

**2013 Esri International User Conference**

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# **Utilizing ArcGIS Online to Create Efficiencies in Managing Transportation Data**

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# Presentation Overview

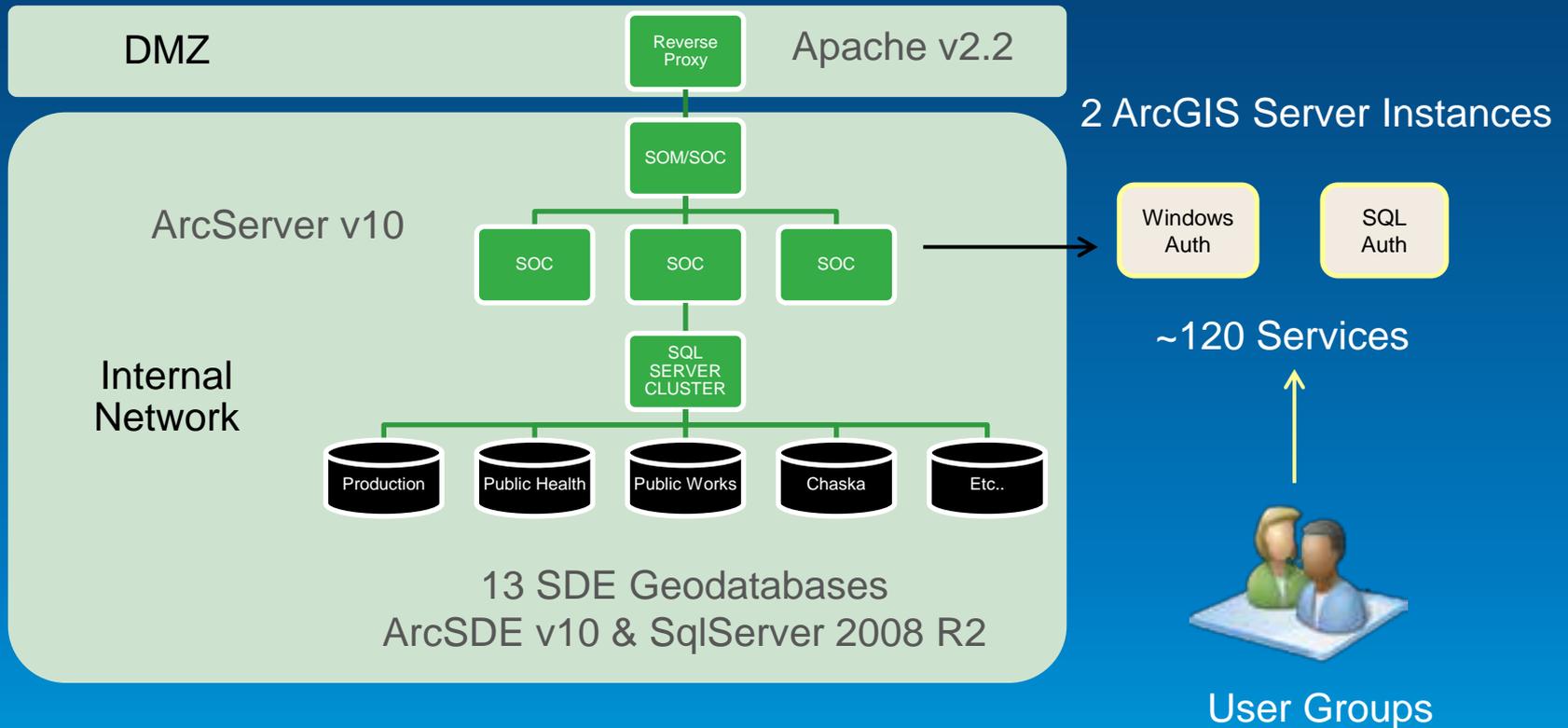
- Carver County, MN
- ArcGIS Technology Overview
  - ArcGIS Server Architecture
  - ArcGIS Online Integration
  - ArcGIS App for iPad & iPhone
  - Mobile Workflow Process
- Transportation Implementations
- Questions

