

CREATING COMPANY COHESION THROUGH ENTERPRISE INTEGRATION

The journey from dysfunctional to functional GIS

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A Little About Us

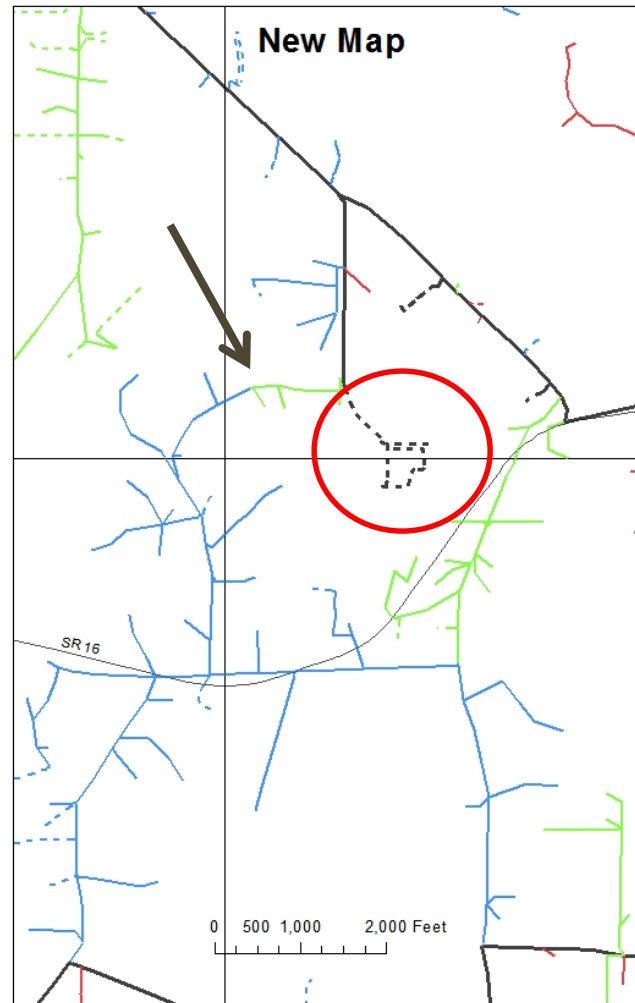
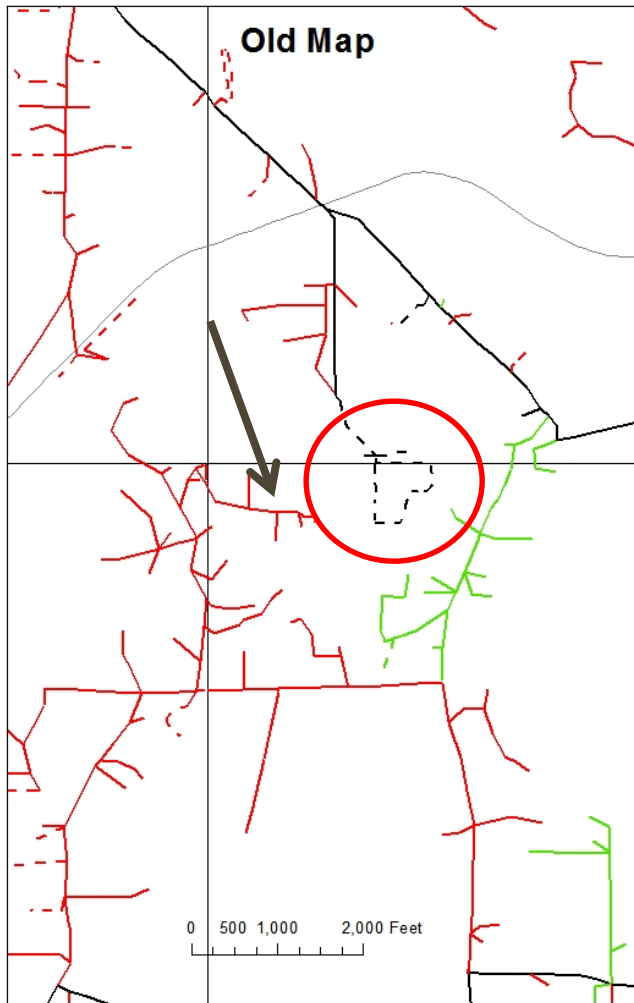
- Coweta-Fayette EMC
 - Member owned electric utility cooperative founded in 1945
 - Serve 7 counties in Georgia just south of Atlanta
 - Greater Atlanta metro area
 - Coweta, Fayette, Fulton, Clayton, Spalding, Meriwether, Troup, Heard
 - ~760 sq. miles
 - ~ 76,000 member owners
 - Homes, small business, commercial, and industrial
 - Notable members
 - Peachtree City
 - Pinewood Atlanta Studios
 - Dan Cathy – CEO Chick-fil-A
 - Zach Brown’s Camp Southern Ground

