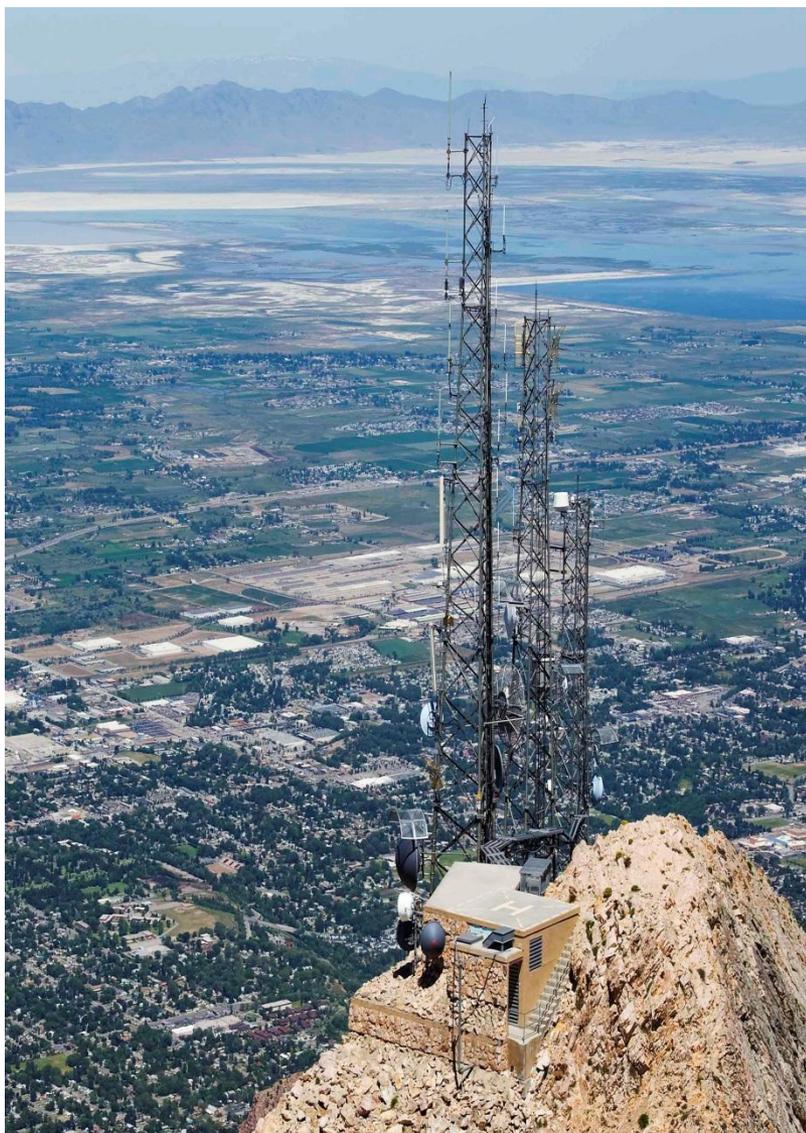


## UCA Vendor Stakeholder Meeting Held at UCA on June 22,2015

|                  | <b>Attendee Name</b> | <b>Representing</b>    |
|------------------|----------------------|------------------------|
| 1                | Rick M Bailey        | South Eastern Counties |
| 2                | Scott Wickel         | Strata Networks        |
| 3                | Bert Potts           | Strata Networks        |
| 4                | Justin Grenier       | Washington County      |
| 5                | Jared Anderson       | Emery Telcom/URTA      |
| 6                | Linda Petty          | DPS Cedar Comm         |
| 7                | Dave White           | Century Link           |
| 8                | Laonna Davis         | DPS Uintah Basin       |
| 9                | Gary Jones           | UTOPIA                 |
| 10               | Chris Rueckert       | DPS Salt Lake Comm     |
| 11               | Lesa Wilson          | DPS Box Elder          |
| 12               | Andrew Howlett       | Century Link           |
| 13               | Kira Slawson         | URTA                   |
| 14               | Jack Walkenhorst     | All West/UTRA          |
| 15               | Dean Mohr            | AT&T                   |
| 16               | Tara Thue            | AT&T                   |
| 17               | David Spatafore      | UCA                    |
| 18               | Taz Biesinger        | URTA                   |
| 19               | Alan Workman         | DPS                    |
| 20               | Eric Isom            | Century Link           |
| 21               | PJ Schneider         | Alcatel-Lucent         |
| 22               | Steve Burth          | Century Link           |
| 23               | Kelsey White         | Utah Tax Payers Asso.  |
| 24               | David Hill           | Motorola               |
| 25               | Jon Tait             | Motorola               |
| 26               | Jodi Hart            | AT&T                   |
| 27               | Chuck McCown         | DCCU                   |
| 28               | Kelleigh Cole        | GOED                   |
| 29               | Davis Copeland       | Sego                   |
| 30               | Joe Pyrah            | Sego                   |
| 31               | Craig Peterson       | Harris                 |
| 32               | Todd Carruthers      | Harris                 |
| <b>UCA STAFF</b> |                      |                        |
| 1                | Steve Proctor        | UCA                    |
| 2                | Jake Hunt            | UCA                    |
| 3                | Joe Blaschka         | ADCOMM/UCA             |
| 4                | Gary Lancaster       | ADCOMM/UCA             |
| 5                | Michael Thayer       | DEALTAWRX/UCA          |
| 6                | Gordan Coles         | UCA                    |
| 7                | Travis Sylvester     | UCA                    |



