

Making the Most of Maximo and ArcGIS Integration

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ActiveG - Managing Partner

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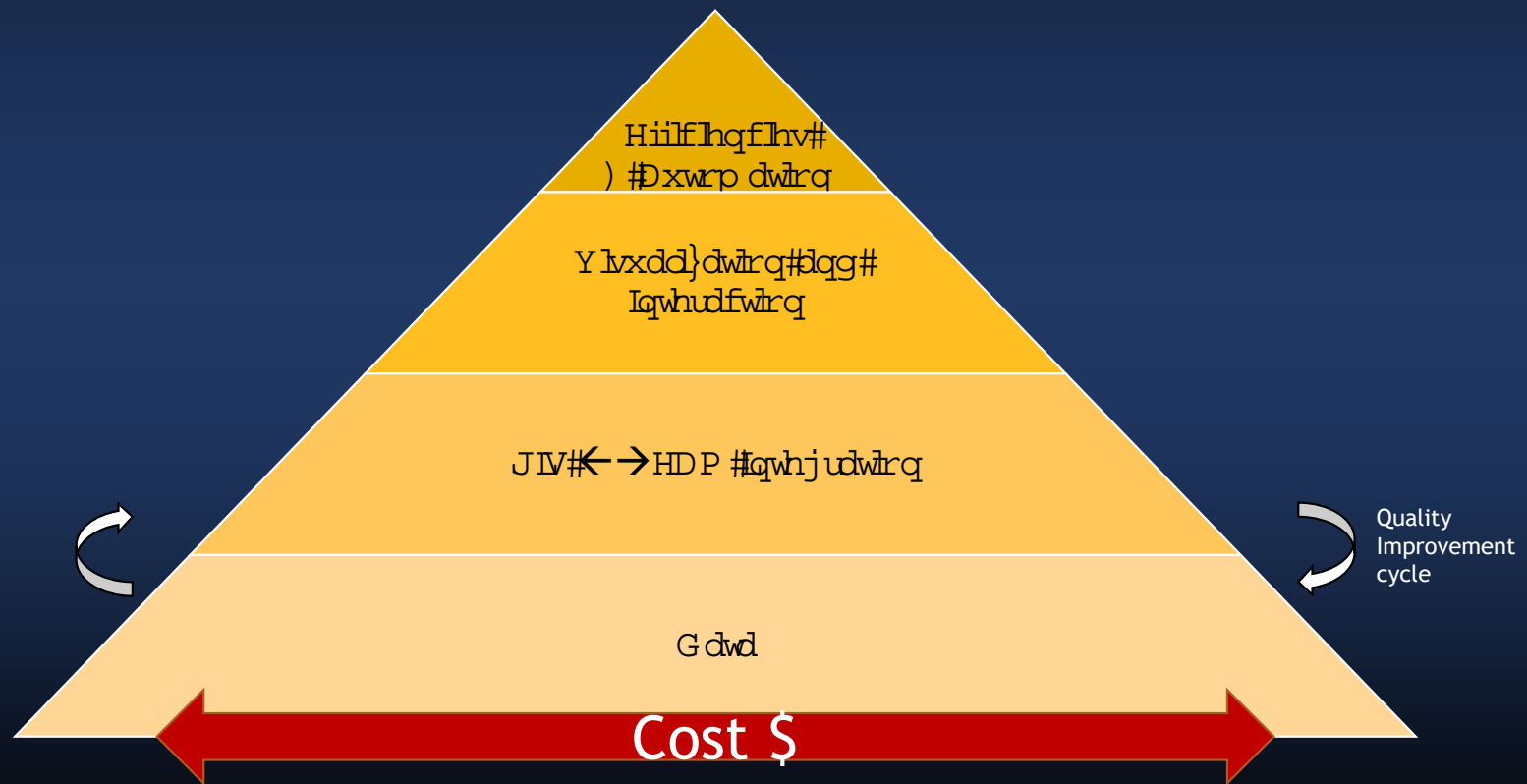


