

# North Central Texas Interoperability Projects



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**Senior Manager**  
**IT Solutions**  
**City of Fort Worth**  
**March 24, 2015**

# Thank You

- **Gerard Eads – Arlington Communications**
- **Harland Westmoreland – Euless PD (NETCO)**

# Thank You

- **Gerard Eads – Arlington Communications**
- **Harland Westmoreland – Euless PD (NETCO)**
- **Steve Streiffert – City of Fort Worth IT**

# Thank You

- **Shane Burton – City of Irving IT**
- **Linn Goodman – Cleburne PD**
- **Gary Gregg – Euless PD (NETCO)**
- **Richard Hash – Mansfield PD**
- **CJ Holt – City of Dallas Radio Services**
- **Tim Jones – Johnson County Sheriff**
- **Rhonda Shipp – Arlington FD**
- **Mike Taylor – Grand Prairie PD**

# Thank You

- **City of Austin**
  - Chuck Brotherton
  - Gary Wilks
- **City of Houston**
  - Tom Sorley
  - Todd Johnson
- **Harris County**
  - John Chaney
  - David Dodson
  - Pat Burleson
  - Robert Howard

# P25 Radio Upgrade Project

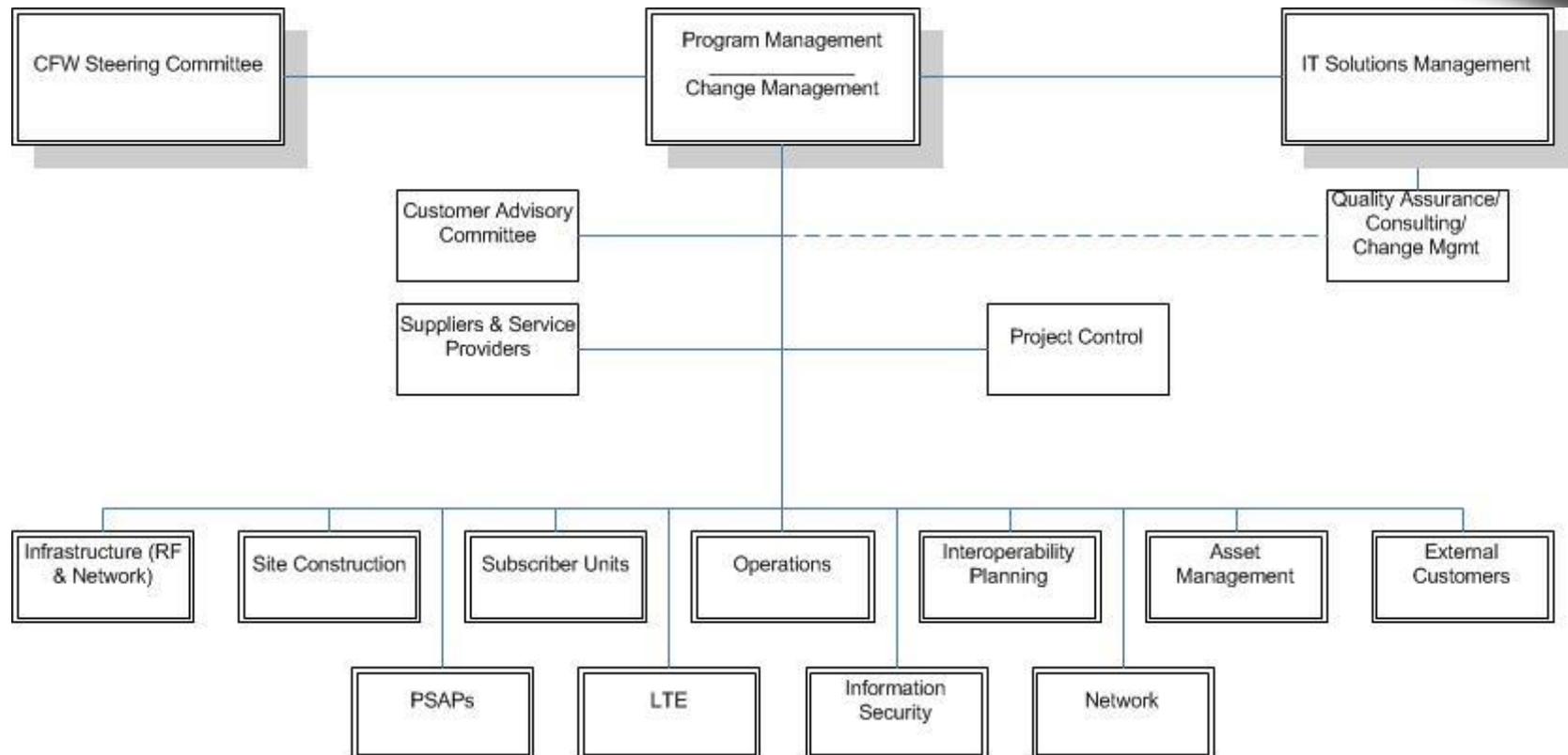
	<u>Milestone</u>	<u>Date</u>	<u>Status</u>
✓	Council Approval	July 2011	Complete
✓	Project Kickoff	August 2011	Complete
✓	P25 Master Switch/First Site Go-Live (Testing)	November 2011	Complete
✓	User Testing and Training Kickoff	June 2012	Complete
✓	Site Construction Commencement	July 2012	Complete
✓	New Radio Deployment Begins (Police)	August 2012	Complete
✓	Radio Deployment Resumes (CFW)	April 2013	Complete
✓	Site Construction Complete	December 2013	Complete
✓	All P25 Sites Operational	December 2013	Complete
✓	Fort Worth Public Works Migration Complete	December 2013	Complete
✓	Fort Worth Migration Complete	April 2014	Complete
✓	External Customer Migration Complete	December 2014	Complete
✓	Analog System Decommission	January 2015	Complete
	Project Close	March 2015	On track

