



We Need BIG-Net!

Importance of Deploying a Mission Critical 700 MHz PS LTE Network in Harris County, TX

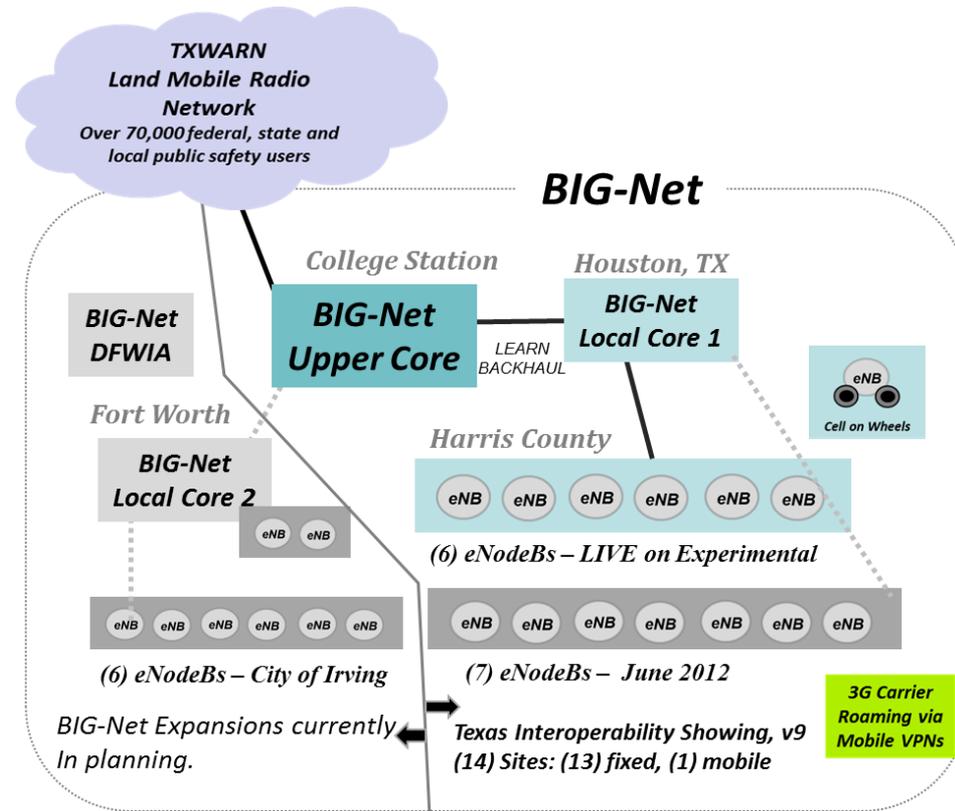
Prepared for Jennifer Manner, Deputy Bureau Chief, FCC Public Safety and Homeland Security Bureau

June 1, 2012

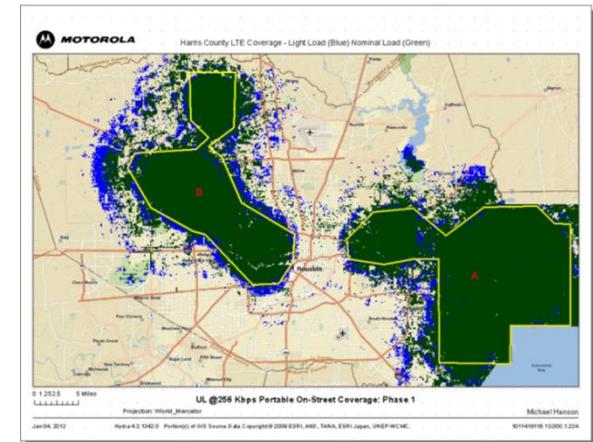
Harris County ITC, State of Texas, Texas A&M & The City of Baytown

BIG-Net Overview

- **Phase 1 of BIG-Net is a 14 site PS LTE system**
 - 13 fixed, 1 Cell on Wheels
 - Deploying in two precisely defined “coverage polygons”
- **Future plans including adding additional local infrastructure (FW) and coverage (City of Irving)**
 - Planning to submit request for permission to expand to (8) more sites 9/1
- **Texas is taking a thoughtful coordinated approach to network deployment and expansion**



PS Partners:
Harris County
Texas DPS
City of Baytown
Texas A&M



We need to meet critical needs.

- **To Provide Public Safety First Responders Better Situational Awareness & Capability**
 - Integration of video, computer aided dispatch, priority service, and LMR Push-to-Talk interoperability along with the ability to roam to a National Carrier with current subscribers being provisioned for the 3G network
 - Large disasters and weather events - hurricane season, tornados, flooding, wild fires
- **To help with protection of our critical infrastructure through better information sharing.**
 - Replacing antiquated equipment and data services
 - Supporting transportation
- **Foundation for regional trial**



Hurricane Ike resulted in 103 deaths and \$22B in damage

Hurricane season began June 1st.

- Officially starting June 1st, three tropical storms have already been identified in 2012, making this one of the earliest and most concerning seasons on record.
- BIG-Net will provide higher quality telemetry, on-sight analysis and status of factors affecting emergency egress, traffic levels, road hazard content and other factors that currently are manually reported and aggregated.
- PS LTE services solve a variety of problems common to every crisis.



Houston hurricane evacuation.



Flooding from Hurricane Allison which resulted in 22 deaths and caused est. \$5B in damages.



Fire season is in full swing.

- **During 2011, Texas endured its most severe single-year drought since the 1950s, receiving the lowest annual rainfall since 1895.**
 - This year record rainfall threatens flooding.
- **One of the specific problems Texas experienced (such as in the Bastrop Complex fire of 2011 between Austin and Houston) was the inability to rapidly map out the current and predicted fire lines.**
 - Big-Net would allow for near real time mapping of the fire line.
- **In Texas, protecting rural areas from floods and wildfires is a key need for the PS LTE network.**



Recent Bastrop Complex Fire

- **Improving informational awareness and immediate access to critical information will enable better command, coordination and response to complex disaster situations.**

Meeting the commitment to help protect the City of Baytown.



- Home to largest oil refinery in US. Shut down would have national economic impact.
- A total of 89 historical tornado events have been recorded since 1950.
- Because PS LTE was promised to Baytown, the current data systems (is based on 20 year old RD-LAP), has fallen into disrepair.
 - System degradation cause daily headaches and problems .
- This system provides information to officers, public service and public works personnel in Baytown.
- BIG-Net deployment will dramatically improve the City of Baytown's ability to respond safely, quickly and efficiently.



Barge accident in Baytown

Thank You!

We greatly appreciate your attention and support.

Project Phases



2nd Phase:

- *Building out the rest of Harris County*



1st Phase Partnering:

- *City of Baytown for building out 6 sites*
- *DPS for locating the Remote Packet Core*
- *Texas A&M for locating the LTE Evolved Packet Core*