



LA-RICS

California First Responders Network

September 30, 2014



PHOTO BY GREG DOYLE.



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“ Purpose: To engage in regional and cooperative planning and coordination of government services to establish a wide-area interoperability public safety communications network. ”

Need for Interoperability

- Los Angeles County incorporates 10,000,000+ residents occupying 4,000+ square miles
- High profile attractions (e.g. Universal Studios, Airports, Harbors) and critical infrastructure at risk
- 81 public safety agencies with
 - 34,000 first responders
 - 17,000 secondary responders
- 40 Separate public safety communications systems
- Multi-jurisdictional responses and lack of communications compromises response effectiveness



LA-RICS Project Time Line

- Jan. 2009 LA-RICS Joint Powers Authority Established
- Apr. 2010 RFP for LA-RICS LMR System
- Sep. 2010 LA-RICS Awarded \$154.6 million BTOP Grant
- May 2011 Procurement Cancelled
- Nov. 2011 RFP #2 Issued for LMR/LTE System
- Feb. 2012 H.R. 3630 Enacted
- Aug. 2012 RFP #2 Cancelled
- Oct. 2012 RFP Issued for LMR System
- Jul. 2013 SMLA Executed w/ FirstNet
- Aug. 2013 RFP Issued for LTE System
- Aug. 2013 LMR Contract approved by JPA
- Mar. 2014 LTE Contract approved by JPA



Legislation Effecting LA-RICS

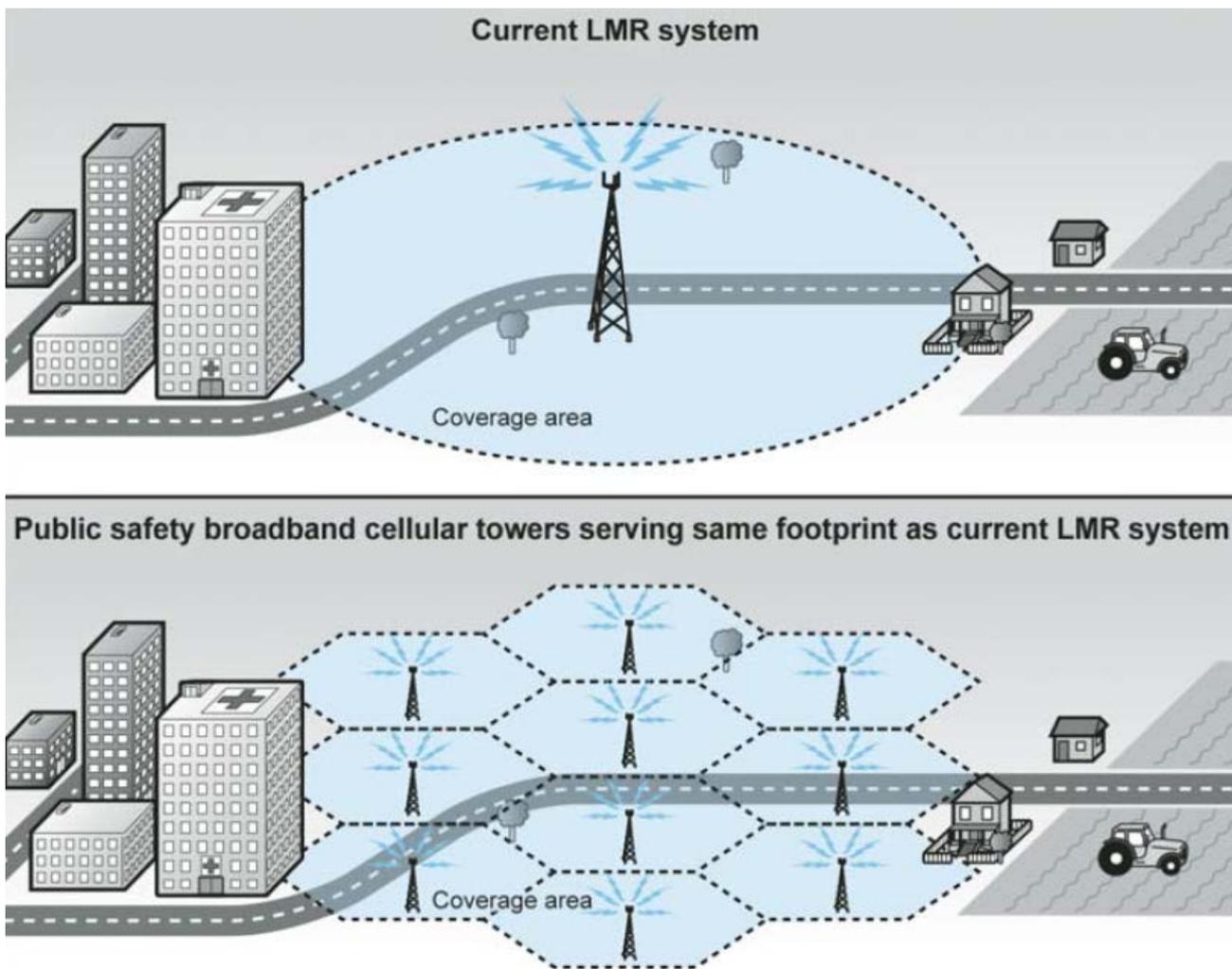
- H.R. 3630/P.L. 112-96 - Middle Class Tax Relief and Jobs Creation Act
 - Established the First Responders Network Authority (FirstNet) to oversee National Public Safety Broadband Network (NPSBN) under the NTIA/DOC
 - Requires that T-Band spectrum be vacated by 2023, in exchange for D-Block affecting eleven major metropolitan areas
- A.B. 1486 (Lara) provides LA-RICS a limited CEQA exemption until 2017
 - Set Criteria for Selection of Exempt Sites
 - Requires Environmental Considerations
 - Set Height Restrictions for Transmitter Installations - 70 feet Monopoles and 180 Lattice Towers
 - Does not exempt project sites from NEPA clearance

