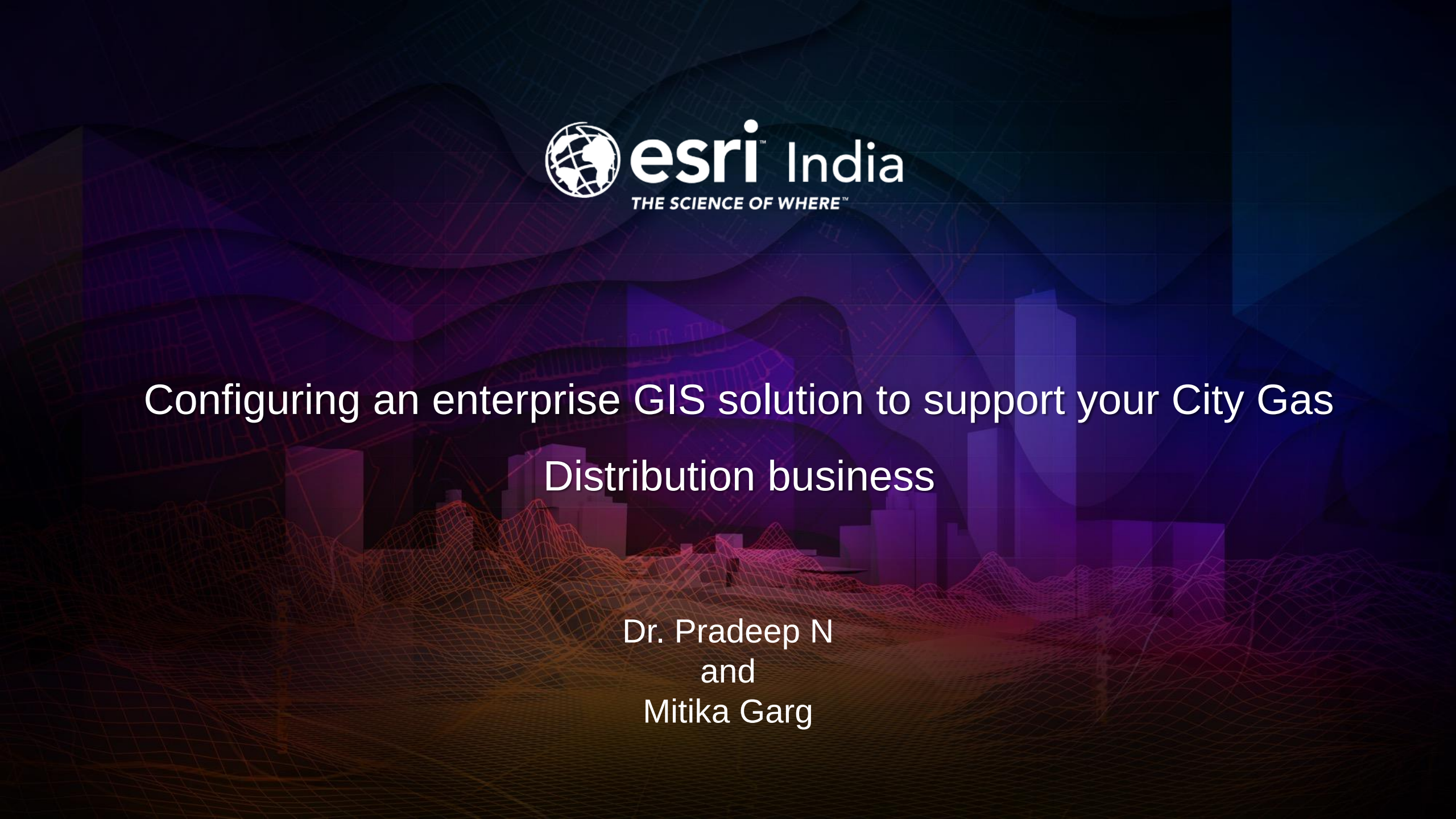


Configuring an enterprise GIS solution to support your City Gas Distribution business

Dr. Pradeep N
and
Mitika Garg

WHO WE ARE

esri | THE SCIENCE OF 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

Who We Are

Our India Presence

Presence since year **1996**

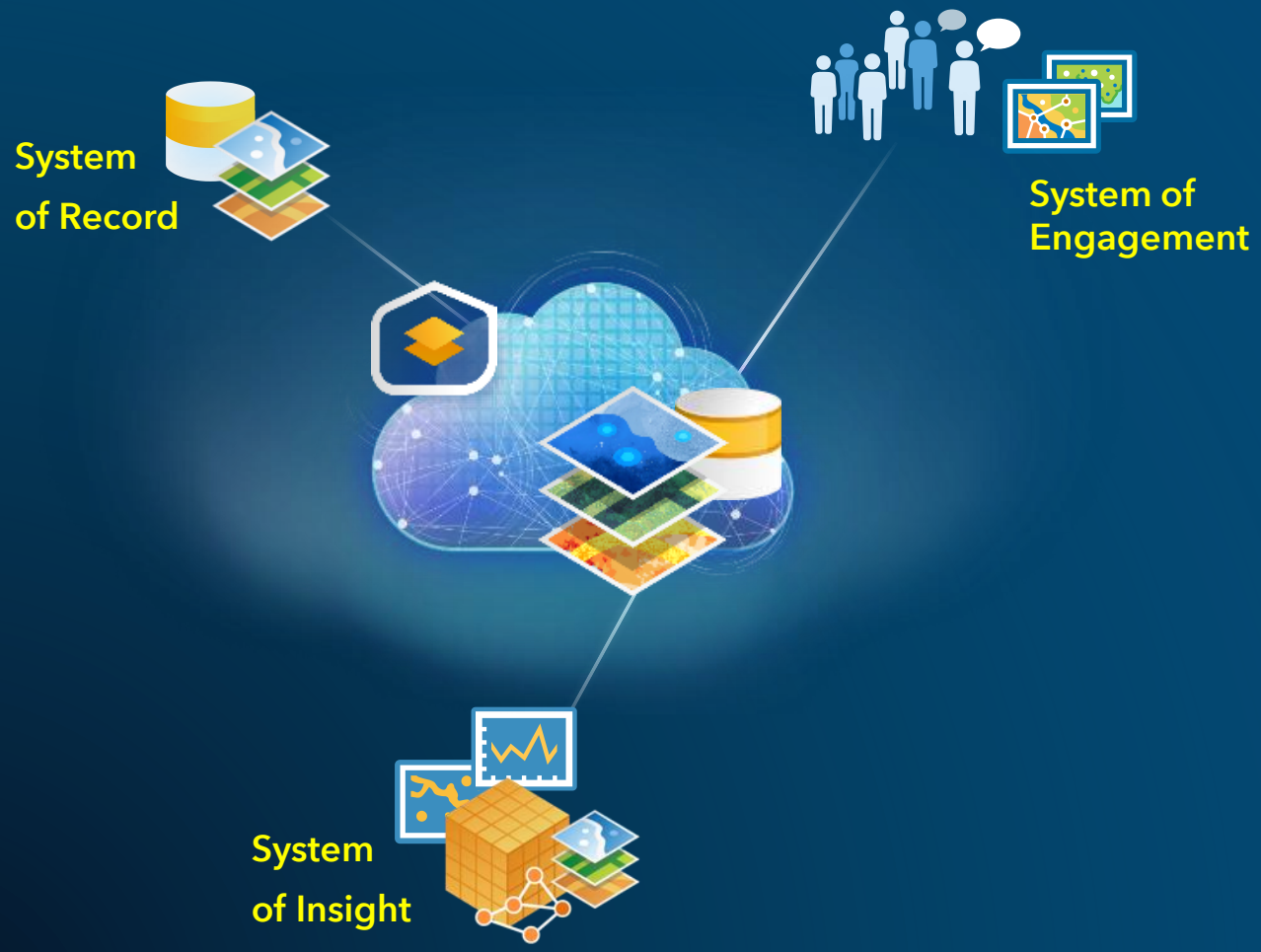
5000+ Customers spanning multiple industries