About Me

- IT background
- 13 year employee
- Spent first 6 year in IT
- Moved to Mapping department 2008
- GIS experience -- none
- Received GIS Certificate from University of West Florida 2014

Old Maps = Bad

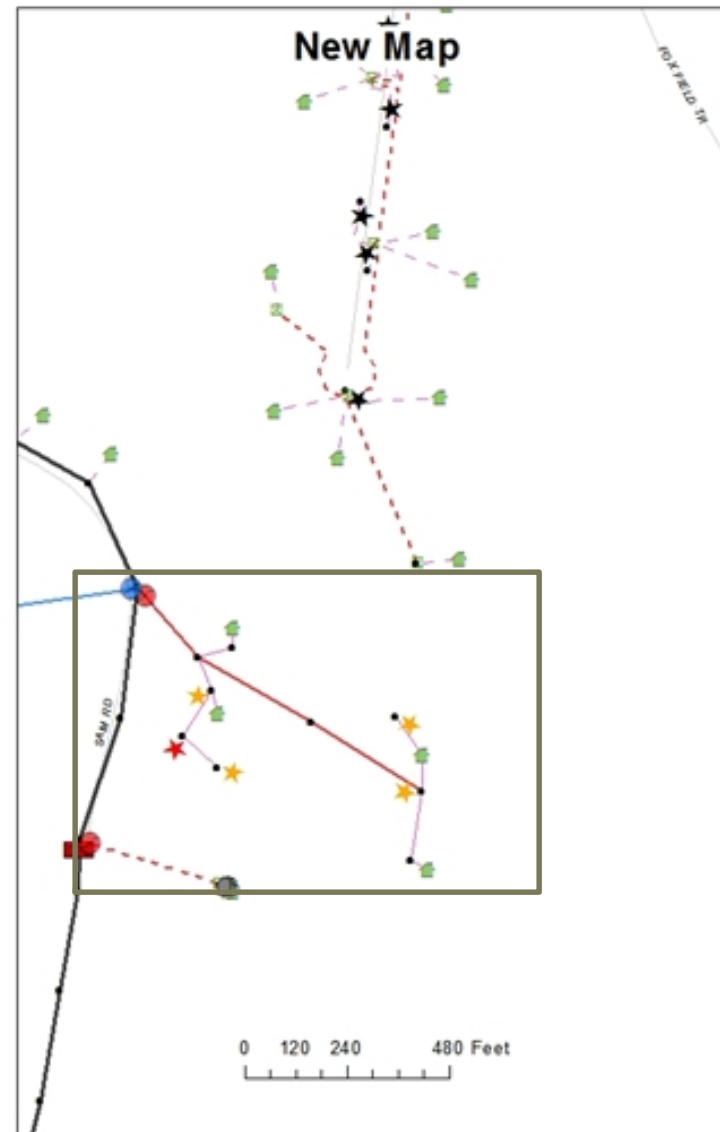
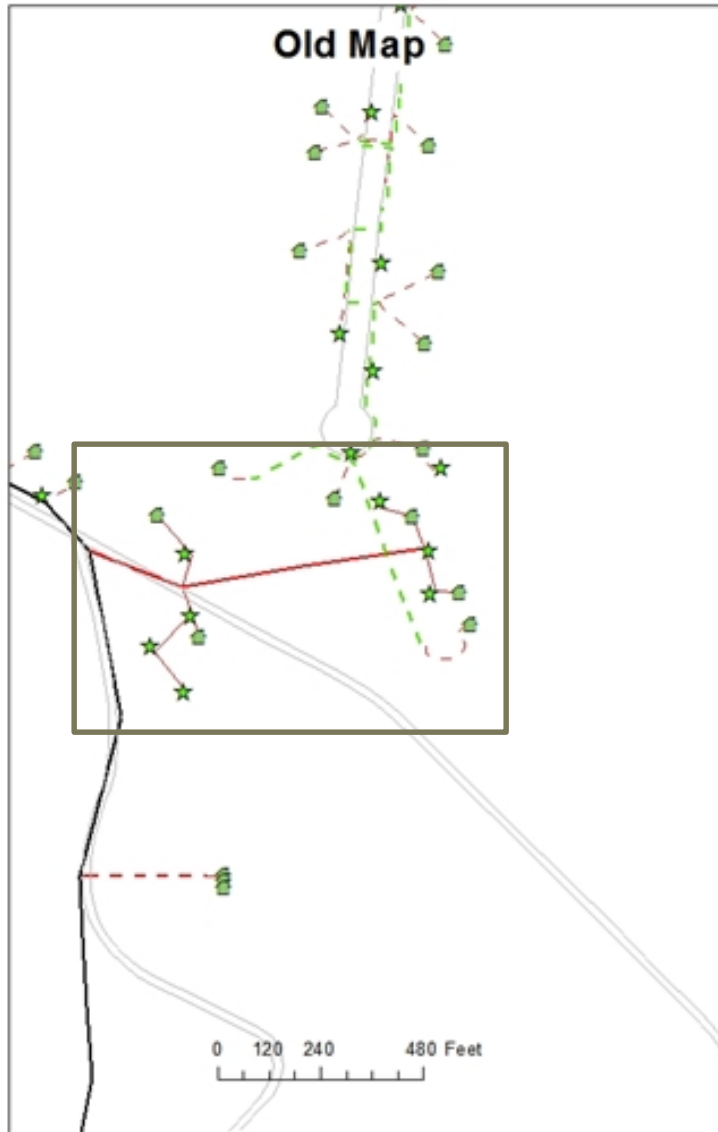
- First digital maps 2002
- Digitized old paper maps
- ESRI based, ARC Server, SQL 2000 database
- SQL subscriptions constantly being dropped
- Constant database administration
 - Manually compress datasets, weekly, sometimes daily
- Inaccurately placed facilities
 - consumers, transformers, fuses, switches
- Missing and inaccurate data
- Duplicate & inconsistent information
 - Pole locations, consumers
- Current mapping vendor
 - No geometric network and had no plans to incorporate
 - Couldn't/wouldn't keep up with emerging technology