LMR System Overview

- P.L. 112.96 (H. R. 3630) introduced considerable risk to a T-Band only deployment
 - Per FCC: Build at your own risk
- Consideration was given for using existing available spectrum in the 700 MHz spectrum and gradual migration off T-Band
- Hybrid Feasibility Study conducted in May-June 2012
 - Minimum of 90 Channels needed in 700 MHz spectrum
 - Minimum of 160 Channels needed in T-Band spectrum
- Secondary Responders need strong consideration in response to large scale incidents
 - The DTVRS System will be sized to accommodate
- Contact Award to Motorola Solutions - August, 2013



Land Mobile Radio and LTE Cellular Coverage Differences



Broadband (LTE) Issues

- BTOP Grant Awarded to LA-RICS in 2010 - \$154.6 million
- With passage of HR 3630, NTIA suspended use of funds for LTE equipment pending direction from FirstNet
- Spectrum Manager Lease Agreement between FirstNet and LA-RICS executed July 1, 2013
- NTIA lifts BTOP suspension
- BTOP funds expire September 30, 2015
- Contact Award: March 2014
 - 18 Month Program
 - Phase 1 – System Design – Jun 2014
 - Phase 2 – Site Construction - Sep 2014 – Jun 2015)
 - Phase 3 – LTE Equipment (Aug 2014 – Mar 2015
 - Phase 4 – Implementation (Oct 2014 – Aug 2015)