Quirkology Channel

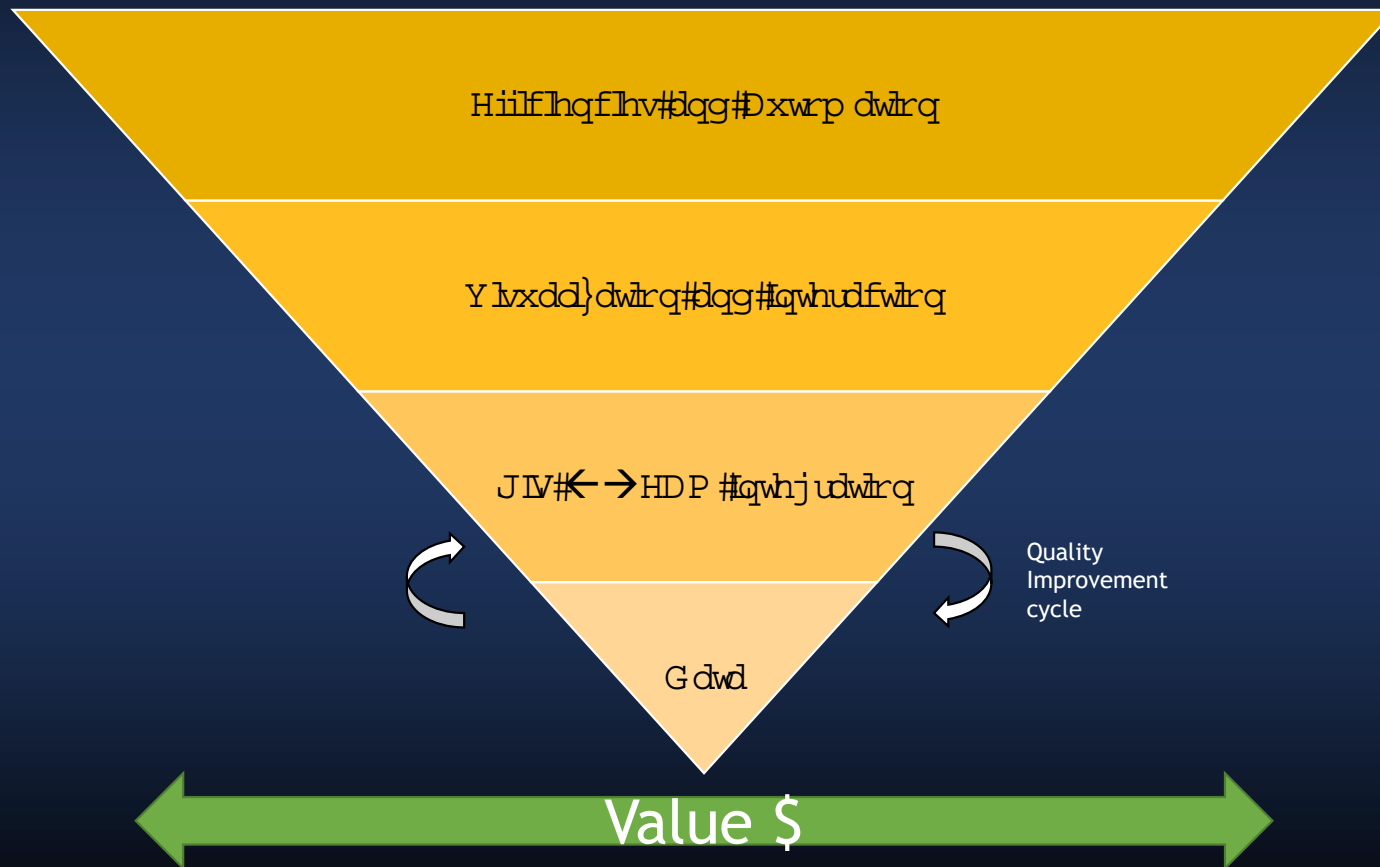
ASSUMPTIONS

www.RichardWiseman.com

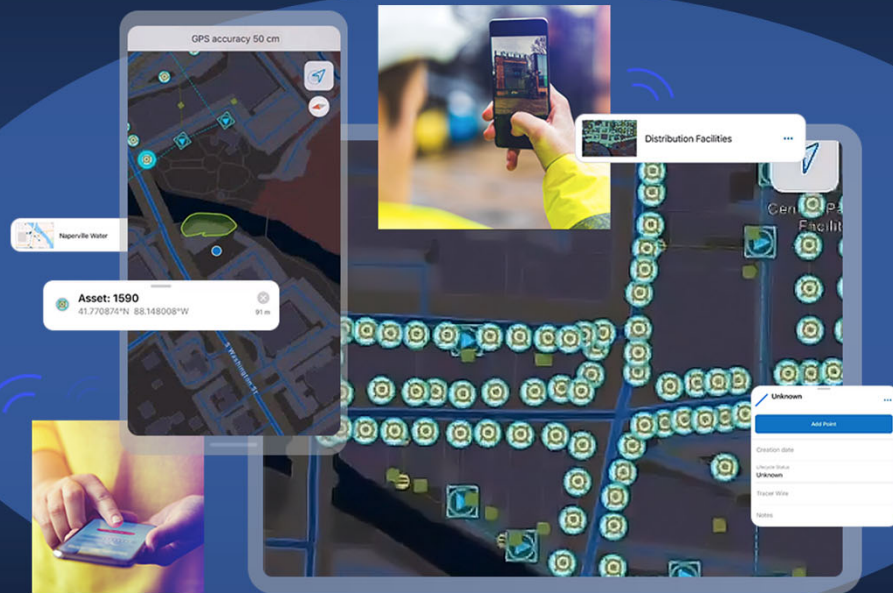
Building the GIS/EAM integration pyramid



Building the GIS/EAM integration pyramid



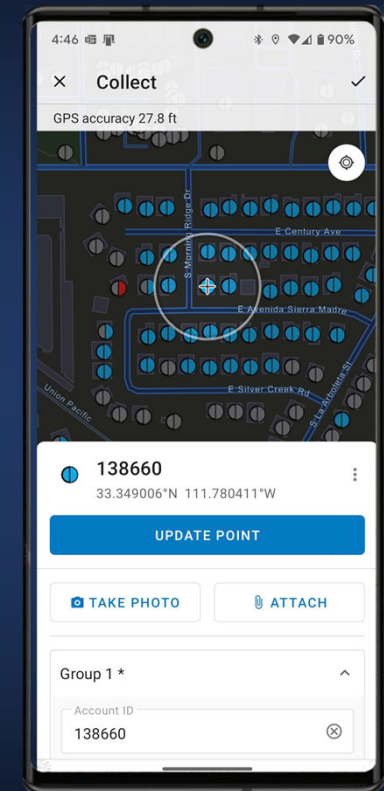
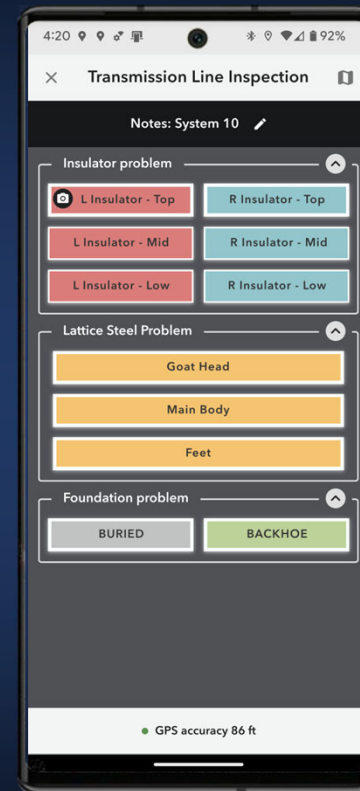
Esri Solutions



Esri Field Apps

Esri Field Apps help you to:

- Create and configure maps to fit your organization's Maximo and GIS workflows.
- Collect and update information in the field and log your current location.
- Use the apps online or offline—regardless of your network availability.



Reasons companies choose ArcGIS/Maximo Integration

Leak Report

Break Location?*

Service Line Main Line

Is Field Services needed for a repair?*

Yes No

Water Loss? (Gallons)

Cause of Leak?

