

Utilizing Mobile and a Dashboard for Task Tracking

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3/29/2019

GeoCross Mobile

What is it?

- Mobile Application with real time access to DPC information
- Developed using ESRI Software Development Kit
- Accessed by DPC issued tablets or phones
- "Preloaded" offline map to when in areas of low cellular strength
- It is a marketed application used outside of DPC

Benefits

- Fully configurable for use by area, group or individual
- Map requests can be handled almost immediately
- Same look and feel across devices (Tablets, Phones)
- Cross-platform functionality. Program once, deploy to multiple OS
- Updates can be "pushed out" over the air
- New functionality can be easily added from user requests

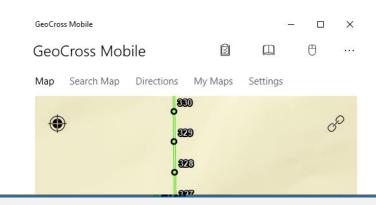


The look of GeoCross from a mobile device in the disconnected mode





GeoCross



Select Basemap & Manage Map Layers Imagery With Labels

Streets

Topographic

Manage Map Layers

913 815 814

Cancel



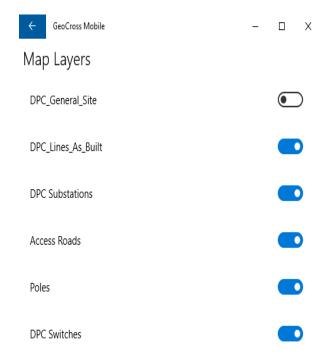
GeoCross Mobile

GeoCross Mobile



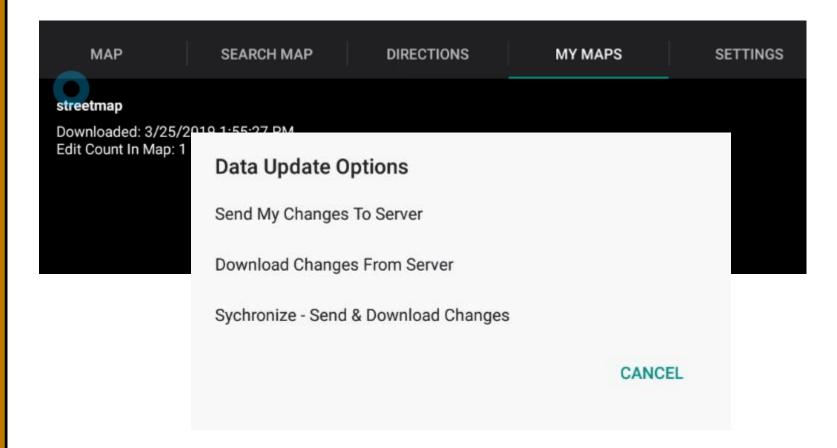
Elk Mound Area





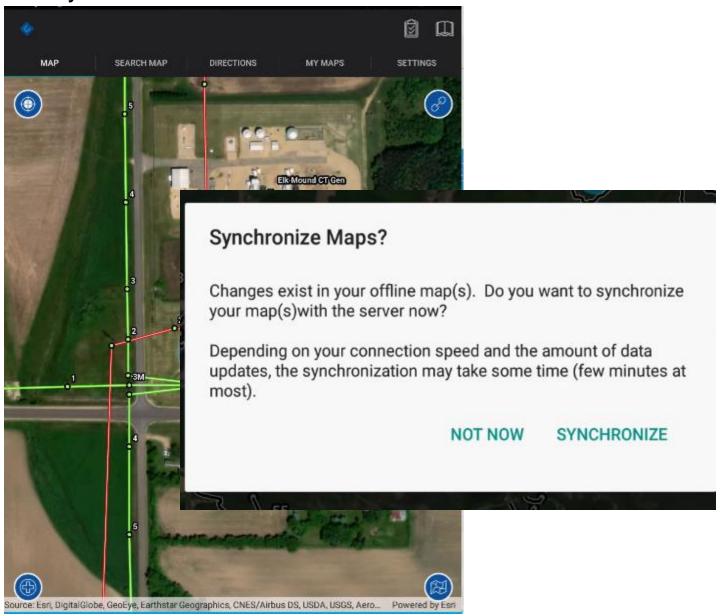


Offline Workflow



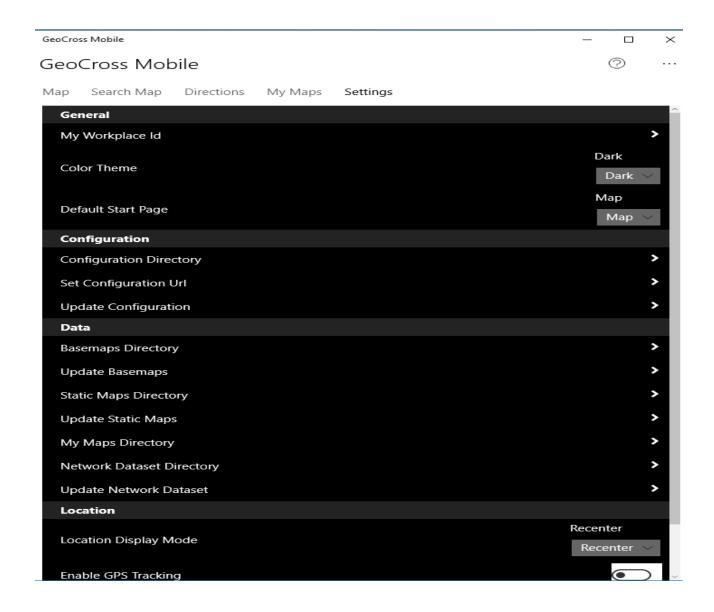


Synchronize Reminder





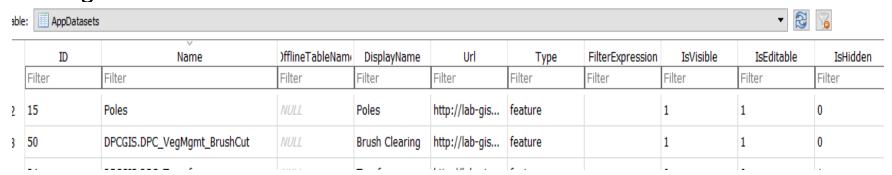
Easy updates for maps and application configurations



