

Integrating field operations for an efficient city gas network

Dr. Pradeep N and Mitika Garg

WHO WEARE **Science** WHERE"

Esri builds the **most powerful** mapping and spatial analytics products **in the world**.

"Esri's data-rich maps are the secret weapon behind many of today's most successful brands."

- Fast Company

With more than 100 offices around the world and professionals from 67 countries, Esri provides organizations of every size and industry the tools to get deeper insights from their geographic and dynamic data and improve operational and business results.



ArcGIS for Utilities | A Complete GIS



"Having the GIS enterprise approach actually makes me sleep a little better at night. We're not scrambling to chase down information. It is networked, it is mobile, and we can get access to it."

> —Jimmie Cho Chief Operating Officer, SoCalGas

Creates real business value... ...across the utility enterprise

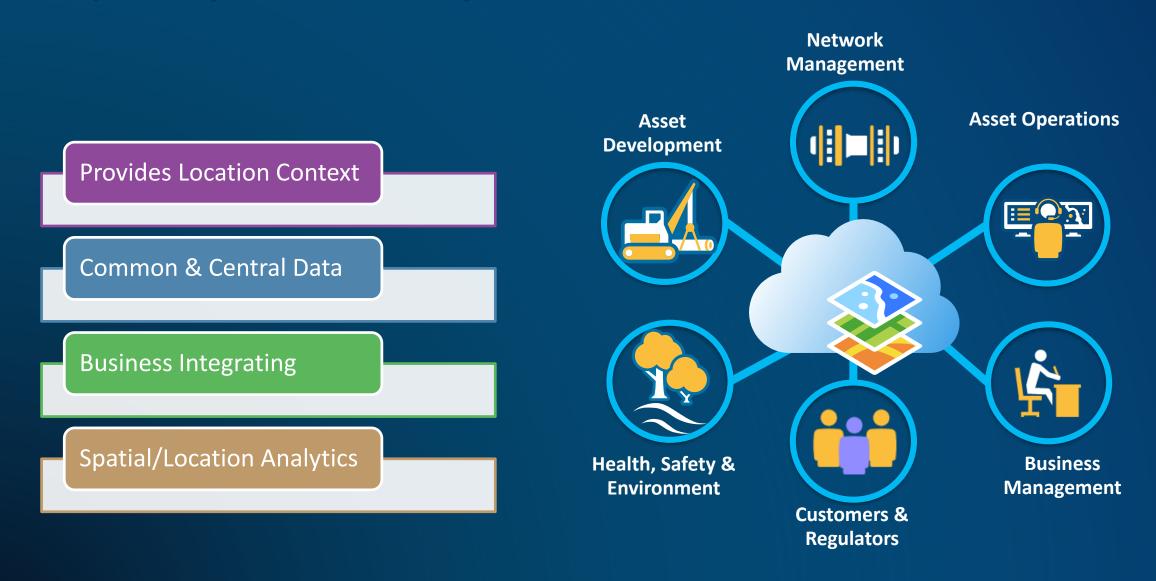
ArcGIS for Utilities | A Complete GIS

Enabling Real-Time Sharing and Collaboration . . .

. . . Across the Organization



Enterprise City Gas Business Systems



Scalable and Ease of Deployment

New Apps &Dashboard



View of Operations

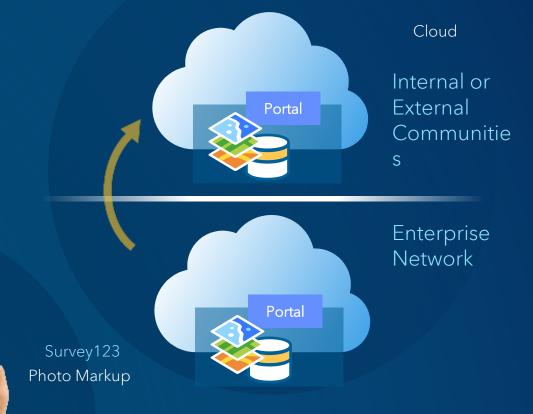




Interactive Widgets

Integration with GNSS receivers

Distributed Collaboration





Mobile App

ArcGIS Field Apps

Complete suite of apps to support field operations workflows



* Collector for ArcGIS, Survey123, Explorer for Arcgis, Arcgis QuickCapture & Workforce for Arcgis- Bundled with Enterprise **Tracker for ArcGIS and Navigator for ArcGIS: Premium Apps - Add on license