E-GOVERNANCE
DISASTER MANAGEMENT
DEFENSE/SECURITY
INSURANCE
TELECOMMUNICATIONS
WATER
URBAN PLANNING
REMOTE SENSING
BANKING
INFRASTRUCTURE
LAND RECORDS
OIL & GAS
NATURAL RESOURCES
EDUCATION
AGRICULTURE
TRANSPORTATION
ENVIRONMENT
WATER RESOURCES
MANUFACTURING
ENERGY/POWER
HUMAN HEALTH
and many more…

Esri India Office Locations

Direct sales coverage

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

System of Engagement

- Enterprise collaboration
- Empowers Work force
- Integrates all types of data
- Tracking and Navigation
- Real time communication

Manages and promotes user collaboration and interaction…

Enterprise Systems Characteristics

- Modular, Flexible, Function driven
- Centralized Database and near-Realtime operations
- One Map, Multiple Apps
- Integrates Business groups/divisions
- Enables efficient Data gathering and aggregation
- Transparent Records maintenance

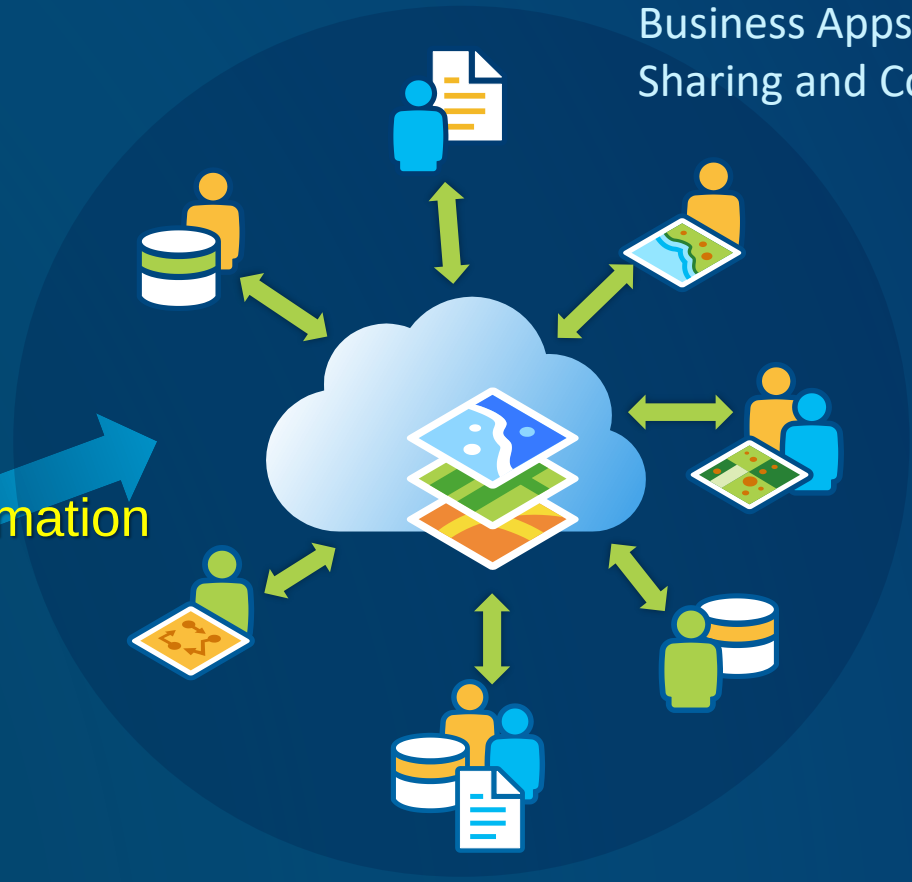
Traditional GIS Vs Enterprise GIS

Disparate Deployment
Point Solutions
Limited Functionalities

Business specific Deployment

Transformation

Enterprise Platform
Business Apps
Sharing and Collaboration

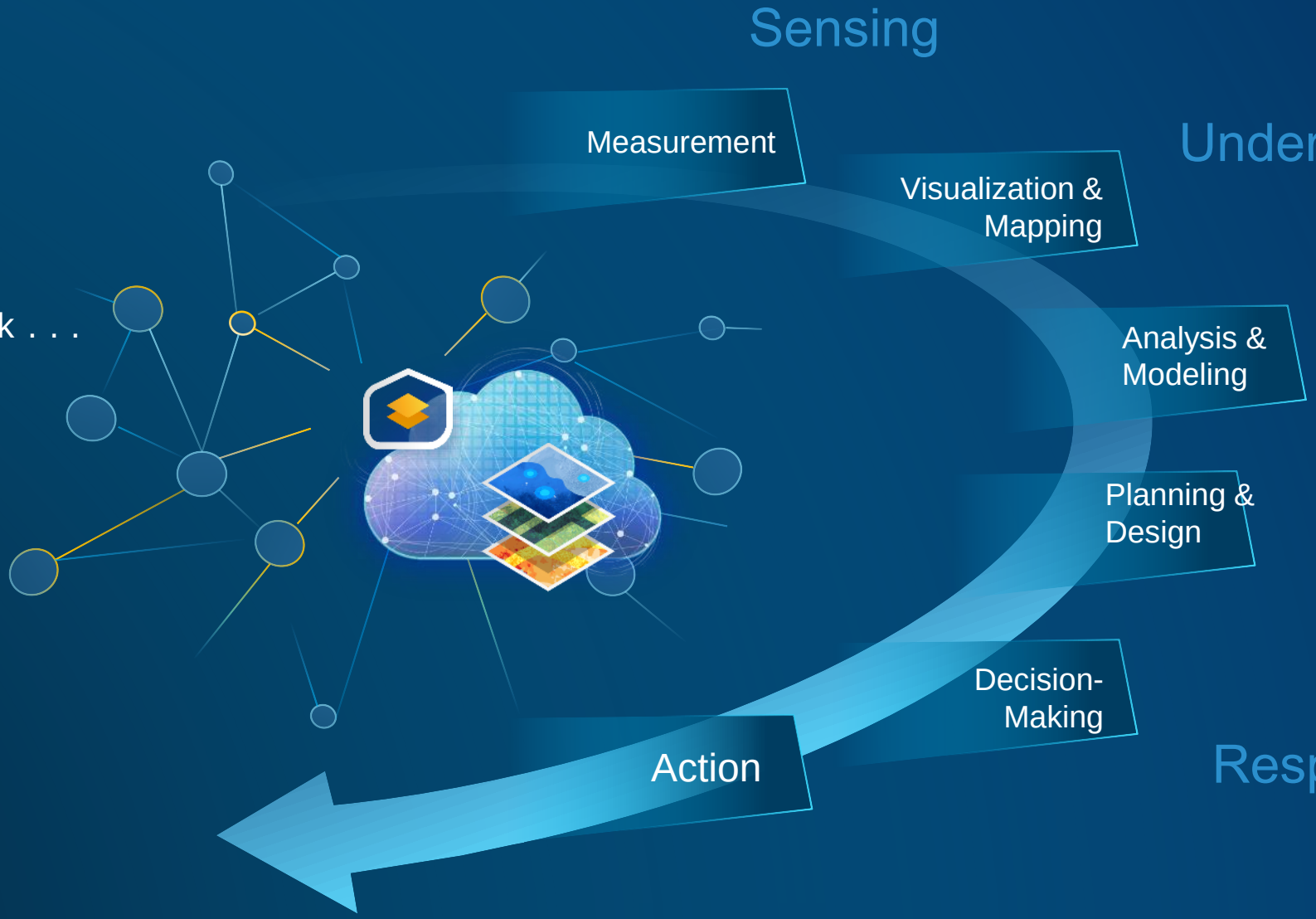


Empowering Organizations and Breaking Down Barriers

THE SCIENCE OF WHERE

Provides the Framework . . .