# Carver County Overview



- Located Southwest of Minneapolis
- Rural/Urban County
- Population – ~92,000
- 376 Total Square Miles
- 212 Miles of County State Aid Highways (CSAH)
- 52 Miles of County Roads

# ArcGIS Server Infrastructure



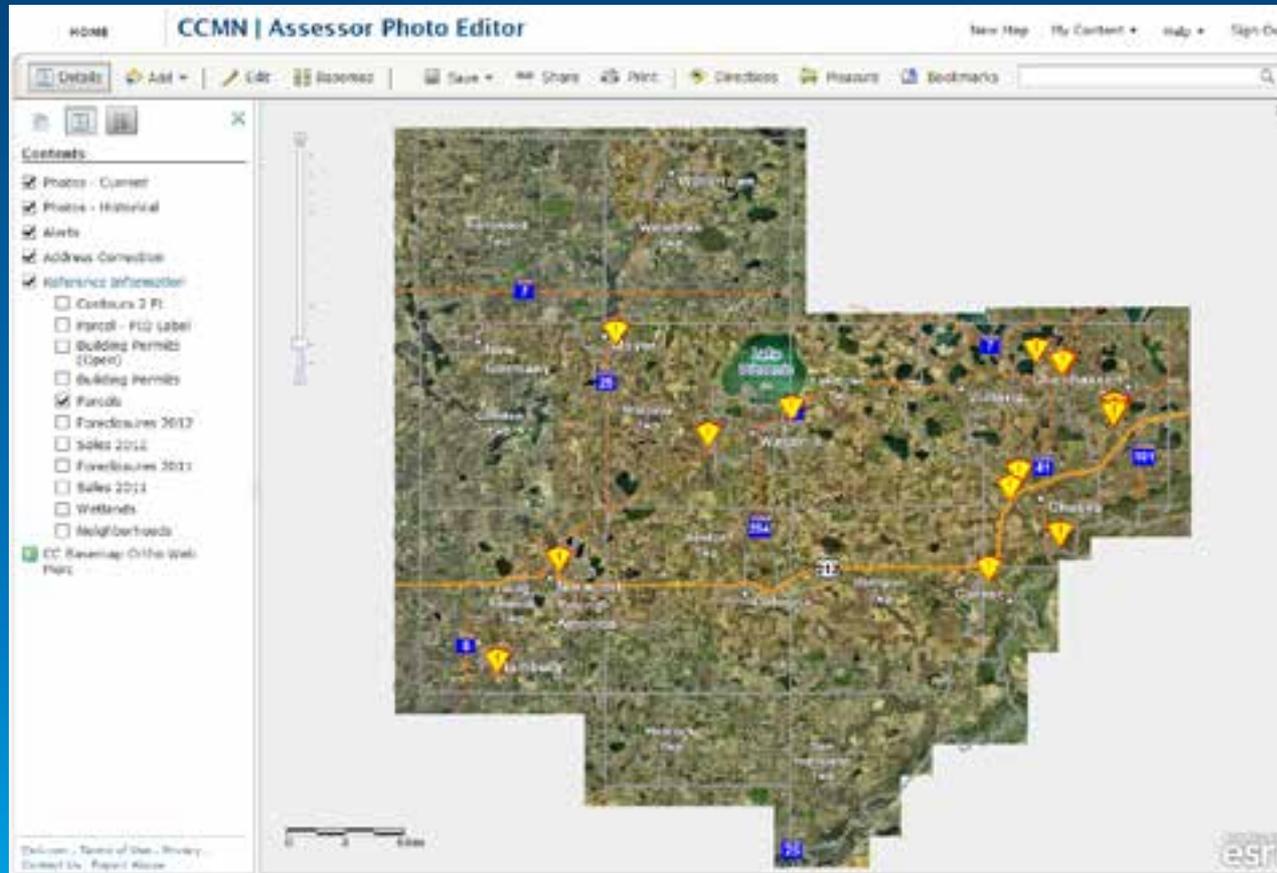
# ArcGIS Online Integration

- Carver County ArcGIS Online Subscription
- Esri Enterprise License Agreement (ELA)



