Improving Incident Response with Workforce Automation Technology

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Agenda

- Denton, Texas and Denton Municipal Electric
- Business Challenges
- Project Goals
- Results from Deployment
- Future Plans
- Summary

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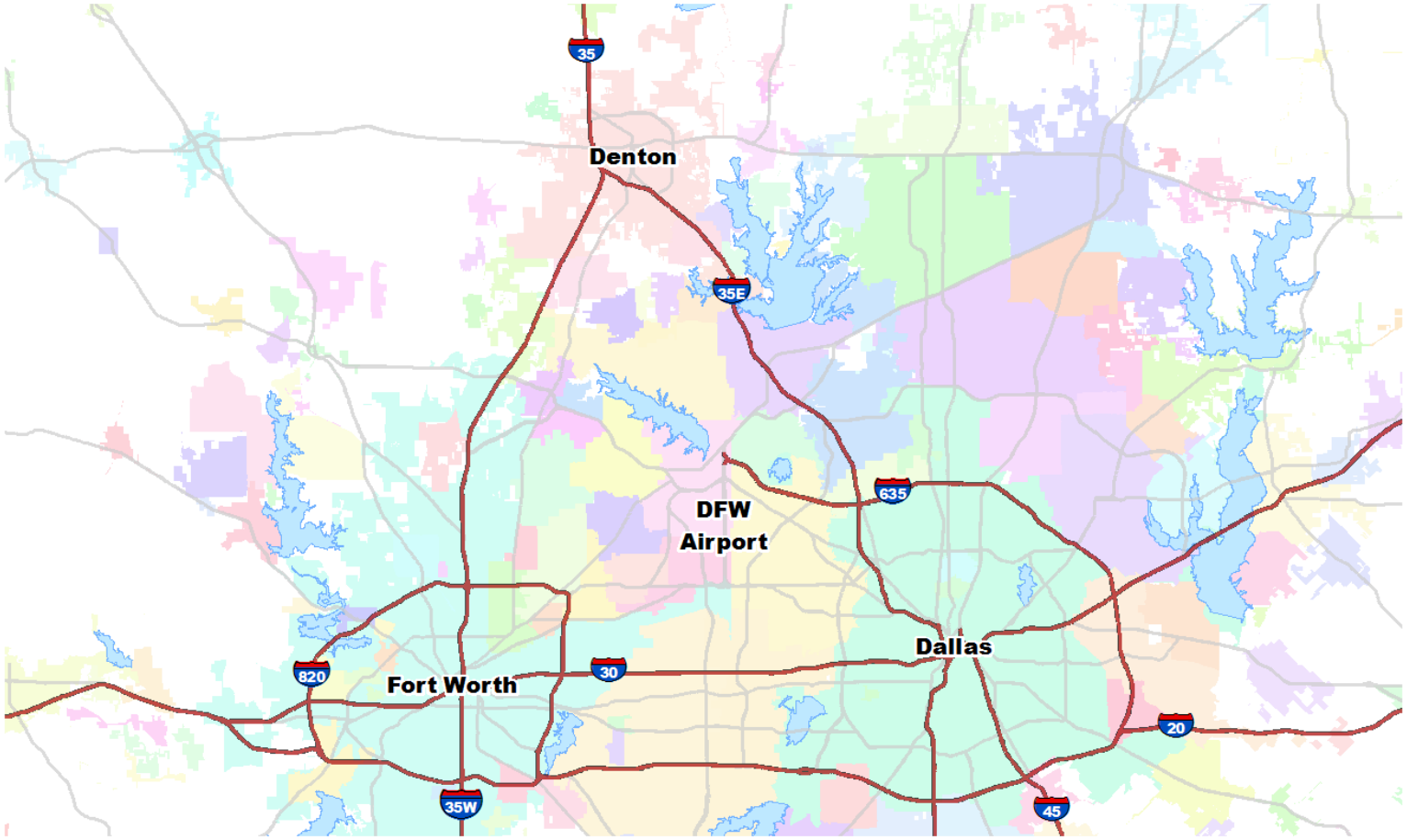
Denton, Texas