- Easy to configure and deploy
 - No coding required
- Spatial visualization baked into the entire process
- Easy to tailor the process to client needs
- Robust reporting
- Closed loop
 - Report → Validate → Repair → Report
- Simple, effective user interface

WUA Hydrants
819
 Waiting Inspection
Last update: 13 seconds ago

WUA Hydrants
15,802
 Passed
Last update: 13 seconds ago

WUA Hydrants
605
 Failed (Total)
Last update: 17 seconds ago

WUA Hydrants
1,189
 Needs Attention (Total)
Last update: 17 seconds ago

WUA Hydrants
207
 Inoperable (Current)
Last update: 17 seconds ago

WUA Hydrants
1,142
 Needs Attention (Current)
Last update: 17 seconds ago

WUA Hydrants
149
 Repaired (QA)(Inop)
Last update: 17 seconds ago

WUA Hydrants
11
 Repaired (QA)(NA)
Last update: 17 seconds ago

WUA Hydrants
249
 Repaired (Inop)
Last update: 17 seconds ago

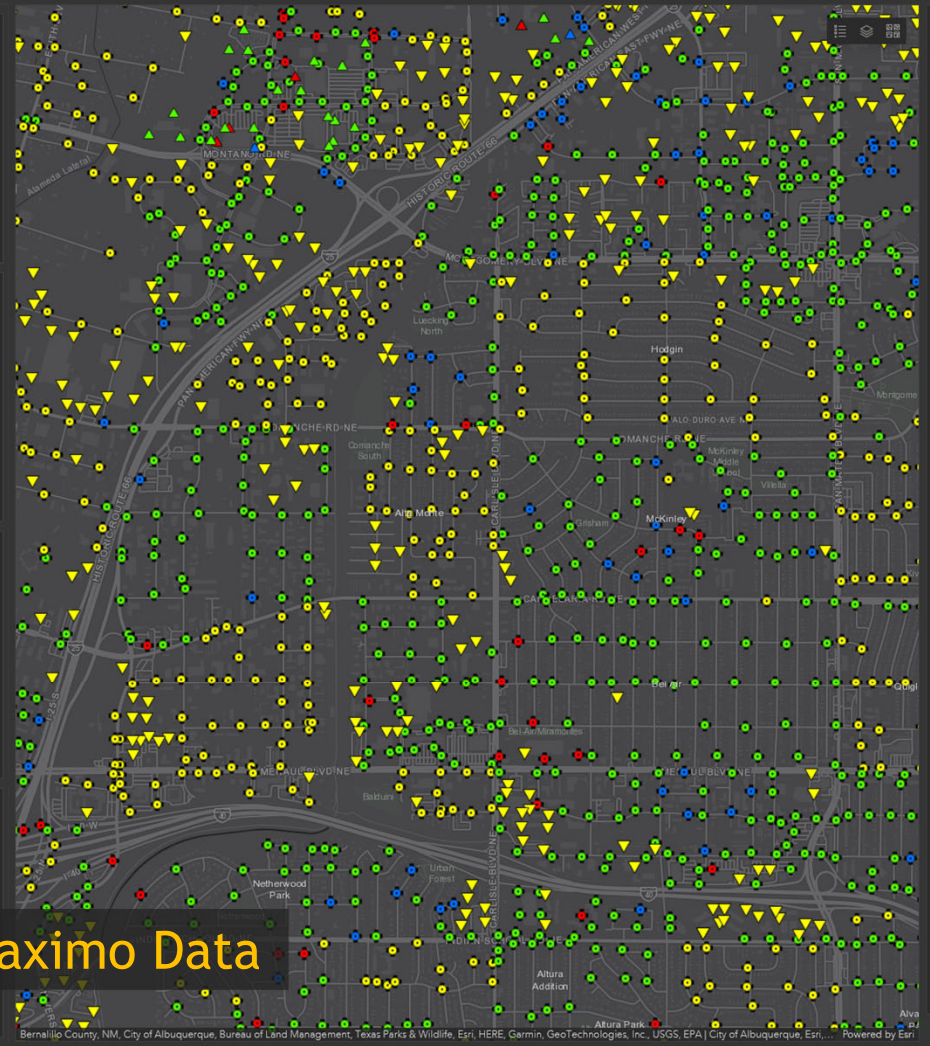
WUA Hydrants
36
 Repaired (NA)
Last update: 17 seconds ago

Private Hydrants
2,276
 Waiting Inspection
Last update: 18 seconds ago

Private Hydrants
1,875
 Passed
Last update: 18 seconds ago

Private Hydrants
23
 Needs Attention
Last update: 18 seconds ago

Private Hydrants
198
 Failed
Last update: 18 seconds ago



1 of 200

LAST 200 WUA HYDRANT INSPECTIONS

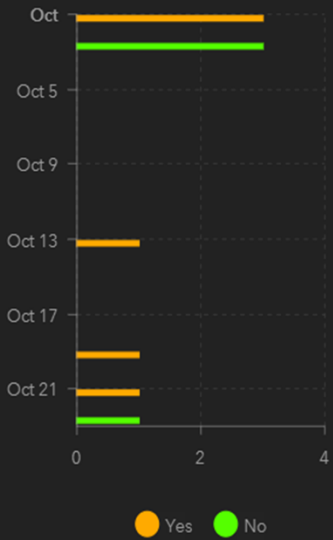
HydrantInspections: 22338

CreationDate	9/20/2022, 10:56 AM
AssetNUM	22338
Inspector Badge Number	163
Missing hydrant?	No
Water flow problem?	No
Stem nut problem?	Operable
Cap frozen?	No
Threads damaged?	No
Leaking?	No
Will not drain?	No
Loose hydrant?	No
Damaged barrel?	No
Brown water?	No
Mapping error?	No
Horizontal clearance?	No
Needs paint?	No
Needs chains?	Yes
Turned wrong way?	No
Needs Lowered or Raised?	No
Needs attention? Leave notes.	No
Notes	
Inspection Status	Waiting for Inspection
Workorder num	
Creator	Station36_BCFD
Last edited by	Station36_BCFD on 9/20/2022, 10:56 AM.