# ArcGIS Online Integration

- Web Maps



# ArcGIS App for iPad or iPhone

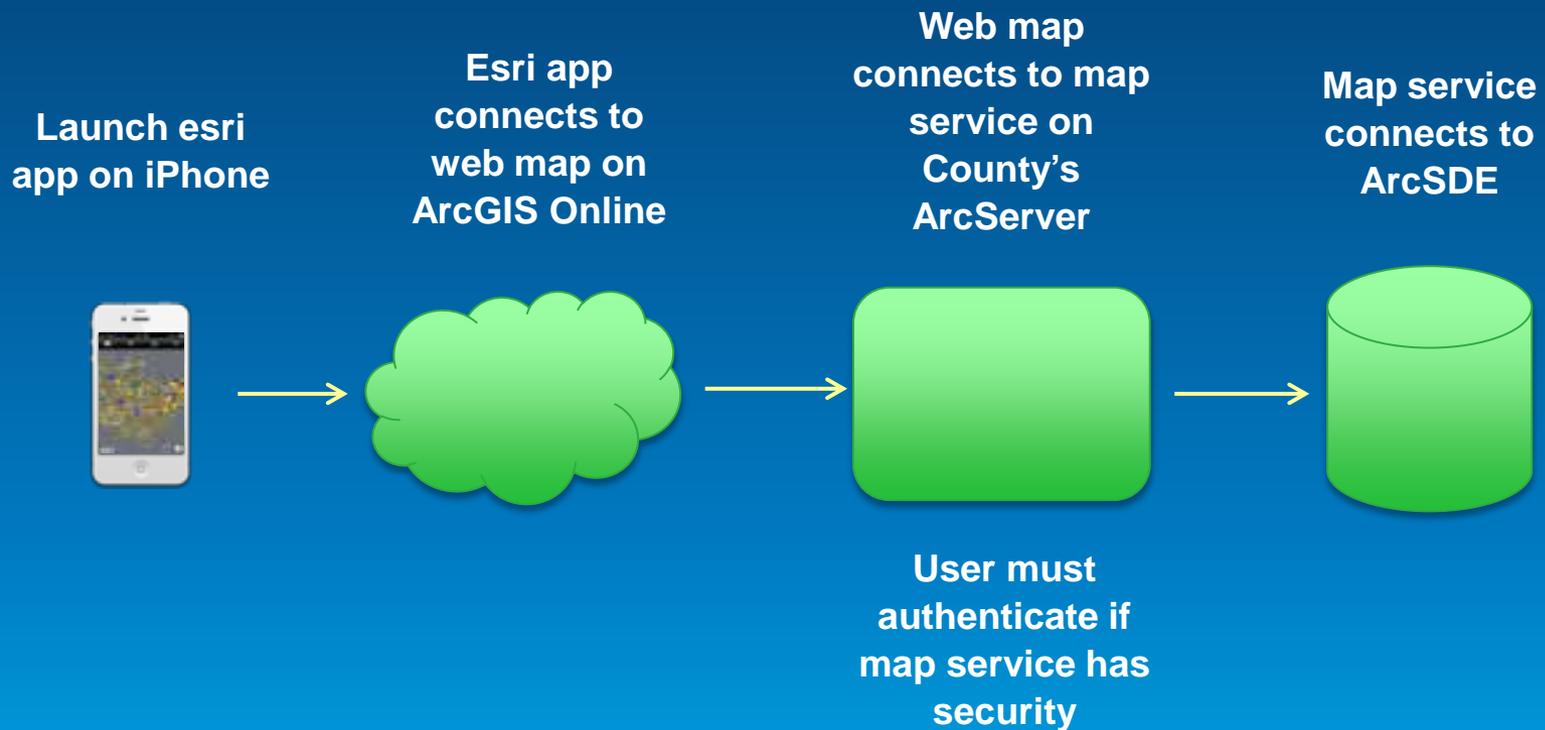