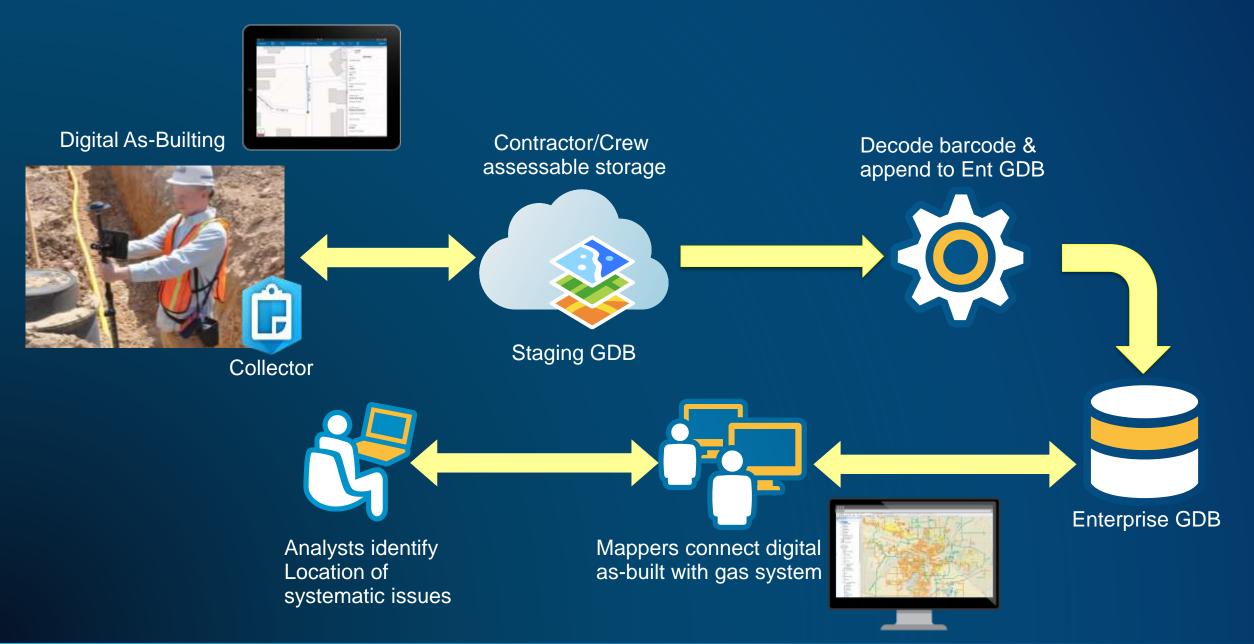
Field Operations | Location-enable all phases of field work



