

Dallas Area Rapid Transit Communications System Replacement & Interoperability Opportunities



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624 buses



143 SLRVs



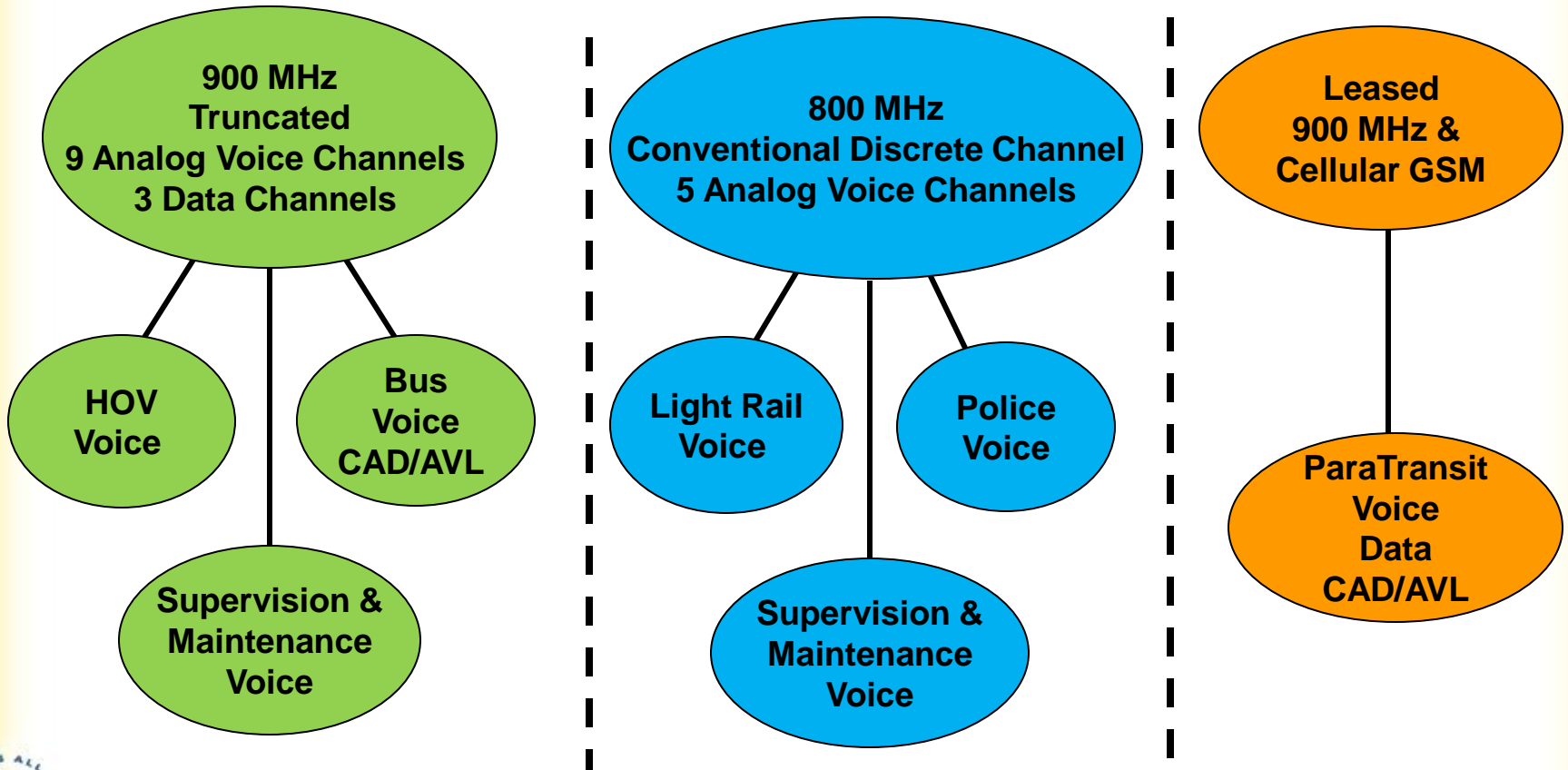
172 miles and 55 stations



35,700,000 miles/year



Existing Communications Systems



Multi Phased Program Approach

System Planning	October 2005
Requirements Analysis	May 2006
Preliminary Design & Engineering	September 2007
Procurement	September 2008
Implementation	March 2009
Full Operations	December 2011