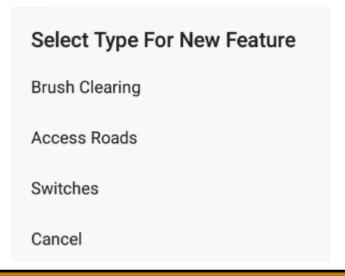


Publishing Simple Forms

Add Layer(s) to a Map Publish as Feature Service Configure

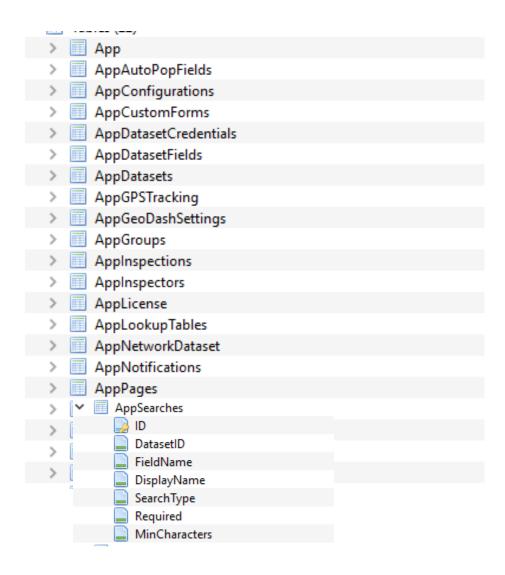


Application Restart



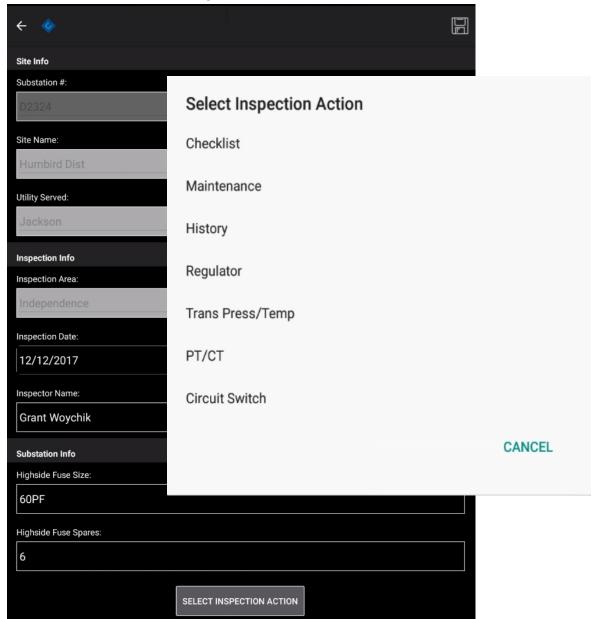


Configuration file versus Application release



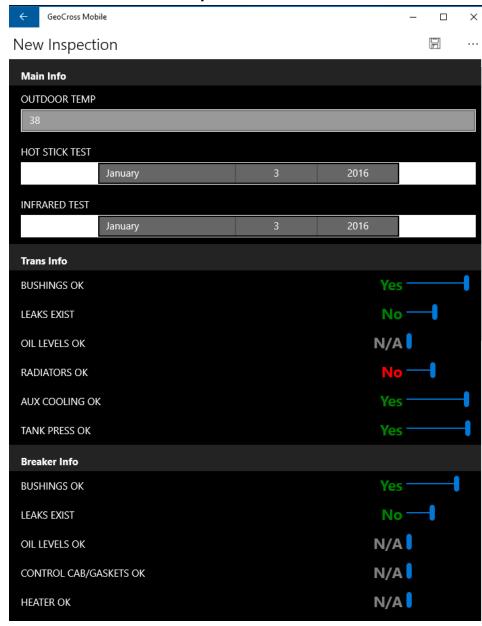


Substation Inspections





Substation Inspections



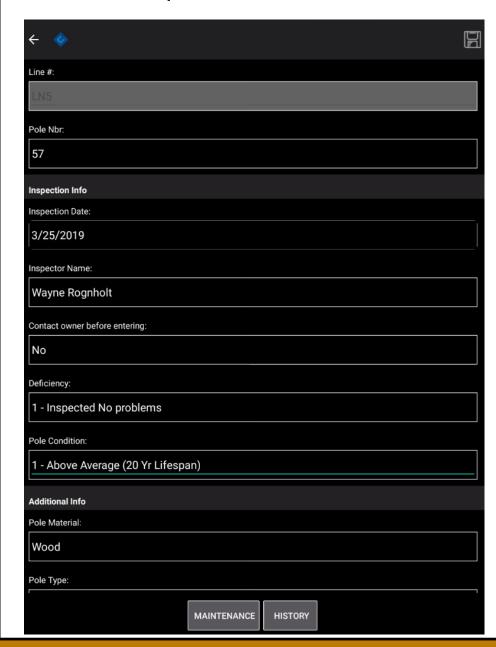


Substation Inspections



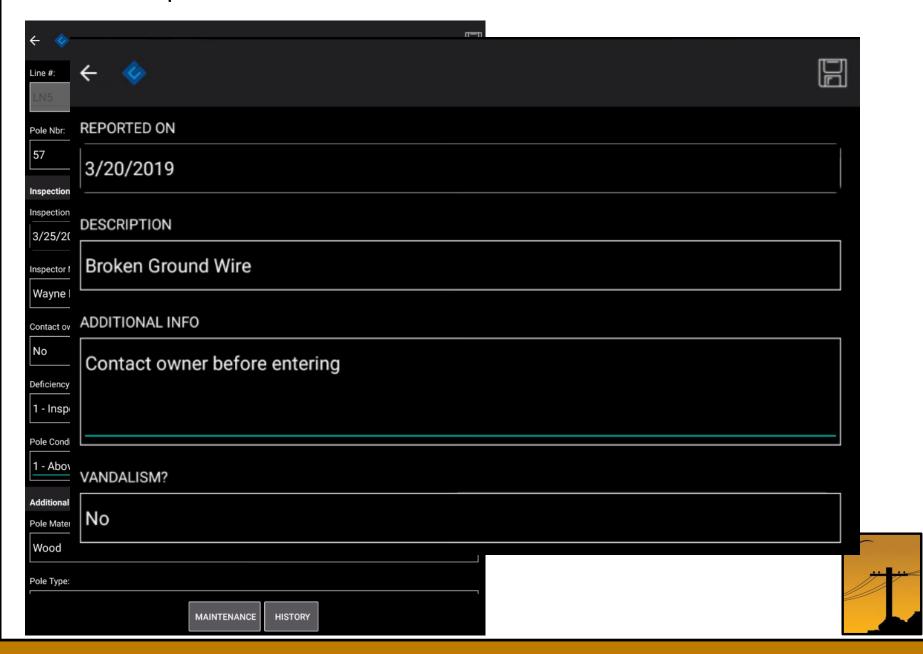


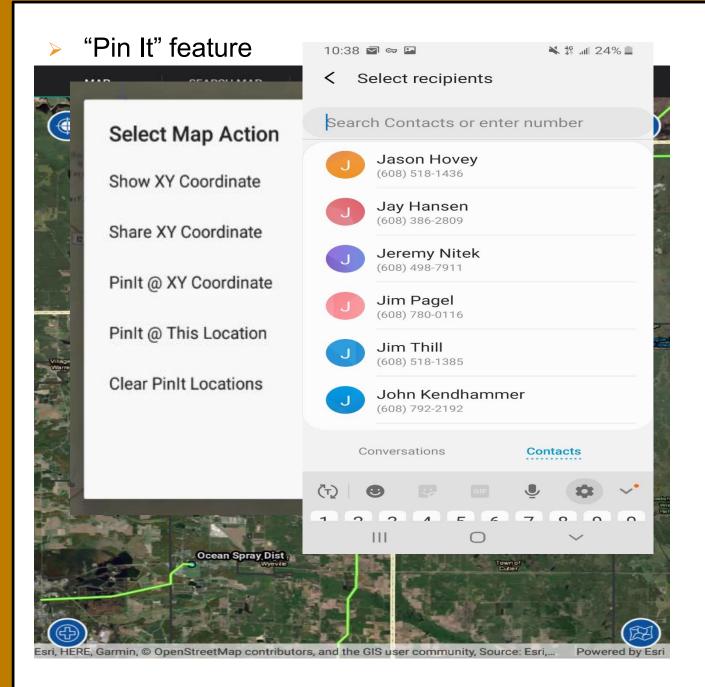
