



# CONNECT

THE COMMUNICATIONS OVERLAY NETWORK  
FOR NORTH CENTRAL TEXAS

## CONNECT System Update

*System Owners Meeting*

*March 24, 2015*

v8

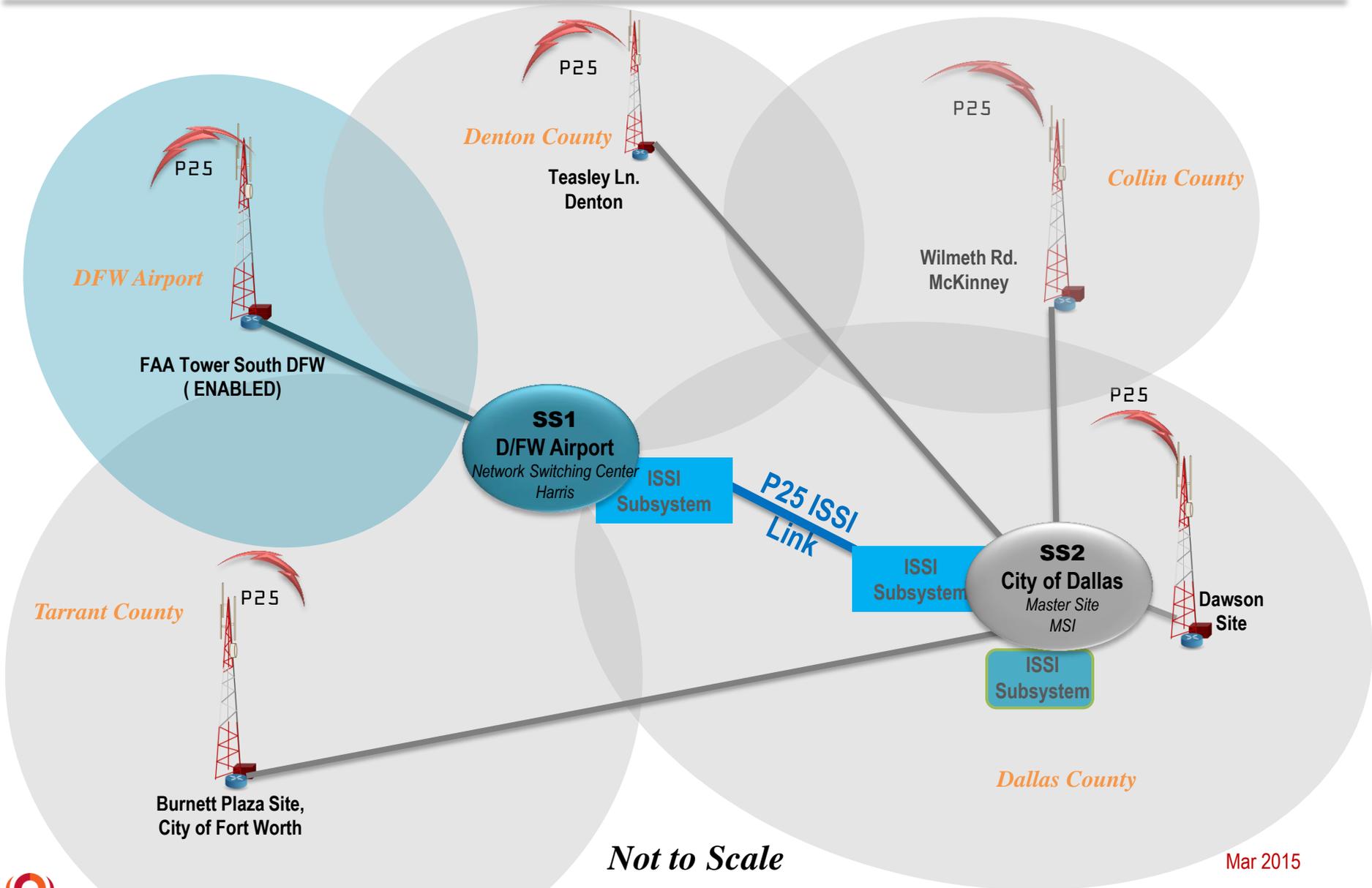
# History and Background

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- Funded by 2007 PSIC Grant
- Overlay system built to support Mobile Communications- primarily focused on Mobile Command Units, Chiefs Vehicles, Special Response Units, and Agency to Agency Coordination (EOC)
  - Regional Interoperable Communications Committee recognized need for wide area radio system for wide area interoperability needs
- The “700MHz Overlay” went live in July 2010
  - Low capacity makes it unsuitable for primary, day-to-day use
  - Therefore, designed for County or Wide Area interoperability only
  - Primary need focused on wide area incident, large scale events and large exercises
- First public safety system in the world to deploy ISSI between different manufacturers’ live P25 systems
- Branded as “CONNECT” in 2012