DART Frequencies

- 700 MHz Public Safety
 - 8 channels newly licensed to DART
- 800 MHz Primarily Public Safety
 - 5 channels licensed to DART
- 900 MHz Industrial/Transit/Utilities
 - 12 channels licensed to DART



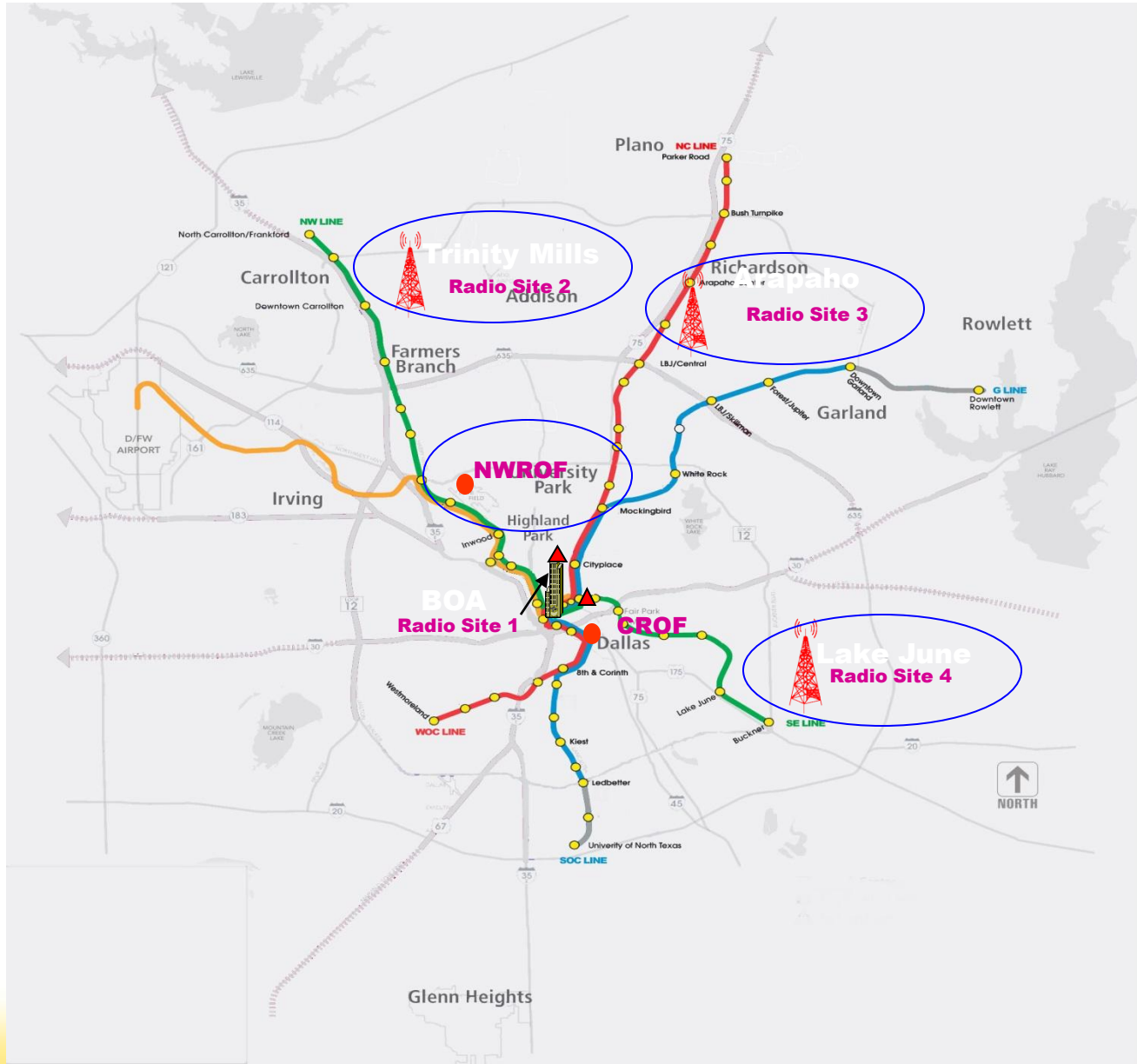