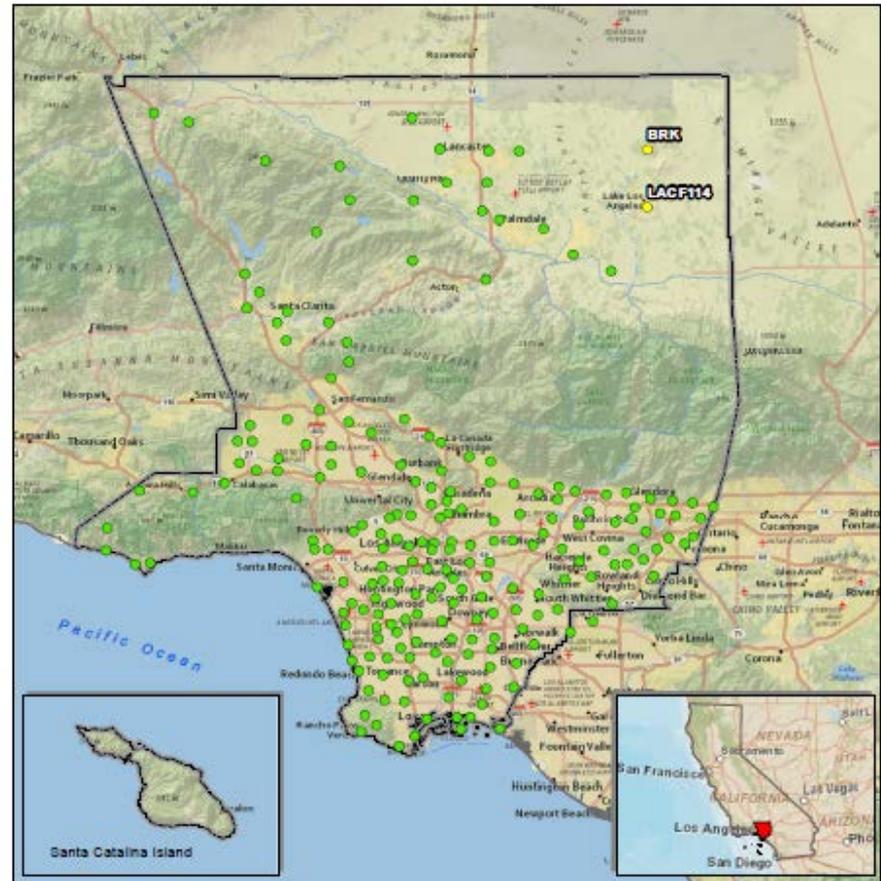
LA-RICS – Key Learning Conditions

- Leveraging and Managing Partnerships with Utilities and Secondary Responders
 - Identify potential partners (i.e. Utilities) and assets and the potential for integrating them into the PSBN
- Define and Ensure Network Mechanisms to Alert the Network Operator of Congestion Events that will Degrade Quality of Service (QoS) or Invoke Pre-Emption
 - Identify information needed by NOC operators to identify congestion issues
 - Identify Appropriate threshold levels when Users perceive a deterioration of QoS to an Unacceptable Level
 - Identification of Employing varying 3GPP techniques to minimize the perceived QoS Degradation
- Test and Validation of NPSTC Priority and QoS Requirements and Assessment of Priority/QoS Operational Management Alternatives



LTE Sites in LA County

- There are 229 monopole sites identified for the LTE network in all of Los Angeles County
 - Sites are CEQA exempt
 - NEPA clearance required for all sites
 - Heights will vary from 28' – 70' depending on community
 - Stealth and standard monopoles will be deployed
- 27 sites will have monopoles for both LMR and LTE systems



LA-RICS Benefits to Public Safety

- Provides Interoperable Voice Communications and Dedicated Public Safety Data Spectrum
- Efficient Use of Limited of Public Safety Radio Spectrum and Minimizes Operating Costs
- Improves Cross Jurisdictional Communications and Use of Resources
- Integrates with the Nationwide Public Safety Broadband, Network (NPSBN)



LA-RICS Benefits to Public Safety

- Electronic Patient Care Reporting - **ePCR**
- Next-Generation Incident Command System - **NICS**
- Fire Cell Net
- GPS Personal Tracking System
- Live Video Feeds
- Field Access to Building Floor Plans, Hazardous Materials Information, and Fire Hydrant Locations
- CAD to CAD Inter-Connectivity
- Next-Generation 911
- Remote Command and Control for Critical Dispatching



LA-RICS Benefits to Public Safety

- Fire Station Alerting / Redundant Station Alerting
- Redundant VoIP fire station telephone
- Future Concepts:
 - Wi-Fi Public Safety Personnel notification apps.
 - Wi-Fi Public Safety family health & welfare notification apps.
- Wild-land Repeater Back-Haul



San Vicente Peak – LA-RICS LMR System

Need More Info?

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