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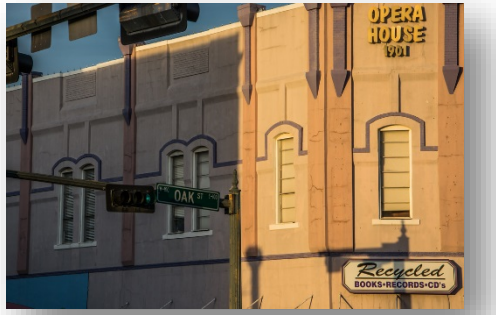
Denton, Texas

- Population Around 120,000
- Full Service City
  - Electric
  - Water
  - Wastewater
  - Landfill & Recycling
  - Airport



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About Denton Municipal Electric

- Established 1905
- A department of the City of Denton
- Service area 100 sq. miles
- 813 miles of distribution electric lines
- 52,000 Meters
- Generation, Transmission, Distribution, Communications (Fiber)

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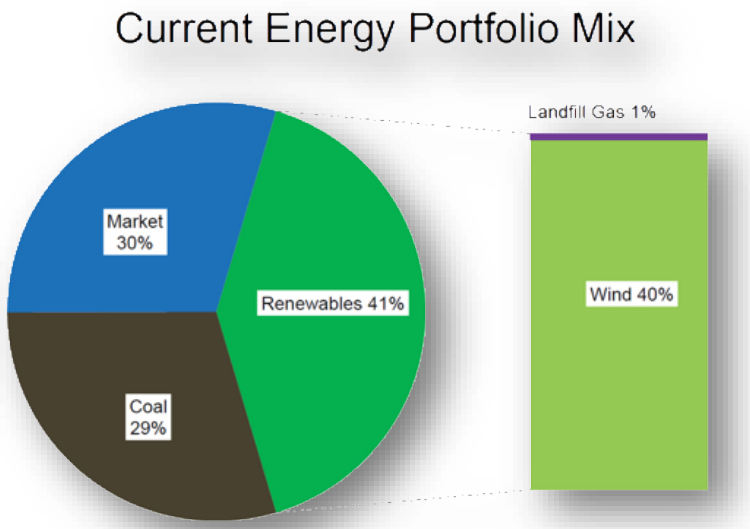
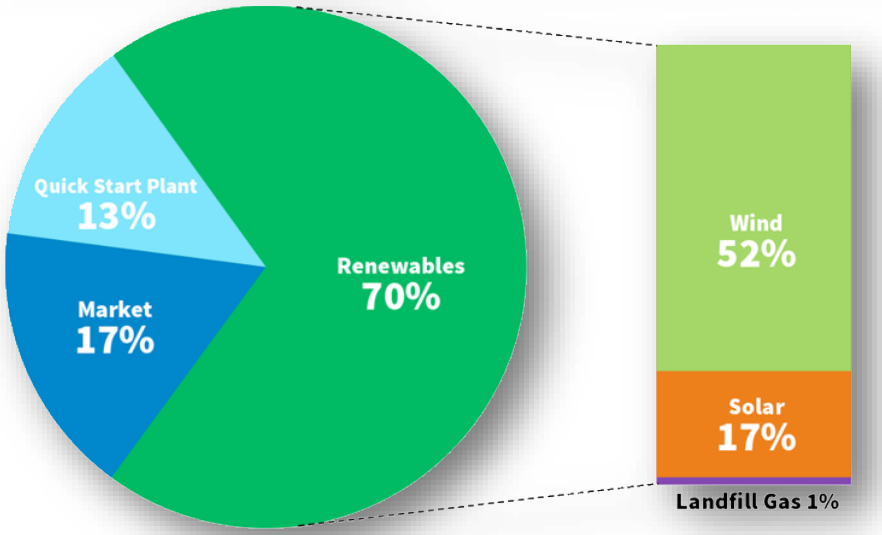
Denton Municipal Electric