Pole Inspections





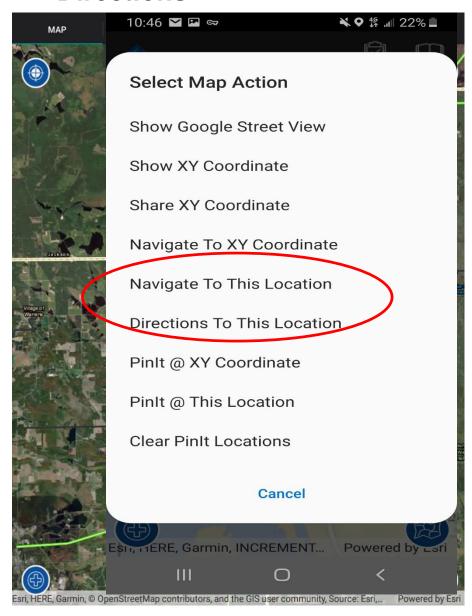
Pole Inspections



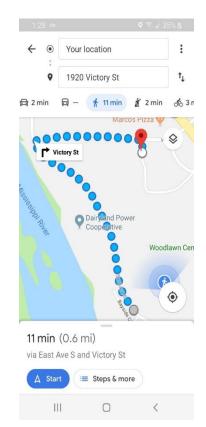




Directions





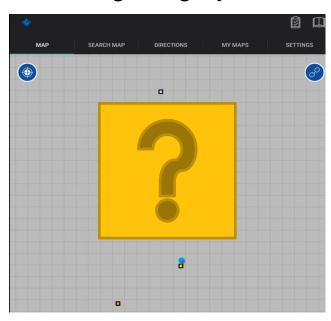




GeoCross Mobile

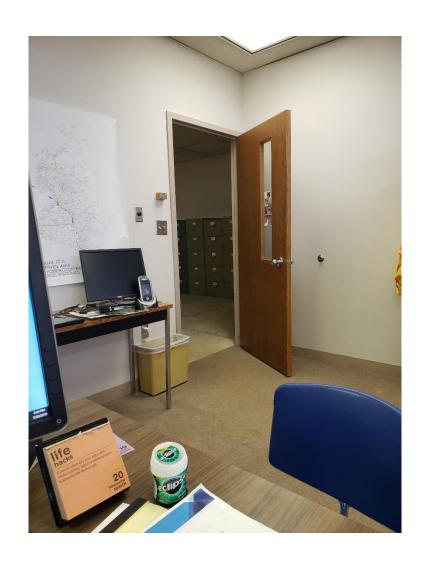
Moving Foward

- Poor Cellular Signal
- iOS vs Android
- VPN versus VMWare Tunnel
 - Battery usage versus flaky behavior
- Loading Imagery vs Street Map

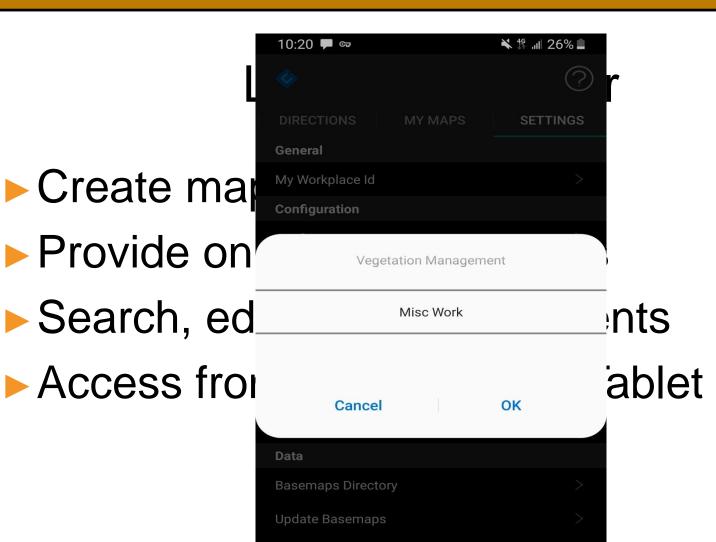




Soooo... I'm working on this presentation.. and...