# CONNCT System Overview

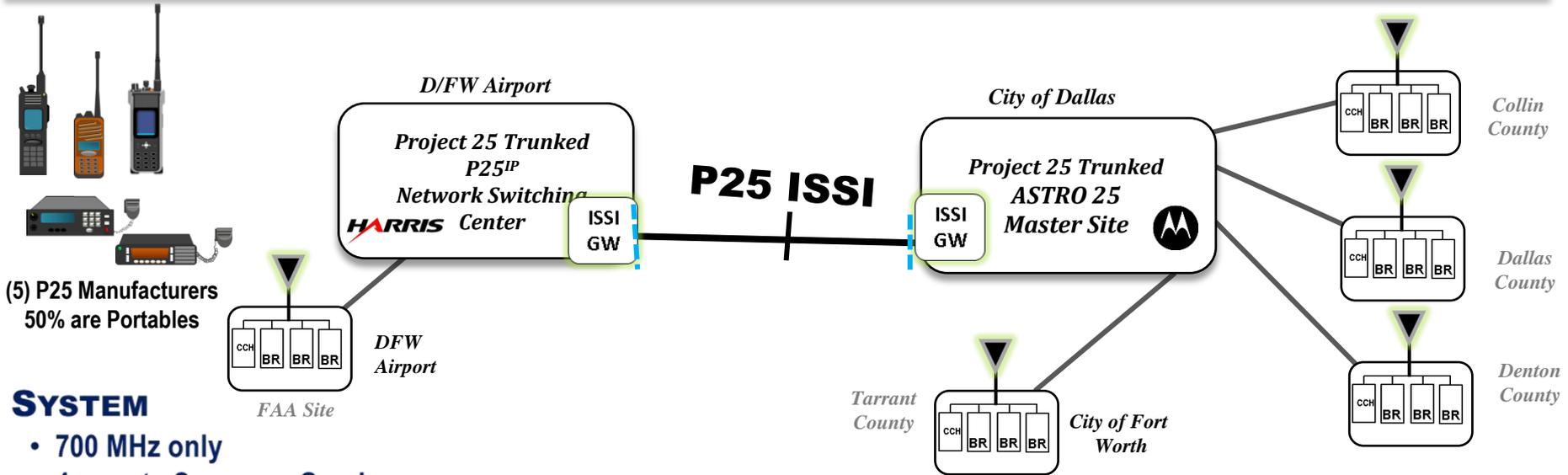


*Not to Scale*

Mar 2015



# CONNCT 700 MHz Overlay – Technical Overview



## SYSTEM

- 700 MHz only
- 4-county Coverage Overlay
  - Optimized for Mobile Coverage
- P25 ISSI btw multi-vendor subsystems
- T1& microwave backhaul
- (5) 4-channel, 3 WC multicast sites

## SERVICES

- (4) Regional ISSI TGs
- >10 Dedicated Agency TGs
- State Coordinated Unit IDs

## USERS

- 6.5M residents
- Over 20,000 Unit IDs
- Over 120 Agencies

- The CONNCT System supports over 20,000 Active Unit IDs across over 110 agencies
- The system uses two trunked RFSSs with different System and WACN IDs connected over a multi-vendor P25 ISSI link
- CONNCT implemented ID coordination for 1M IDs which creates a dedicated “P25 Radio Unit ID” which is unique to the device across the region and the State of Texas
- CONNCT has activated units from five manufacturers: EFJohnson, Harris Corp., Motorola Solutions, Tait and Technisonic
- Only agencies with 700 MHz P25 radios can use the system.
  - Significant uptick in unit count due to significant deployments of UHF+7/800 and VHF + 7/800 multiband radios



# 120 CONNCT Agencies [March 2015]

1. Arlington PD
2. Arlington FD
3. ATT Tech
4. Bedford Fire
5. Bedford Police
6. Bedford Mob Comm
7. Benbrook Fire
8. Collin County Sheriff's Ofc (CCSO)
9. CCSO Fire
10. CCSO Homeland Security
11. CCSO Special Ops
12. CCSO Courts
13. City of Dallas (COD) CIS
14. Dallas Public Works
15. Dallas Fire
16. Dallas Police
17. COD Aviation
18. EBS Security
19. Dallas Water Utility (DWU)
20. Fort Worth Tech
21. Cleburne Police
22. Cynergyze
23. Dallas Co. Community College District Police (DCCCD)
24. Denton Co Emergency Svcs (DCES)
25. Dallas DEA
26. DFW Airport Command
27. DFW Airport Fire
28. DFW Airport EMS
29. DFW Airport DPS
30. DFW Airport EOC