Network Inspection and Redlining



Applying the ArcGIS Platform to Tracking and Traceability



Apps for Monitoring Operations



Strategic



Tactical



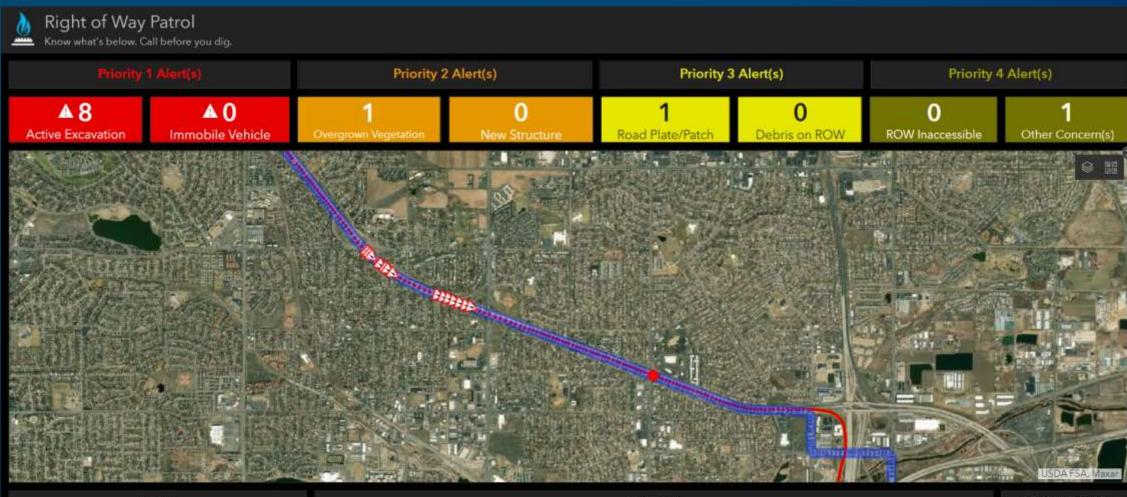