Update Static Maps

My Maps Directory



Happy Customer!



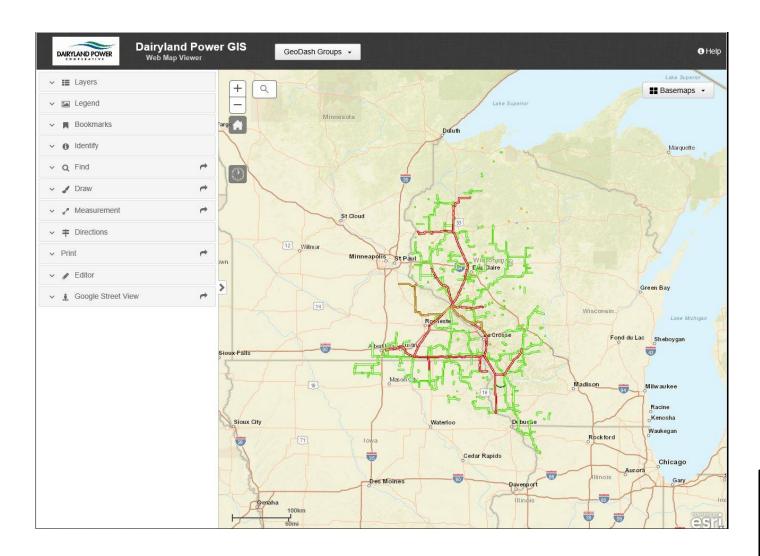


DPC WebGIS

- DPC uses ESRI Web Services to publish a DPC GIS webpage
- This is a view only page
- Turn on and off layers
- Identify features
- The ability to search assets
- Draw on the map
- Get directions
- Simple to use