31. US Marshals Fugitive Apprehension Strike Team (FAST)
32. DOJ ATF
- 33 TX DPS Air (Garland)
34. Euless Fire
35. Euless PD
36. FBI
37. Frisco Tech
38. Frisco Fire
39. Garland Fire
40. Garland Police
41. Garland Emer. Svcs.
42. Grand Prairie Police
43. Haltom City Fire
44. Haltom City Police
45. Hurst Police
46. Hurst Fire
47. Hurst Public Works
48. Joshua Police
49. Mansfield PD
50. Mansfield Fire
51. McKinney Emer Svcs
52. McKinney Fire
53. McKinney Police
54. NCTCOG
55. Nevada Volunteer Fire
56. Parker County Police
57. Parker County Fire
58. Richardson Fire
59. Richland Hills Police
60. Richland Hills Fire
61. Terrell Volunteer Fire
62. Texas Alcohol Bev Com (ABC)
63. Texas Parks & Wildlife

64. TX DOT
65. TX DPS
66. UT Dallas
67. Wylie Fire
68. Kaufman County OEM
69. Harris Corporation TECH
70. EFJohnson
71. Arlington Task Force
72. Plano Emergency Services
72. TxDPS Dept of Emergency Mgmt
73. US Army Corps of Eng RANGERS
74. City of Denton Police
75. City of Denton Fire
76. City of Denton Public Works
77. City of Carrollton Tech Ops (Xerox)
78. Richardson 911 Center & EOC
79. Richardson Tech
80. Mansfield Mob Command
81. Grand Prairie Mob Command
82. Univ. of North TX PD
83. Grand Prairie SWAT
84. Grand Prairie Fire
85. Dallas OEM
86. City of Melissa Fire
87. Arlington SWAT
88. Terrell Police
89. Terrell Fire
90. Terrell Mob Command
- 91 Terrell Public Works
92. NTTRAC
93. Denton Co. Sheriff
94. Lewisville PS Emer Svcs
95. US Marshals – Plano
96. Careflite

- In no particular order.
- These are shorthand agency names.
  - Proper and complete agency names captured in DB but won't fit here.
- Agency = Jurisdiction + Function

97. City of FW FIRE
98. City of FW EOC
99. PHI (med-evac)
100. Forney Police
101. Forney Fire
102. Forney Public Works
103. Dalworthington Gardens PD
104. DWG Public Works
105. DWG Fire
106. Keene Police Dept.
107. Rio Vista Police Dept.
108. Kennedale Police Dept
109. Metrocrest Quad Cities
110. Tarrant Co Sheriff
111. Tarrant Co Emer Svcs
112. Tarrant Co Fire
113. Cedar Hill Fire Dept.
114. IRS Criminal Investigations
115. STRAC – SW Texas Regional Advisory Council
116. Tx Dept of State Health Svcs
117. Motorola Solutions
118. Airbus
119. City of Roanoke
120. City of White Settlement



# TalkGroup Overview

- CONNCT is supporting 31 TalkGroups
- CONNCT TalkGroups [See: CONNCT\_TalkGroups\_v19.2.pdf]
  - (4) Regional TalkGroups which operate over ISSI
  - 4x4 County-wide TalkGroups
  - (1) DEA
  - (1) Tarrant County Narcotics Unit (TCNU)
  - (2) TxDPS (new)
  - (1) DFWIA
  - (2) TxDOT (new)
  - (2) Test
  - (1) Temp Event (new)
  - (1) Temp Test (new)
- Encryption Capable on all TGs
  - Recommend refinement of this critical parameter, push to FPIC – GILBERT
  - Supports any kind of encryption (AES, ADP, etc)
- Traffic by TalkGroup Chart

<b>CONNCT - PTTs Per TalkGroup</b>	
<i>Jan - May 2014</i>	
<b>NCTRG - A</b>	152
<b>NCTRG - B</b>	728
<b>NCTRG - C</b>	445
<b>NCTRG - D</b>	28
<b>NCTTEST</b>	675
<b>DaIDiv DEA</b>	3130
<b>DFWIA</b>	43
<b>Collin Local (4)</b>	47
<b>Denton Local (4)</b>	38
<b>Dallas Local (4)</b>	102