- Apple Store
- iPhone or iPad

Apple Store

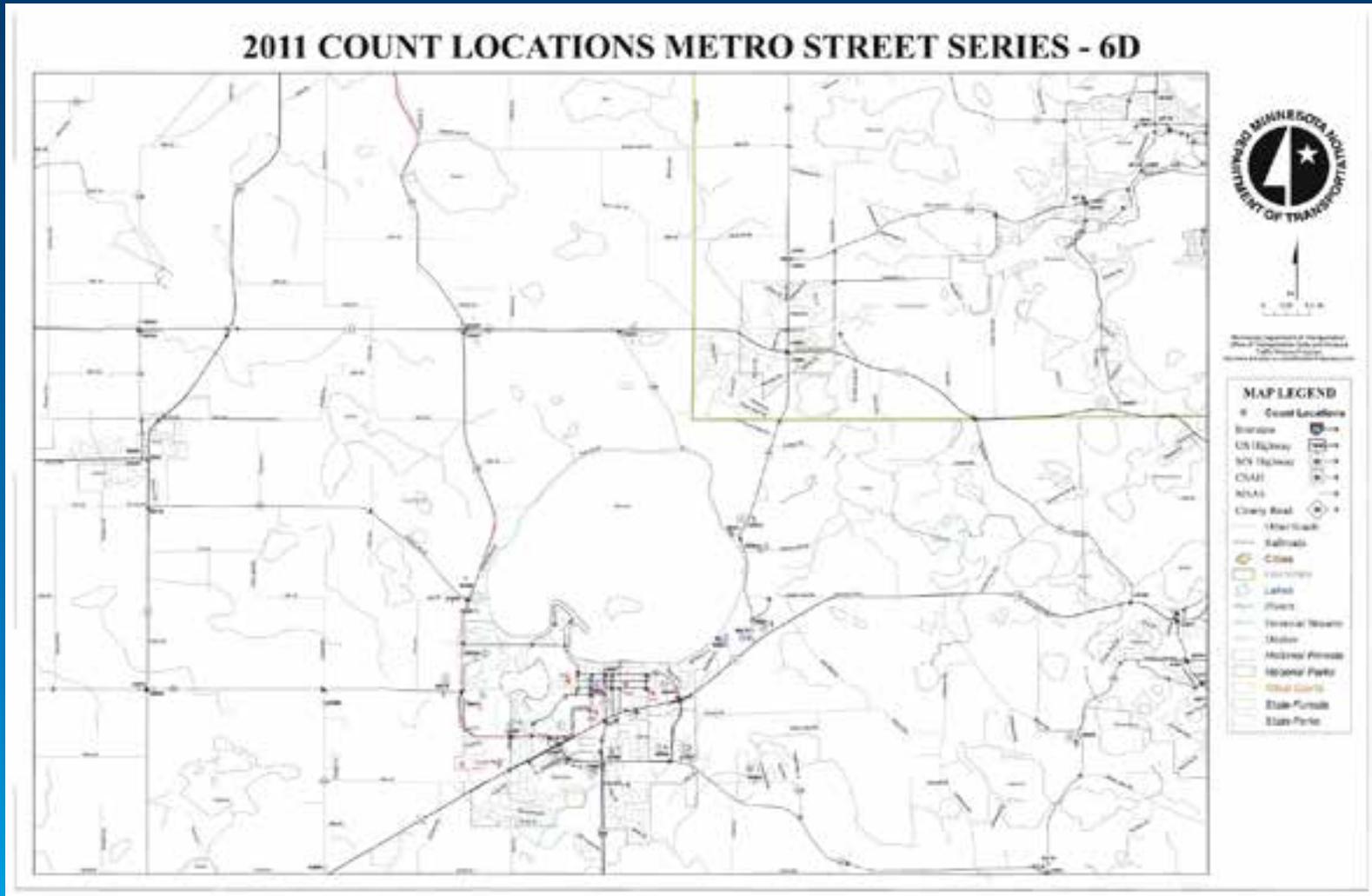


