize coverage
- Fund end user devices for your agency's responders
- Partner to develop an equitable & sustainable business model for New Mexico PS LTE network



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## PUBLIC SAFETY BROADBAND PROGRAM

Thank You!