- Changing Electric Industry
- Changing Power Generation





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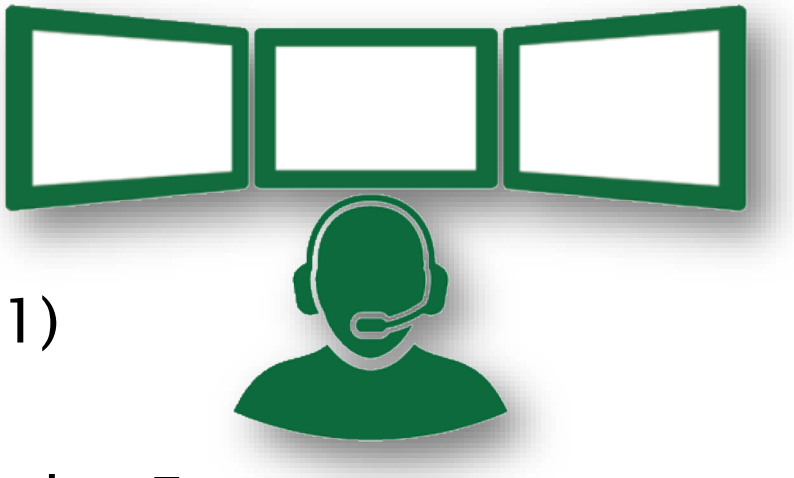
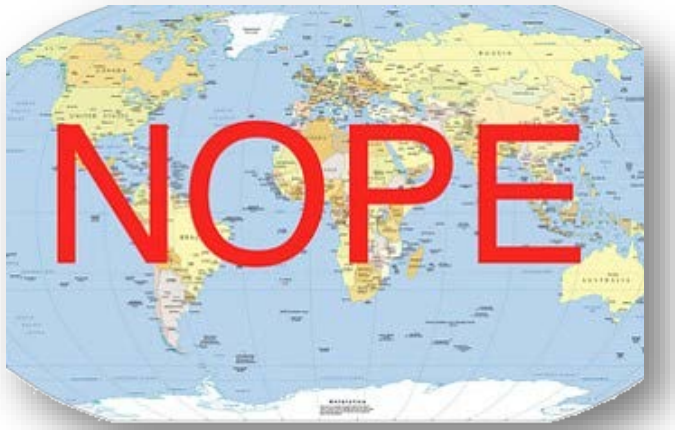
DME Incident Response



- System Operations & Utilities Dispatch
  - Only 24 Hour Department in Denton (Except 911)
- DME Utilities Dispatch for:
  - Water, Wastewater, Drainage, Streets, Traffic, Parks, Etc
- Each Department has 24/7 On-Call Staff
- Dispatch is housed within electric
  - Calls are routed to all other utilities
- Data integration between utilities has become crucial

Business Challenges



- Manual
- Too. Much. Paper.
- Verbal/radio communication
- Lack of real-time visibility into field work
- Data errors and the associated data correction efforts
- Time-consuming data admin tasks
- Inaccuracy of geospatial asset data

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Business Challenges for Response

- DME Only Controls DME Systems

- No common system for all divisions
  - Some divisions partially automated
  - Some with no automation
- Different processes in divisions or work groups
  - Day and night shifts
  - Water and electric