# Mobile Workflow Process

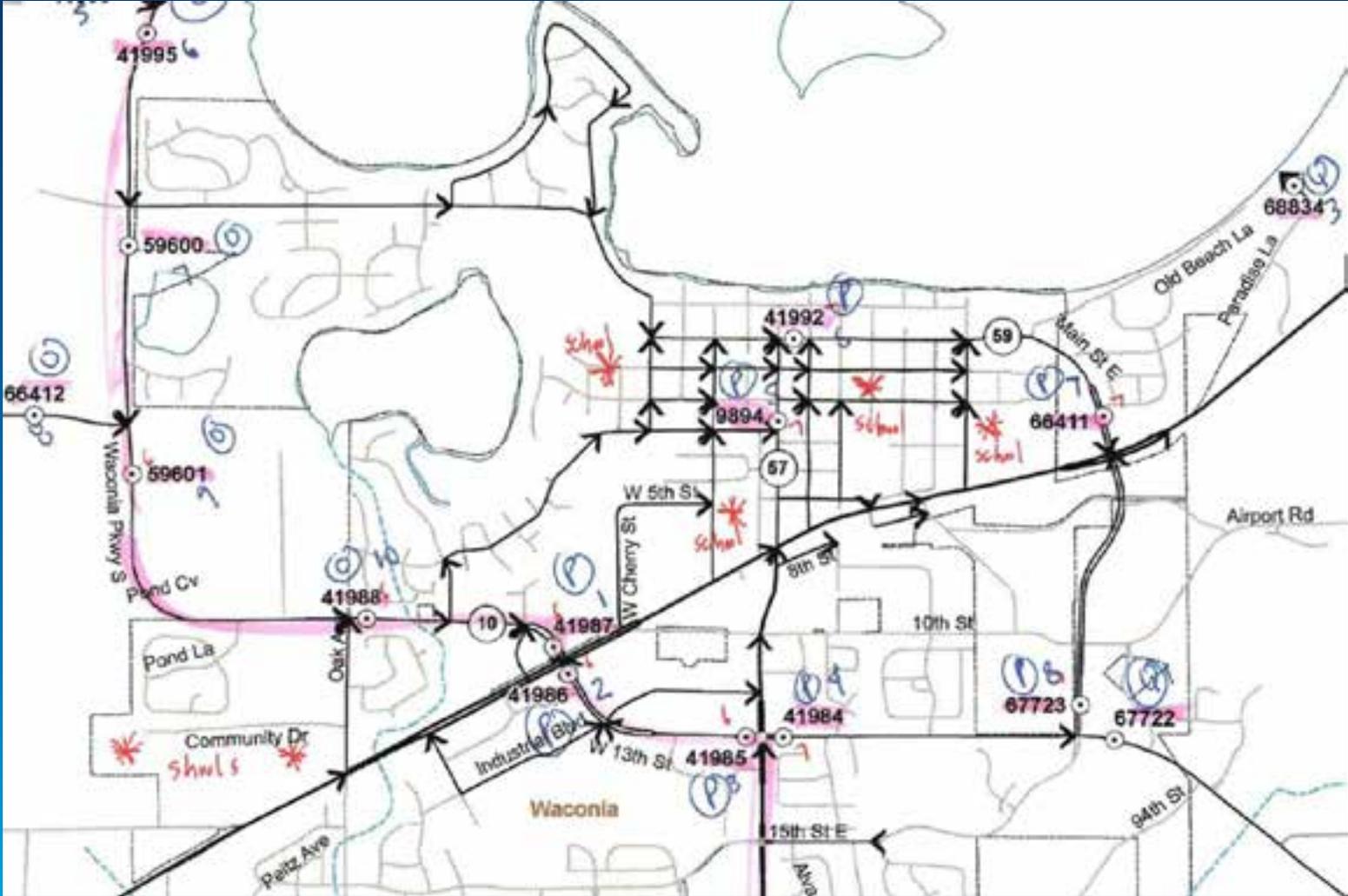
## - Viewing and Editing GIS Data in the Field