## Utah Communications Authority

### Public Safety Radio System Replacement

### Vendor Meetings and Stakeholder Outreach

June 22, 2015

# Agenda



- Welcome
- Sign-in Sheet
- Introductions
- UCA Overview
- Review UCA Network
  - Existing systems and network components
  - UCA overall voice radio needs and requirements
  - Today's network and backhaul requirements
  - Existing sites/towers
  - Candidate sites for improved 800 MHz coverage
- Questions and Open Discussion
- Hard Stop at 3:00 p.m.

# Welcome



- ❑ First in a series of bi-monthly meetings to discuss public safety radio network emerging technologies
- ❑ UCA is looking for input from the vendor community to understand what products and services may potentially be available to benefit first responders and taxpayers
- ❑ These meetings will focus on UCA's wireless voice radio systems and associated infrastructure
- ❑ Success of these meetings will depend on input from the participants

# Introductions



- ❑ Utah Communications Authority (UCA)
  - Steve Proctor
  - Jake Hunt
  
- ❑ Adcomm
  - Joe Blaschka Jr.
  - Gary Lancaster
  
- ❑ DELTAWRX
  - Mike Thayer
  - Don Denning
  
- ❑ Vendors and Other Potential Stakeholders

# UCA Overview



UCA an Independent State Agency created to provide a public safety communications network, facilities and 911 emergency services on a statewide basis for the benefit and use of local, state and federal agencies. UCA was created to:

- ❑ **Operate the 800 and 150 MHz public safety radio networks**, supporting infrastructures and maintenance operations
- ❑ **Enhance and promote inter-operable and emergency communications** at the State, regional, local and tribal levels
- ❑ **Manage the 911 Program**, which includes oversight of the 911 Committee, Vision for Next Gen 911 and Computer Aided Dispatch (CAD) platform development
- ❑ **Coordinate with FirstNet** within the State of Utah to establish a nationwide, high speed, wireless broadband network for first responders

# Review UCA Network



- Existing systems and network components
- UCA overall needs and requirements
- Today's network and backhaul requirements
- Existing sites/towers
- Potential for new sites/towers

# Existing Systems



- ❑ 800 MHz trunked radio system
- ❑ VHF conventional radio system
- ❑ Existing Systems Components
  - 205 existing sites/towers
  - 200 dispatch radio consoles
  - 22,500 800 MHz mobile and portable user radios
  - 6,000 – 10,000 VHF mobile and portable user radios
- ❑ Both of these LMR (Land Mobile Radio) systems support first responders throughout Utah
- ❑ Systems are regulated by Title 47, Part 90 of the Code of Federal Regulations (a.k.a., FCC Part 90)

# LMR Network Components



- ❑ Motorola SmartZone OmniLink 800 MHz LMR radio system
- ❑ Conventional VHF LMR radio system
- ❑ Dispatch consoles and control stations
- ❑ Mobile and portable radios
- ❑ Towers
- ❑ Shelters
- ❑ Backup power
- ❑ Network connectivity/backhaul
  - Microwave
  - T1 circuits
  - Fiber circuits
  - RF control links

# UCA Overall Voice Radio Needs & Requirements



- ❑ Replace existing 800 MHz radio system with P25 LMR radio system
- ❑ Support first responders around the clock (24 x 7 x 365)
- ❑ Provide adequate coverage in both urban and rural areas
- ❑ Provide operability and interoperability for local, state & federal agencies
- ❑ Have sufficient capacity for emergency/disaster operations
- ❑ Provide network resiliency during natural and man-made disasters
- ❑ Support talk-around coverage for off-network operations

# Network Backhaul Requirements



- ❑ Moderate bandwidth in the 10-100 Mbps range
- ❑ Support radio voice and control
- ❑ Reliability and uptime of 99.999%
- ❑ Diverse interconnection paths where possible and hot-standby equipment where single connection
- ❑ Maximum Jitter: 10 ms
- ❑ Maximum Packet Loss: 0.0033%
- ❑ Maximum link delay: 10 ms