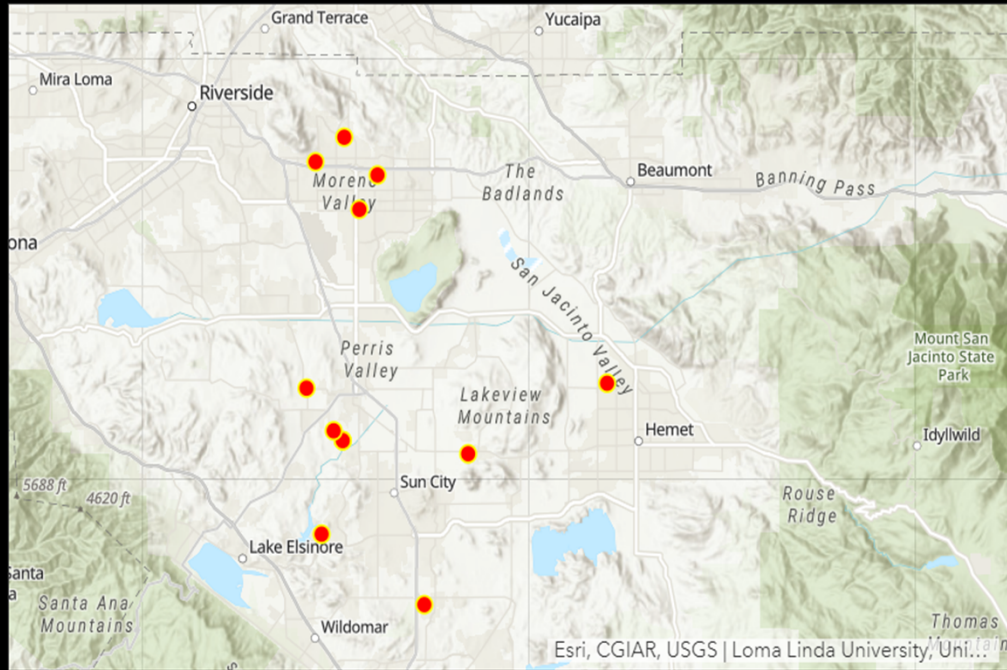
All Inspections Private Inspections

Maximo Data

Leak Surveys by day



Last update: a minute ago



Esri, CGIAR, USGS | Loma Linda University, Uni...

1 of 13

Leak_Report_PROD: 15

CreationDate: 10/22/2020, 6:05 AM

Creator: brenneia_EMWD

wonum: 3264184

Break Location?: Main Line

Is Field Services needed for a repair?: No

Water Loss? (Gallons)