March 2015

**Pct. Complete – 99%**

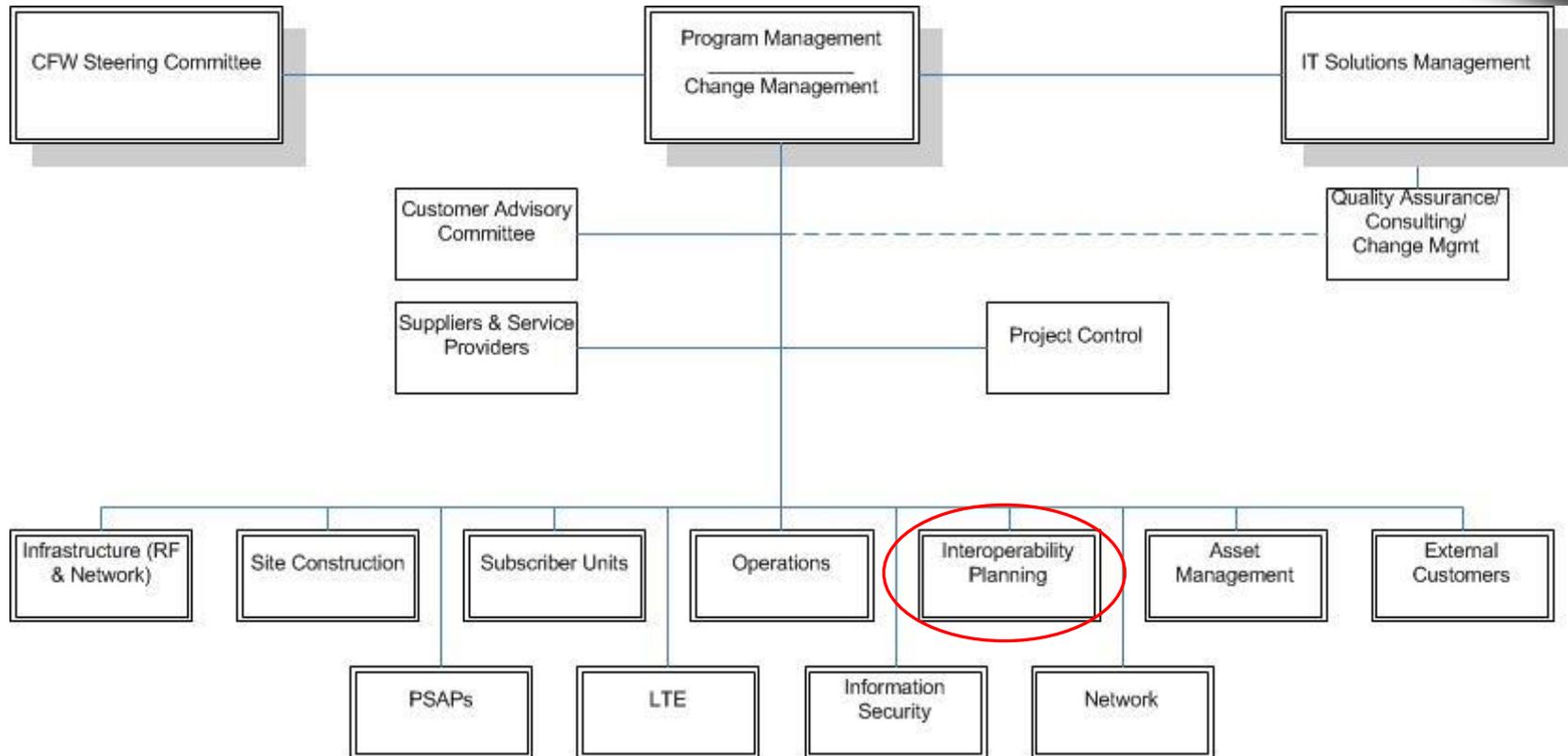


# P25 Radio Upgrade Project



9/3/2012

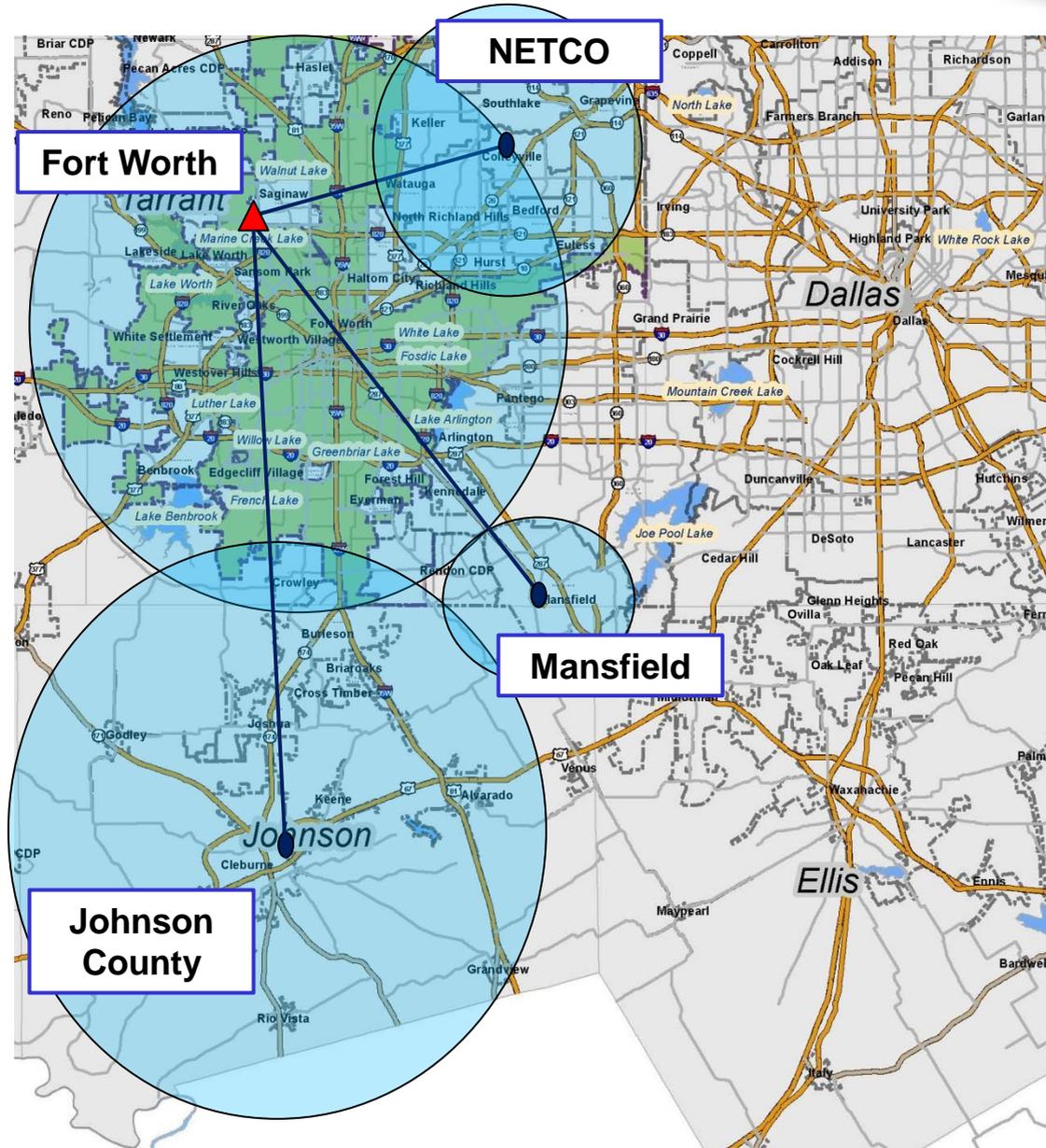
# P25 Radio Upgrade Project



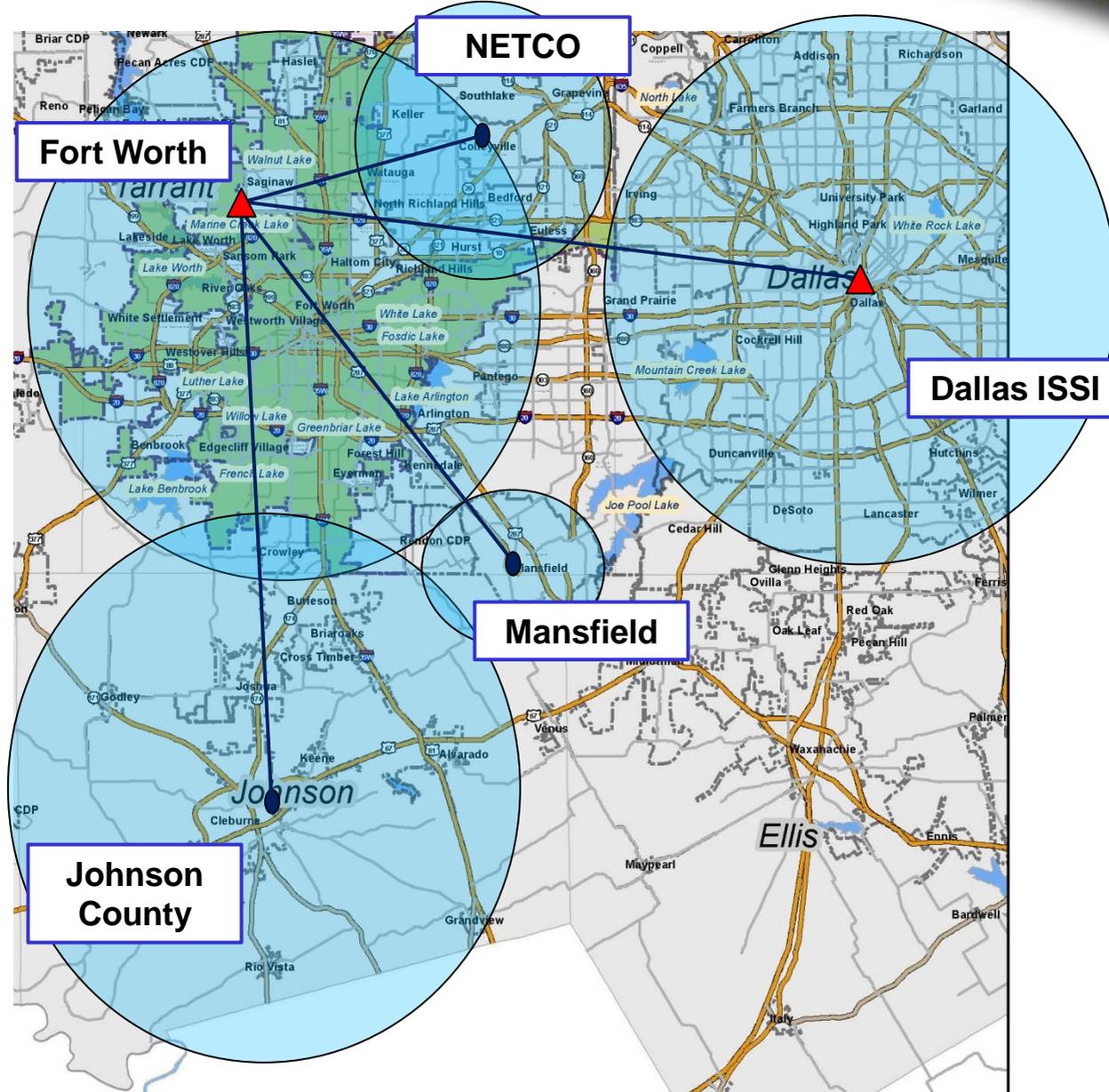
9/3/2012

# Technology

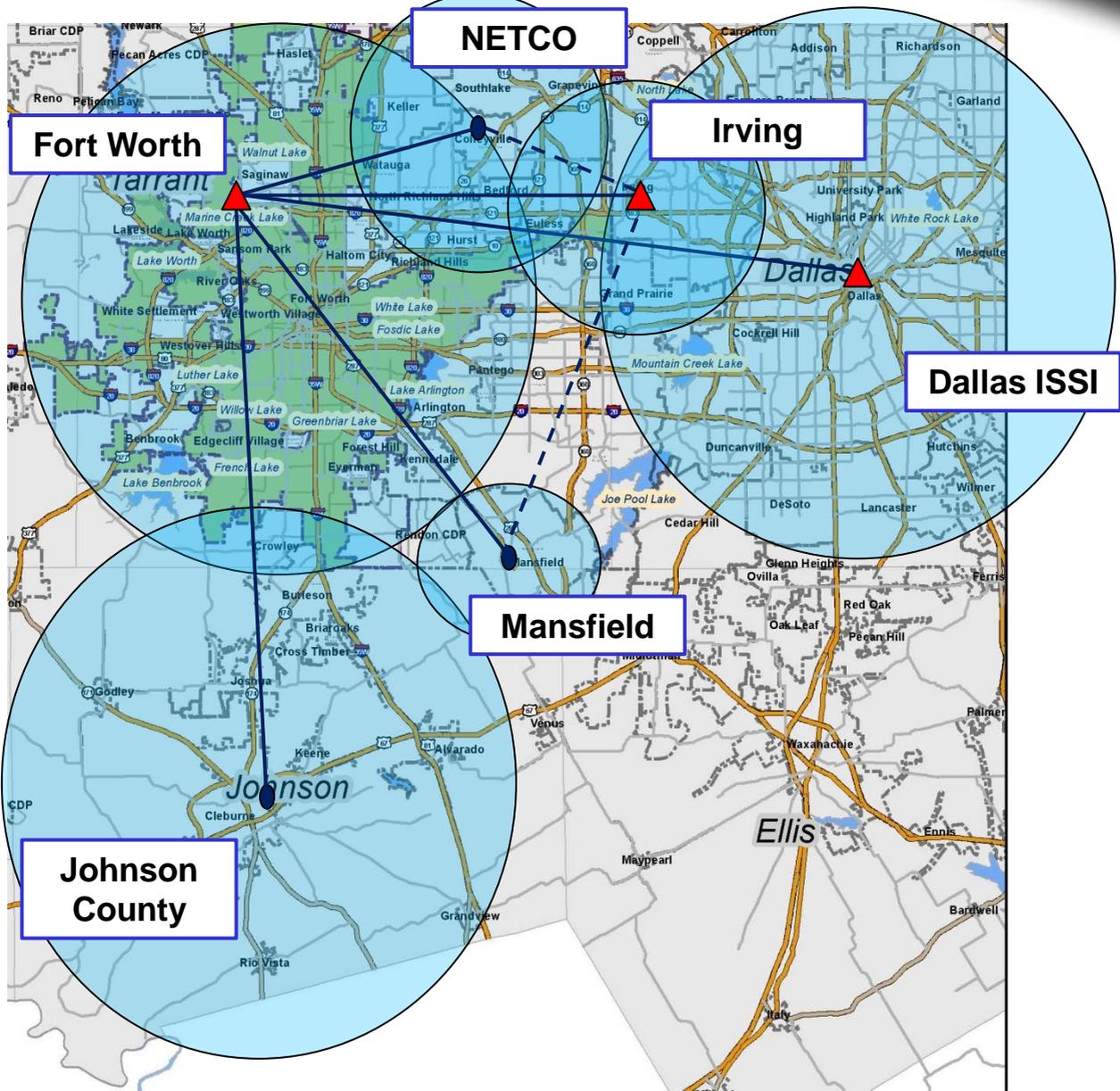
# Infrastructure – Part 1



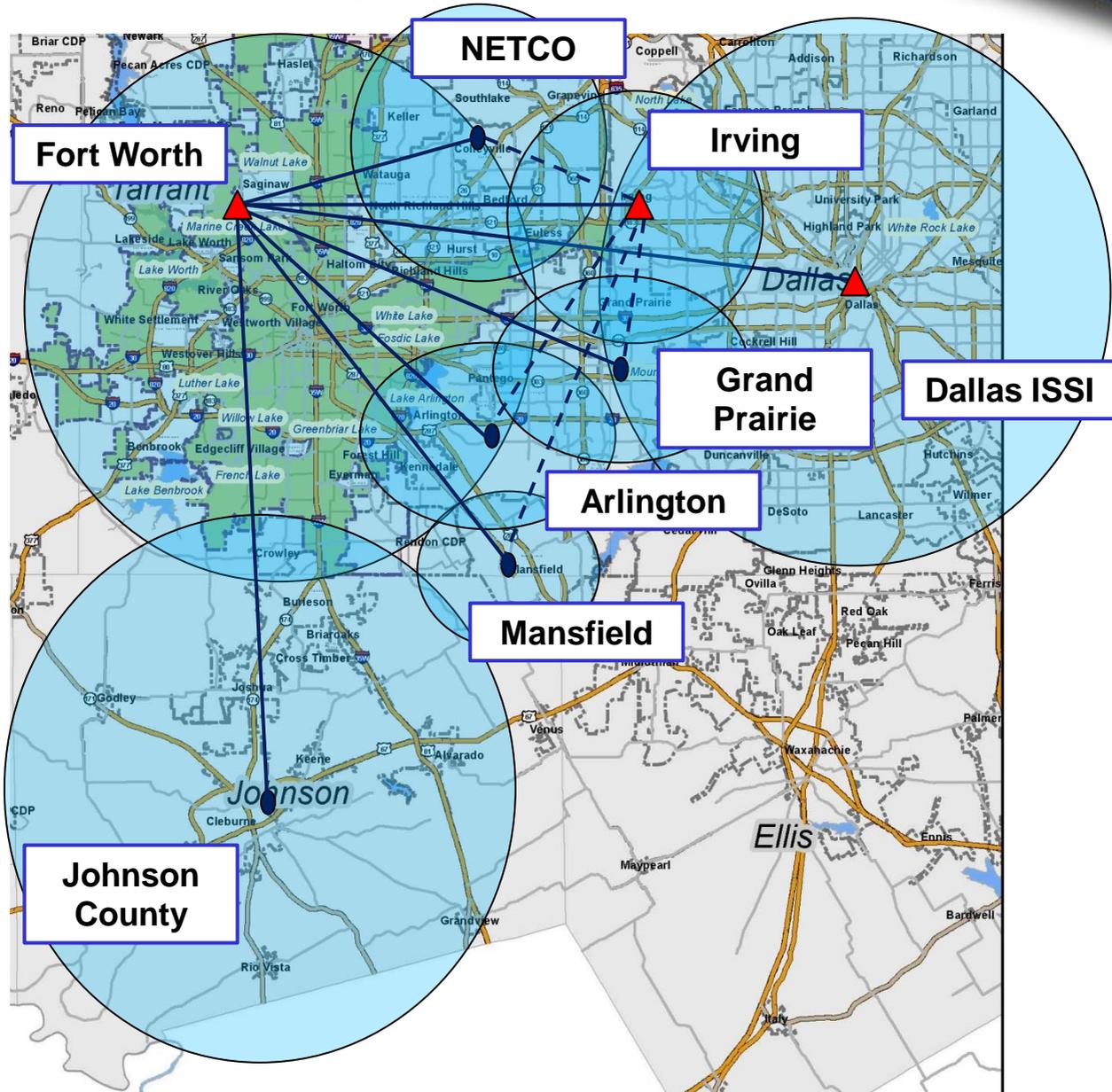
# Infrastructure – Part 2



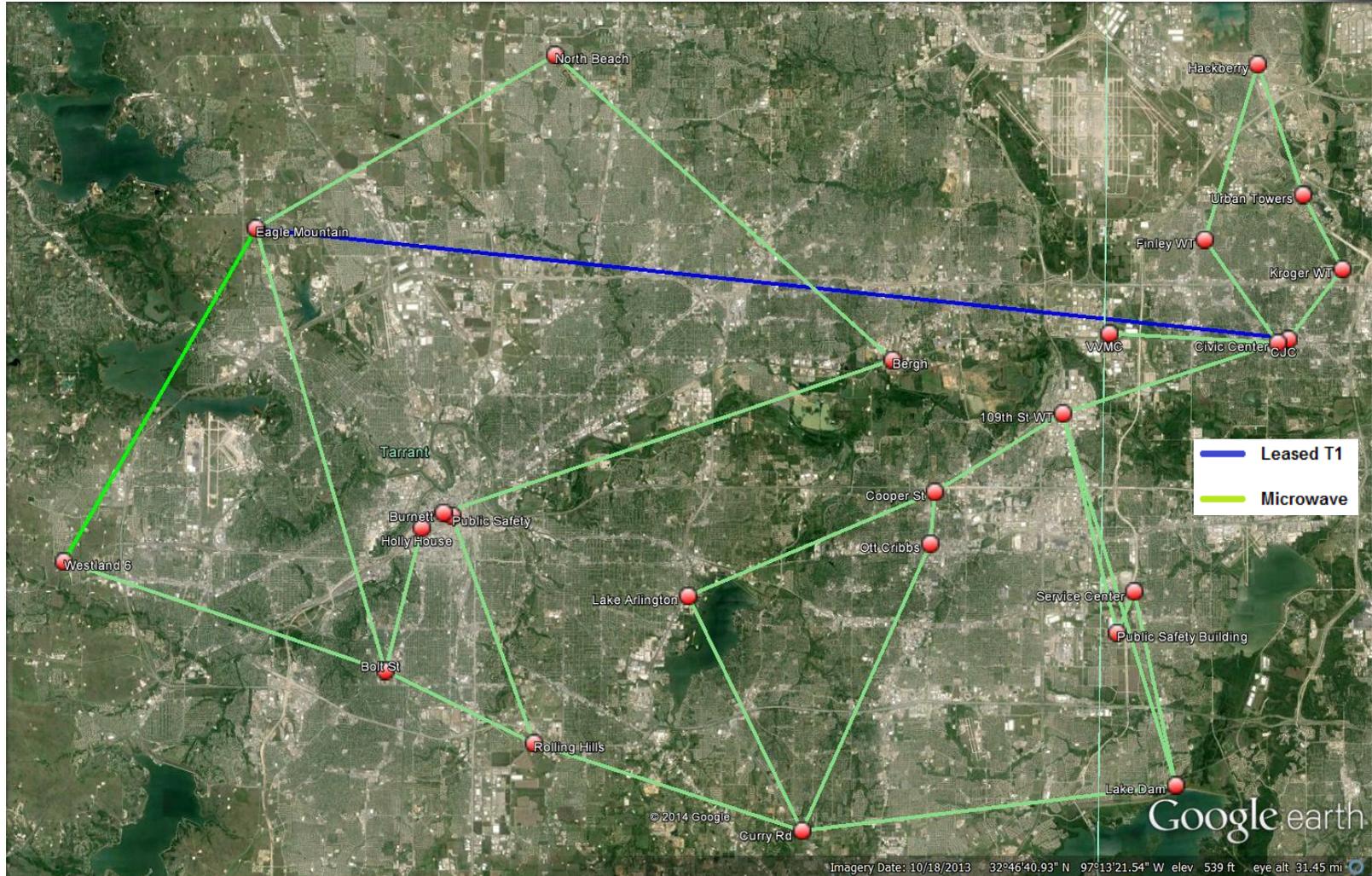
# Infrastructure – Part 3



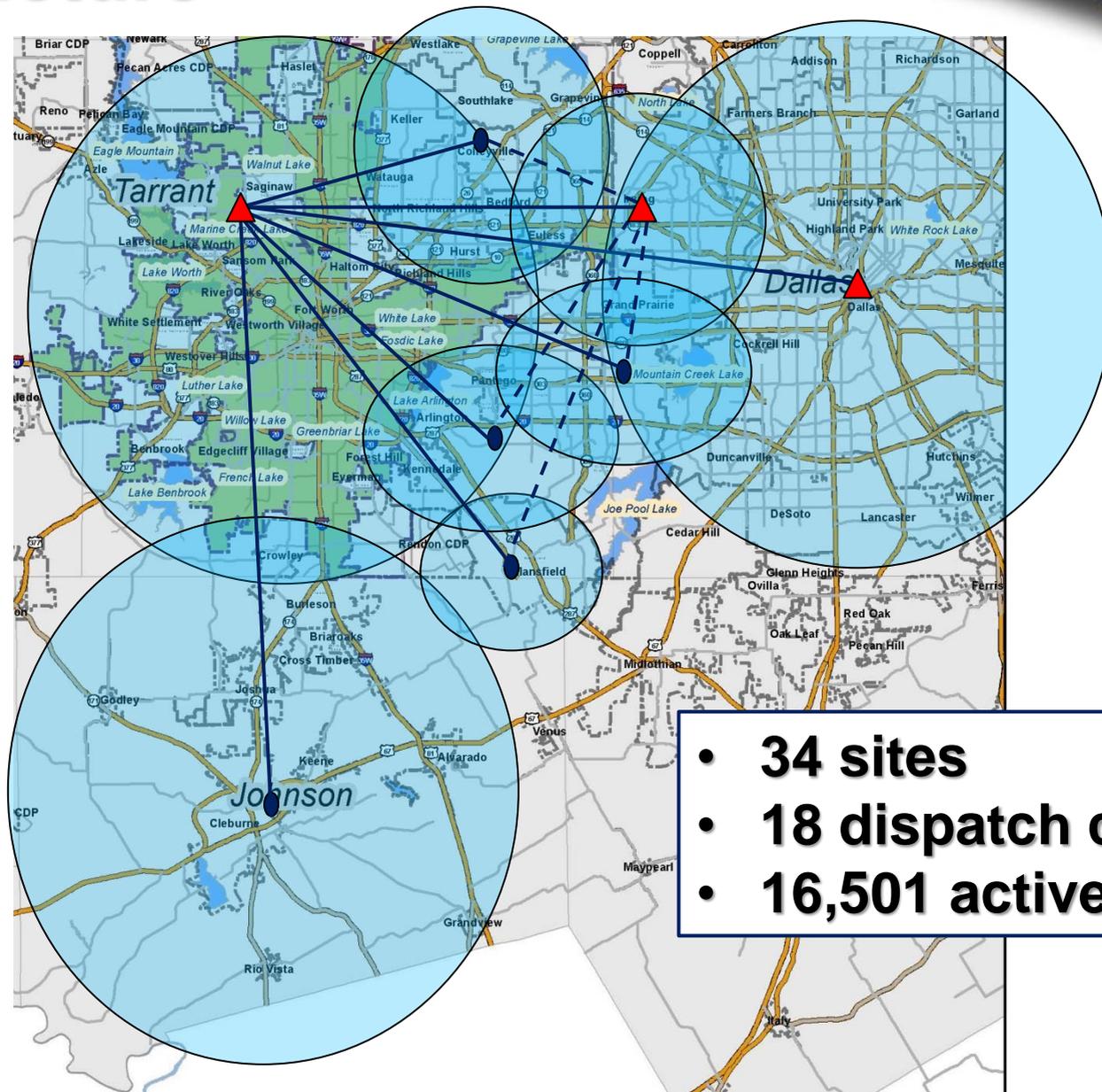
# Infrastructure – Part 4



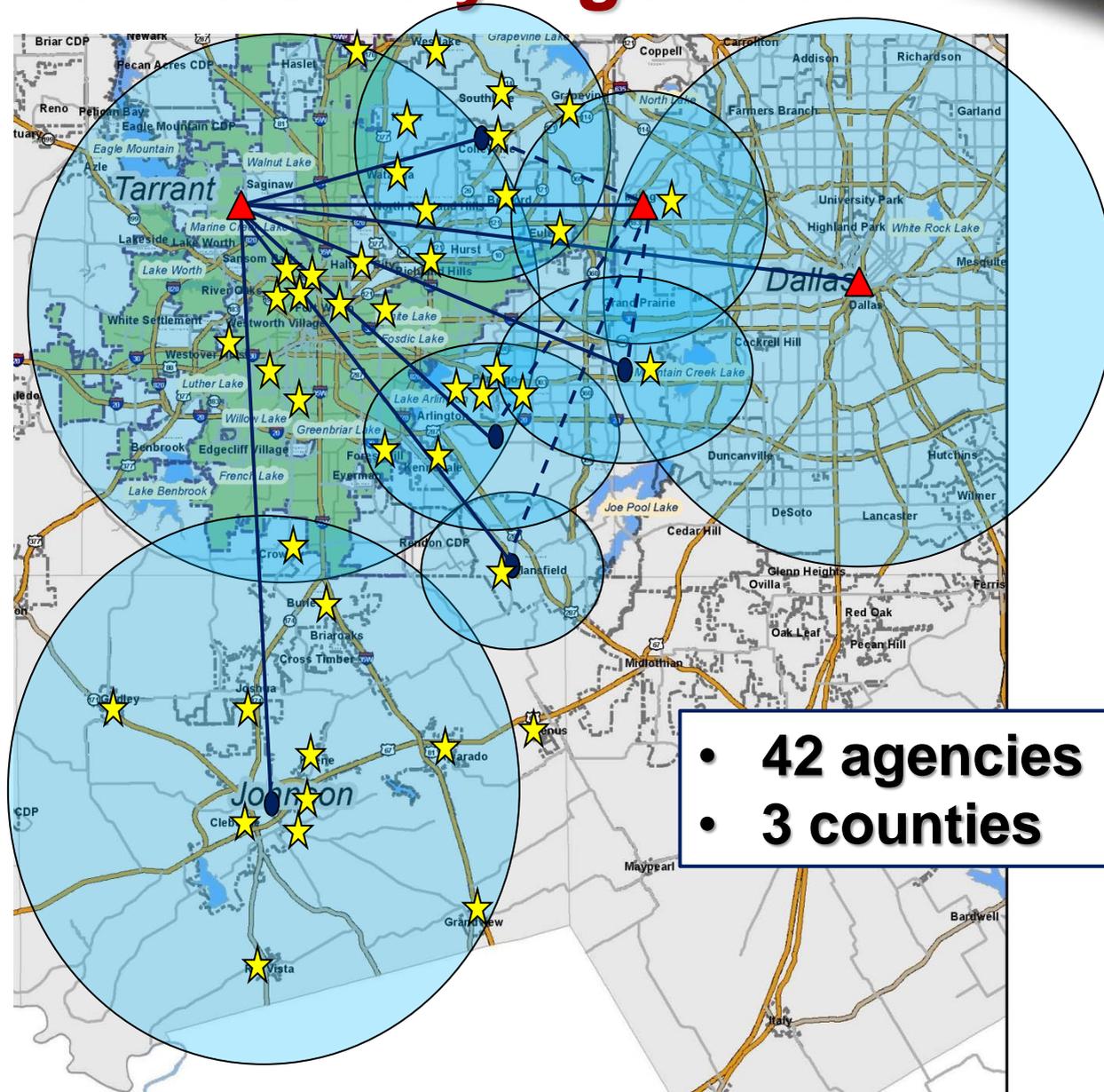
# Infrastructure – Part 5



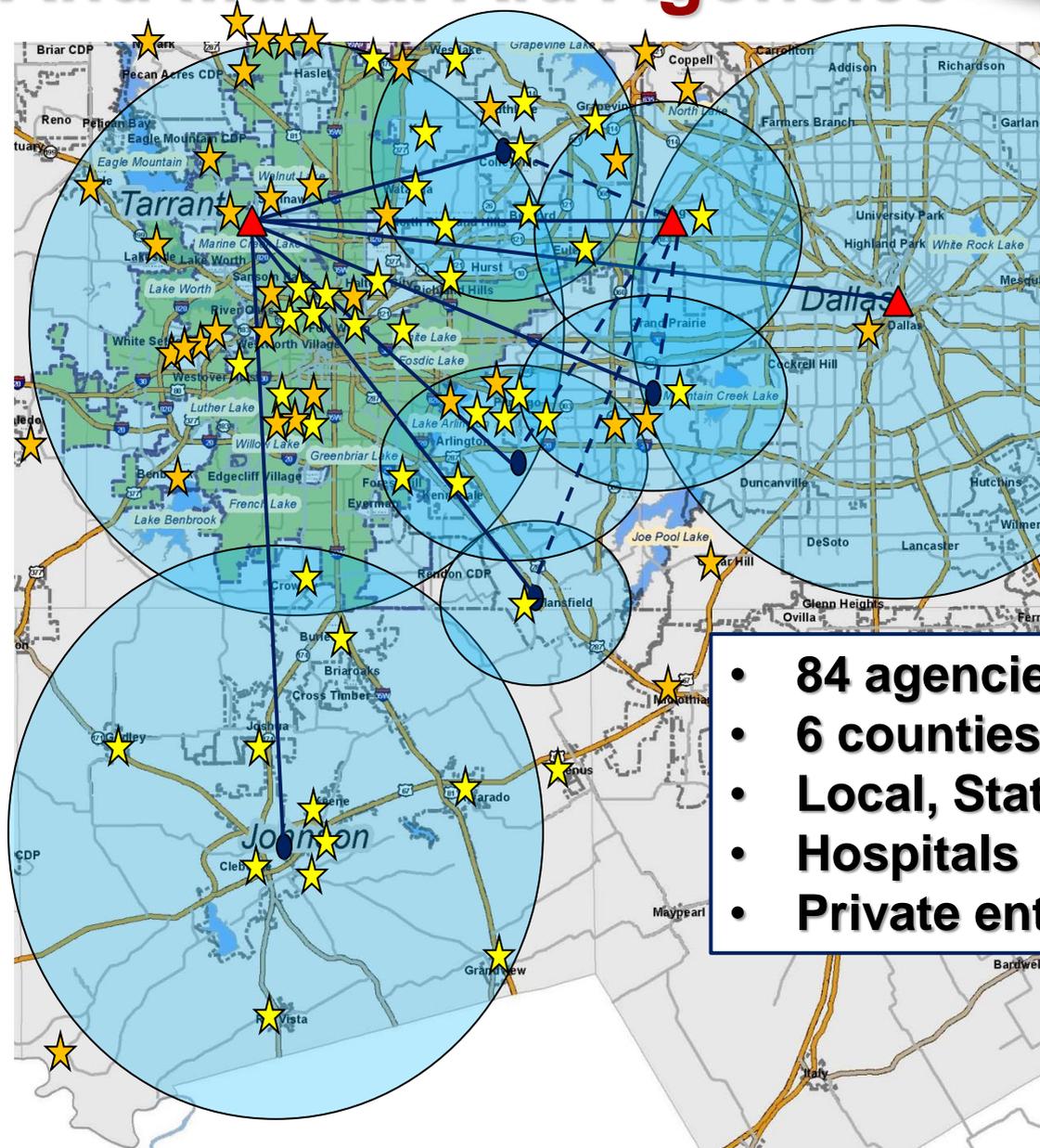
# Infrastructure



# Primary Public Safety Agencies



# Primary And Mutual Aid Agencies



- **84 agencies/organizations**
- **6 counties**
- **Local, State, Federal**
- **Hospitals**
- **Private entities**

# Processes

# Interlocal Agreement – Primary Agencies

number of Talk Group ID's to be used by **USER** and to disable Talk Groups ID's as it deems appropriate.