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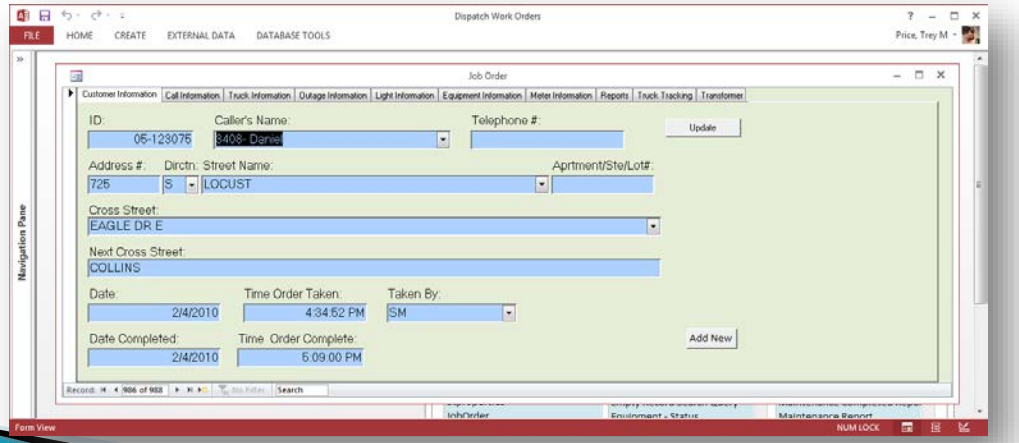
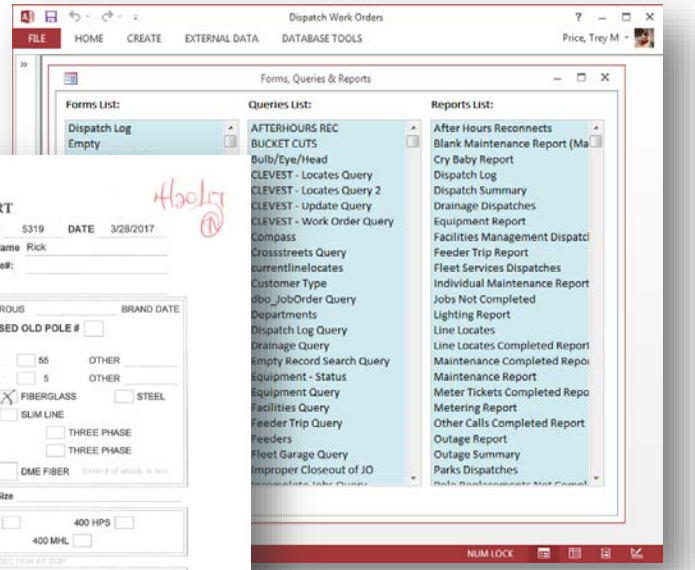
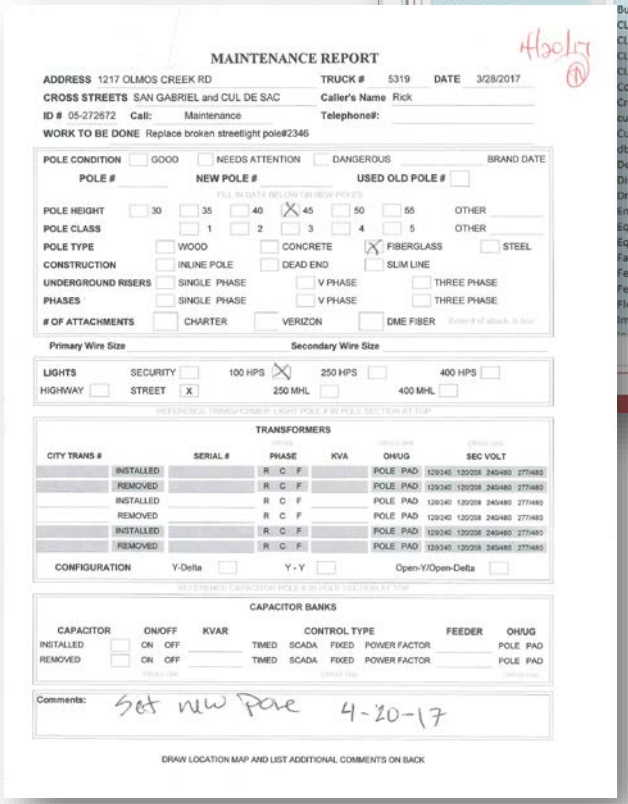
Challenges from Previous System