Project Deliverables

- \$42.5M Contract with Harris Corporation

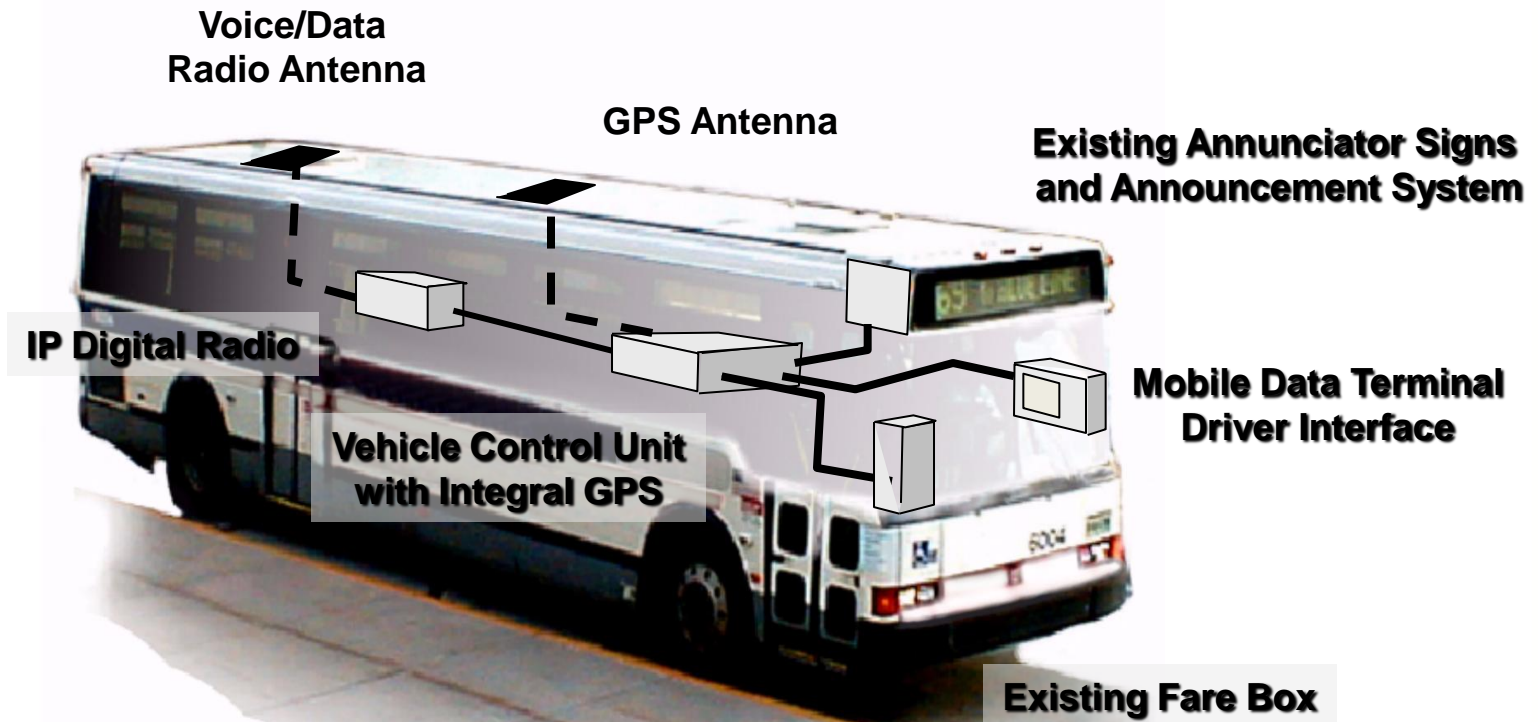
	<u>Qty.</u>
Radio Base Station Equipment	4
Radio Base Station Transmitters	17
Mobile Radios	1,643
Handheld Radios	2,020
Dispatch Consoles	35
Mobile CAD/AVL	761