# UCA Sites/Towers

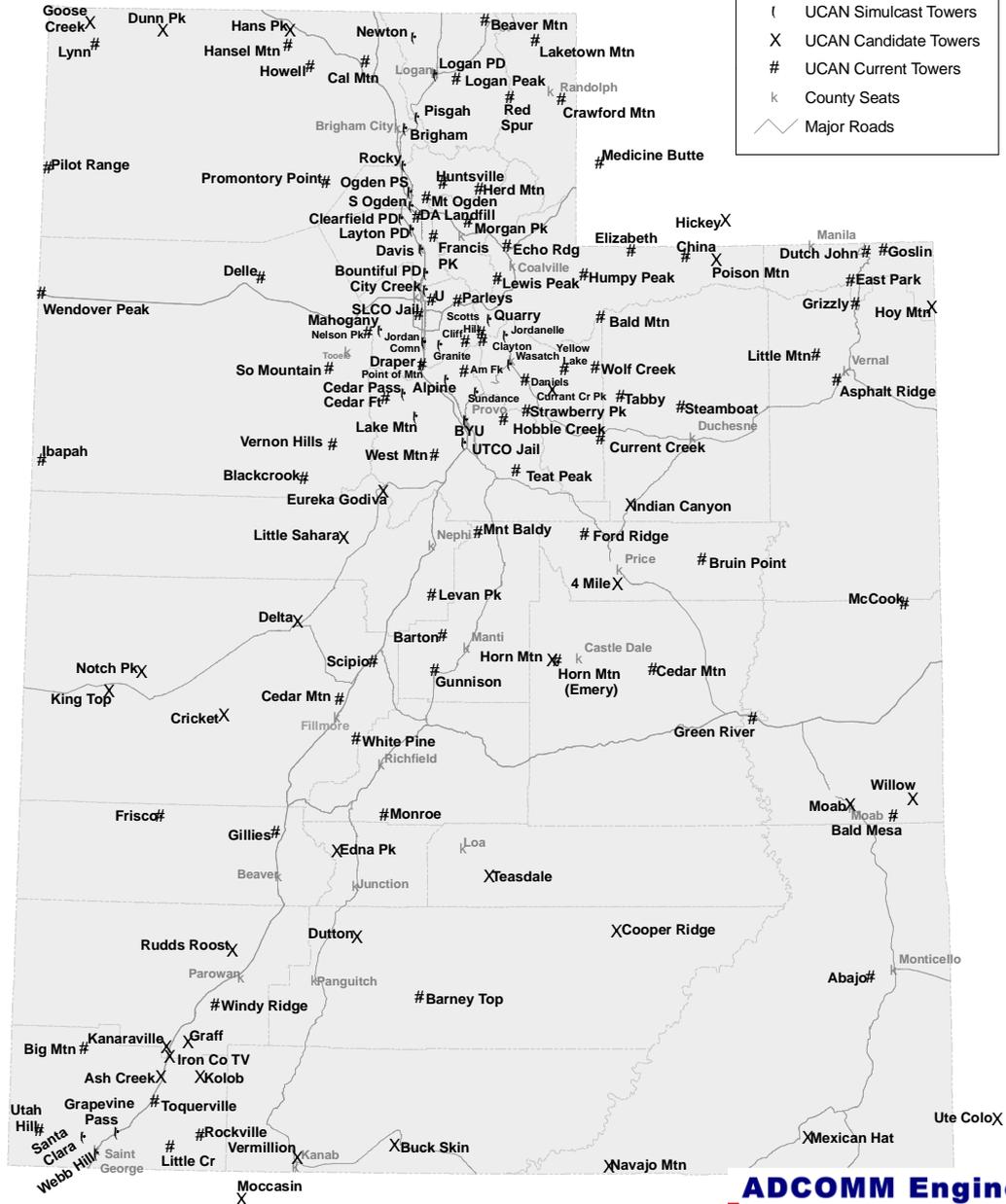


- Existing UCA sites
- Candidate sites for improved 800 MHz coverage

# UCAN Tower Network



- ( UCAN Simulcast Towers
- X UCAN Candidate Towers
- # UCAN Current Towers
- k County Seats
- ~ Major Roads



# Candidate sites for improved 800 MHz coverage



# Questions and Discussion



- Request for information
- Vendor presentations
  - Notify [JHunt@uca911.org](mailto:JHunt@uca911.org) by 6/28/2015 if interested in presenting
- Items for next meeting
- Future meeting dates
  - August 24
  - October 26
  - December 14
- Anything else?