17. The CFW has established a coordinated Interoperable Communications Plan to apply to CFW and the users of its Radio System. **USER** agrees to participate in the Plan and include the Plan's interoperable Talk Groups in the programming of its Subscriber Radios and Console Systems.

18. Roaming to other systems or the use of **USER**'s Talk Groups on other trunked

# Interlocal Agreement – Primary Agencies

incurred by the CFW in the operation and maintenance of the Radio System.

**“Interoperable Communications Plan”** (the “Plan”) means the plan developed and established by CFW and the Governance Committee to facilitate, enhance and simplify radio communications among all agencies utilizing the Radio System or connecting their Site Repeater Systems or Console Systems to the CFW Master Switch. The Plan is available upon request from CFW or can be found on the CFW website at <http://fortworthtexas.gov/itsolutions/>.

**“Master Switch”** shall mean the primary processing and network infrastructure to which

# Fort Worth Radio Website

Radio Systems | IT Solutions

fortworthtexas.gov/itsolutions/cfwradios/

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**FORT WORTH**

Home > Departments > IT Solutions > Radio Systems

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- Minority/Women Business Enterprise
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- Business Assistance Center
- Zoning Map
- Incentive Map

**Visitors**

- Events around Fort Worth

## Radio Systems

City of Fort Worth's Radio Services Division provides radio systems for public safety communications needed to ensure rapid response to Tarrant County residents.

The system is used by the City of Fort Worth and almost 20 surrounding agencies, including the Tarrant County Sheriff's Office. In addition, through