Informational



Operational

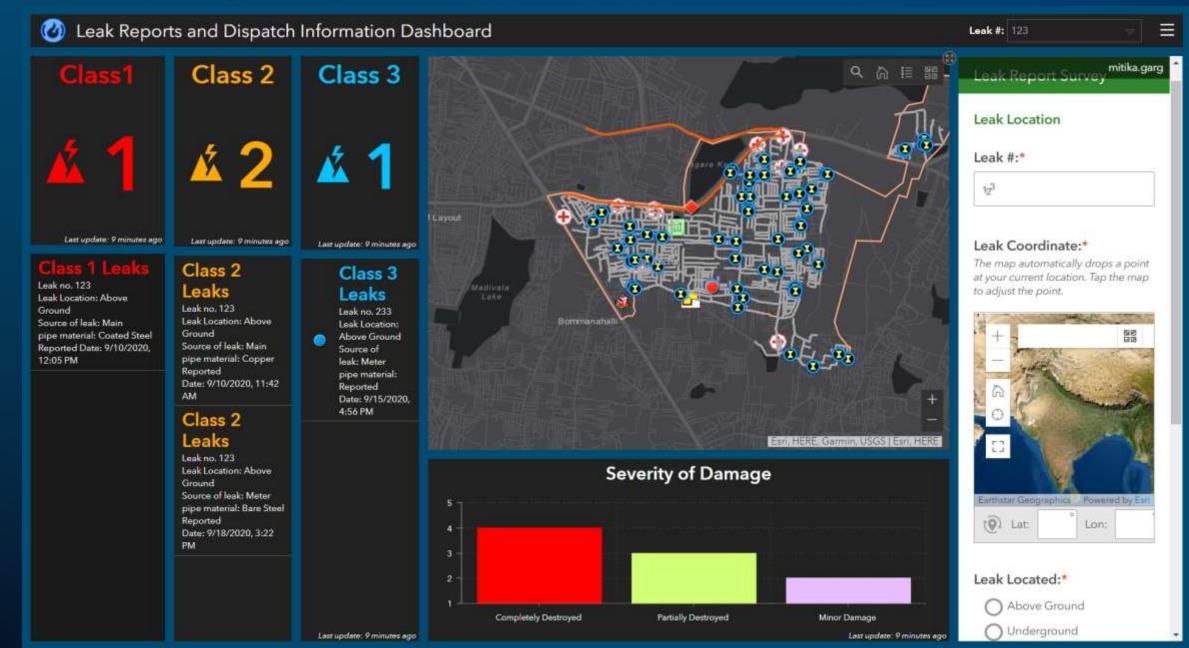


Right of Way Management Dashboards





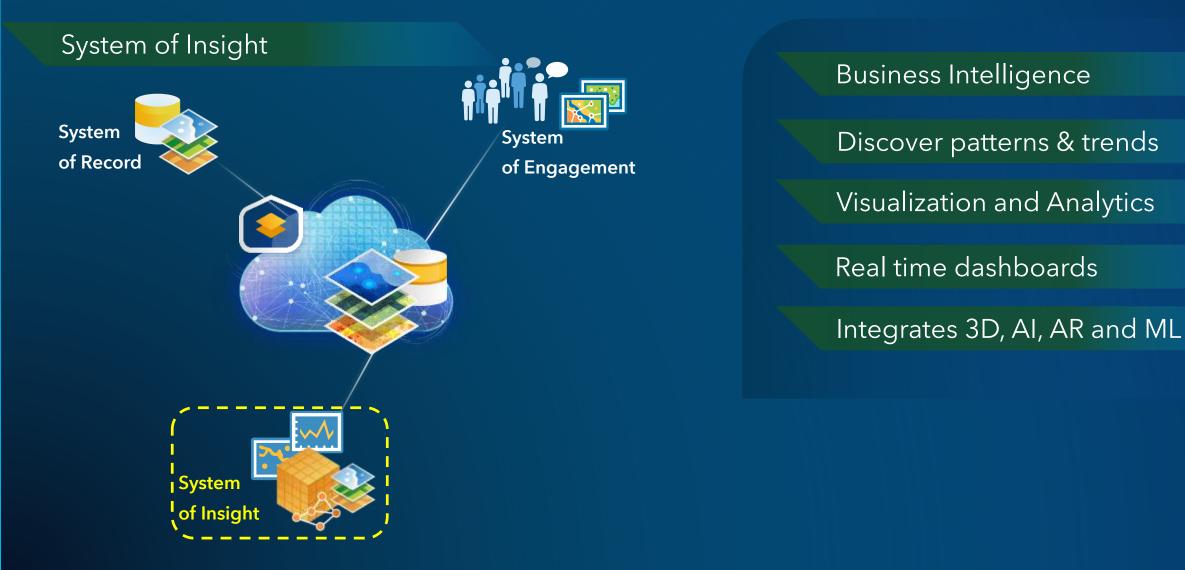
Field Reporting Survey linked Dashboards



