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Before the Federal Communications Commission Washington, DC 20554

In the matter of)
)
Requests for Waiver of Various)
Petitioners to Allow the Establishment) PS Docket No. 06-229
of 700 MHz Interoperable Public Safety)
Wireless Broadband Networks)

Submitted: April 19, 2012

QUARTERLY REPORT #8 OF THE STATE OF TEXAS PUBLIC SAFETY LTE BROADBAND NETWORK

The State of Texas (“State”) hereby submits to the FCC Public Safety and Homeland Security Bureau (“Bureau”) this quarterly report as required by both the Bureau’s *Waiver Order*¹ and the *Texas Waiver Order*.² The State was granted a waiver by the Commission for early deployment of a public safety broadband Long Term Evolution (“LTE”) network in the 700 MHz spectrum. This report provides the Commission and PSST with a status update on its efforts to deploy a Public Safety LTE (“PS LTE”) network in the State of Texas and has been prepared in consultation with the Chairman of the Public Safety Spectrum Trust (“PSST”). The State of Texas will deploy a 700 MHz interoperable public safety

¹ See “*Waiver Order*” FCC 10-79, at ¶63-64, PS Docket No. 06-229, released May 12, 2010.

² See “*Texas Waiver*” DA 11-863, ¶63-64, PS Docket No. 06-229, released May 12, 2011.

wireless broadband LTE network which complies with FCC orders, and will implement the statewide network in phases, beginning with the Harris County BIG-Net project as the first phase which is being implemented for the Houston metropolitan and coastal region. As a state which has historically led the nation in annual federally-declared disasters, Texas is dedicated and committed to statewide cooperation and a collaborative effort in building and operating public safety LTE infrastructure to provide the highest level of prevention, protection, response, and recovery from acts of terrorism and other catastrophic events in the State and nation.

Additional background and detail are provided in the most recent January 13, 2012 filing of the *State of Texas Public Safety LTE Interoperability Showing, v9*, submitted to the Commission under PS Docket 06-229. In light of the recent April 6, Public Notice, “*Public Safety and Homeland Security Bureau Seeks Comment on the Transition Process for 700 MHz Public Safety Broadband Waiver Recipients*,” DA 12-555, which requests public comment on the State’s plans, the State thought it would be helpful to summarize all of the most current filings associated request for authorization to begin operation. A summary³ of the supplementary filings is provided below.

- *Texas Interoperability Showing, v9* – The most recent version, filed January 13, 2012, can be found here: <http://apps.fcc.gov/ecfs/document/view?id=7021753496>
- *Clarification Responses to Questions Posed by FCC PSHSB Team on February 6, 2012 Conference Call* – At the request of the Bureau an additional clarification on various topics was filed on February 9, 2012, and can be found here: <http://apps.fcc.gov/ecfs/document/view?id=7021859177>
- *Parameter Waiver Petition and Retraction of Site Operation Authorization Request* – Waiver request for relief on modeling parameters and retraction of request for authorization to operate a standalone site, was filed February 21, 2012 and can be found here: <http://apps.fcc.gov/ecfs/document/view?id=7021862136>
- *Letter to the Bureau (acknowledging risk)* – Submission to acknowledge that the State of Texas remains fully committed to complying with the Commission’s requirements and recognizes that

³ Associated Ex Parte filings are not included but can be readily accessed in the 06-229 docket.

future adjustments may be needed based on implementation of H.R. 3630, was filed March 20, 2012, and can be found here: <http://apps.fcc.gov/ecfs/document/view?id=7021902313>

The Texas Interoperability Showing along with the accompanying and subsequent filings provides a complete summary of the State of Texas plans and commitments associated with deploying and operating a Public Safety LTE network.

Planning

Harris County released an RFP entitled “*Harris County Public Safety 4G LTE System Expansion with Additional Infrastructure, Equipment, Installation, Integration, and Maintenance*” on January 13, 2012, and which has been closed and awarded.