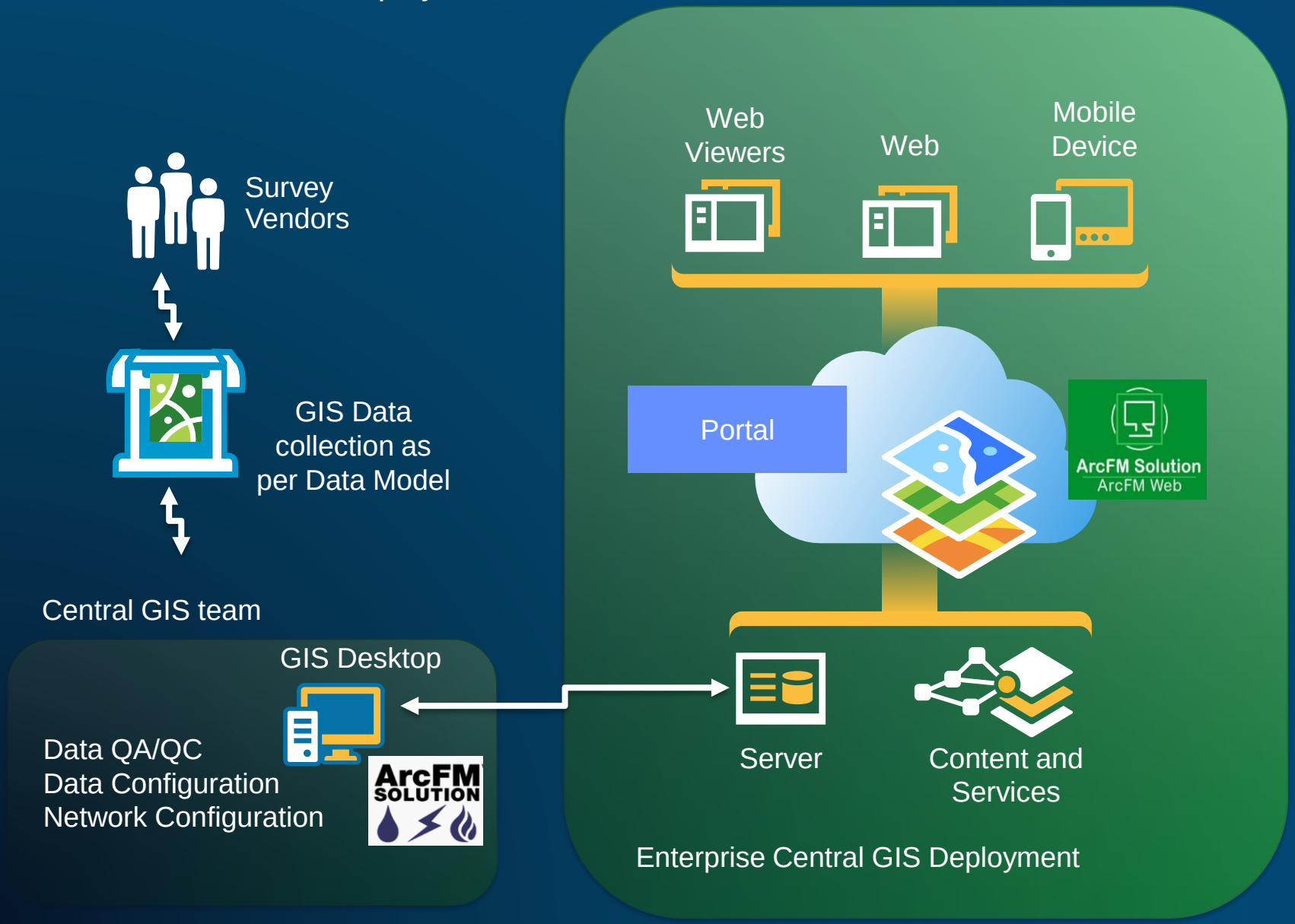
. . . And Process



The Foundation for a Geospatial Infrastructure

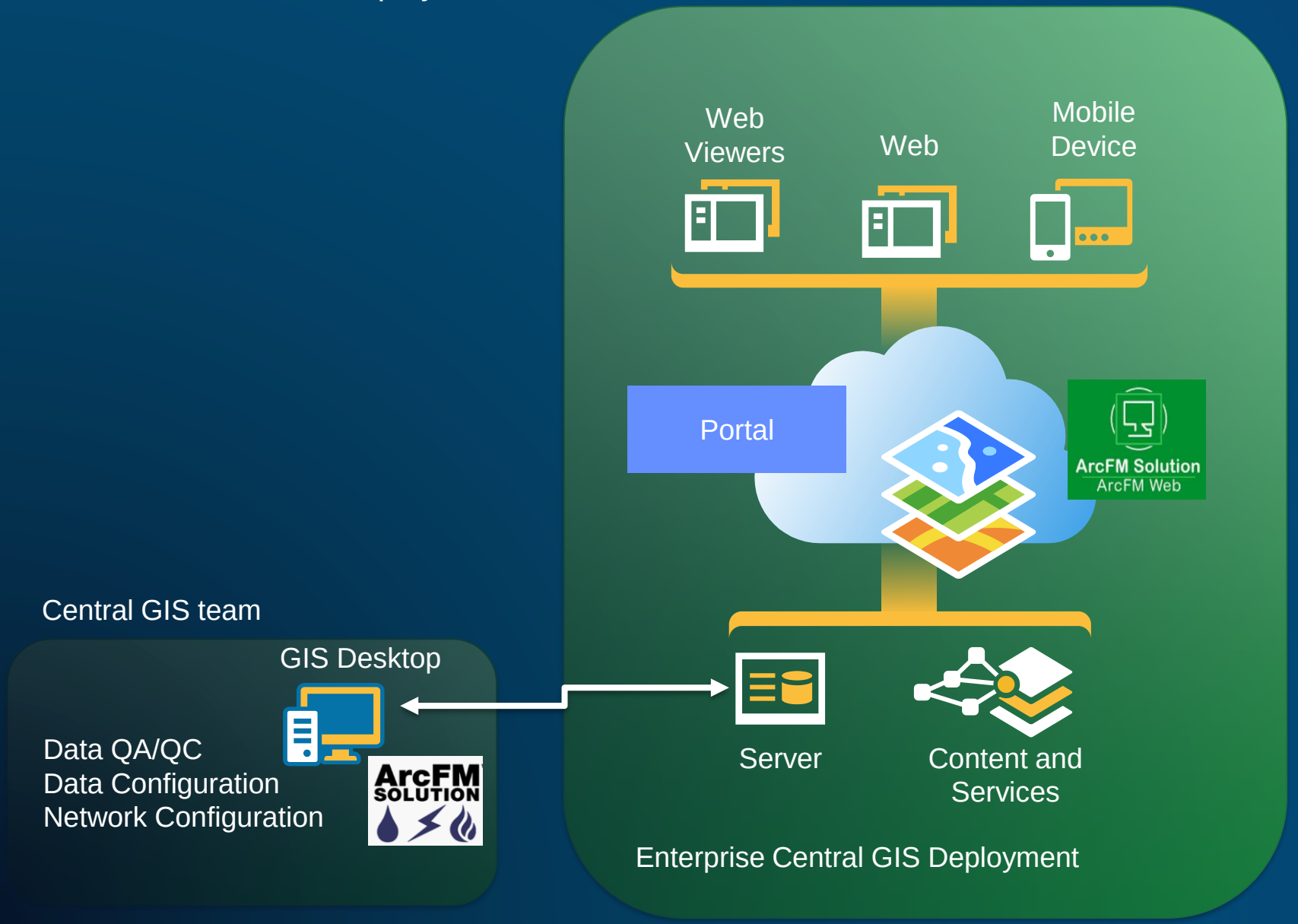
Enterprise GIS for City Gas Management

Enables centralized deployment



Enterprise GIS for City Gas Management

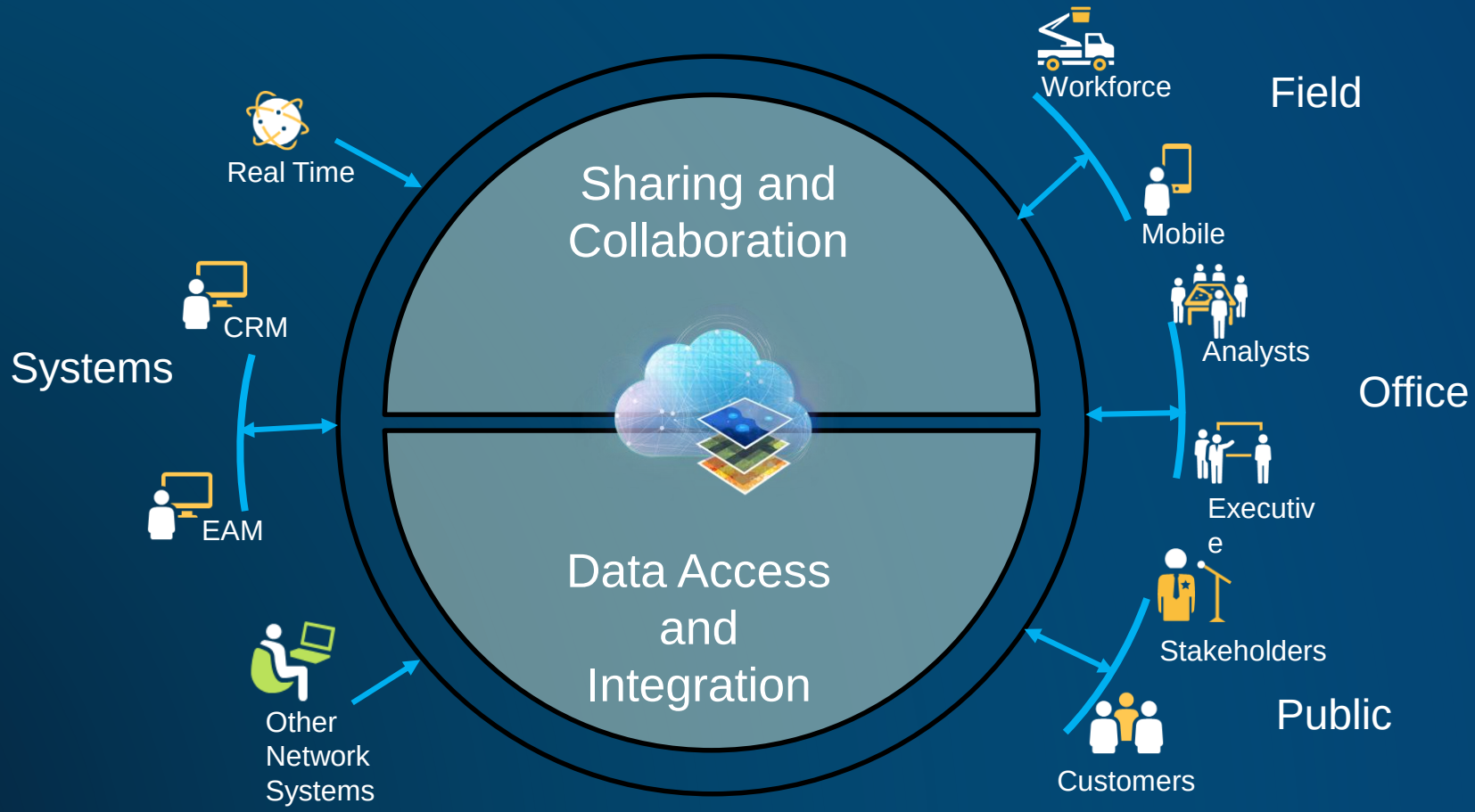
Enables centralized deployment



- Central Database
- Common Data model
- Optimized GIS infrastructure
- Ease of Maintenance
- Increased productivity
- Efficient resource utilization
- Effective user management
- Enterprise Security