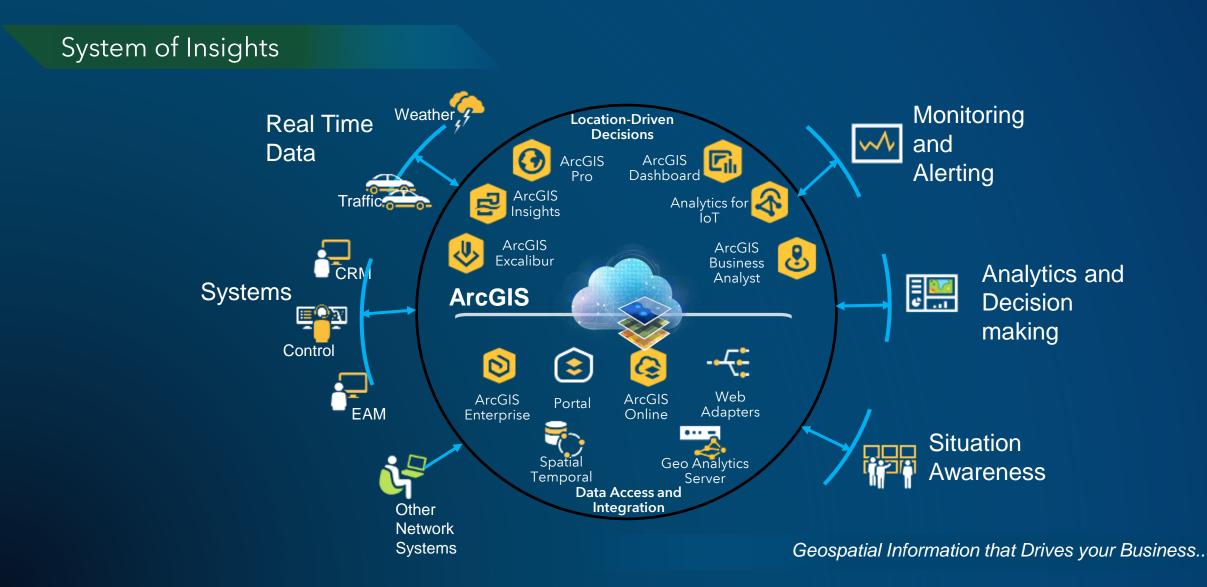
Meter Inspection Dashboard

Gas METER INS	SPECTION	Search by Meter ID 100 📨 🚍	Survey123 for ArcGIS	- 🗆 X
GAS METER INSPECTION		Search by Meter ID 100	X Meter Asser	$\stackrel{mbly Inspection}{\triangleq} \triangleq $
Meter Inspection	Showing 1 ×		(9	132
Progress	Gas Meter	A 1	Address	
	Meter: 323	Damaged Meter(s)	Work Order ID	
6		Meter 339 Reported Corrosion: Bid	Employee	
100	Install Date: 2/5/2020, 7:18 AM Status: Active	Reported Accessible:	mitika.garg	
	Measure: 2.00 Premise: 3060920000		Date & Time	
	Perform Matter Inspection		Monday, 2 Nov	/em 🕒 12:08
Latest Inspection(s)			Met	er Info
Meter: 341		Click on a Meter Inspection for Details		
Pressure: 7" w.c. Corresion: Good		Meter Info		
admin.bce, 2/5/2020, 7:46 AM		Meter Pressure 2 PSI Meter Location Out		1
		Select Devices Meter to Inspect	Meter Pressure	Meter Location
Meter: 315		Selected Meter Devices	7" w.c.) In
Pressure: 2 PSI Corresion: Good		+ Photos	2 PSI	Out
admin.bce, 2/5/2020, 7:45 AM	Est Community Mars Contributors Building Foot	- Riser in non- hard surface?	1	of 4

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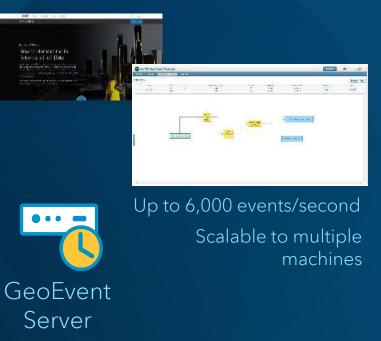