The State of Texas has been notified by several jurisdictions in North Texas of their interest in pursuing a Public Safety LTE build-out. For example, the State received an application from Dallas/Fort Worth International Airport Board (“DFWIA”) requesting permission to expand the PS LTE within the State of Texas. Also, project development activities have begun with the procurement of seven eNodeB sites along with additional EPC equipment by the cities of Fort Worth and Irving. Initial planning is underway and is envisioned to be an expansion of the Harris County BIG-Net system and which will evolve into a cohesive, North Texas regional entity, developed in partnership with other regional stakeholders, including those mentioned herein.

The State is pursuing the development and planning of PS LTE support programs, including education and outreach, overall strategy and planning and the establishment of the application processes. The State is working with the jurisdictions and has reviewed the DFWIA application while regional planning continues.

Funding

Since the last the *Texas Quarterly Report #7*, Harris County has secured an additional \$8.4 million in Port Security Grant Program (PSGP) funding which includes matching funds from local

sources. The funding will pay for services, backhaul and civil work needed to deploy the additional site infrastructure and expanded coverage area.

The deployments by the City of Fort Worth and City of Irving for the initial services and equipment have come from local sources. These entities have applied for approximately \$200K in funding for the purposes of developing a regional plan and governance to meet the objectives described above.

Deployment

Harris County recently completed the initial BIG-Net deployment, and over-the-air testing of an LTE Evolved Packet Core (EPC), six eNodeB sites, and approximately fifteen test USB Dongle devices. Texas received a Special Temporary Authority (STA) license from the FCC to allow test operation valid for July 15, 2011 through January 15, 2012. The State applied for an extension of the experimental license which was granted on April 5, 2012.

Since the last filing, there have been no changes to the target Date of Service Availability. The only change is the removal of one site out of Phase 2.0.

State of Texas eNodeB Site Deployment	TOTAL Number of eNBs by Phase	TARGET OTA Test Operation	ACTUAL OTA Test Operation	TARGET Date of Service Availability
BIG-Net OTA Testing - Phase 1.0: Deploy 6 sites	6	7/15/2011	7/26/2011	5/31/2012
BIG-Net OTA Testing - Phase 2.0: Deploy 7 sites	13	4/20/2012	TBD	5/31/2012
BIG-Net OTA Testing - Phase 2.1: Deploy Mobile Unit (CoW) - 1 site	14	4/13/2012	TBD	5/31/2012

v9.1

CoW - Cell on Wheels

The initial phase of BIG-Net build-out will be comprised of 14 eNodeB sites, one fewer than the number captured in the Showing document; this reflects a retraction of the standalone state in College Station which was filed with the FCC into the 06-229 docket on February 21, 2012. As of the date of this document, no obstacles or inhibitors, such as obtaining rights of way or equipment delivery delays, have been identified which could delay deployment.

As of the date of this document, no specific plans or purchases have been made for upgrading the initial public safety LTE equipment being deployed. As the strategic plan for the State is developed, these

plans will be articulated and communicated in future filings to the Bureau. The State of Texas confirms that all eligible public safety entities within the State of Texas will be offered service and access to the Public Safety LTE network.

LTE Network Identifiers

On January 9, 2012, the Bureau issued the *Common PLMN ID Order*⁴, requiring among other things, that a common PMN ID be used and that the Waiver Recipients to submit their choice of numbering administrator for approval and, provided that the Bureau approves the submission, that they complete the development of a numbering scheme by March 31, 2012. On February 8, 2012, all twenty-one Petitioners filed a joint request asking the Bureau to approve the selection of Science Applications International Corporation (“SAIC”) as the numbering administrator. On March 16, 2012, the Bureau issued an Order,⁵ approving SAIC to serve as the common numbering administrator. The Waiver Recipients, through the Operator Advisory Committee, diligently worked with SAIC on the development of the numbering scheme.

The State of Texas verifies that it completed the development the numbering scheme by the March 31, 2012 deadline as required by the PLMN ID Order. The State of Texas also verifies that there is no new information regarding SAIC’s licenses or affiliations that might call into question its ability to serve as a fair and impartial administrator.