ArcGIS for Utilities | A Complete GIS

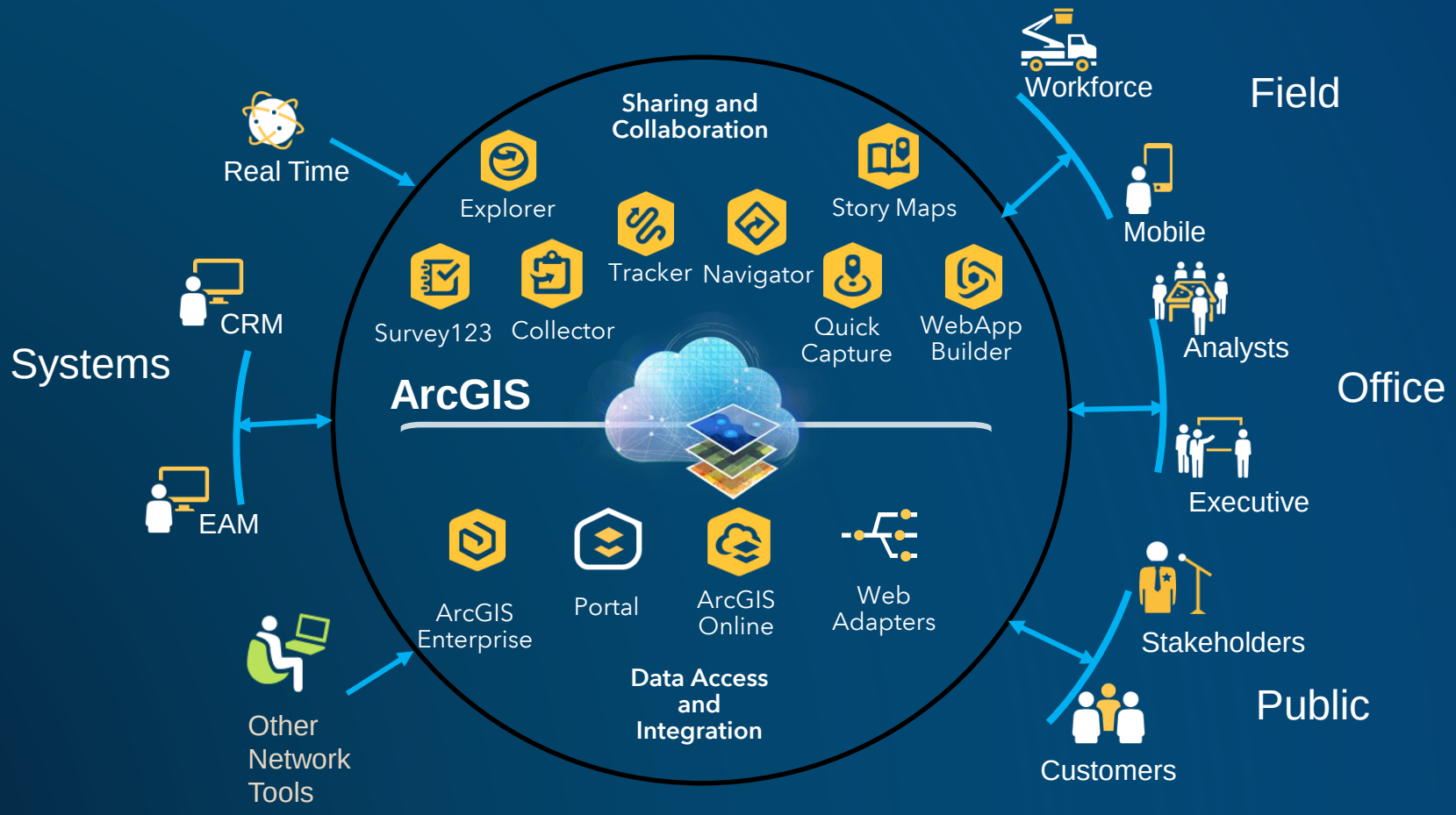
System of Engagement



Manages and promotes user collaboration and interaction…

ArcGIS for Utilities | A Complete GIS

System of Engagement



Manages and promotes user collaboration and interaction…

ArcGIS for Utilities | A Complete GIS

Unified Access- Common Operating Picture

Managers

- Network Planning
- Reporting & Compliance
- Network Management

Field Users

- Leak Reporting
- Customer Service
- Damage Assessment

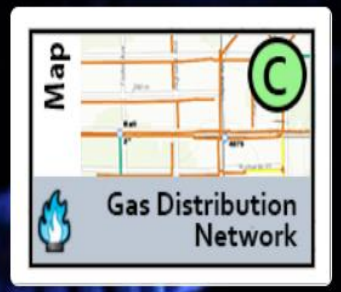
Executive users

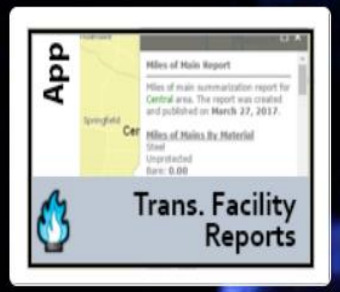
- Operations Dashboard
- Network Performance
- Outage Management

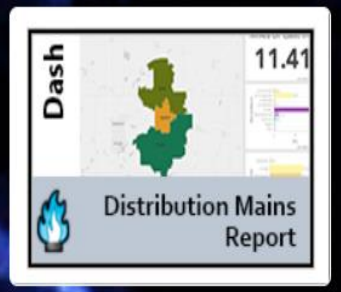
Administrators

Spatially Enabling Your Business

ESRI NATURAL GAS







Distribution

Transmission

Storage