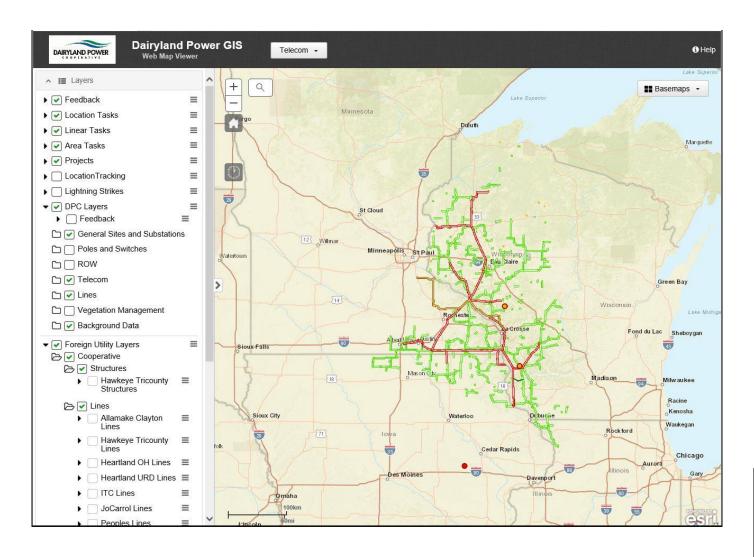


DPC GeoDash GIS Web



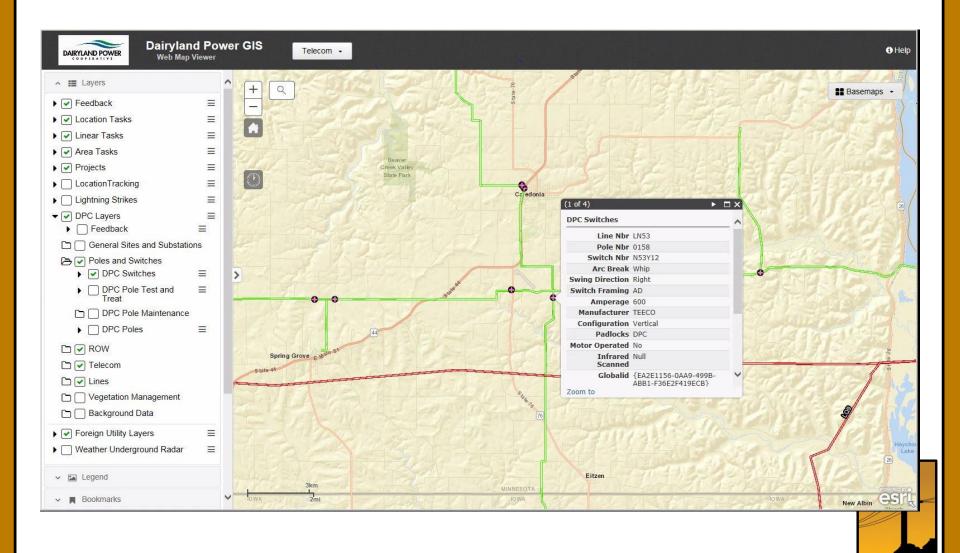


Misc Layers

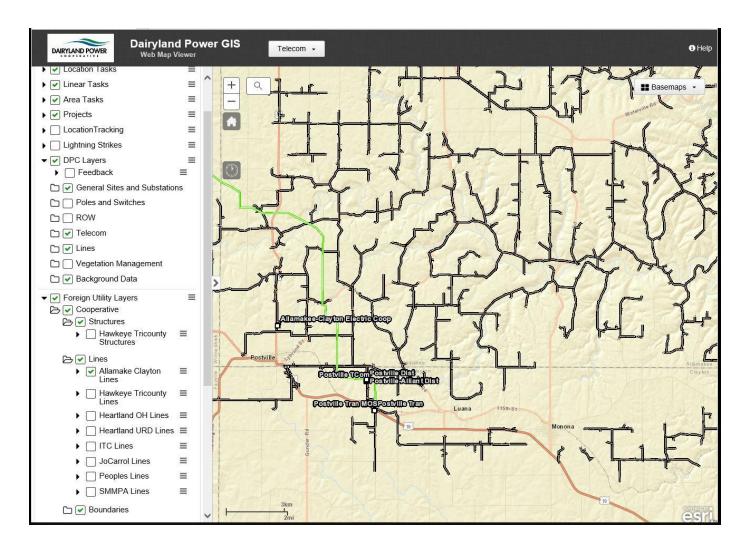




DPC Switches

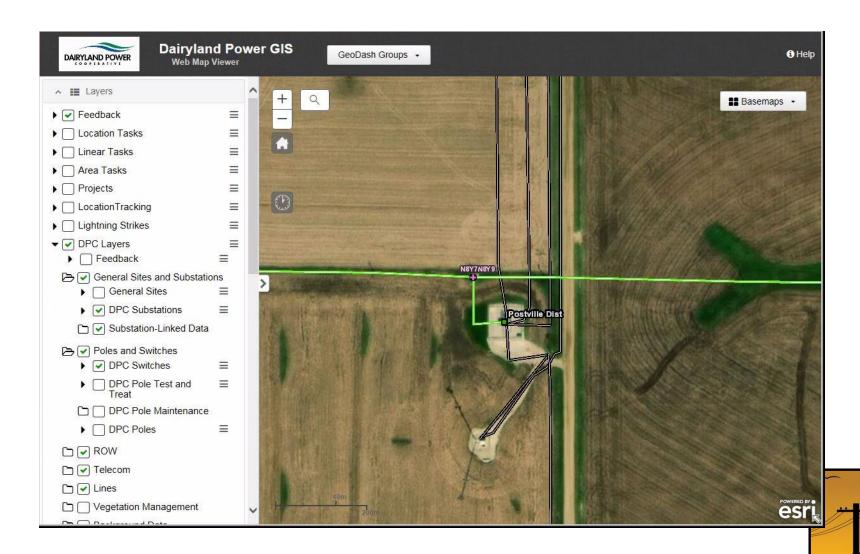


Coop Distribution Layers





DPC Switch with Coop Lines

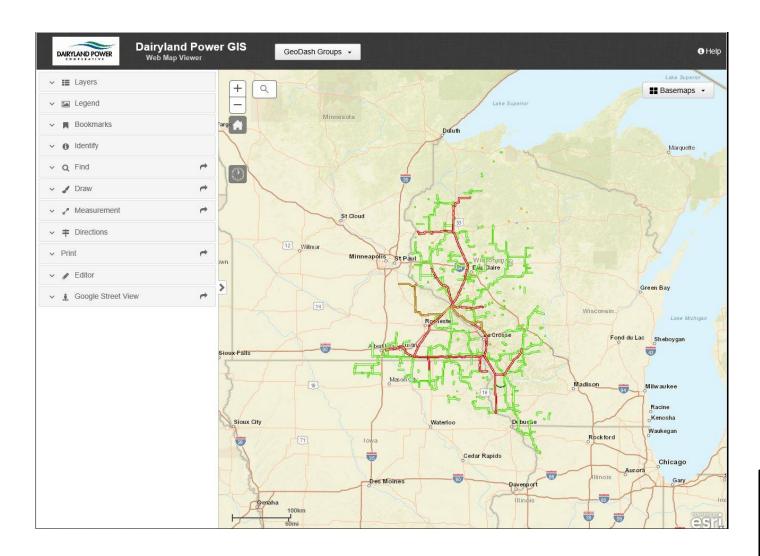


The Dashboard Idea

- Create a product that builds on the DPC GIS Web page that already exists
- Connect with the GeoCross application
- Track tasks
 - Assign from Desktop Web GIS
 - Assign/Accept from smart phone or tablet
- Track status/location of users
- See everything from one "Dashboard"