Cause of Leak?: JOINT FAILURE

Pipe Size?: 08

Pipe Type?: Dipped & Wrapped

Last update: a few seconds ago

Total Surveys

13

Last update: a few seconds ago

Need Field Services

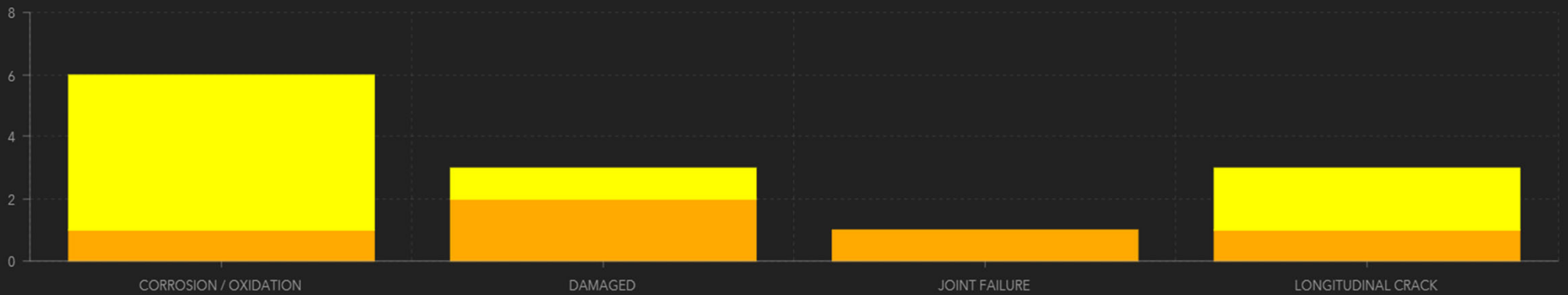
8

Last update: a few seconds ago

No Field Services

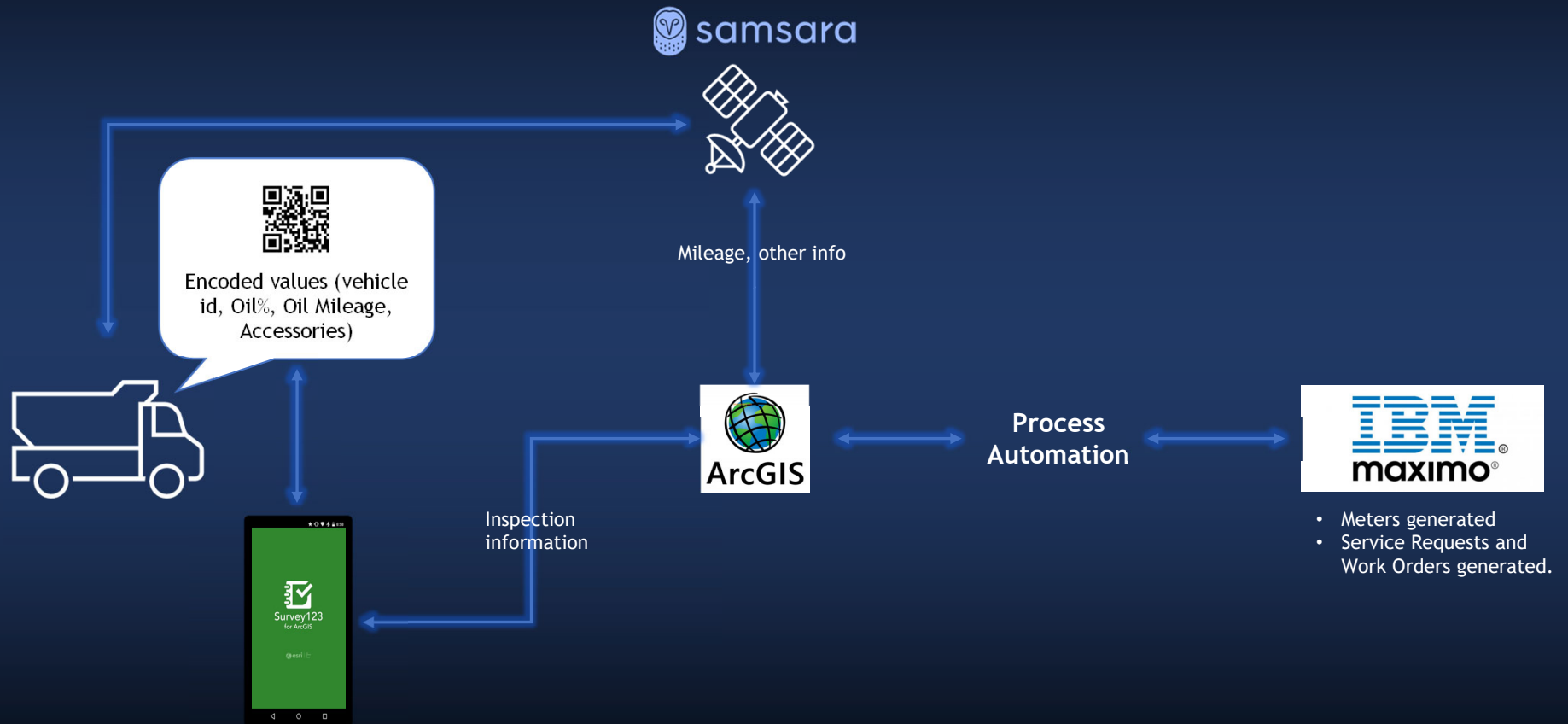
5

Last update: a few seconds ago



Last update: a few seconds ago

Fleet safety and maintenance management with ArcGIS



General Search...

- Tamping (WAPPR)
- Tamping (COMP)
- Tamping (APPR)
- Drainage

Basemaps

- Base
- Rail

Track Conditions

- Geometry Faults
 - Gauge
 - Superelevation
 - Twist
- Mitigations
- Risk ID
- SD Faults
 - Good (0-1)
 - Fair (1-2)
 - Poor (2-3)
 - Very Poor (3-4)



Transit Rail Maintenance

☰ 📖 🏠 📍 🏠 👤
 General

⬅️ **WO:** 2128 < 1 >

Description:	Water in the stairway
Status:	WAPPR
Location:	SD.SDCC.1.3.3196
Lead:	WATTERS
Asset #:	null
Work Group:	FACILITY
Field Assignment:	null

Edit WO ▶ Set XY Values Select Child WOs Logs

Find Vehicle Add to Maximo List 📍 Street View

🔄 Select a Layer 🟢 WO ⚙️

2128: Water in the stairway

1807

Indoor GIS & Maximo Work Orders

3 ✖ 🧭

Emergency Dispatch

Background: Rapid response to reported gas leaks is critical. Client needed a way to assign the nearest, available, qualified crew to gas emergency work orders.

The screenshot displays a software interface for emergency dispatch. On the left, a 'General' panel shows job details: Job Code (290 - Leak Repair), Description (Leak Repair Workorder), Status (APPR), Location (LKMX2135016), Address (167 JEFFERSON AVE RAHWAY, NJ 07065), Asset (2320467 - R 275 Temperature Compensated), and Field Lead (null - null). Below this panel are buttons for 'Find Vehicle' and 'Add to Maximo List', and an 'Assign' button. On the right, a map shows a blue route from Phillipsburg to Rahway, NJ. A semi-transparent text box titled '3 Parts:' is overlaid on the map, listing three key features: visualizing real-time vehicle locations, listing the closest vehicles with estimated travel times, and assigning work orders to the closest qualified vehicle.

3 Parts:

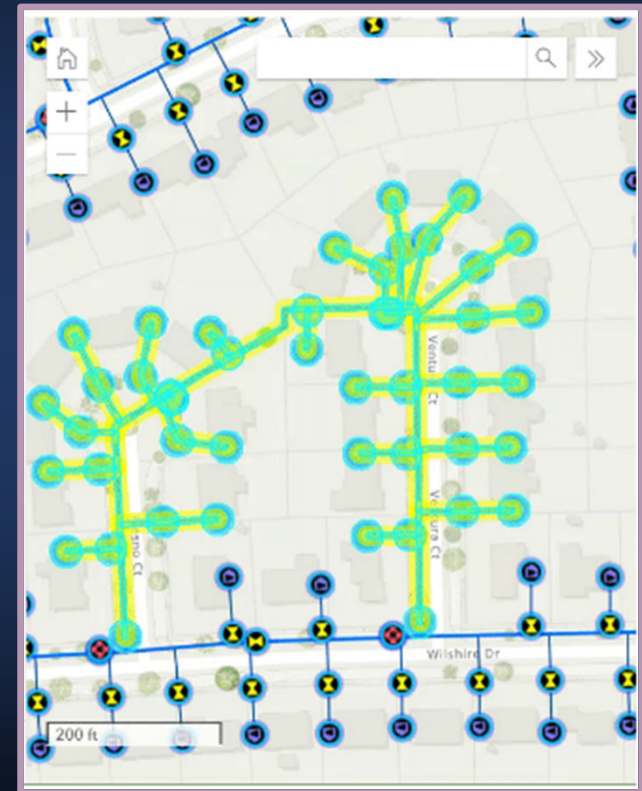
- Visualize real-time vehicle locations (originating from Fleetboss) via Esri map services provided
- List of vehicles closest (est. travel time) to a reported leak (Maximo work order).
- Assign emergency work order to closest vehicle with relevant skills (Maximo labor/skills)