Battle Creek Energy is an Esri Industry Demonstration Portal for the **Gas Utilities Industry Team**. This demonstration portal is used by Esri's global business development and sales team. Refer to the Start Here link below to get started with the Patterns & Practices Sales Enablement Resources or to access additional industries. For more information on how to use this demonstration portal, please read the User Guide below. For any questions or comments please contact the admin of this org, Jessica Altamira, at jaltamira@esri.com

Industry Overview

Network Modernization

Safety

Asset Management

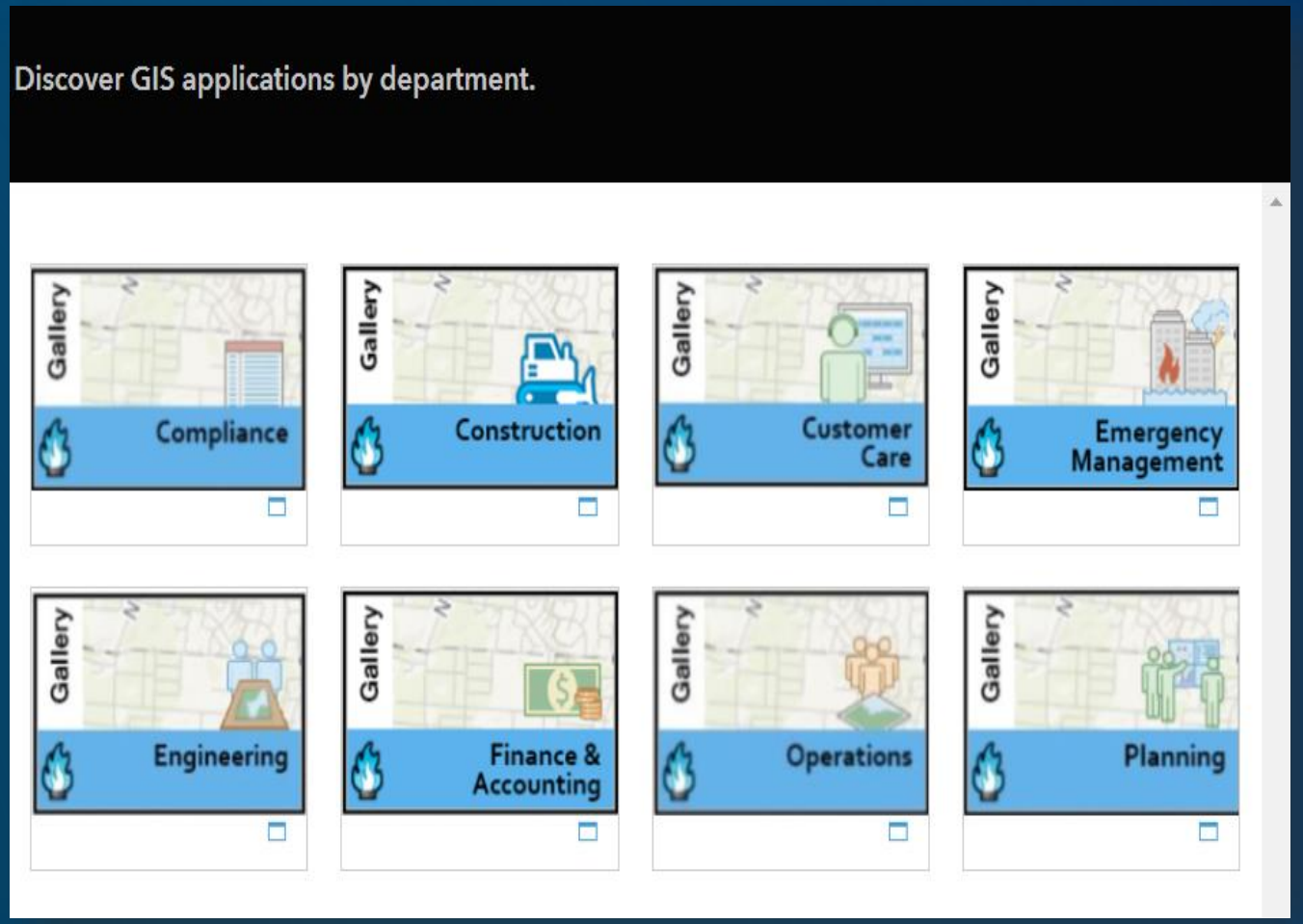
Customers

Innovation

City Gas Network Management

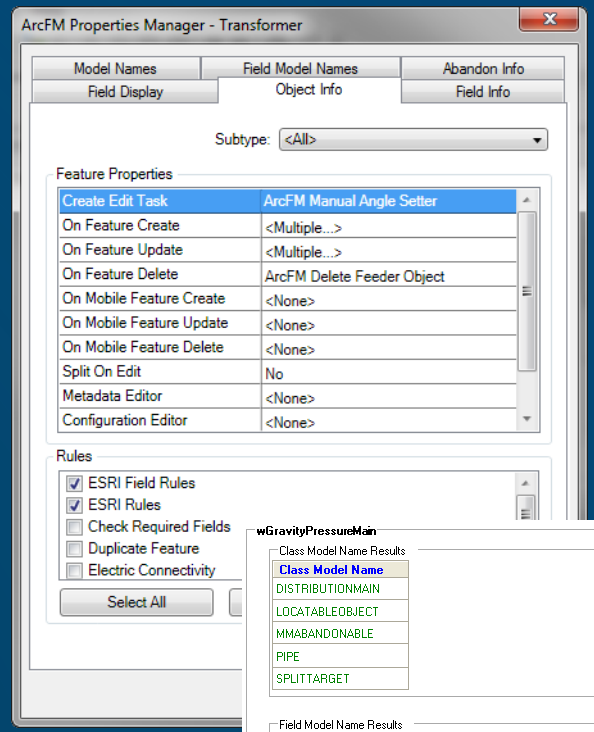
GIS Administration Portal

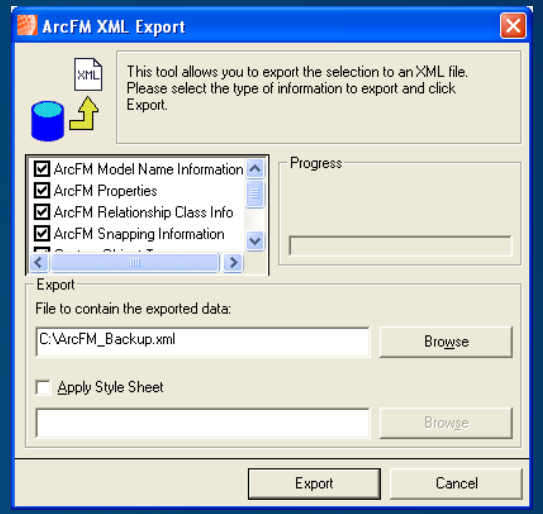
- User registration
- User management
- Group management
- Privileges management