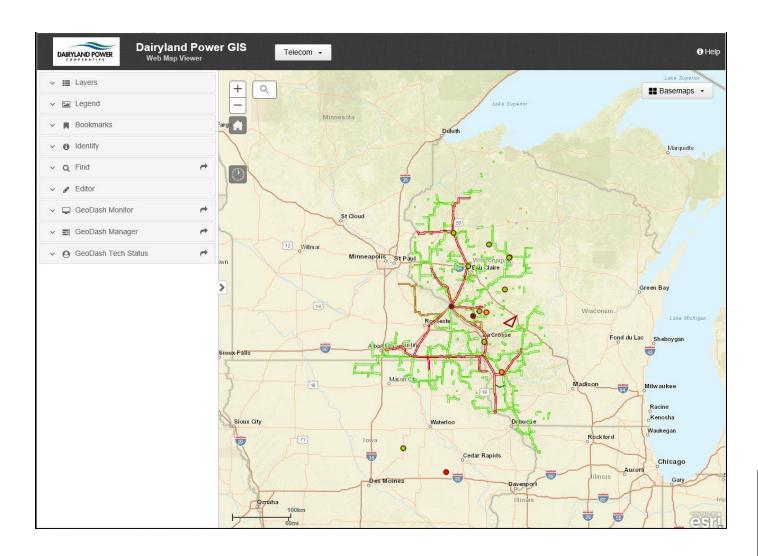


DPC GeoDash GIS Web



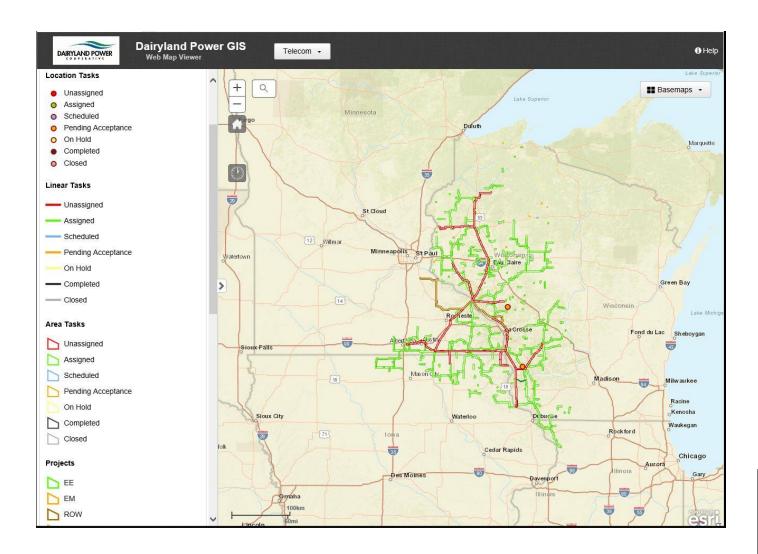


Telecom GeoDash Tasks



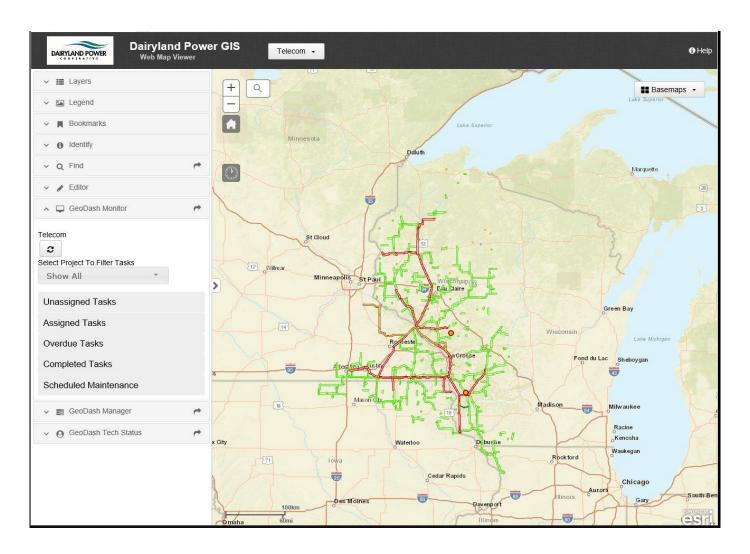


Tasks Symbolized by Type



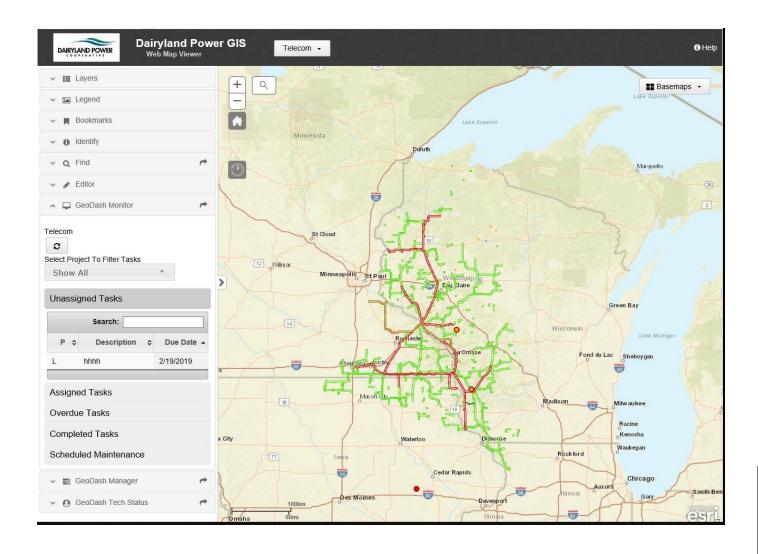


GeoDash Monitor



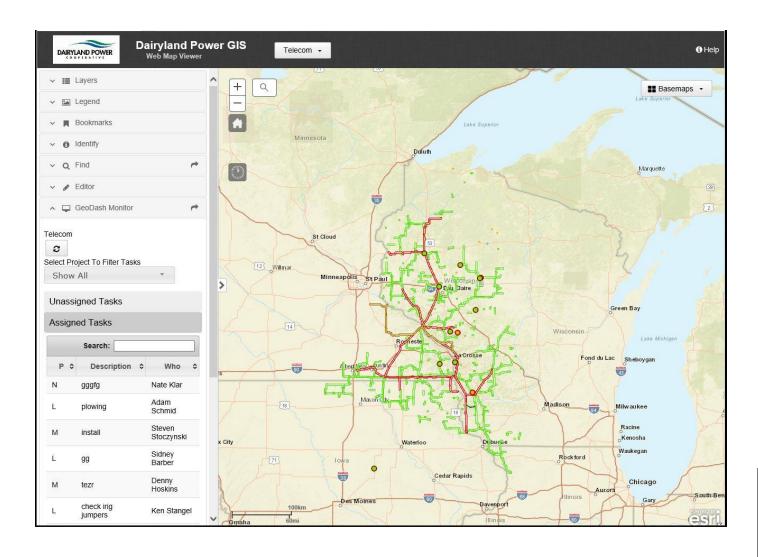


Unassigned Tasks



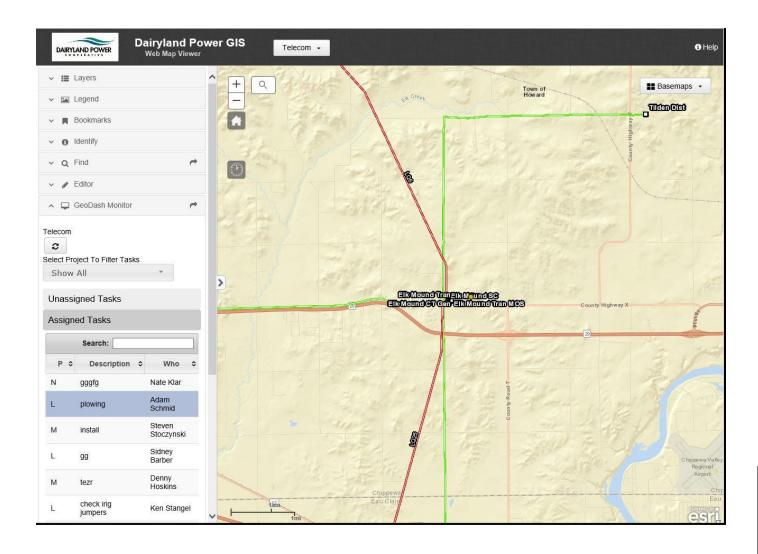


Assigned Tasks



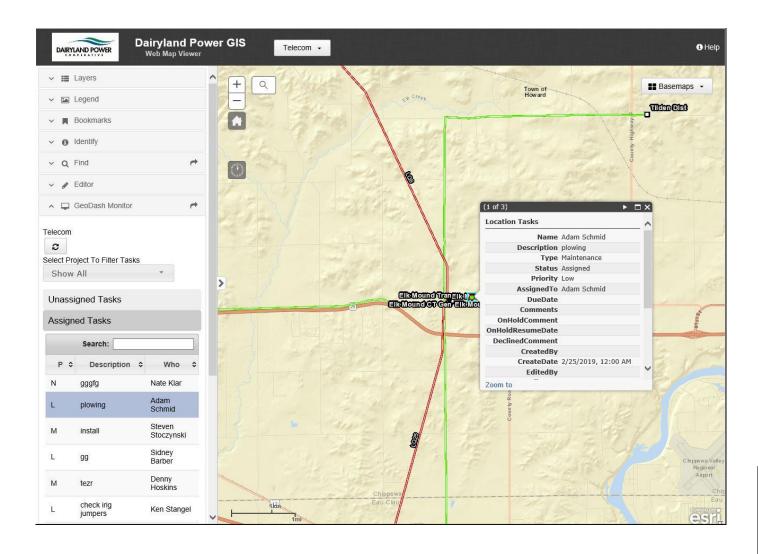


Assigned Tasks



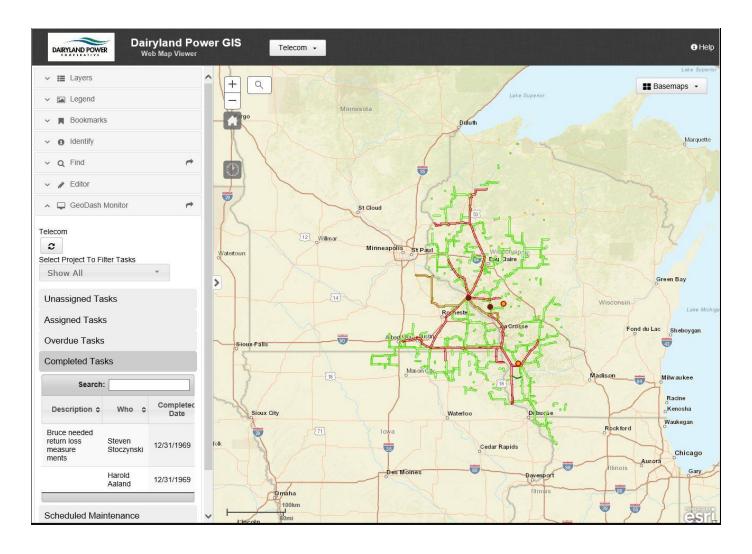


Assigned Tasks



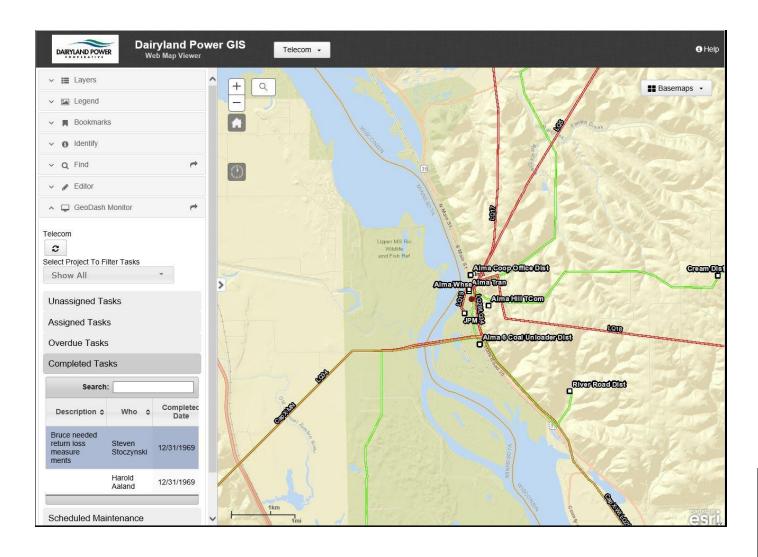


Completed Tasks



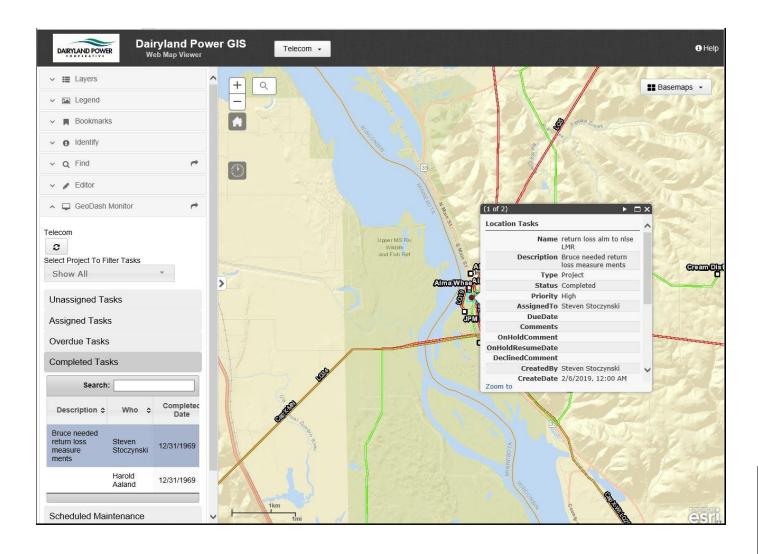


Completed Tasks



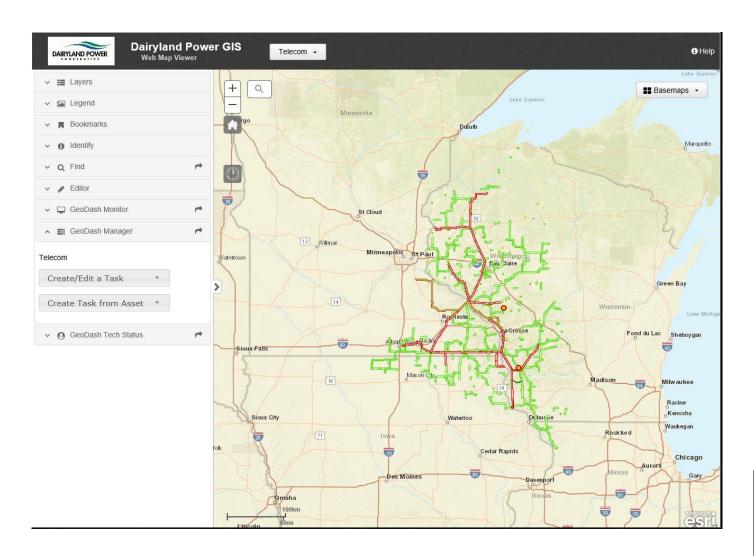


Completed Tasks



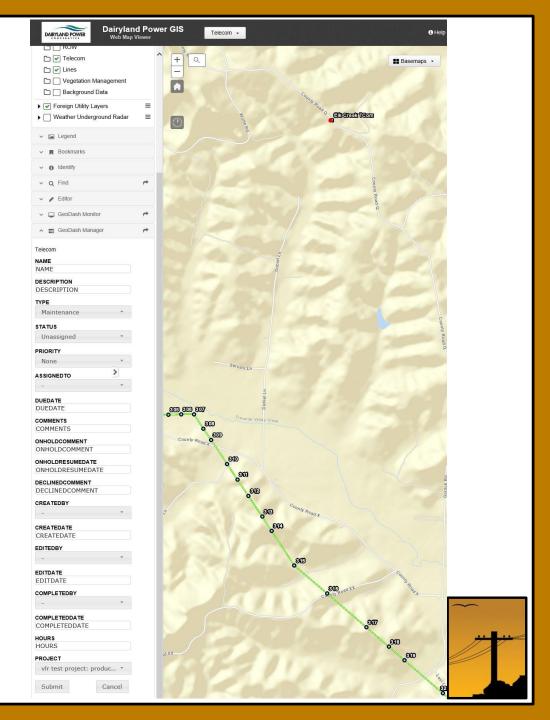


GeoDash Manager

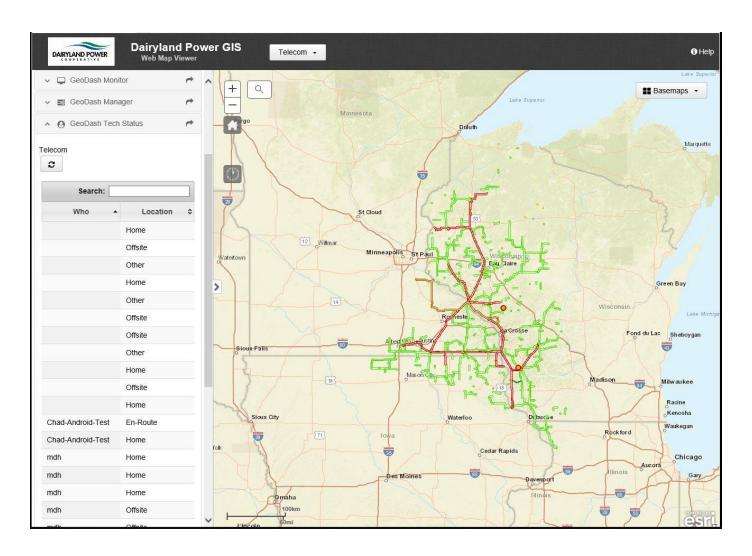