partnerships with other jurisdictions in Tarrant, Johnson and Dallas Counties, more than 50 agencies now are able to more effectively support one another through common, interoperable communications.



Eagle Mountain radio tower

### Resources

- Interoperability Resources
- P25 Radio Systems Policies and Procedures

### Contact

**Mailing Address:**  
1000 Throckmorton St.  
Fort Worth, TX 76102

**Phone:**  
817-392-8800

### Radio Systems Service Request Form

Use this form to request City of Fort Worth radio services.  
(City of Fort Worth employees should use IT Online.)

Agency Name: \*

Contact Name \*

7:13 PM  
3/21/2015

# Fort Worth Radio Website

The screenshot shows a web browser window displaying the Fort Worth Radio website. The browser's address bar shows the URL [fortworthtexas.gov/itsolutions/cfwradios/policy/](http://fortworthtexas.gov/itsolutions/cfwradios/policy/). The website header includes navigation links for Home, Contact Us, Jobs, Departments, Policies, and Translate. A search bar is located in the top right corner. The main content area features a large banner image of the Fort Worth skyline with the city logo. Below the banner, the page title is "P25 Radio Systems Policies & Procedures". The left sidebar contains a navigation menu with sections for "About Fort Worth", "City Council", "Public Information", "Departments", "Business", and "Visitors". The main text area provides an overview of the P25 radio system policies and procedures, stating that they provide an operational framework for optimal functionality and security. Below the text is a list of resources and a contact section. The contact section includes the mailing address (1000 Tfrackmorton St., Fort Worth, TX 76102) and phone number (817-392-8800). A list of links is provided for Subscriber Administration, System Management, Network Security, Operations, and Forms.