Count	TalkGroup Name [TG Type]
1	NCTRG-A [Regional Interop]
2	NCTRG-B [Regional Interop]
3	NCTRG-C [Regional Interop]
4	NCTRG-D [Regional Interop]
5	NCTEST A [AES Regional]
6	TCNU [AES Task Force]
7	DALDIV [AES FED DoJ]
8	DFWIA [Local]
9	DPS A [State Interop]
10	DPS B [State Interop]
11	TxDOT A [State Interop]
12	TxDOT B [State Interop]
13	TEMP Event [AES User]
14	TEMP Test [AES Temp]
15	TECH [CONNCT]
16	Tarrant Co. [TalkGroup A]
17	Tarrant Co. [TalkGroup B]
18	Tarrant Co. [TalkGroup C]
19	Tarrant Co. [TalkGroup D]
20	Dallas Co. [TalkGroup A]
21	Dallas Co. [TalkGroup B]
22	Dallas Co. [TalkGroup C]
23	Dallas Co. [TalkGroup D]
24	Collin Co. [TalkGroup A]
25	Collin Co. [TalkGroup B]
26	Collin Co. [TalkGroup C]
27	Collin Co. [TalkGroup D]
28	Denton Co. [TalkGroup A]
29	Denton Co. [TalkGroup B]
30	Denton Co. [TalkGroup C]
31	Denton Co. [TalkGroup D]