Creating Tasks in GeoDash Manager



Check In / Check Out Status





Lessons Learned

- Keep everyone informed (top to bottom)
- Create a group for testing with at least one representative from each area
- If you ask for comments from users, be ready listen
- Mobile application deployment is complex
- Have a backup plan, and make sure everyone knows it.
- Document your plan and your findings



Mobile Development Lessons Learned

- Mobile deployment is a different animal when creating apps
 - Multiple OS
 - Multiple devices
 - Watch out for network upgrades & patches
 - Users understand things differently
 - Editing offline is a MUST
- Make sure management understands the possible issues that might come up with mobile



GeoDash Leasons Learned

- The Dashboard idea was tougher than expected
- Merging GeoCross and GeoDash together is taking longer than expected
- ESRI Portal could be good solution for what we are trying to do with our Dashboard
- There are many department uses for a Dashboard at DPC
 - Telecom
 - Electrical Maintenance
 - Transmission Maintenance
 - Safety
 - Right or Way
- We have a ways to go, but we are getting there

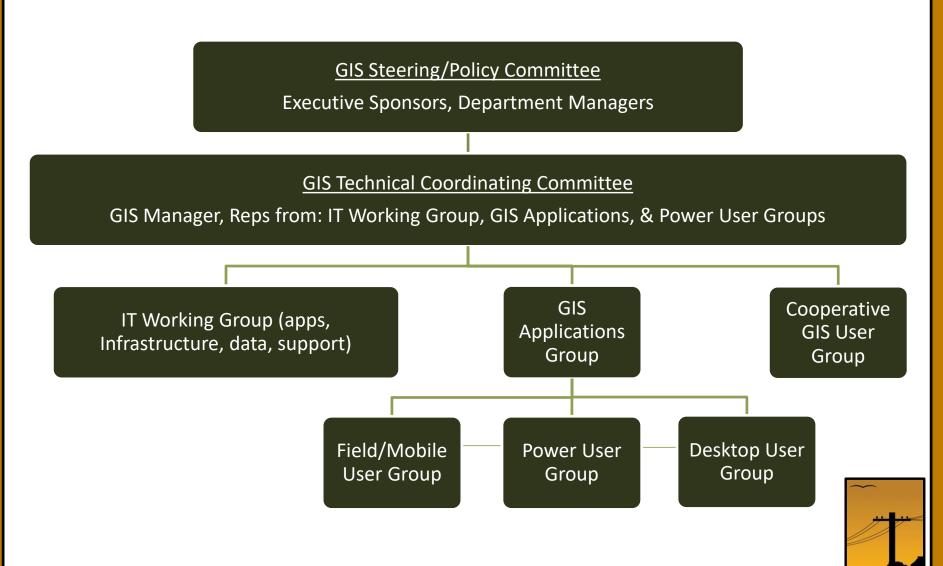


What's Next?

- Upgrade to at least ArcGIS 10.6
- Start testing with Portal
- Finish deployment of GeoDash
- Optimize GeoCross connectivity issues
- Create reports when data starts coming in
- Create a committee and working group structure at DPC to better communicate GIS within company



GIS Working Group Hierarchy



Questions?

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