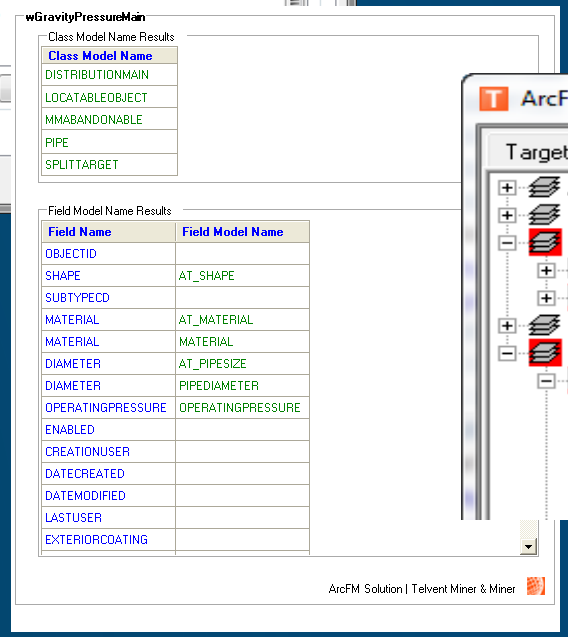


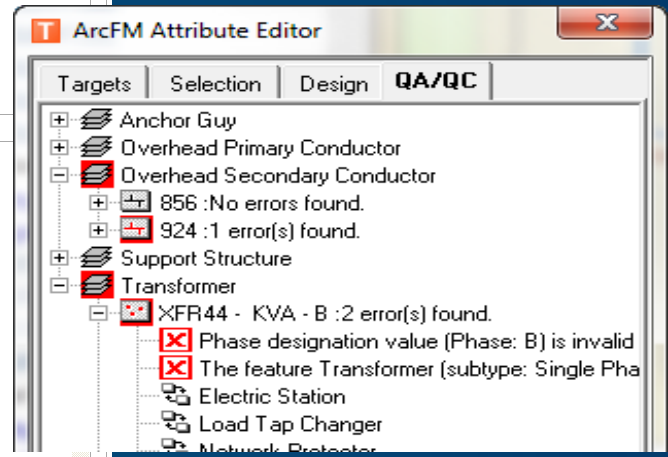
City Gas Network Management

- Distribution specific Automated Business Logic
- Data Integrity Rules
  - ❖ Key Attributes
  - ❖ Open framework
  - ❖ Integration with other business systems.
  - ❖ Configurable business workflows