# Traffic Counts – Paper Workflow



# Traffic Counts – Paper Workflow



# Traffic Counts – Paper Workflow

TRAFFIC COUNTER DATA SHEET									
									DATE <u>10-19-11</u>
STATION NUMBER	41735	42012	42035			11654	11655	67111	
ROAD NUMBER	CSAH 33	CSAH 33	CSAH 20	North Side Dr.	North Side Dr.	CSAH 61	CSAH 61	CSAH 61	
COUNTER LOCATION	North of CSAH 34	North of 90th St	SE of CSAH 27	West of CA 155	East of CSAH 20	East of CSAH 20	West of CSAH 20	West of CSAH 40	
COUNTER NUMBER	9808	9809	9803	0120	0116	9802	9806	0123	
SERIAL NUMBER	1217	1216	1220	1230	1226	1225	1237	1232	
COUNT DATE	10-18-11	10-19-11	10-18-11	10-18-11	10-18-11	10-19-11	10-19-11	10-19-11	
COUNT BEGIN TIME	10:45	11:00	11:45	1:00	1:15	2:00	2:15	2:30	
LANE DIRECTION (A→B)	NB	SB	NB	WB	WB	WB	EB	EB	
LANE DIRECTION (B→A)	SB	NB	SB	EB	EB	EB	WB	WB	
DATA BY	SGG	SGG	SGG	SGG	SGG	SGG	SGG	SGG	
REMARKS									
TUBE A	727/750	6059/3047	4729/2301	1102/556	1316/609	2595/1247	16020/7008	2042/1071	
TUBE B	7051/3433	8414/2432	4454/2213	1137/571	1313/606	2326/1293	16032/7085	1977/1047	