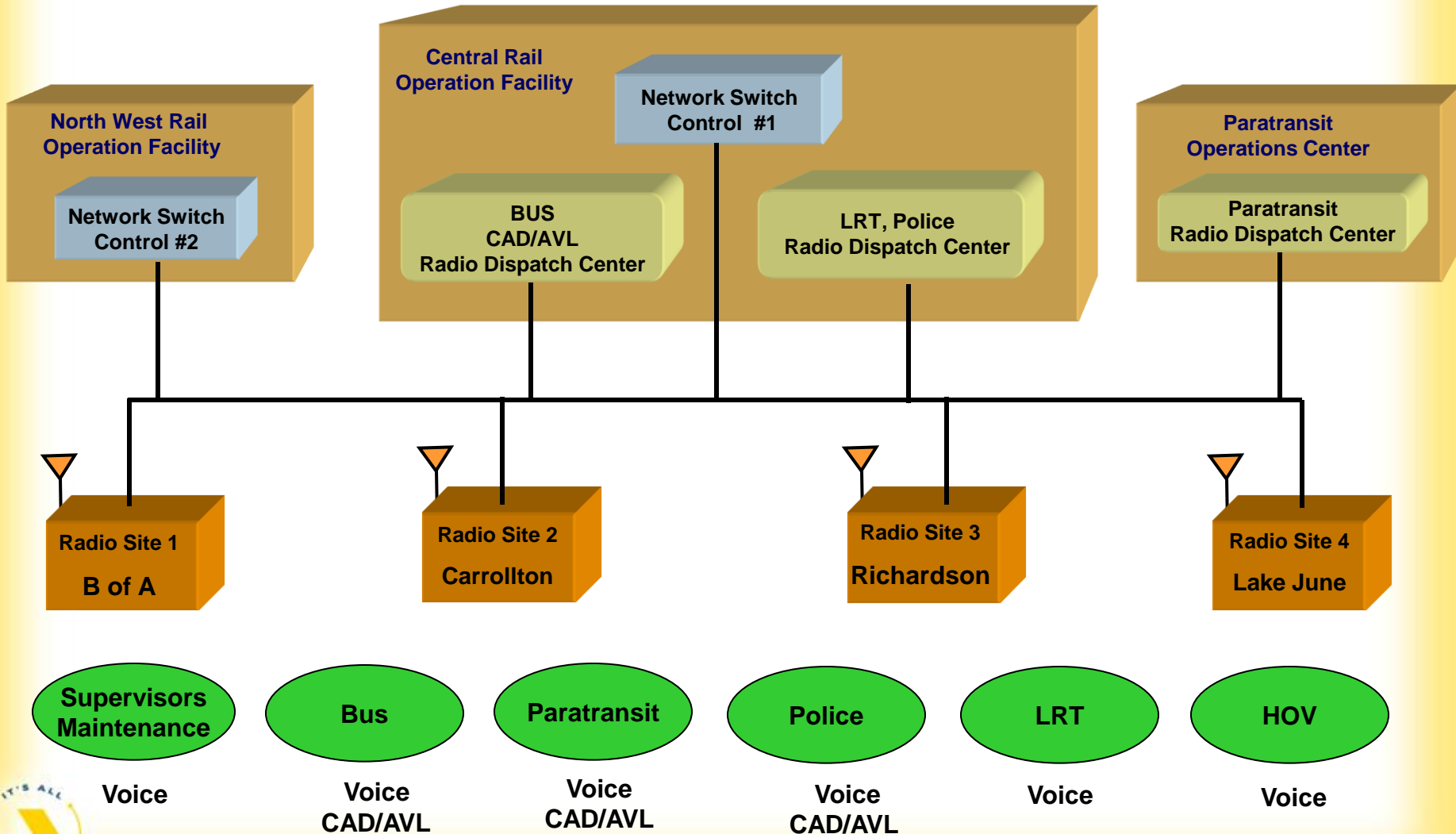
Radio Site Locations



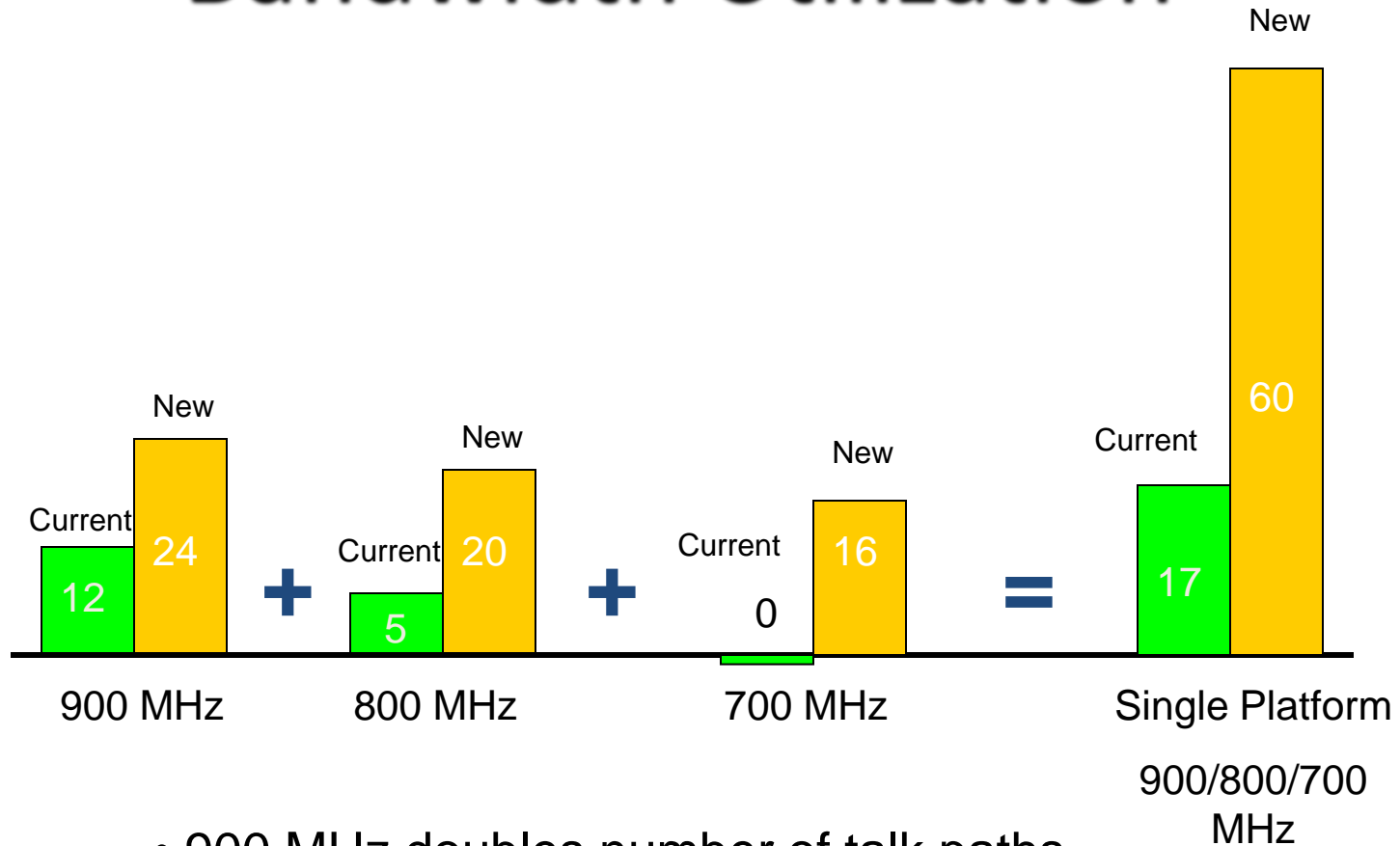
Typical Bus Equipment Installation



New Communications Network



Bandwidth Utilization



- 900 MHz doubles number of talk paths
- 800 MHz quadruples number of talk paths
- 700 MHz additional new talk paths
- Single platform provides 60 talk paths – 3.5x



Regional Interoperability



- Temporary frequency need
- Expanded emergency coverage
- Regional interoperability



- Available 800 MHz frequencies
- Expanded emergency coverage
- Regional interoperability