Introduction to Esri Utility Network

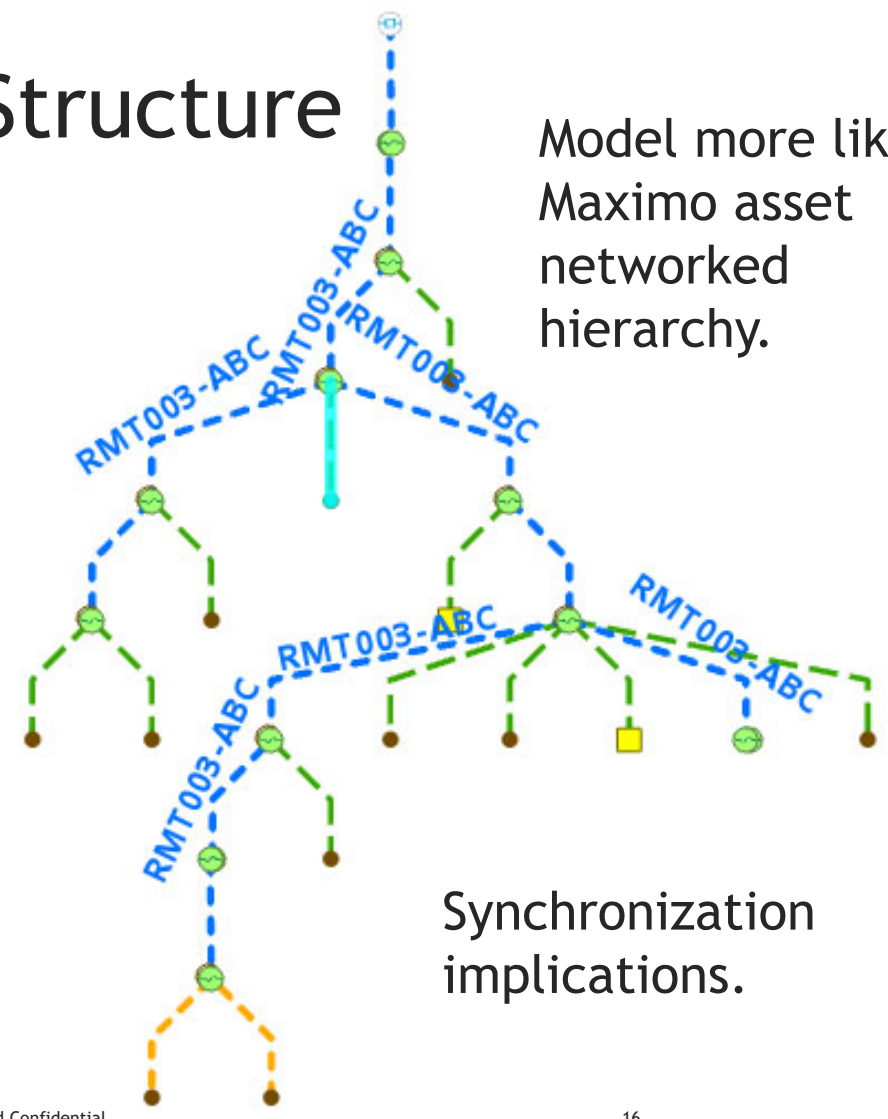
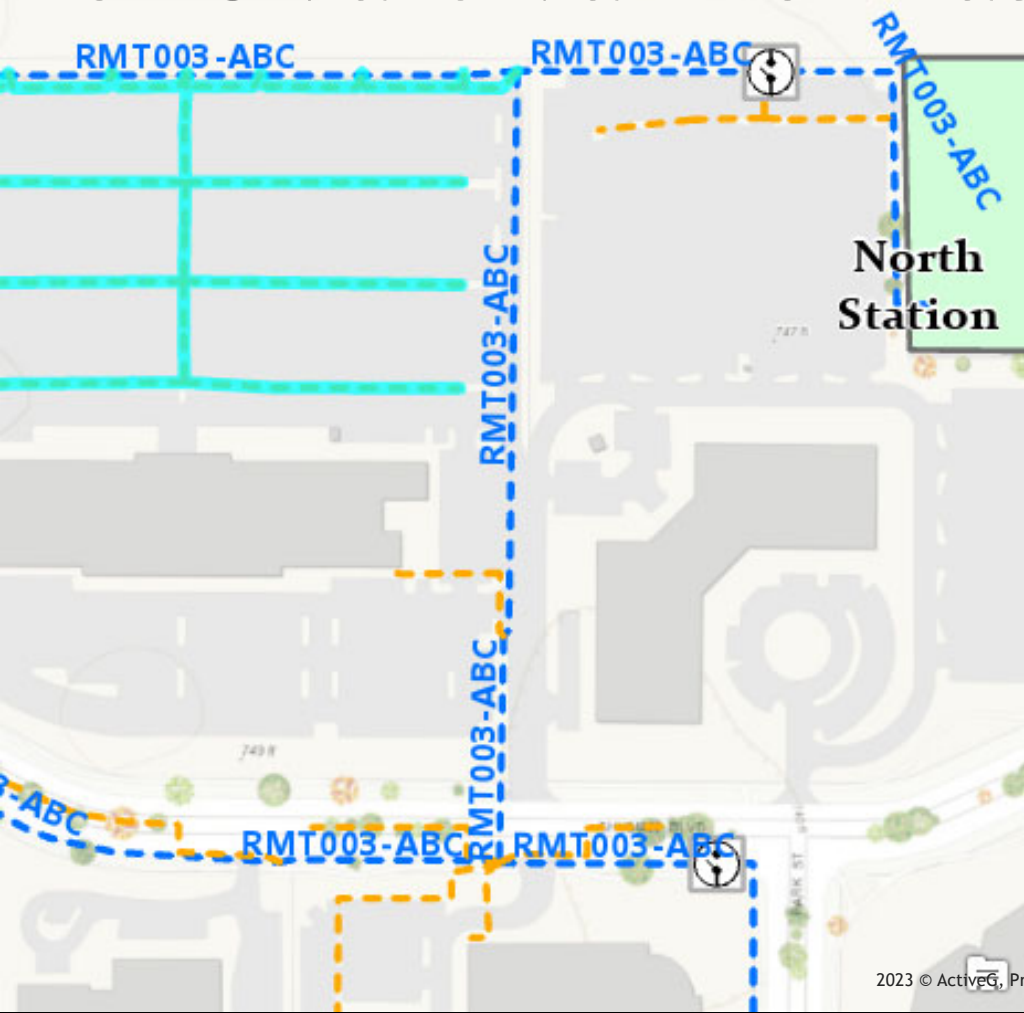
- Advanced GIS framework
- Manages complex utility & infrastructure data
- Offers detailed modeling, analytics, real-time management
- Offers a more advanced and flexible data model that supports a **multi-tiered network architecture**

Key Features of Utility Network

- Detailed network modeling capabilities
- Supports diverse utility types (electric, water, gas, etc.)
- Enhanced data validation rules
- Multi-user editing & web service integration