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System for IoT

Real-Time GIS



Spatiotemporal Big Data Store

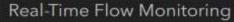


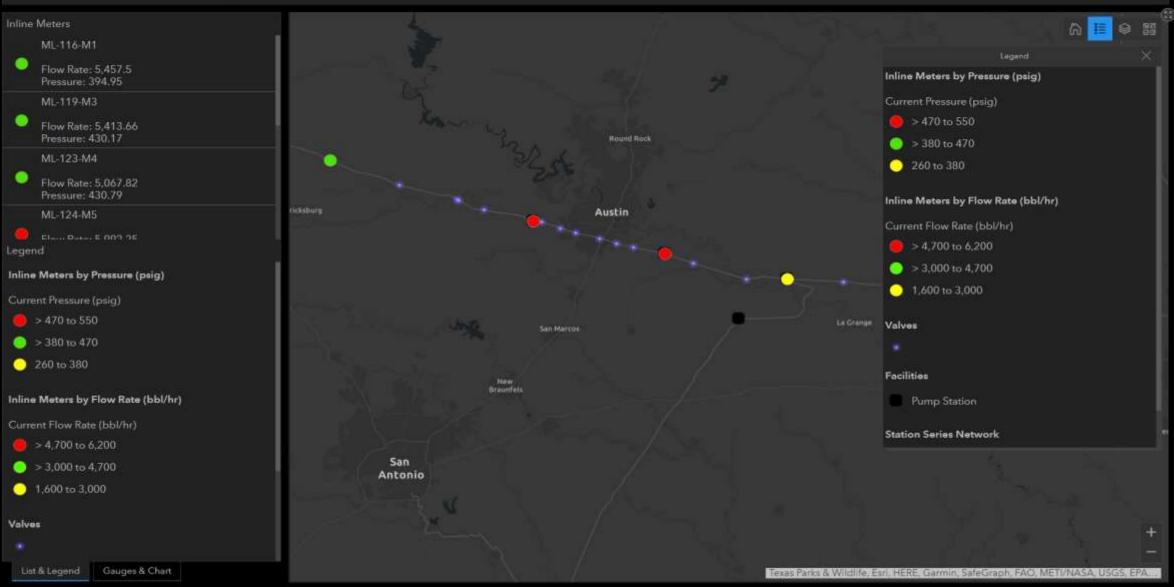


Storage of 3D points Expanded data retention capabilities

Real-Time Data

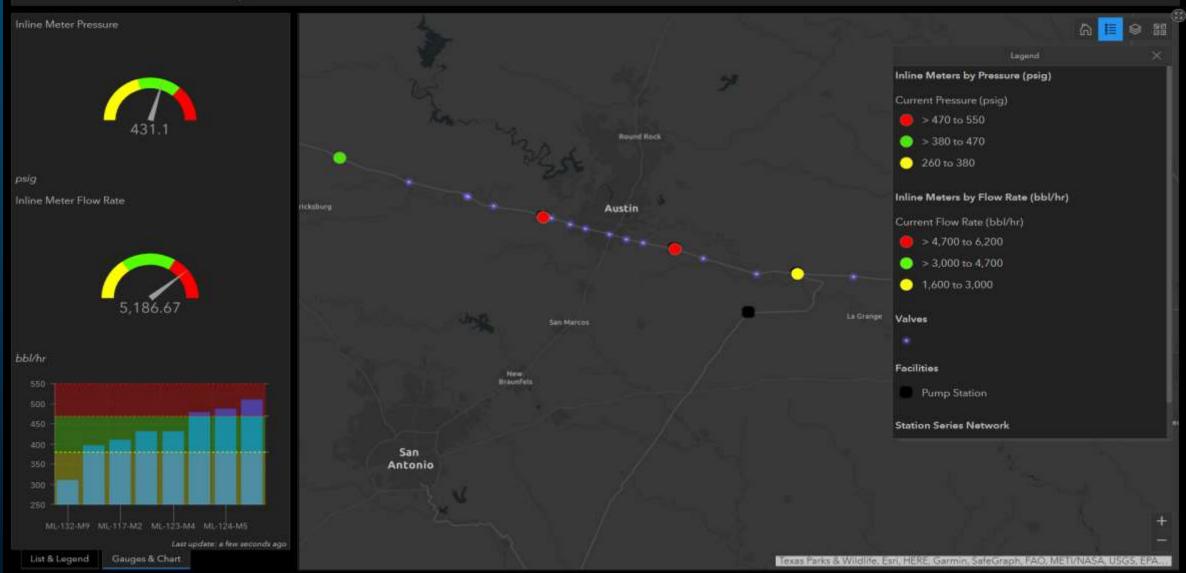
Flow monitoring apps





Flow monitoring apps

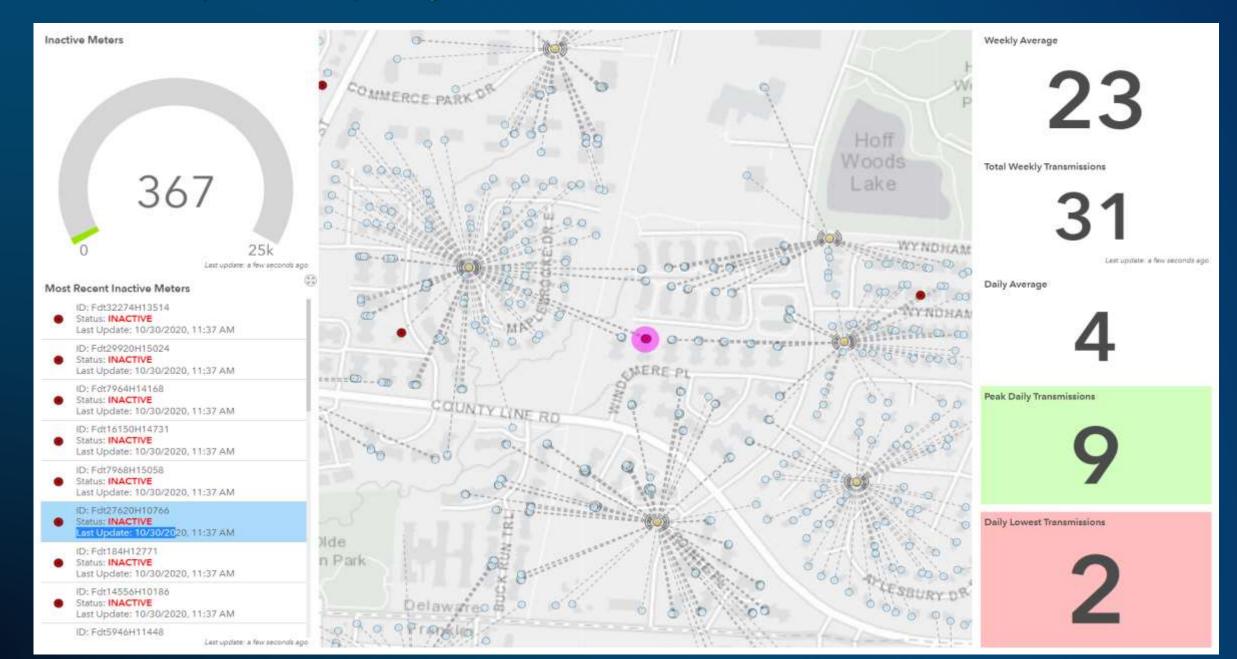
Real-Time Flow Monitoring



Leak Management and Field Workforce Management



Smart Meter(AMI/AMR) Integration



Gas Utilities | A Complete GIS

The Geospatial Infrastructure to Solve Utility Challenges

System of Record

Digitally Transforming Utilities

•

A Complete GIS

System of Record

• Provides ease of editing

• Scales to any utility size

• Supplies complete data model

• Expands connectivity capability