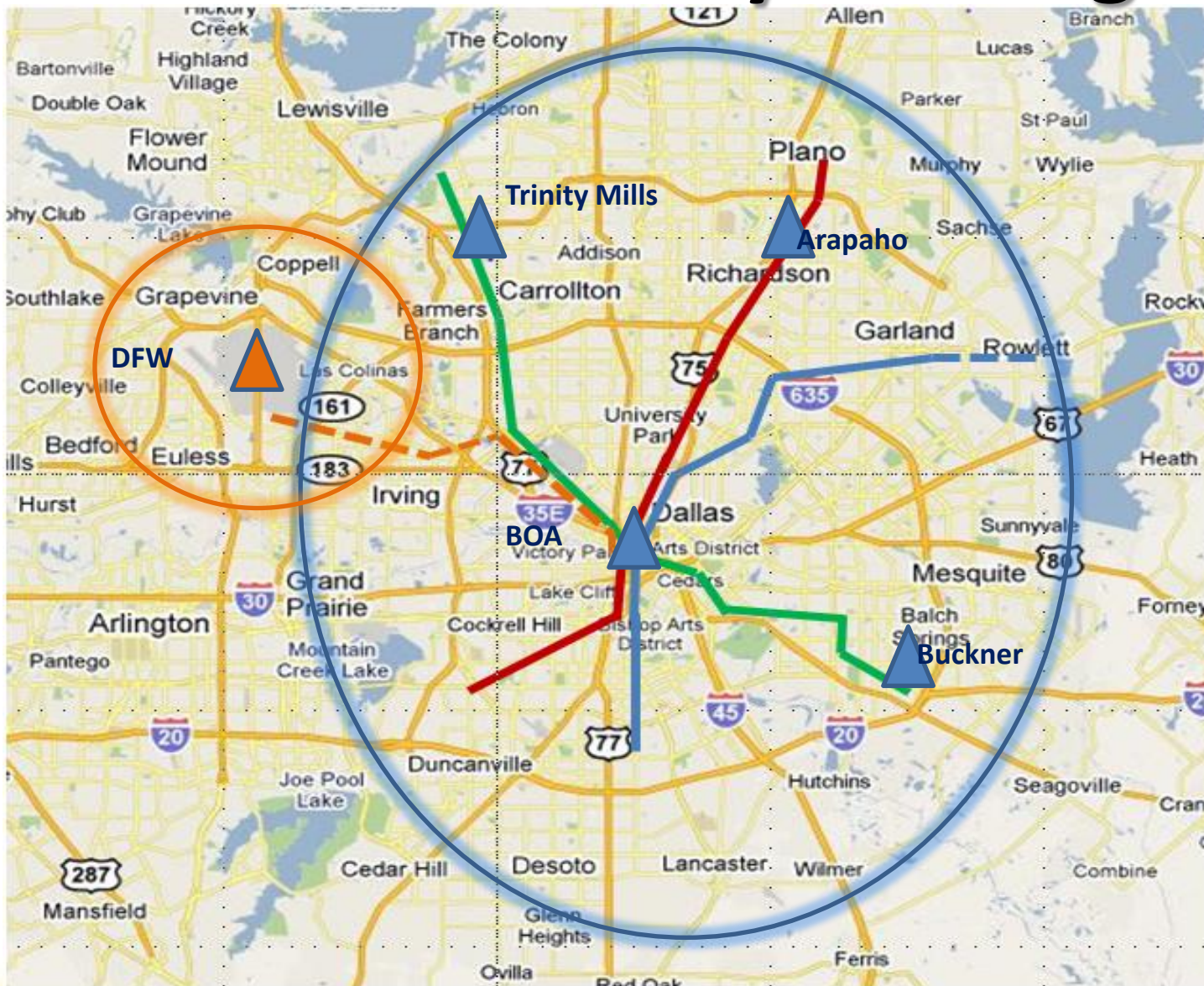


Regional Interoperability

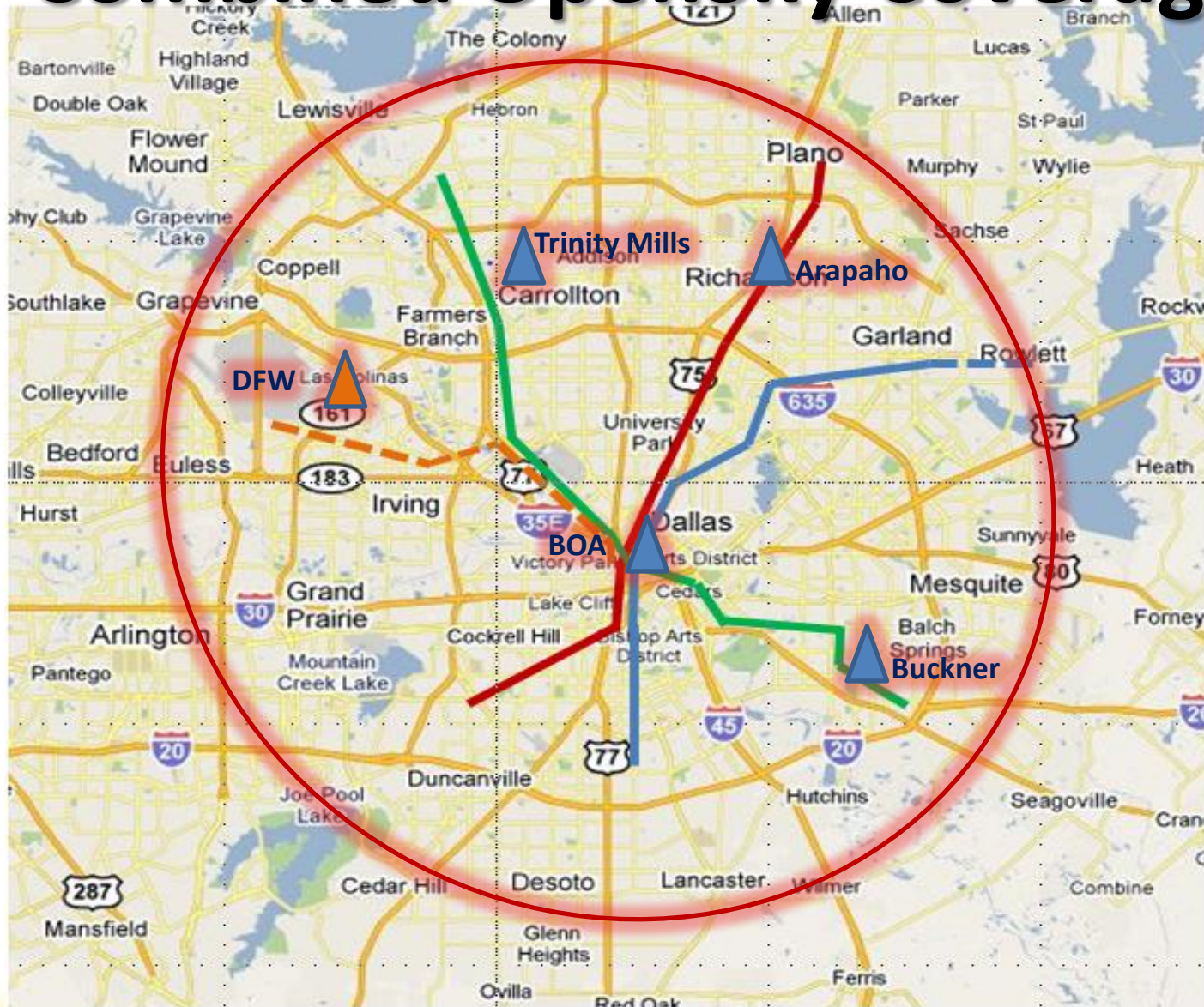
- Developed MOU
 - Allows DART temporary use of DFW Airport frequencies to assist with equipment transition
 - Ongoing ability for DART/DFW Airport to route traffic through expanded network
 - Installation of direct digital connection
 - Substantial increase in communications area
 - Establishes regional interoperability network
 - DART/DFW Airport retain control of individual systems



Individual Primary Coverage



Combined OpenSky Coverage



Future Regional Interoperability Opportunities

- Shared use of existing 4 P25 channels
 - 900' tower location
 - Ideal for mobile/handheld applications
- Partition 800/900 MHz reserve capacity
 - Small scale operation
 - Day –to-day use
- Add additional members to existing MOU
 - Emergency operation
 - Regional activities



IT'S ALL

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