Esri UN and Maximo - Data Structure

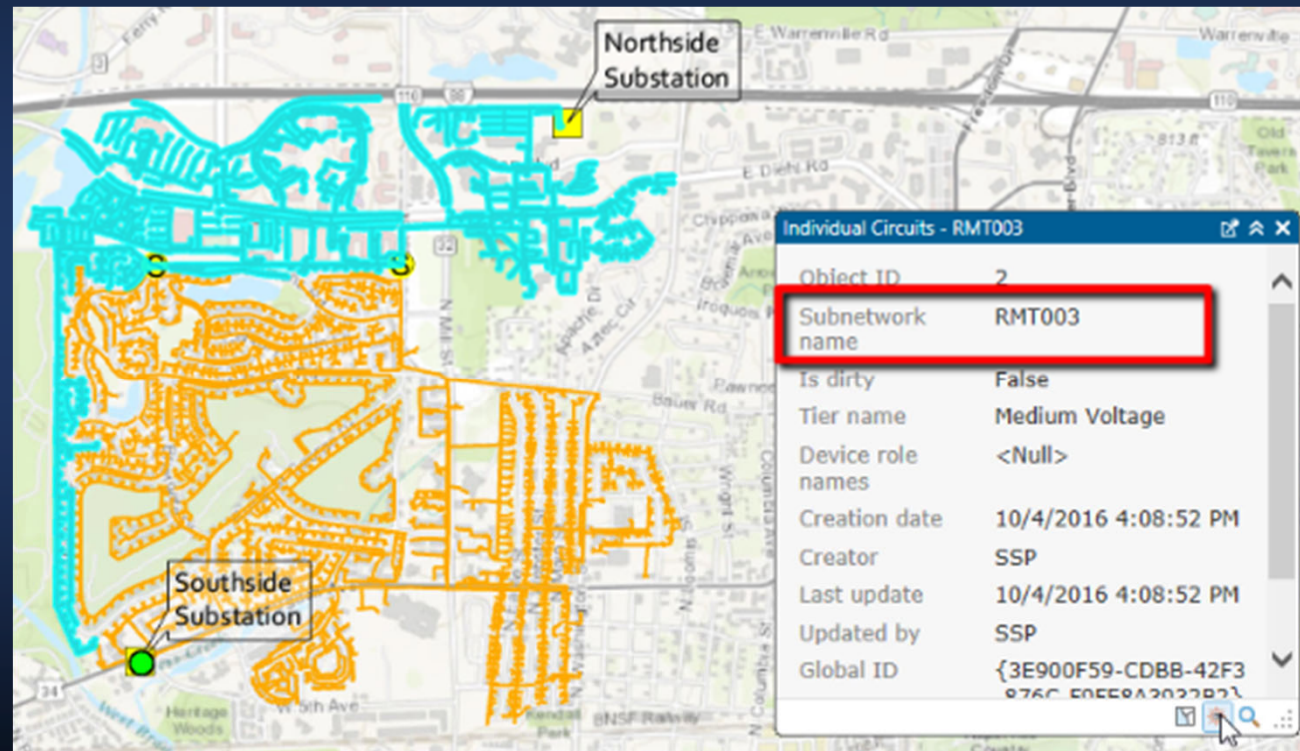


Model more like Maximo asset networked hierarchy.

Synchronization implications.

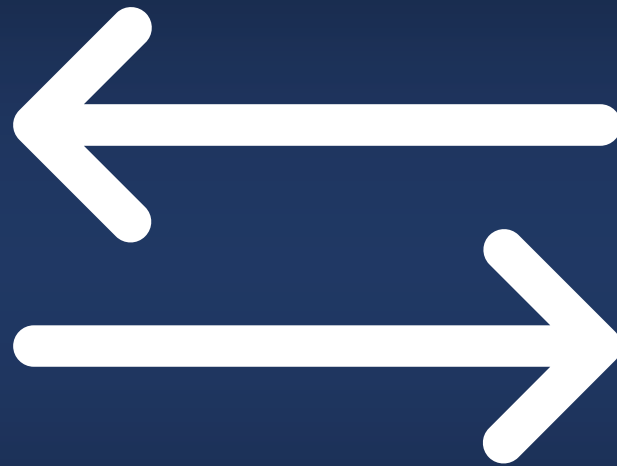
Esri UN and Maximo - Tracing

- Trace network features upstream or downstream from a given location.
 - water utilities can determine which valves to shut off when a pipe bursts.
 - an outage from an electrical network can affect the delivery of another resource, such as gas or water.

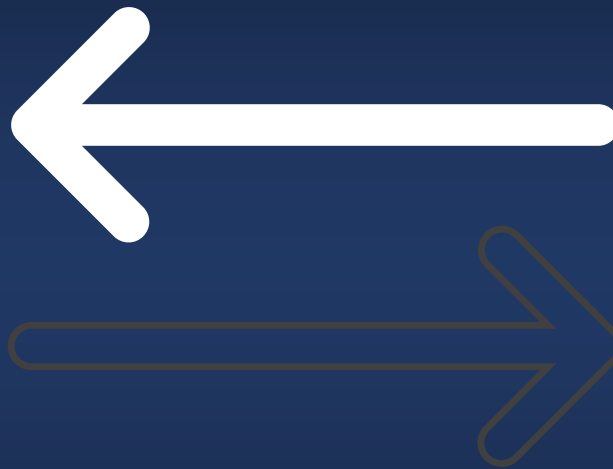


4 Keys to Useful GIS/Maximo Integration

- Start with data sync
- Only sync essentials needed for decisions
- Build fit-for-purpose processes
- Leverage location intelligence to streamline user experience