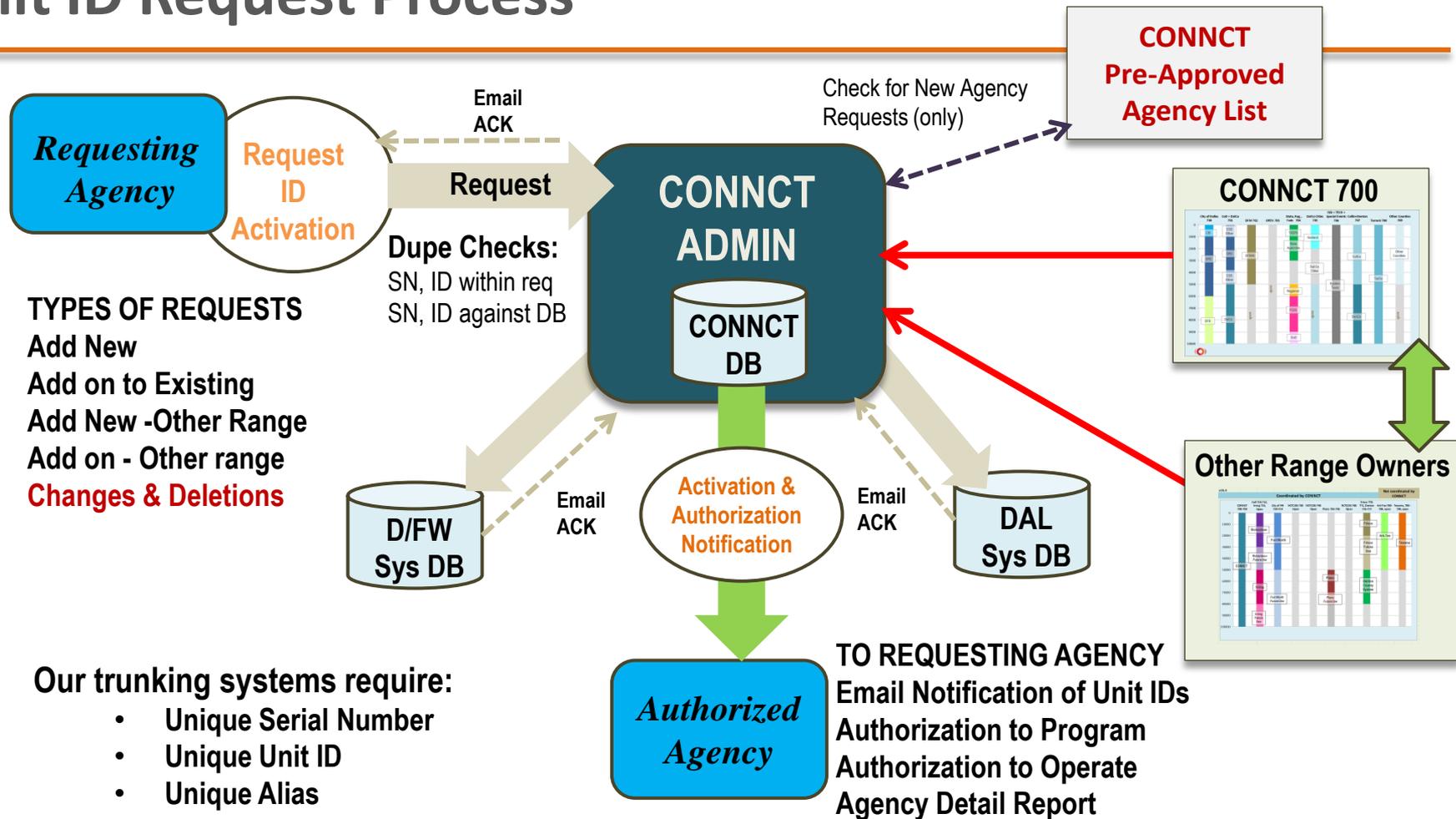
# CONNCT System – March 2015 Updates

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- The CONNCT system has changed site configuration:
  - City of Fort Worth Site located at Burnett Plaza has converted from Harris to Motorola, same freqs
  - Additional Harris Site “FAA Site” has been activated by DFW Airport
- City of Dallas just completed upgrade from ASTRO 25 7.7 to ASTRO 25 7.15
- CONNCT Team reexamining CONNCT TalkGroups (all)
  - See opportunities to optimize/fix releasing new codeplugs
- All radios on the network need to be reprogrammed in order to fully utilize the new system configuration



# Unit ID Request Process



## TYPES OF REQUESTS

- Add New
- Add on to Existing
- Add New -Other Range
- Add on - Other range
- Changes & Deletions**

## Our trunking systems require:

- Unique Serial Number
- Unique Unit ID
- Unique Alias

- Deploying with single Unit ID PER UNIT, greatly simplifies tracking and management, as does sequential dedicated ranges
- **PLEASE HELP CONNCT DB Admin by:**
  - Putting CONNCT in email subject line
  - Using "fresh", current CONNCT ID Request form (v12)
  - Not changing IDs once issued



- CONNCT System can be very useful for inhibiting lost or stolen radios which have moved out of range of their home system
  - DEA Story
- The CONNCT Team recently implemented two TEMP TalkGroups for temporary use:
  - TEMP Event – For Operational Exercises and events such as Urban Shield
    - This addresses Hot Wash Item which identified need for exercises to occur on non-operational talkgroups to avoid confusion and interference with real operations and/or for exercise operations support
  - TEMP Test – For temporary technical operations or device testing
    - Available on Sys1, Sys2 or BOTH
- Coordinated IDs – even if not on CONNCT System
- Management of 7M range, coordination of Range Owners
- *Call us if you experience a system failure or outage!*