System of Engagement

System of Insight

A Complete GIS

System of Engagement

- Provides worker collaboration
 - Consumes external web services
- Integrates all types of data
- Delivers tracking, navigation, exploration and network sharing

System of Insight

- Features real-time BI dashboards
- Includes out-of-the box analysis
- Discovers patterns
- Integrates AI, AR, machine learning and 3D analytics



For more information visit go.esri.com/gas

Join GeoNet Community - Connect, Collaborate and Share experiences

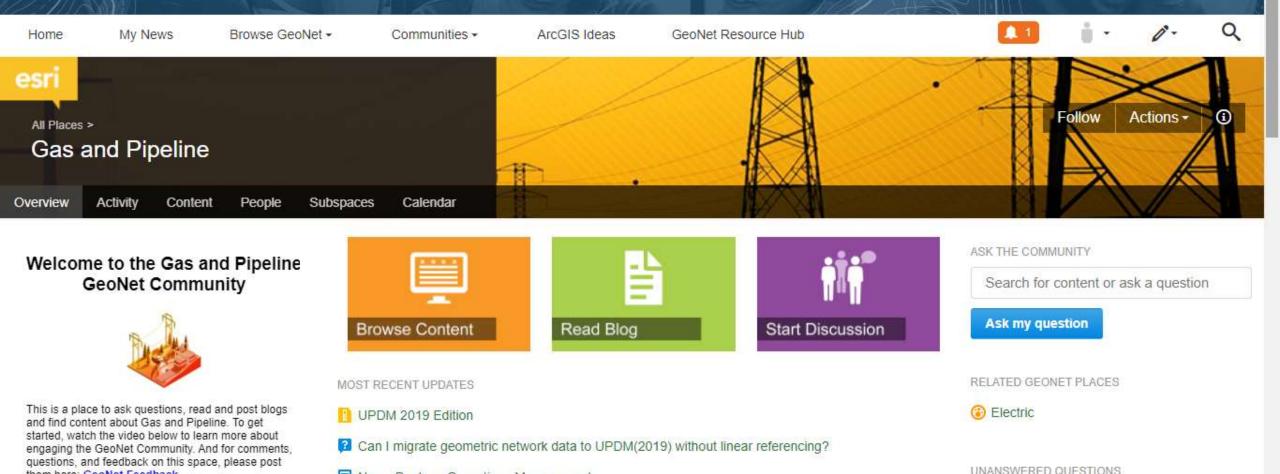
Community of customers, partners, Esri staff, and other GIS and geospatial professionals

GeoNet

The Esri Community

them here: GeoNet Feedback

https://community.esri.com/



Dew eBook on Operations Management



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