- Temporary system ended up being in use for 10 years
- Frequent Issues
- Difficult to maintain
- Security risk
- IT ready to end-of-life the system







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Project Goals

Identify and implement an enterprise level system tightly integrated with DME backend systems

- Paperless workflow
- Unified dispatching and work assignment
- Improved incident response and productivity
- Improve Data Integrity
- Real-time visibility into work across the entire utility

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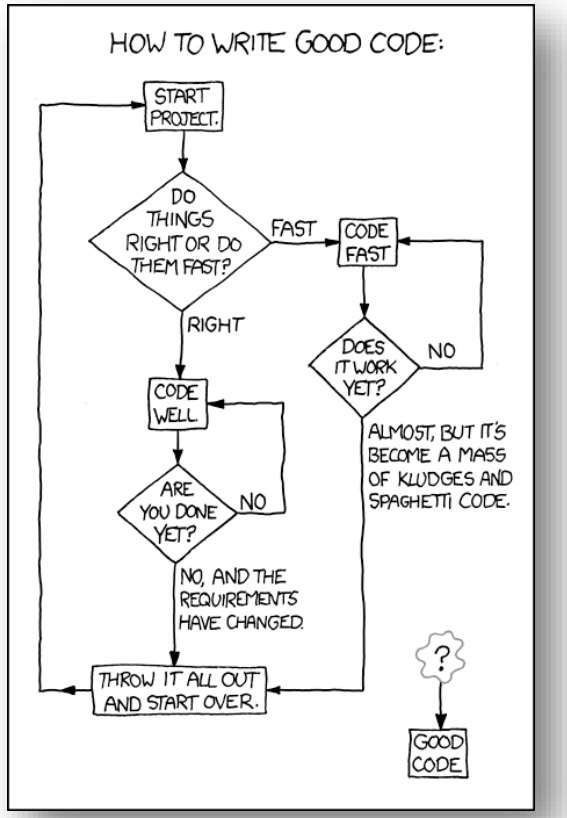
Project Requirements

- Utility-wide system for managing work
- Create and manage tickets for various city-wide calls
- **Configurable. Not Customized.**
- Integrate and manage work from multiple systems
  - CIS, EAMS, OMS, 811, GIS
- Handle ticketing for non-customer calls
- Create orders in office and field