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# P25 UNIT ID COORDINATION



# Benefits of P25 Unit ID Coordination

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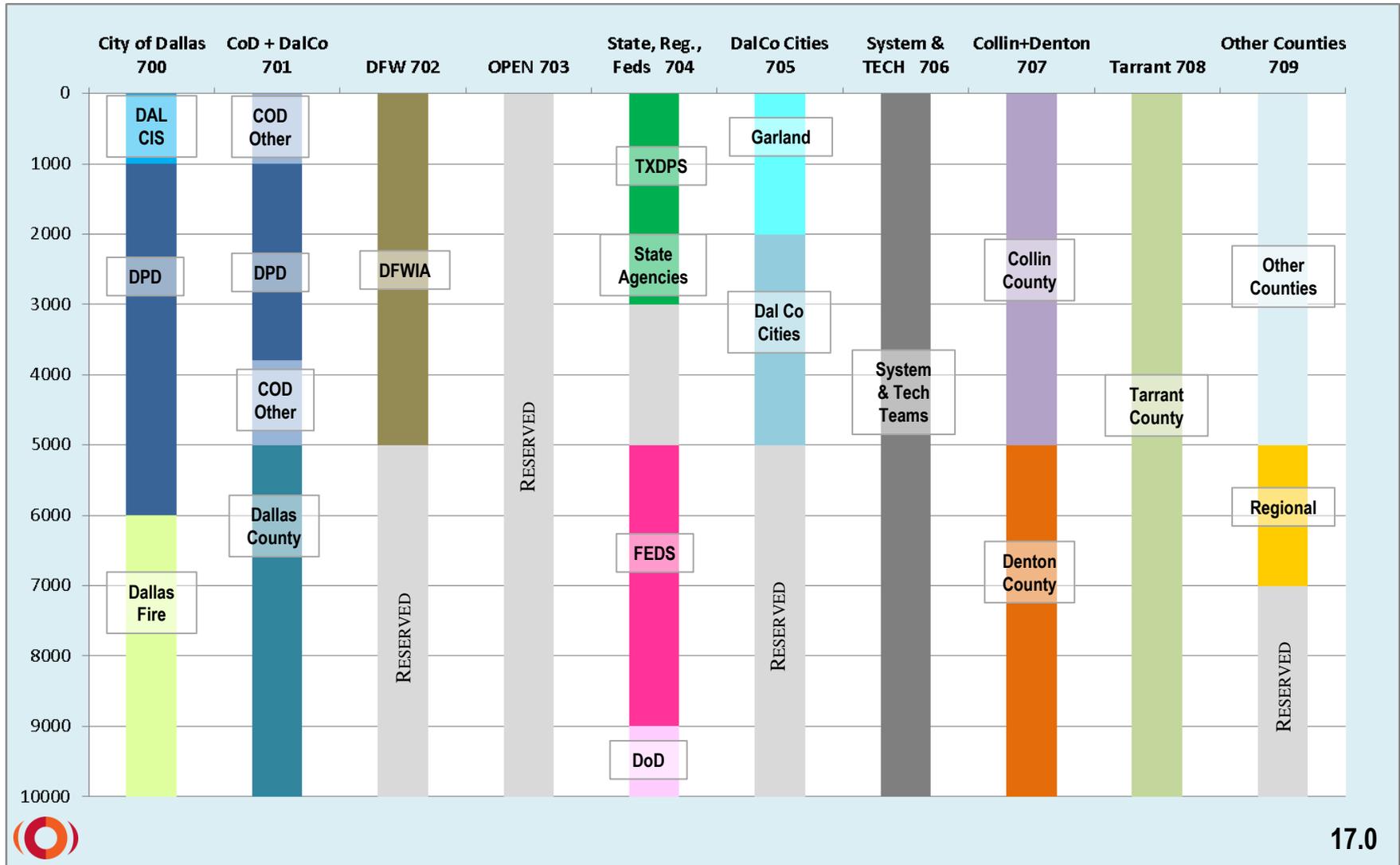
*Statewide unique Unit ID coordination was conceptualized as the state-level with the vision of assigning a single Unit ID for every P25 trunked radio in the State of Texas.*

- **Flexibility for the Future - Ability to connect systems with less revision and reprogramming radios**
  - Systems which are already coordinated remove one of the significant obstacles to integrating systems, which is the need to coordinate and reprogram Unit IDs in order to remove duplications.
- **Reduction in ID Management Effort** – Organized fleetmaps are easier and less complex to track, manage and allocate
  - Most radios have 10 or more IDs, so single ID is far fewer IDs to track overall
- **System owners only need to track one Unit ID per radio** - Makes tracking and managing radios, users and radio programming profiles (“codeplugs”) much easier.
- **Avoids the Likelihood of Duplicated Radio IDs** - Reducing potential errors and saving significant troubleshooting effort for system techs
- **Simplifies for First Responders to operate on different systems throughout the State**, saving precious time in times of disaster response
- **Enables quick identification of a Home jurisdiction**