Side by Side Comparison

Old Map vs. New Map

Side by Side Comparison



Old Maps = Dysfunctional

- Engineering and Operation access, however...
- Customer service blindly talking to members
- Inspections collected in a separate database
- Billing had customers in the wrong tax district, city code, and sometimes county code
- Accounting inventories still included long since replaced wire types and assemblies
- Only Dispatch could see where outages were and how many were affected
- Staff underfoot in large outages and board members were calling in for updates

The Journey – Complete Data Collection

- Partnered with Davey Resource Group
- Sub-foot GPS collection
- Every pole, meter and underground facility
- Pilot circuit collection began November 17, 2010
- 1 – 5 collectors
- Over 161,000 points
- Attached id tags
- Last point collected March 30, 2013



The Journey – Replace Mapping Vendor

- Partnered with Futura Systems, Inc.
 - Why Futura?
 - I'm not *that* smart
 - Enterprise Solution
 - GIS/Mapping
 - Staking Application
 - Mobile Users
 - Outage Management System
 - Field Inspection
 - Easy integration with current vendors
- April 1, 2013 sent newly collected data to Futura
- Converted collected data and created our current GIS system



Reaching The Destination

- What did we get?
- Accuracy!!
 - Geospatial correct points lined up with aerial photography
 - Verified 5% of each circuit for accuracy
 - Attribute data recorded
 - Still some unknowns but much fewer than before
- Accountability
 - Linemen began relying on maps
 - Something is wrong, they tell us
 - Something changes, they tell us

Reaching The Destination

- Integration
 - Ping meters through TWACS
 - Helps to verify outage before rolling truck
 - Two-way integration with SEDC – huge!
 - Consumer information, consumer accounting, and general accounting vendor
- OMS – Outage Management System
 - Outages recorded in CIS are pushed to OMS and vice-versa
 - IVR recorded outages
 - Geometric network and id tags locate faulty devices
 - Linemen are sent to the problem, not out looking for it
 - Currently working on getting AVL integration up and going
- Web map showing outages for members

Reaching The Destination

- Staking
- More accountability!
 - Trimble Juno 3D for point collections prior to staking
 - Puts things in the correct location on the maps
 - Id tags ensure they are starting from the correct spot
- Integrates with General Accounting and CIS
 - Job staked creates material list in GA
 - Creates job cost estimates
 - Only has to be done once
 - Location record created in CIS based on geospatial locations
 - Accurate city, state, and tax codes
- Proper material selected
 - Old units no longer available to be used
 - No more “that’s the way we’ve always done it”

Reaching The Destination

- Field Inspector and Catalyst
 - Still new to us
- Field Inspector
 - Collect inspection data in map
 - Visual display of what fails inspection
 - SDE database shared with everyone
- Catalyst
 - Web based dashboard
 - Gives overview of system to everyone inside
 - Open service orders
 - Outages visible
 - Simple to use

Have We Arrived?

- Accountability
- Reliability
- Ownership
- Accuracy
- Sharable data
- Quality Assurance
- Room for Improvement?
 - Absolutely!

Summary

1. Admit there is a problem
2. Decide what needs to be done
3. Find the right partners
4. Get supervisors and staff on board
5. Implement the plan
6. Maintain accountability

Questions?

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