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Solution Ecosystem

Responder OMS

Texas811

ESRI GIS

Cityworks EAM

Northstar CIS

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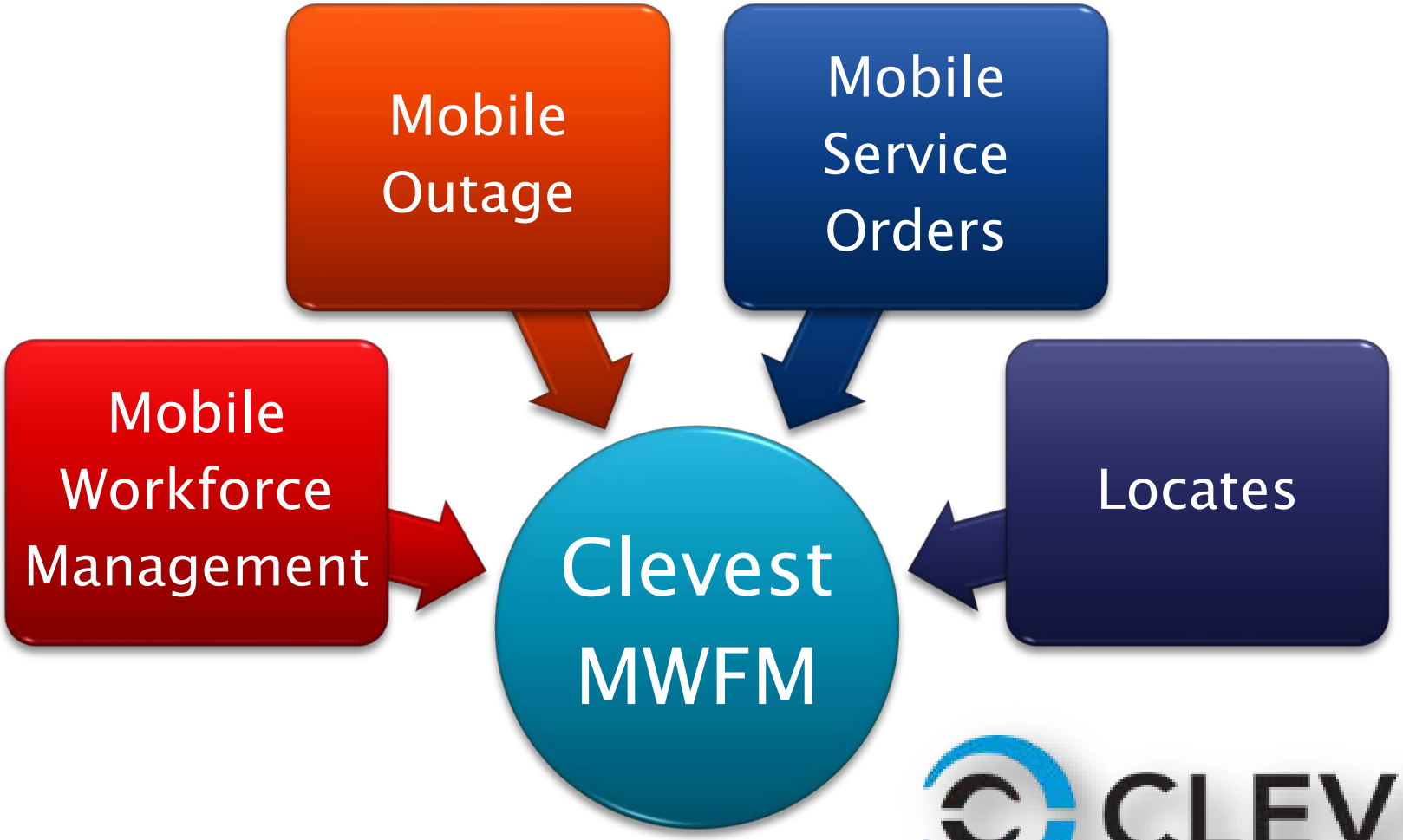
Solution Ecosystem



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Office View:
Crews and Work in Real-time