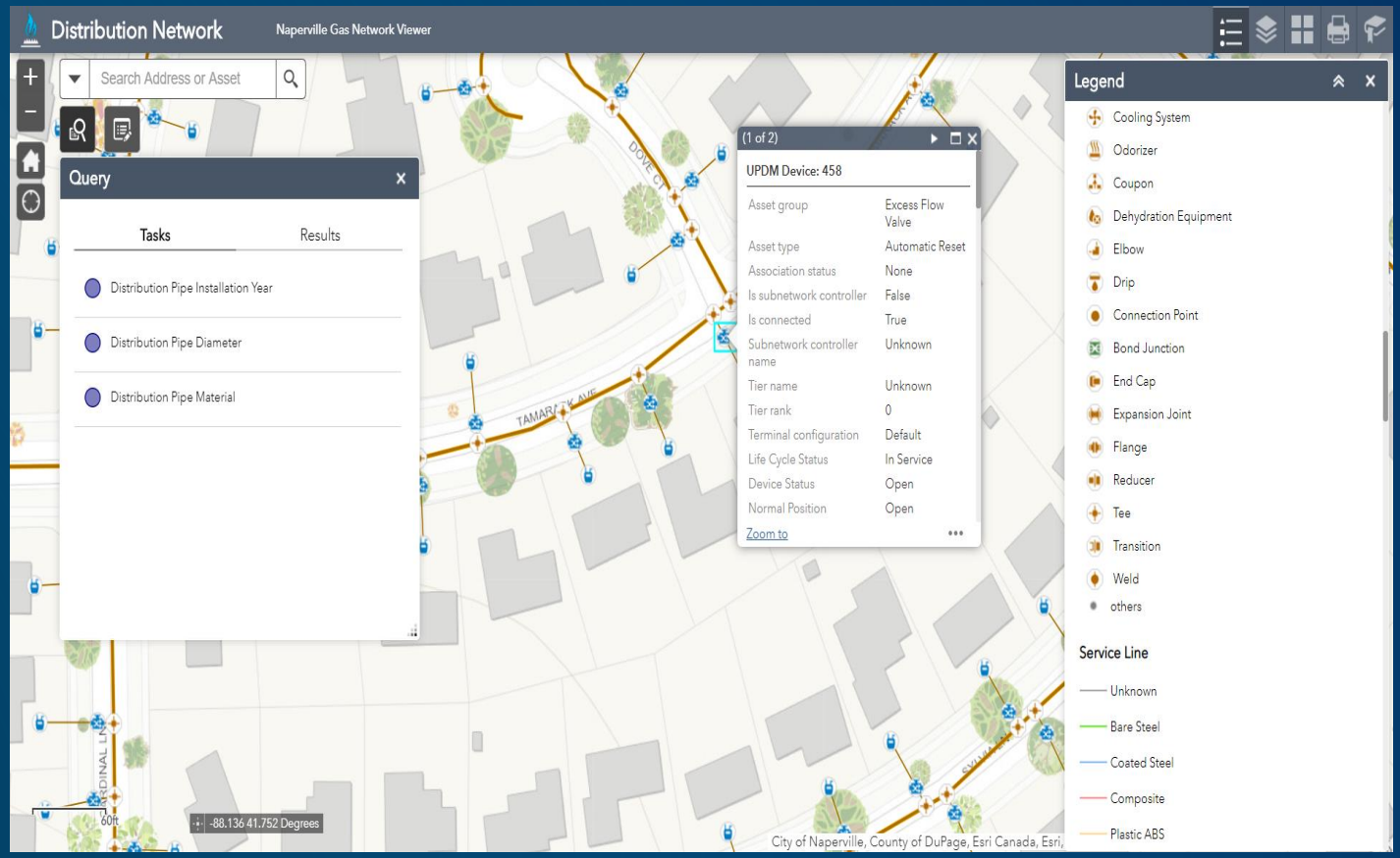




City Gas Network Management

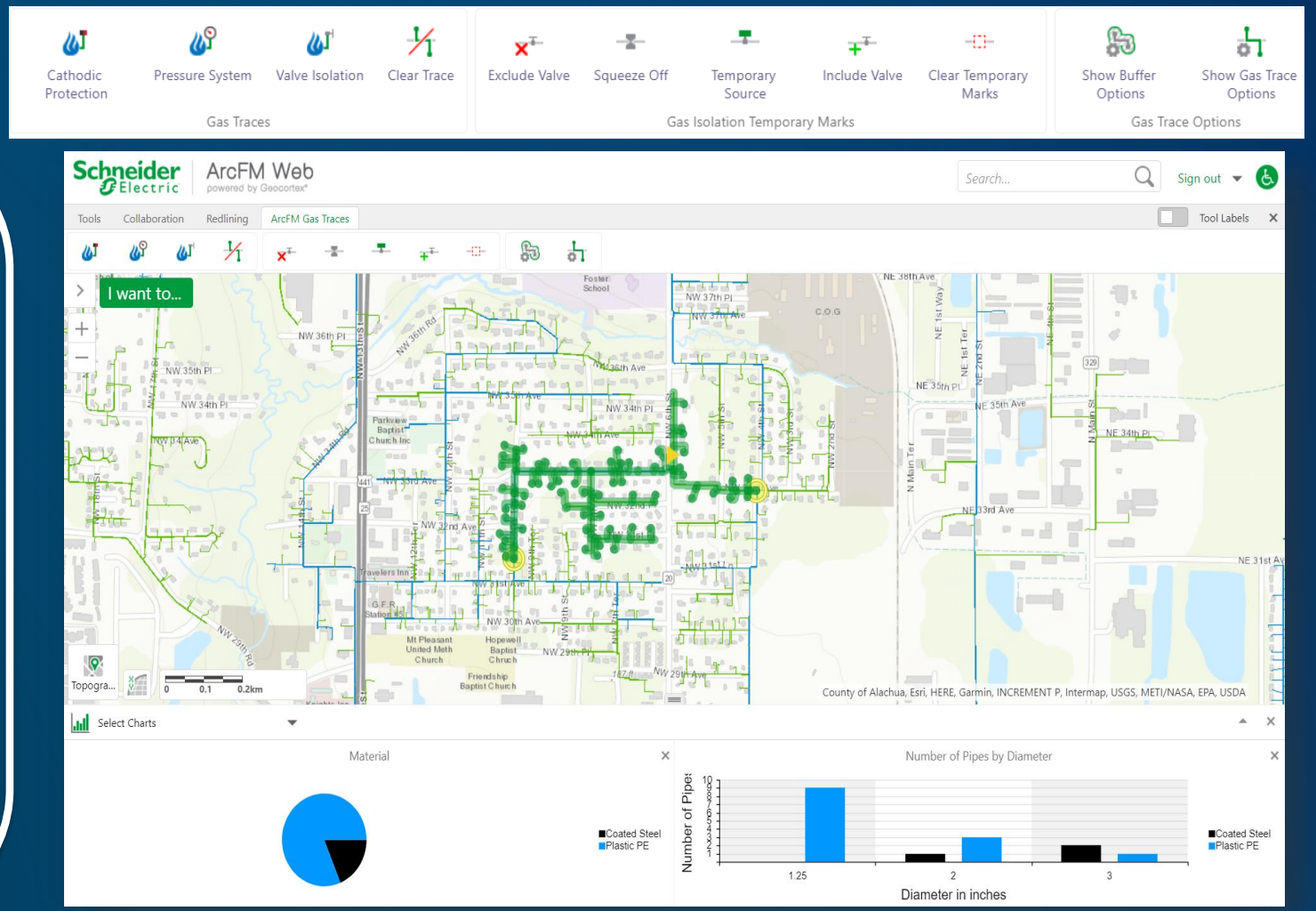
GAS Network View with standard operations

- Legend and Layer management
- Zoom, Pan,
- Measure
- Search
- Query (predefined)
- Export
- Near By
- Print



City Gas Network Management

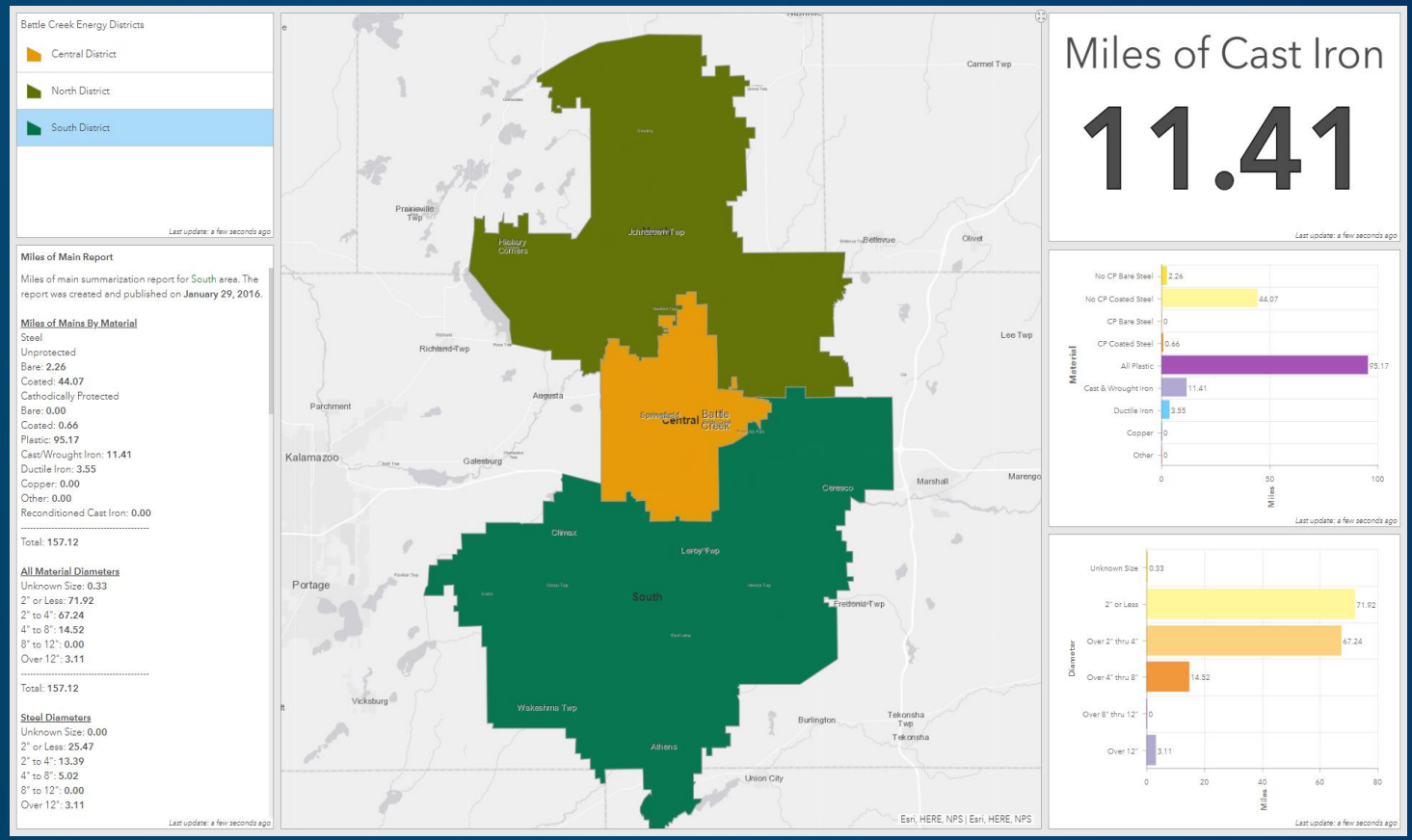
- Intelligent Advance network Management and Analytics for Gas Distribution.
- Gas Tracing functions
  - ❖ Valve isolation Traces
  - ❖ Pressure Tracing
  - ❖ Cathodic protection Traces
  - ❖ Squeeze Off Traces



City Gas Network Management

Configurable Web, Mobile and Dashboards for Operations and Maintenance

- Dashboards:
  - ❖ Network Visualization
  - ❖ Network Components
  - ❖ GA wise network summary
  - ❖ Damage Assessment
- Field Inspection Apps