# CONNCT Fleetmap – 700-709

100,000 IDs View

RESERVED = Reserved for future use

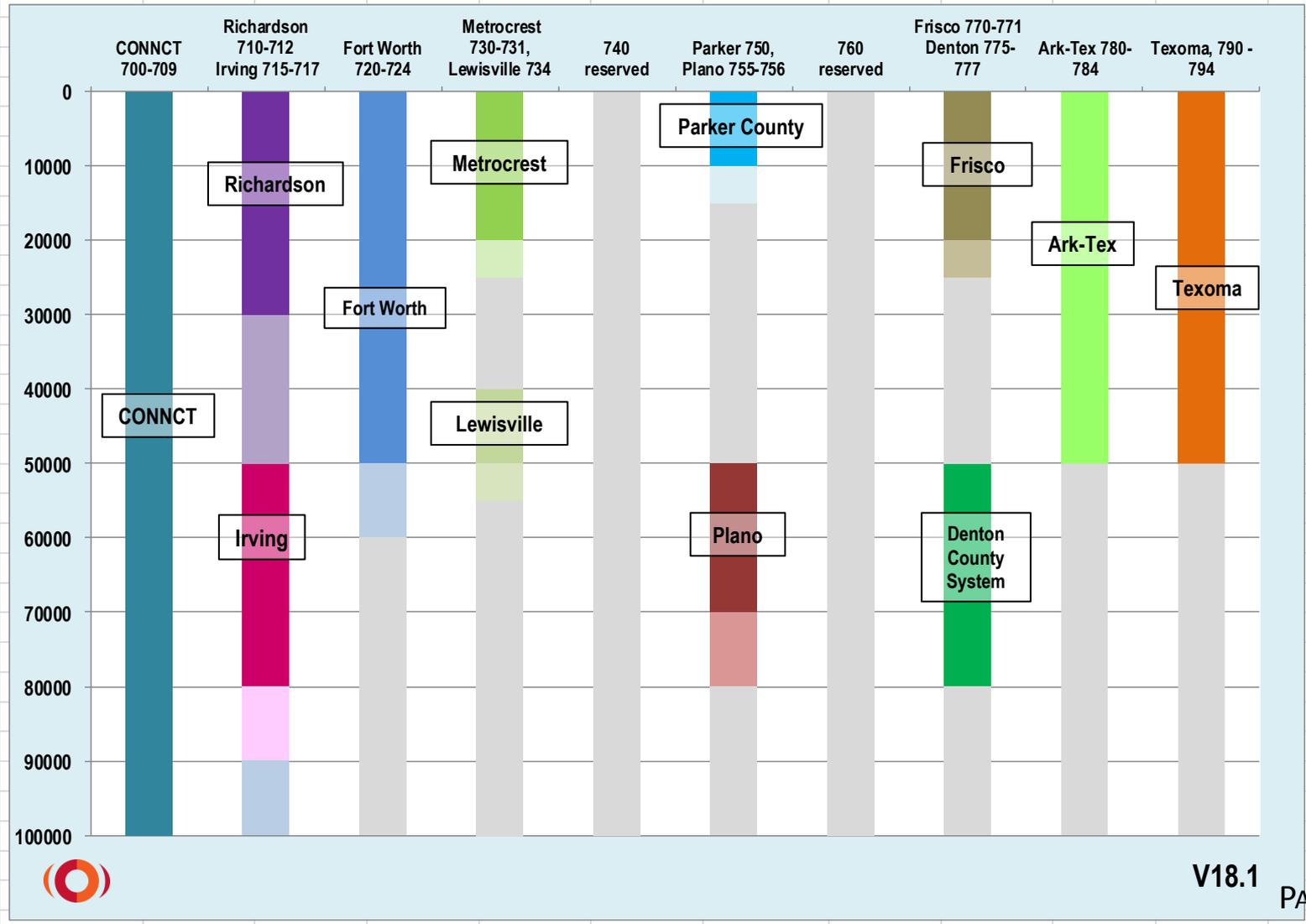


# Entire 7M (7000000) Range

1,000,000 IDs View

v18.1

Coordinated by CONNCT



V18.1





***Thank you for your commitment to  
interoperability!***

***CJ Holt***

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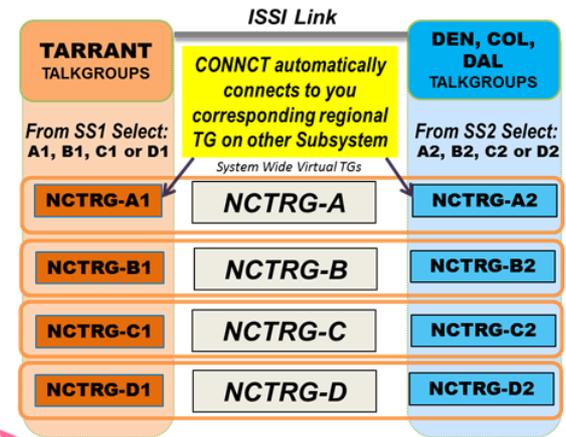
***Dallas/Fort Worth Airport***

# CONNCT – Communications Overlay Network for North Central Texas

CONNCT is a 700 MHz Project 25 FDMA System which connects two vendors' subsystems using the P25 ISSI - the first deployment of its kind in the US. As of October 2013, CONNCT is supporting over 80 agencies, 4000 interoperability users and 13000 Unit IDs.