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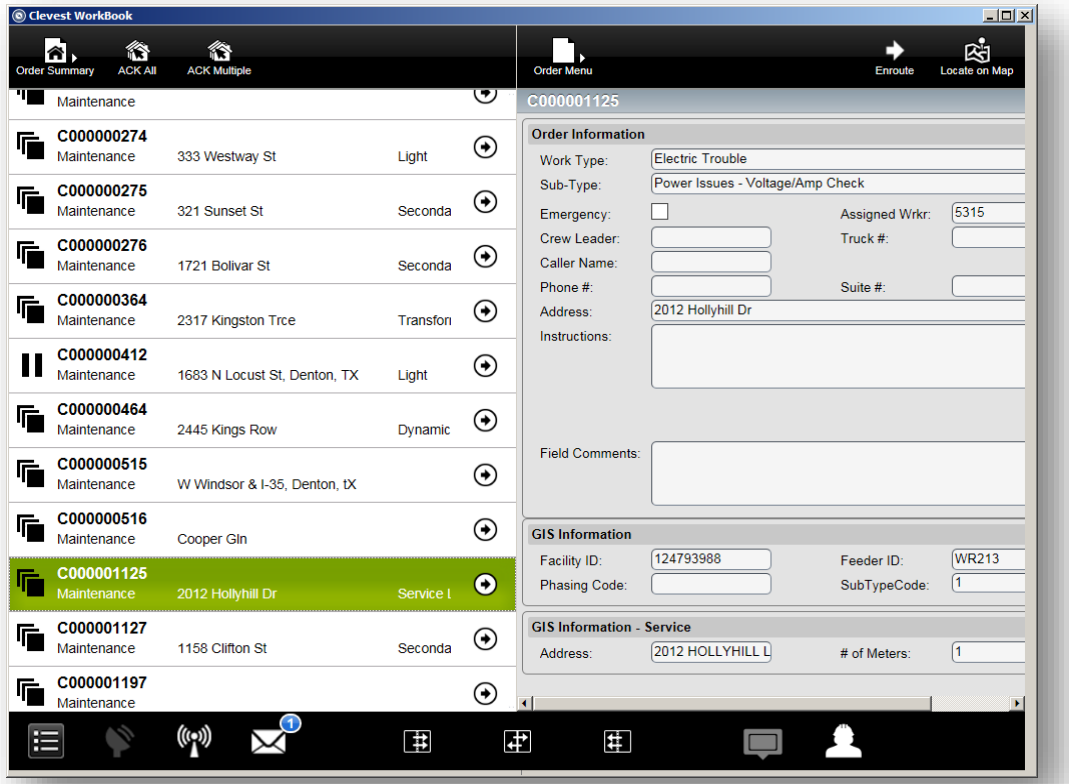
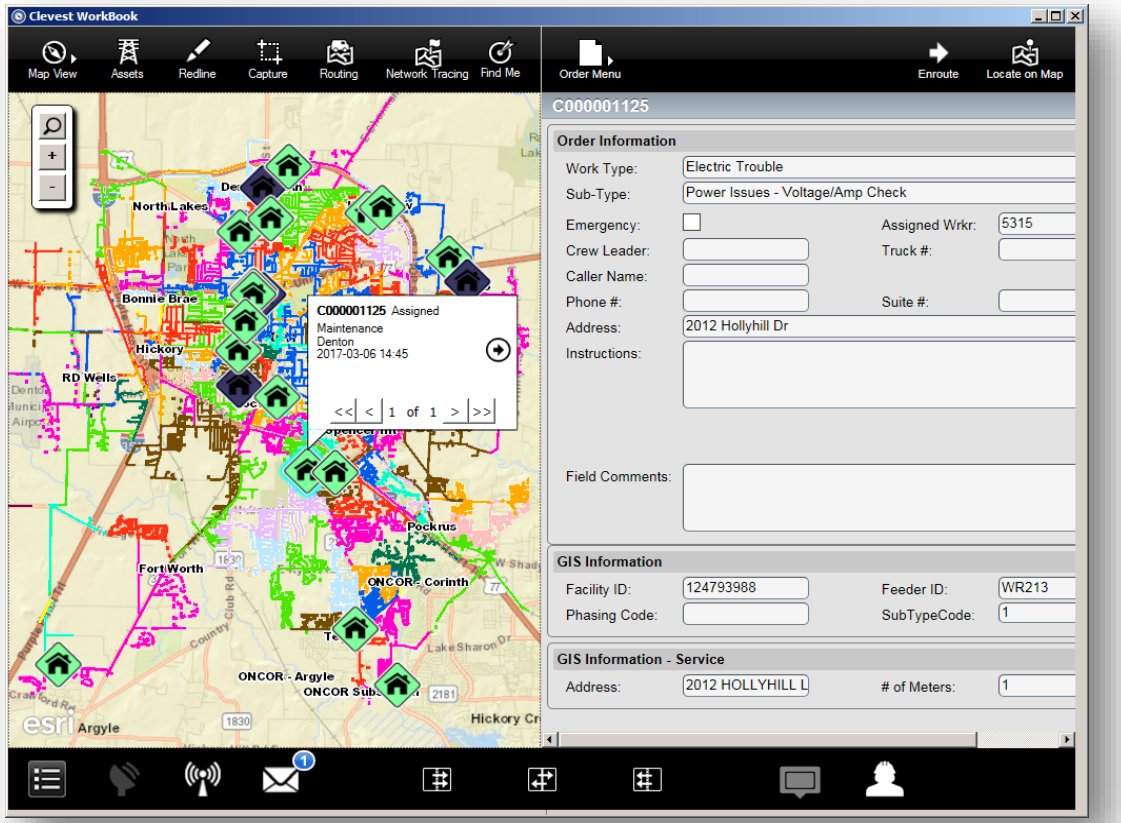
Field View:
Crews and Work in Real-time