# ArcGIS Online Solution for Traffic Counts



# PLSS Data – Existing Workflow



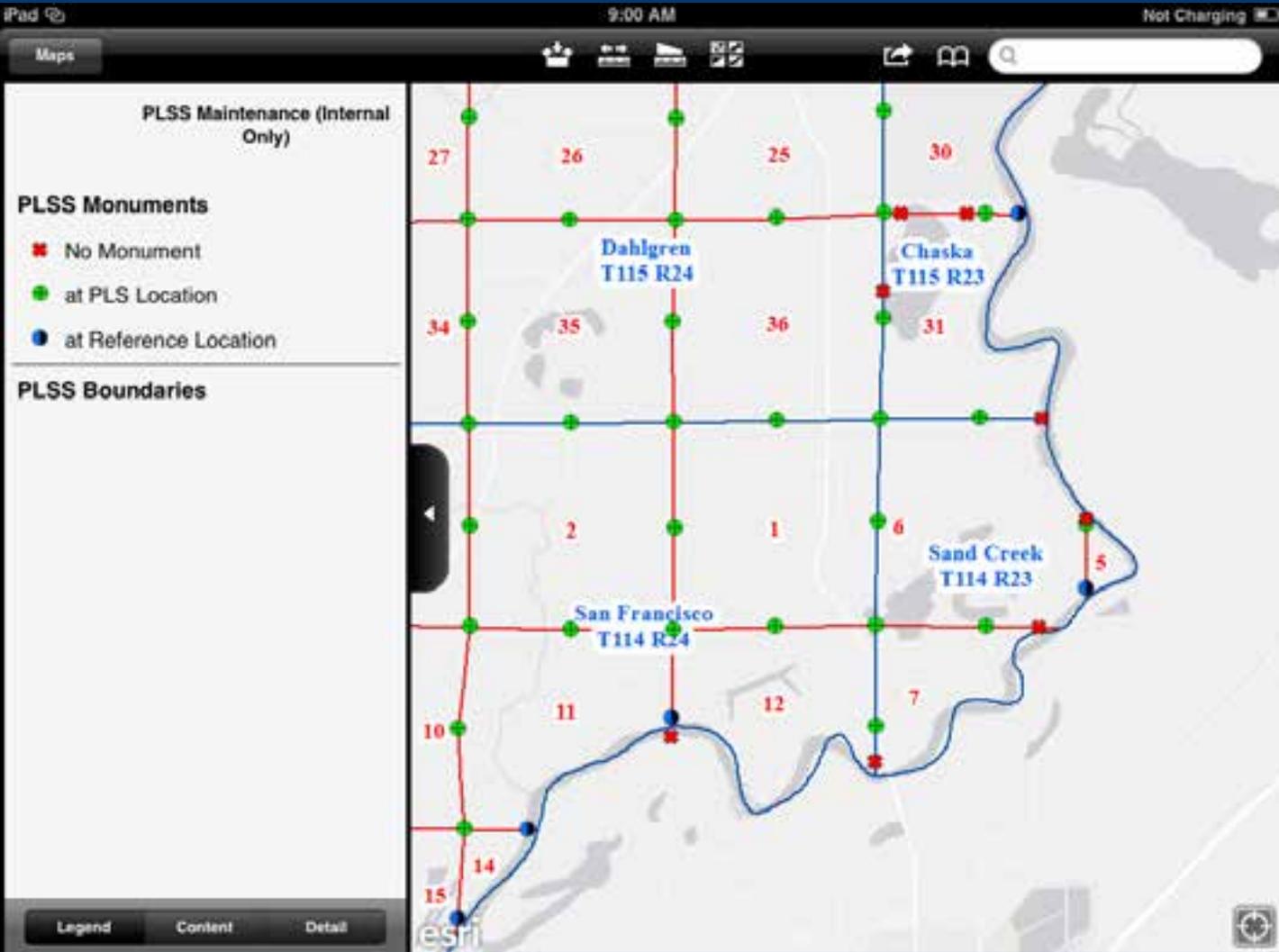
# PLSS Data – Existing Workflow

The screenshot shows a Microsoft Access database form titled "plssrs\_data\_entry" running on an iPad. The form is divided into several sections for data entry:

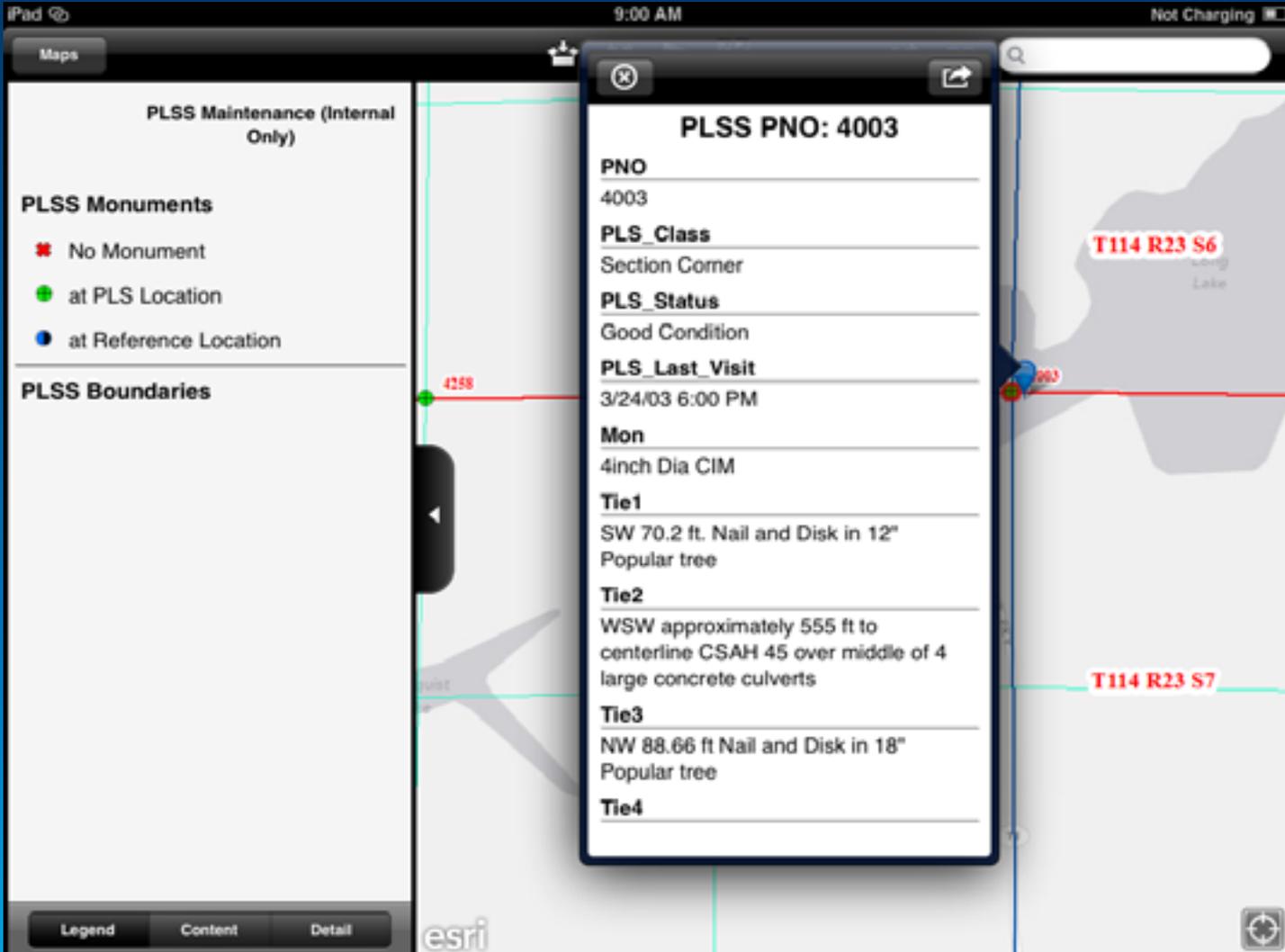
- POINT NUMBER: 4003**
- PLS CORNER DATA**
  - Fields for PIV, TRS 1-4, and Plev\_Num\_1-4.
  - Corner: Text field containing "Cast Iron Monument (4 inch diameter top) approximately 450 feet northwesterly of County Road 45 and westerly of Long Lake in north-south fence line."
  - Memo: Empty text area.
  - Cert. Years: 1960; 1975; 2005
  - Books: 25/30-36; 85/18
  - Last Date: 3/25/2003
  - Status: Good Condition
  - Corner Class: Section Corner
  - Repebuation: Excellent
- PLS MONUMENT DATA**
  - Monument: at PLS Location
  - 4inch Dia DIM
  - Memo: Set 4 inch diameter cast iron cap on 6 foot long unitnut to replace 1.5 inch iron ppe.
  - Tie 1: SW 70.2 ft. Nail and Disk in 12" Poplar tree
  - Tie 2: W/SW approximately 555 ft to centerline CSAH 45 over middle of 4 large concrete culverts

At the bottom of the form, there are buttons for "Filter Filtered Set", "CORNER", and "REFERENCE". Below these are input fields for "point1:", "point2:", and "distance NAD08:". The iPad status bar at the bottom shows the time as 9:01 AM and the date as 8/15/2012.

# ArcGIS Online – Solution for PLSS Data



# ArcGIS Online – Solution for PLSS Data



# Summary

- AGO's rapid deployment has allowed us to create just in time solutions that were not feasible in the past
- We have used ArcGIS Online to improve!
  - Manage Assets
  - Organize Work
  - Supervise Staff
  - Eliminate Paper Workflows

# Utilizing ArcGIS Online to Create Efficiencies in Managing Transportation Data

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