Radio Systems | IT Solutio x

fortworthtexas.gov/itsolutions/cfwradios/policy/

Apps | CFW PCI DSS | CFW WebEx | Compass Login | Dropbox | Fort Worth Code On... | Google Maps | P25 SharePoint | Imported From IE | HIPAA Assessment | Shared Documents ... | Is it "Cybersecurity," ... | TP The Most Alarming ...

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Search ...

**FORT WORTH**

Home > Departments > IT Solutions > Radio Systems

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**Visitors**

- ▶ Events around Fort Worth

## P25 Radio Systems Policies & Procedures

The City of Fort Worth's P25 radio system policies and procedures provide an operational framework with the objective of achieving optimal functionality, performance, process efficiency as well as protecting mission critical communications and network security by governance through best practices.

All subscribers, entities and users on the City of Fort Worth P25 radio system, including internal and external, console and radio-only customers as well as users on systems connected to Master Switch only, are encouraged to comply with the policies and procedures. Failure to comply could result in degradation of service. All policies and procedures are subject to change without notice.

### Resources

- [Interoperability Resources](#)
- [P25 Radio Systems Policies and Procedures](#)

### Contact

**Mailing Address:**  
1000 Tfrackmorton St.  
Fort Worth, TX 76102

**Phone:**  
817-392-8800

- ▶ [Subscriber Administration](#)
- ▶ [System Management](#)
- ▶ [Network Security](#)
- ▶ [Operations](#)
- ▶ [Forms](#)

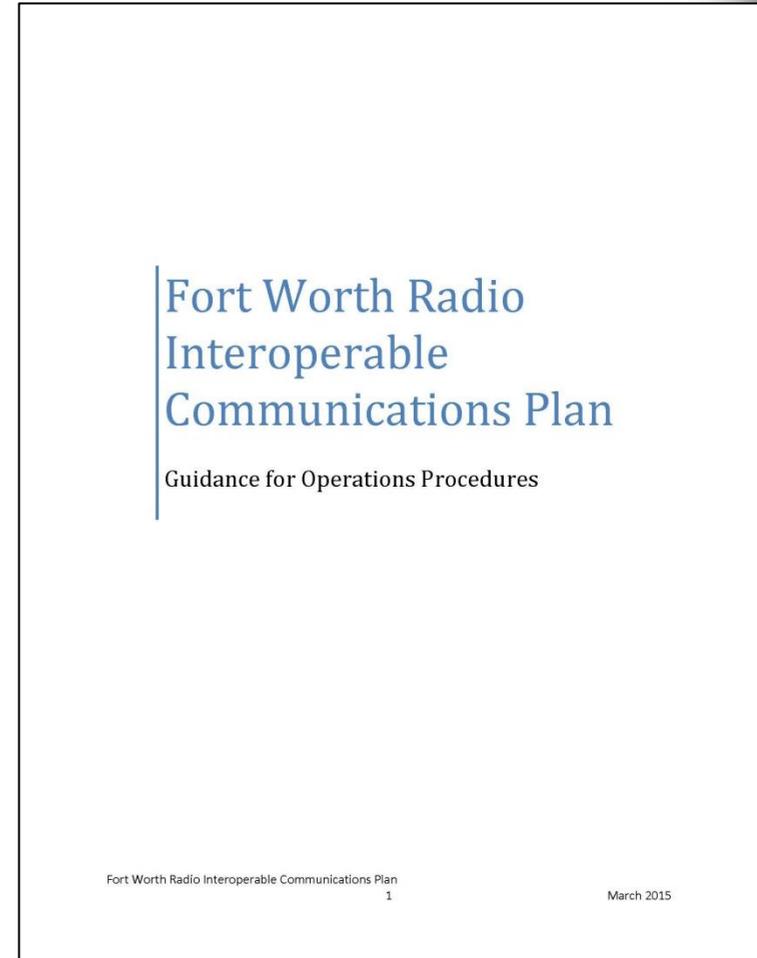
7:15 PM  
3/21/2015

# Fort Worth Radio Website

The screenshot shows a web browser window with the URL [fortworthtexas.gov/itsolutions/cfwradios/policy/](http://fortworthtexas.gov/itsolutions/cfwradios/policy/). The page title is "P25 Radio Systems Policies & Procedures". The left sidebar contains a navigation menu with sections: "About Fort Worth", "City Council", "Public Information", "Departments", "Business", "Visitors", "Public Safety", and "Sustainability". The main content area features a breadcrumb trail "Home > Departments > IT Solutions > Radio Systems" and a heading "P25 Radio Systems Policies & Procedures". Below the heading is an introductory paragraph and a paragraph stating that all subscribers, entities, and users on the City of Fort Worth P25 radio system are encouraged to comply with the policies and procedures. A yellow-bordered box titled "Subscriber Administration" contains four policy entries: "ITS-RADIO-001: P25 Talkgroup ID & Alias Naming", "ITS-RADIO-002: Subscriber Asset Management", "ITS-RADIO-003A: Subscriber Activation", and "ITS-RADIO-003B: Subscriber Repair Shop Service Plan". A right sidebar contains sections for "Resources" (with links to "Interoperability Resources" and "P25 Radio Systems Policies and Procedures"), "Contact" (with "Mailing Address" and "Phone" information), and "Mailing Address" (1000 Throckmorton St., Fort Worth, TX 76102) and "Phone" (817-392-8800). The Windows taskbar at the bottom shows the date and time as 7:18 PM on 3/21/2015.

# Interoperability Plan

- **Developed and administered by Governance Committee**
  - Cleburne (PD/Emergency Mgmt)
  - Crowley (PD)
  - Euless (PD)
  - Forest Hill (PD)
  - Fort Worth (PD)
  - Grapevine (PD)
  - Irving (FD)
  - Kennedale (PD)
  - Mansfield (PD)
  - Medstar (EMS)
  - North Richland Hills (PD)
  - Tarrant County (Sheriff)



# Interoperability Plan

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- **Zones**

- Law
- Fire
- EMS
- Public Works

- **Talk Groups**

- Call
- Incident Command
- General Use

- **Hospitals**

- Dedicated talk group each

# Interoperability Plan

- Fort Worth Plan
- CONNCT
- 800MHz NPSPAC
- 700MHz National Public Safety Band
- Dallas P25 ISSI

## Channel Designations

The primary purpose of the Fort Worth Regional Radio System (FWRRS) interoperability talk groups is inter-agency command and tactical level coordination. The FWRRS talk groups are designated for command and control and tactical operations to allow public safety agencies to coordinate resources and responses with other metropolitan area public safety agencies. There will be 39 Public Safety Interoperable talk groups allocated. Talk group designations are as follows:

