

Motomesh Wireless Network Build-out

David Stephens
July 25, 2011

Agenda

- Purpose / Scope
- History of project
- Pole placement
- Options
- Next Steps / Council Decision

Purpose / Scope

- This wireless network started out as a Public Safety network but the technology chosen allowed for dedicated bandwidth for both Public Safety and non-Public Safety.
- Public Safety uses a licensed 4.9 GHz frequency and non-Public safety uses a non-licensed 2.4 GHz frequency.
- This is based on WiFi technology but has enhanced security.

Purpose / Scope (continued)

- Non-Public Safety use had risen dramatically
 - Automated water meter readings (AMR)
 - Irrigation control for Parks & Rec
 - Control of school flashing signals (Fall 2011)
 - Extending network capabilities

History

- 2005 – Concept for city only wireless network approved
- 2005 – RFP's issued for project
- 2006-2007 – Pilot area of 15th and Coit developed as proof of concept for vehicular speed data transmission
- 2008 – Major arterials covered in Plano
- 2009 – Started infill of neighborhoods

History (continued)

- 2009 – Identified areas with buried utilities and decorative poles that would not support wireless access points. Oncor would not allow City of Plano to use existing assets.
- 2010 – Developed mono-pole with aesthetics and location in mind. Started installation but stopped due to citizen feedback.

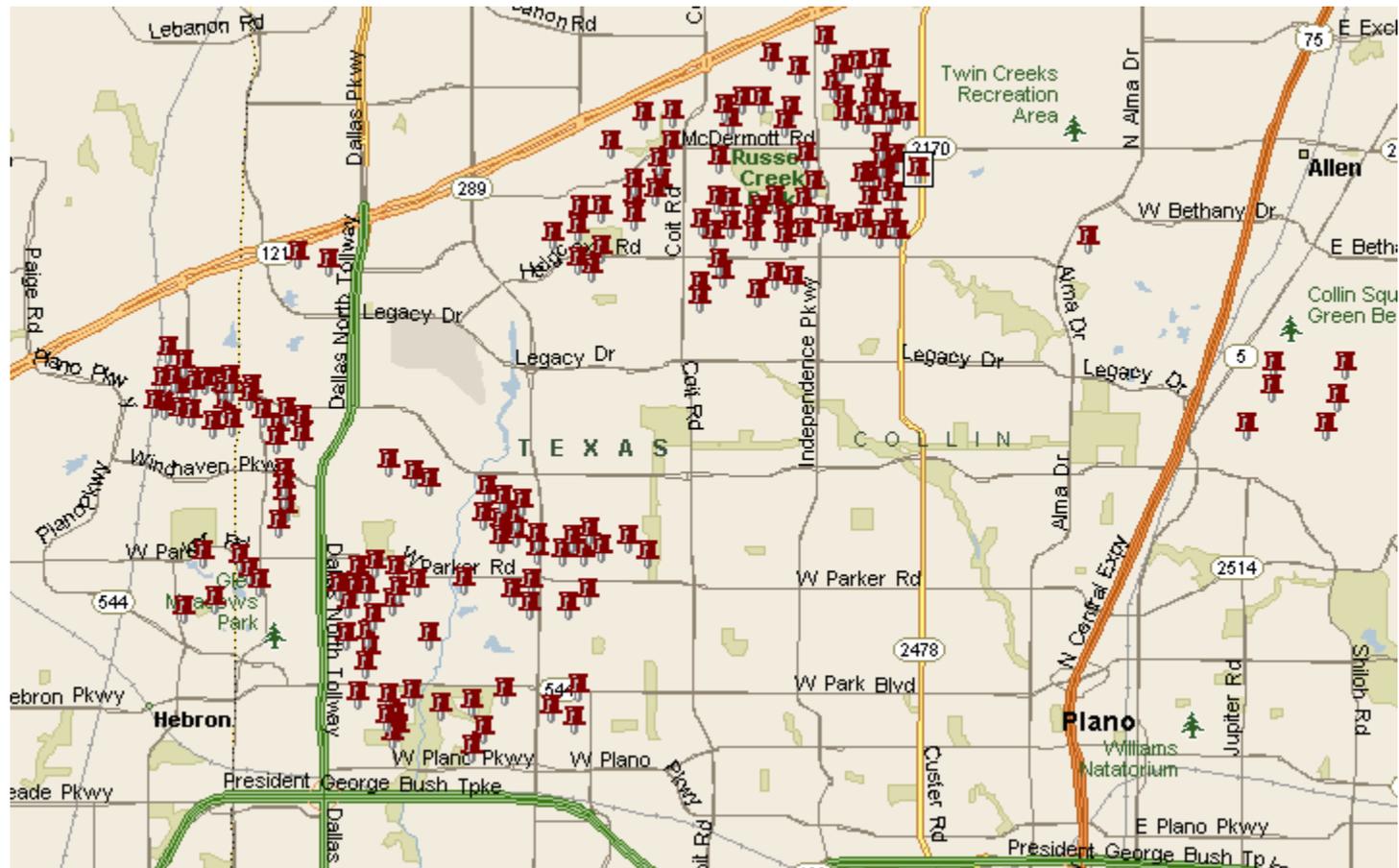
History – (continued)

- 2010 – Meet with Plano Homeowners Council regarding plans to install new poles.
- 2010 – Meet with several HOA's to determine acceptable placements for poles.
- 2011 – Started pole installation process again and stopped due to citizen feedback.
- Present – 92% of City has mesh wireless coverage.

Pole Placement

- To provide maximum coverage the following factors were evaluated:
 - Location
 - Existing assets
 - Existing power sources

Pole Placement (continued)



Proposed Pole



Options

- Oncor and CoServ own all light poles in the City of Plano.
 - City has asked them to reconsider allowing wireless devices on existing decorative poles (multiple times).
 - City has asked to purchase existing assets and install wireless devices on COP owned asset. Oncor declined offer.

Options

- City of Plano asked Oncor to sell assets to City and City will replace existing decorative poles with proposed poles. This minimizes number of above ground assets in the affected areas.

Next Steps / Council Decision

- Wait for Oncor's response
- Complete project as proposed
- Do not install access points