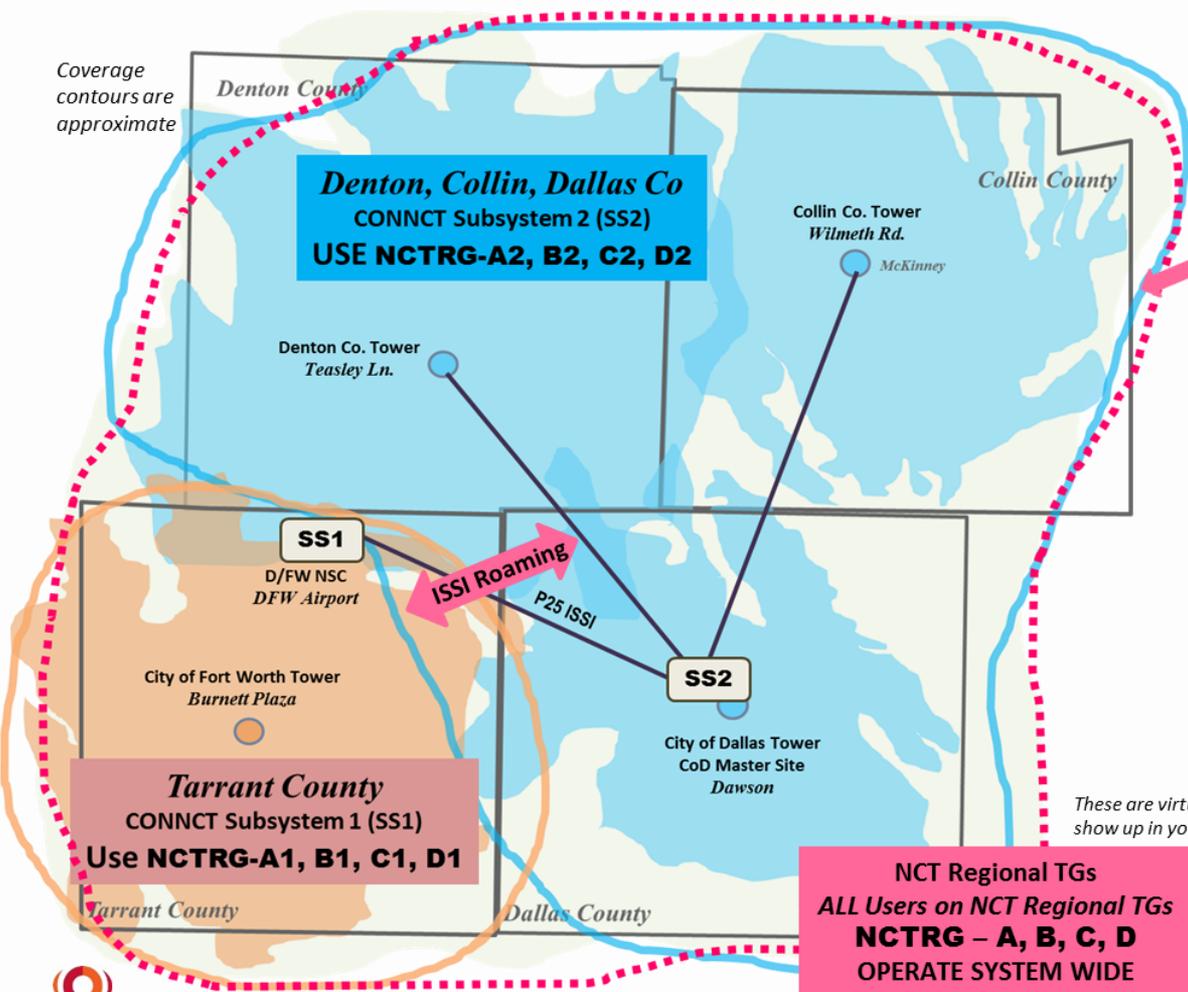
- Four Site System
- Mobile Coverage
- Best Effort Portable Coverage

**TARRANT – NCTRG-A1, B1, C1, D1**  
**DENTON – NCTRG-A2, B2, C2, D2**  
**COLLIN – NCTRG-A2, B2, C2, D2**  
**DALLAS – NCTRG-A2, B2, C2, D2**



## ISSI Roaming Users Must MANUALLY Switch

- You need to switch to a new talkgroup when moving between SS1 and SS2 coverage
- Upon change, you will immediately be reconnected into your original TG



## CONNCT also has COUNTY TGs

- When system wide is not needed

Denton County	Collin County	Dallas County	Tarrant County
NCTDEN-A	NCTCOL-A	NCTDAL-A	NCTTAR-A
NCTDEN-B	NCTCOL-B	NCTDAL-B	NCTTAR-B
NCTDEN-C	NCTCOL-C	NCTDAL-C	NCTTAR-C
NCTDEN-D	NCTCOL-D	NCTDAL-D	NCTTAR-D

These are virtual and won't show up in your radio.

**To report a CONNCT outage:**  
 City of Dallas Ops: (214) 670-8755  
 Harris Svc Center: (214) 314-5977