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Key Results Since Deployment

One Workflow

Real-time Visibility

Faster Response Times

Lower Operational Cost

Crews Have Better Information

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Key Results Since Deployment

No More Paper Work Orders!

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Technology Adoption

- Quickly adopted
  - Users like new system
  - Easy to use
  - Uncomplicated
  - Provides more info
- Tried another system 5 years go
  - Too complicated

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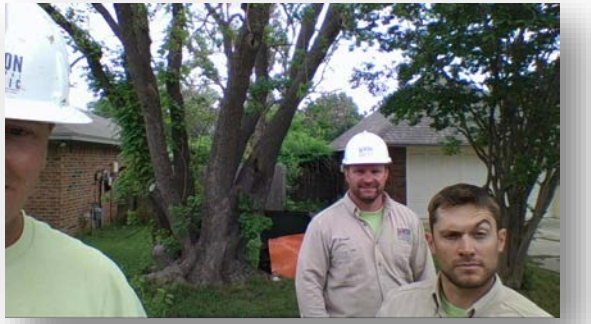
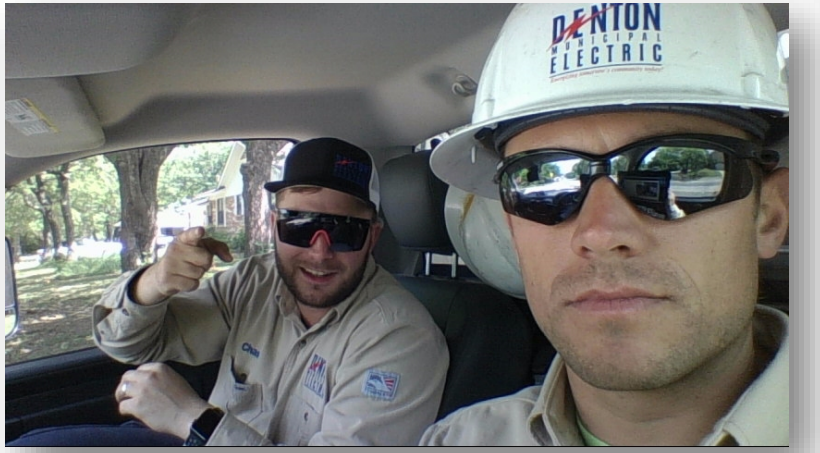
Lessons Learned

1. Get people involved early
   - Before implementation to avoid last-minute requests
   - Promotes technology adoption



2. Assign late requests/ideas to phase 2

3. **Be patient!**



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Future Plans

- Add other work order types
- Add other departments
  - Communications, etc.
- Deploy additional technologies:
  - Automatic Vehicle Location (AVL) to full fleet
    - Phased approach
  - Enterprise Scheduling
  - Configuration

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Summary

Workforce automation technology improves incident response

- One workflow for dispatching and work assignment
- Real-time visibility into work
- Faster response times

Other benefits:

- Lower overall operational cost
- Reporting/analysis on key performance indicators
- No more paper work orders!

Questions?

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