In the revision to the Quarterly Report #5 filed August 17, 2011, with the FCC Public Safety and Homeland Security Bureau (“Bureau”) the State of Texas requested a PLMN ID. The authorization to utilize the PLMN ID assigned to Public Safety, 313-100, was received from ATIS IOC on March 19, 2012. On March 29, 2012 the State of Texas received the initial allocation of LTE Network Identifiers provided by SAIC, the entity approved by the Bureau in a Public Notice issued March 16, 2012, as described above.

⁴ See *PLMN ID Order*, “Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks”, PS Docket 06-229, Order, DA 12-25, released. January 9, 2012.

⁵ See *Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks*, PS Docket 06-229, Order, DA12-423, released March 16, 2012.

Interconnectivity For Interoperability on Day One

In the *Interoperability Order*⁶, the Bureau required that Petitioners be capable of supporting “roaming” on all other Petitioners’ systems, as well as Public Safety LTE systems deployed in the future. The Order also required that each petitioner certify its compliance with this condition in the first quarterly report following its date of service availability. Under the leadership of the Operators Advisory Committee (“OAC”), a working group of industry experts was convened, called *OAC Infrastructure Interconnectivity Group* (“IIG”), for the purposes of proposing, analyzing and recommending a viable interconnectivity solution to support interconnectivity and services between the Early Adopter entities⁷. This addresses the comments and recommendations put forth by the Early Adopters to the Bureau in a joint December 21, 2011 filing⁸. In the March 9, 2012 OAC meeting held in Boulder, Colorado, all represented Waiver Recipients, including the State of Texas, endorsed “Option 1,” recommended by the IIG. With this submission, the State of Texas has concluded the coordinated design elements needed to ensure that the State of Texas is capable of providing Public Safety Sub-Network Mobility⁹, Local PGW Access¹⁰ and Home PGW Access¹¹ at the time of the State’s target Date of Service Availability. In summary, the State of Texas fully concurs with the recommendations put forth by the IIG and applauds the level of cooperation demonstrated by both the petitioners and the manufacturers, to achieve this conclusion in a short period of time. The document which summarizes this effort can be found in the new PS Docket, 12-75, here: <http://apps.fcc.gov/ecfs/document/view?id=7021903820>

The State remains eager to conclude the authorization process which began in June of 2011 and begin delivering on the powerful promise of PS LTE enabled by the 700 MHz spectrum which will enable

⁶ See *Interoperability Order*, PS Docket -6-229, DA 10-2342, released December 10, 2010.

⁷ City of Charlotte, NC, State of Texas, State of Mississippi and City of Charlotte

⁸ See *Joint Comments*, filed December 21, 2011, PS Docket 06-229.

⁹ Sub-Network Mobility – The term proposed and established by the IIG to describe mobility services between PS Sub-Networks which by definition, utilize a Common PLMN ID. This term should always be used instead of “roaming” which is a 3GPP term which describes mobility between networks using different PLMN IDs.

¹⁰ Local PGW Access – The term proposed and established by the IIG to describe access to “local” Packet Gateways by a visiting PS LTE user. This term should be used instead of the term “Local Breakout” which describes the similar service between networks using different PLMN IDs.

¹¹ Home PGW Access – The term proposed and established by the IIG to describe access to Packet Gateways in the visiting PS LTE user’s Home network. This term should be used instead of the term “Home Routed” which describes the similar service between networks using different PLMN IDs.

Texas to better protect and serve our citizenry. The State therefore greatly appreciates the Bureau's prompt action on the approval of the *Texas Interoperability Showing, v9*. The February 21, 2012 filing contained the following language, "The State is eager to address and close all outstanding issues which are preventing the Bureau from granting the State permission to begin Public Safety operation. We appreciate the Bureau's prompt action on this request."

Respectfully Submitted for the State of Texas,

/s/ Todd M. Early

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