NAME	Description
LAW IO CALL	Interoperability Calling Talk Group
LAW IO IC-1	Interoperability Incident Command 1
LAW IO IC-2	Interoperability Incident Command 2
LAW IO 1-10	Interoperability Talk Groups 1 through 10
NAME	Description
FIRE IO CALL	Interoperability Calling Talk Group
FIRE IO IC-1	Interoperability Incident Command 1
FIRE IO IC-2	Interoperability Incident Command 2
FIRE IO 1-10	Interoperability Talk Groups 1 through 10
NAME	Description
EMS IO CALL	Interoperability Calling Talk Group
EMS IO IC-1	Interoperability Incident Command 1
EMS IO IC-2	Interoperability Incident Command 2
EMS IO 1-10	Interoperability Talk Groups 1 through 10

In addition to the Public Safety Interoperable talk groups, the system will also include 11 talk groups designated for Public Works groups. These talk group designations are as follows:

NAME	Description
PW IO CALL	Interoperability Calling Talk Group
PW IO IC-1	Interoperability Incident Command 1
PW IO IC-2	Interoperability Incident Command 2
PW IO 1-8	Interoperability Talk Groups 1 through 8

In addition to the Public Safety and Public Works Interoperable talk groups there will be an additional 18 talk groups designated for interoperable communications between EMS first responders and area hospitals. These talk groups will be utilized for providing pre-arrival instructions as well as managing work flow between first responders and area hospitals during a mass casualty disaster event.

# Training & Testing

# Training

*Understanding the P25 Radio and DFW Regional, State, and National Interoperability Talk Groups and Channels*

**Crowley, TX**

2 Sessions Offered

Wed, April 8, 2015 (8am–12noon)  
Wed, April 8, 2014 (1pm–5pm)

**FREE! 4 hours TCOLE Credit**  
**FREE! 4 hours TCFT Credit**

Training Site Address:  
Crowley Rec-Center  
409 South Oak Street  
Crowley, TX 76036



**TO REGISTER:**

Contact

Officer CJ Perry  
Crowley Police Department  
cperry@ci.crowley.tx.us  
(817) 297-2276 ext. 6504

**Attendees should bring a portable radio from their agency if available.**

The P25 Interoperable Communications Governance Committee presents a training course to introduce common features and programming setting seen with a P25 radio as well as the talk group and channels used for public safety interoperability. By the end of this unit of instruction, the student will have a basic comprehension of P25 subscriber radio features and of the DFW Regional, State, and National Interoperability Talk Groups and Channels available to and used by Public Safety agencies. The student will demonstrate communicating on assigned interoperability talk groups during practical tests using a portable radio.

**Target Audience:**  
Public Safety radio users with radios connected to the Fort Worth Regional Radio System and/or DFW Regional Interoperable Talk Groups that may provide mutual aid with other agencies. Public Safety radio users include but not limited to: Local, State, and Federal Law Enforcement Officers, Local and State Fire Fighters, Telecommunicators, Public Works Employees, Local, State, and Federal Emergency Operation Centers, Emergency Medical Services, etc.

**Prerequisite Experience of Learners:**  
Basic knowledge of the student's portable radio features.

**Learning Objectives:**

- The student will have a basic understanding of common features of a P25 subscriber radio.
- The student will be able to define the term "direct interoperability".
- The student will be able to identify the Fort Worth IO Call, IO IC, and IO talk groups and their purpose per each interoperability talk group zone (LAW, FIRE, EMS, PW).
- The student will be able to identify agencies that use the Fort Worth Regional Radio System and who they can communicate with on the interoperability talk groups.
- The student will be able to have an understanding of the Regional, State, and National Radio Communication Interoperability Systems.

- **Developed and conducted by Governance Committee**
- **Certified by TCOLE**
- **Waiting list for every session to date**
- **Includes:**
  - P25 radio operation
  - Training on regional, state and national plans

# Testing

- **Two tests monthly**
  - Scheduled (2<sup>nd</sup> Wednesday)
  - Unscheduled
- **Law, Fire, EMS**

P25 IO Roll Call Test

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**LAW IO Call Test**  
03/11/2015 04:00

Testing Agency - Fort Worth Police	First Call	Second Call	Third Call
Joint Agency – Call Highlighted name			
North Richland Hills/Watauga/Richland Hills/Haltom City PD			
Bedford PD	✓		
NET Comm Center – call Netcomm			
Keller/Southlake/Colleyville/Westlake PD	✓		
Eules PD	✓		
Grapevine PD	✓		
Westover Hills PD	✓ - low		
TCC PD	✓		
Burlington Northern Railroad PD			
Crowley Police	✓		
Keene Police Department	✓		
Cleburne PD	✓		
Burleson PD	✓		
Mansfield PD – Call Highlighted name			
– Tri-County Auto Theft, Kennedale PD, Mansfield Marshal	✓		
Johnson County Sheriff's Office	✓		
Tarrant County Sheriff	✓		
TCU Police	✓		
Forest Hill Police	✓		
Irving Police			



# Testing

## P25 IO Roll Call Test

### FIRE IO Call Test 03/11/2015 10:00

Testing Agency - Fort Worth Police	First Call	Second Call	Third Call
Fort Worth Fire		✓	
Joint Agency - Call Highlighted name North Richland Hills/Watauga/Richland Hills/Haltom City Fire		✓	
Bedford Fire	✓		
NET Comm Center - call Netcomm	✓		
Keller/Southlake/Colleyville/Westlake Fire	✓		
Eules Fire	✓		
Grapevine Fire	✓		
Crowley Fire	✓		
Forest Hill Fire	✓		
Burleson Fire	✓		
Mansfield Fire - call highlighted agency, Kennedale FD	✓		
Johnson County ESD	✓		
Irving Fire	✓		

Performed by M. Rodriguez

## P25 IO Roll Call Test

### EMS IO Call Test 03/11/2015 17:00

Testing Agency - Fort Worth Police	First Call	Second Call	Third Call
Medstar			✓
Joint Agency - Call Highlighted name North Richland Hills/Watauga/Richland Hills EMS			✓ ✓ ✓
Bedford EMS	✓		
NET Comm Center - call Netcomm	✓		
Keller/Southlake/Colleyville/Westlake EMS	✓		
Eules EMS	✓		
Grapevine EMS	✓		
Crowley EMS	✓		
Mansfield EMS	✓		
Johnson County ESD***			
Irving EMS	✓		

\*\*Many agencies in Tarrant County utilize Medstar for Ground EMS. Medstar is not live on the P25 system at this time.

\*\*\*Johnson County uses Care flight ground for ground EMS. They are not on the Johnson County Radio system and do not have the IO talk groups. Johnson County ESD does respond EMS with Volunteer Fire Departments.

~~Johnson County ESD~~

NO answer from Johnson CO ESD after the 3<sup>rd</sup> Attempt to call.

# Operations

# Results To Date

- Frequency of use is increasing
- Law enforcement is biggest user by far
- Training is crucial
  - Dispatchers
  - Field personnel



# Success

- **February 2015**
  - Two events
  - Consecutive days
- **More than 100 officers from multiple agencies**
  - Fort Worth PD
  - Crowley PD
  - Johnson County Sheriff
  - Texas DPS
- **Search, pursuit and capture of a murder suspect**

# Lessons Learned

- **Training, training, training**
  - Dispatchers
- **Maintain the momentum**
  - Communication
  - Structure
- **Interoperability works**
- **Collaboration/cooperation yields significant benefits**



**Questions?**