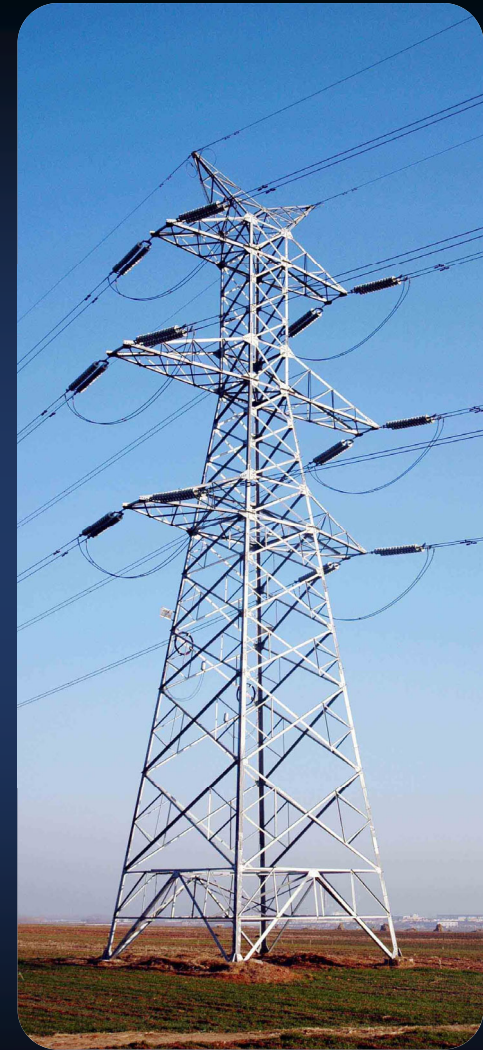
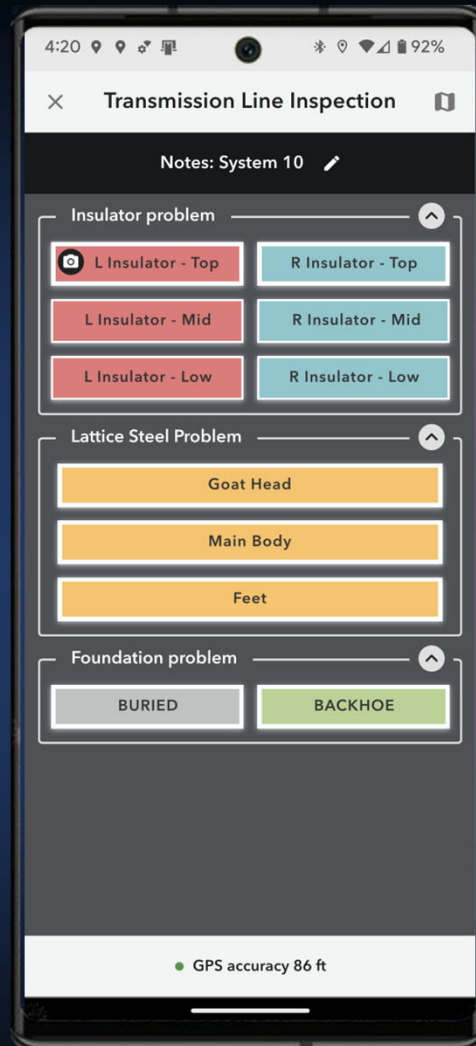


Start with data sync

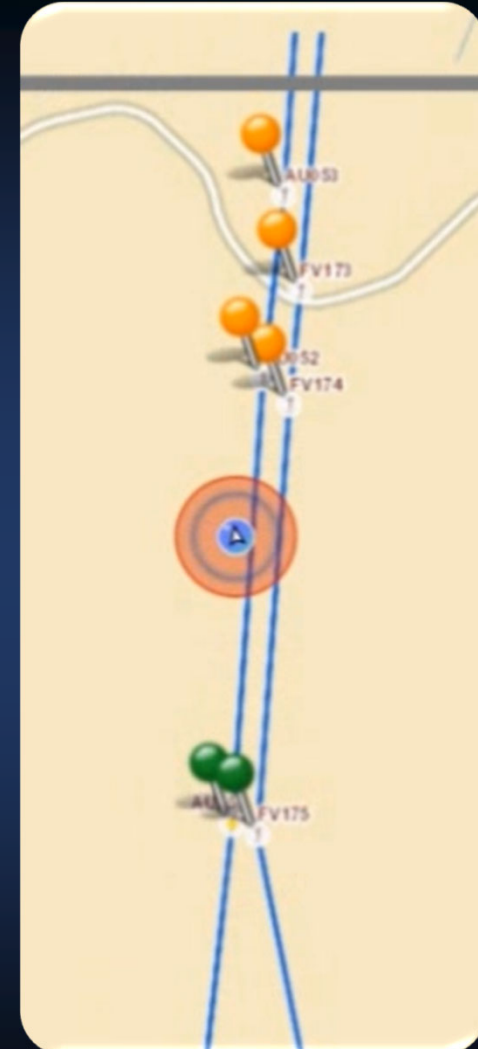
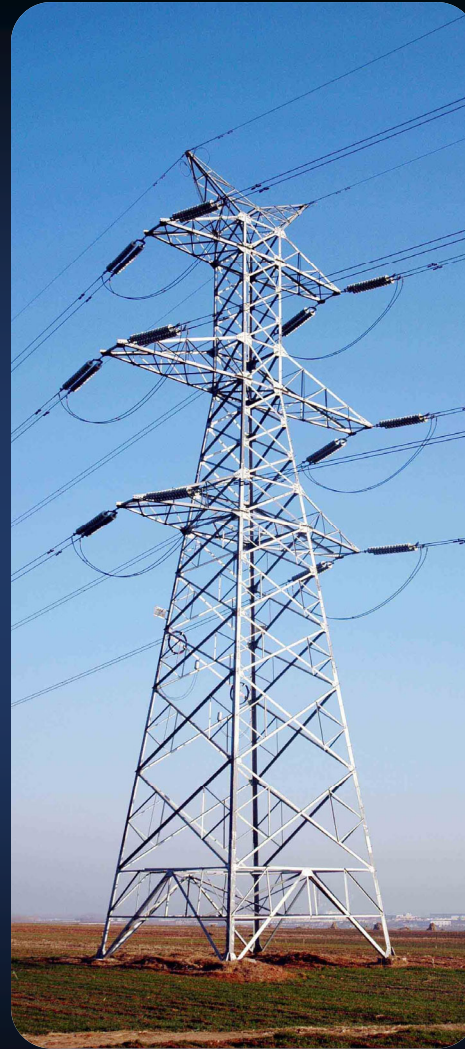


Only sync essentials for decisions

Build fit-for-purpose processes



Leverage location intelligence to streamline user experience



4 Keys to Useful GIS/Maximo Integration

- Start with data sync
- Only sync essentials needed for decisions
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