City Gas Reporting

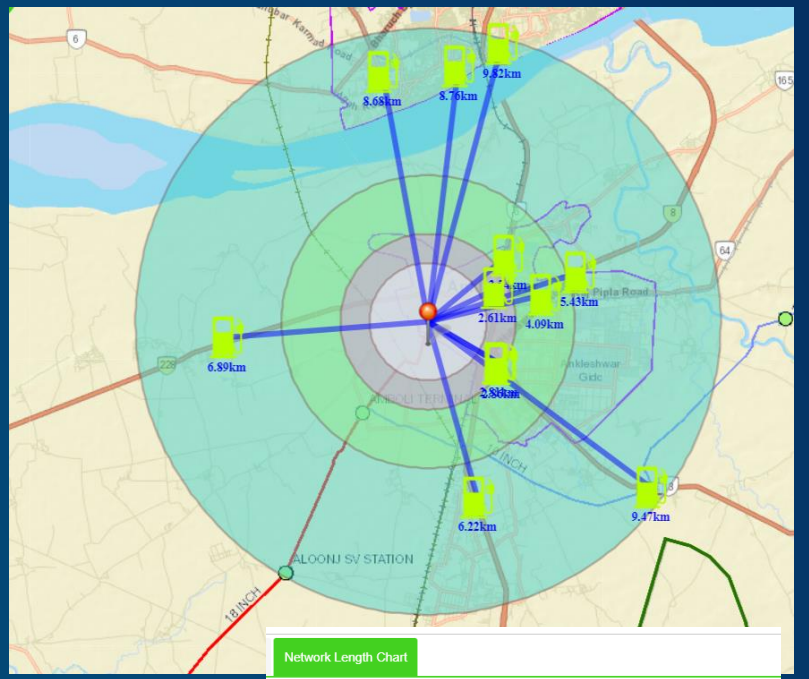
- Regulatory Compliance Reports
- Customer Information Reports
- Geographical Area Reports
- Valve and CNG station Reports
- Potential Customer Reports
- Leak/Damage Reports
- Network Length Reports

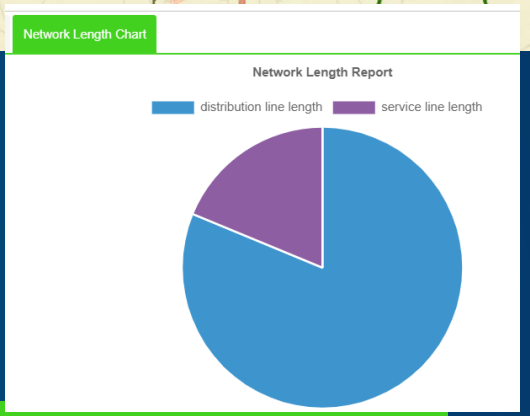
Schneider Electric | ArcFM Web

Customer Information Report

Report generated 10/26/2020 5:51:06 AM

Name:	HARDYMAN JEFFREY S & DOROTHY
Account:	E5000226884
Address:	4400 NW 23RD AVE, STE E
City:	Schneiderville
Phone:	431-5526
Name:	TWOHIG JOHN M
Account:	E5000226218
Address:	4400 NW 23RD AVE, STE D
City:	Schneiderville
Phone:	831-9438
Name:	TWOHIG JOHN M
Account:	E5000226218
Address:	4400 NW 23RD AVE, STE D
City:	Schneiderville
Phone:	831-9438
Name:	FONCECA JULIE & LINDA S
Account:	E5000226064
Address:	4400 NW 23RD AVE, STE A
City:	Schneiderville
Phone:	395-4679
Name:	FONCECA JULIE & LINDA S
Account:	E5000226064
Address:	4400 NW 23RD AVE, STE A
City:	Schneiderville
Phone:	395-4679





NETWORK LENGTH REPORT

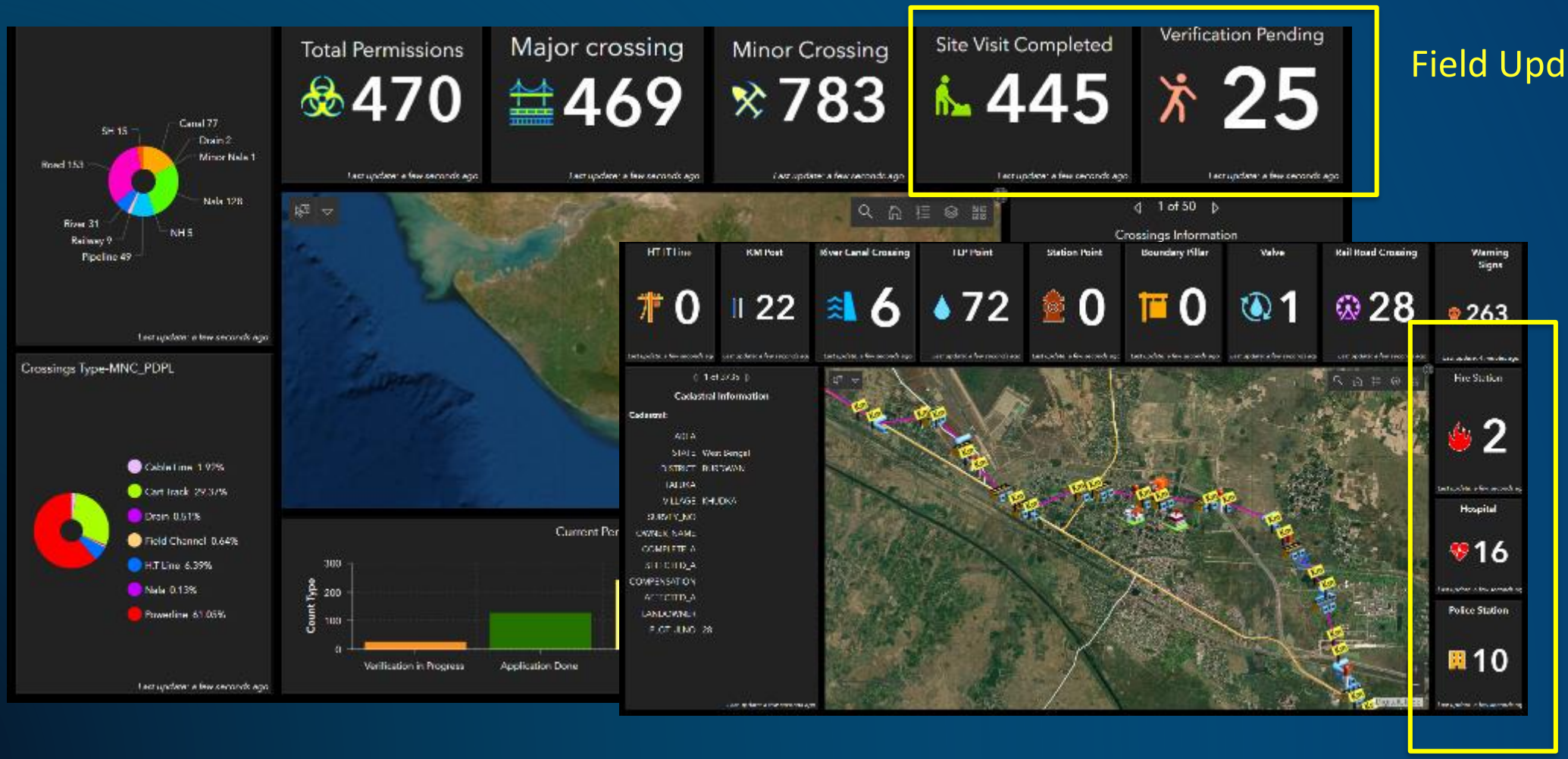
Network Length Report | Network Length Summary | Network Length Chart

Network Type	Total Length Count(in Meters)
distribution line length	452182.837 [steel mains : 61509.343] [polyethylene : 390744.656]
service line length	104504.212 [polyethylene : 101670.343]

Export Report

Enterprise GIS | Geo-Enabling Operational Efficiency

Project Management



Field Update

Emergency Management

City Gas - Asset Management Dashboards

Gas Valves

61

Last update: a few seconds ago

Fire stations

3

Last update: a few seconds ago

Hospitals

13

Last update: a few seconds ago

Education Institutes

57

Last update: a few seconds ago

Police Station

1

Last update: a few seconds ago

Govt. Offices

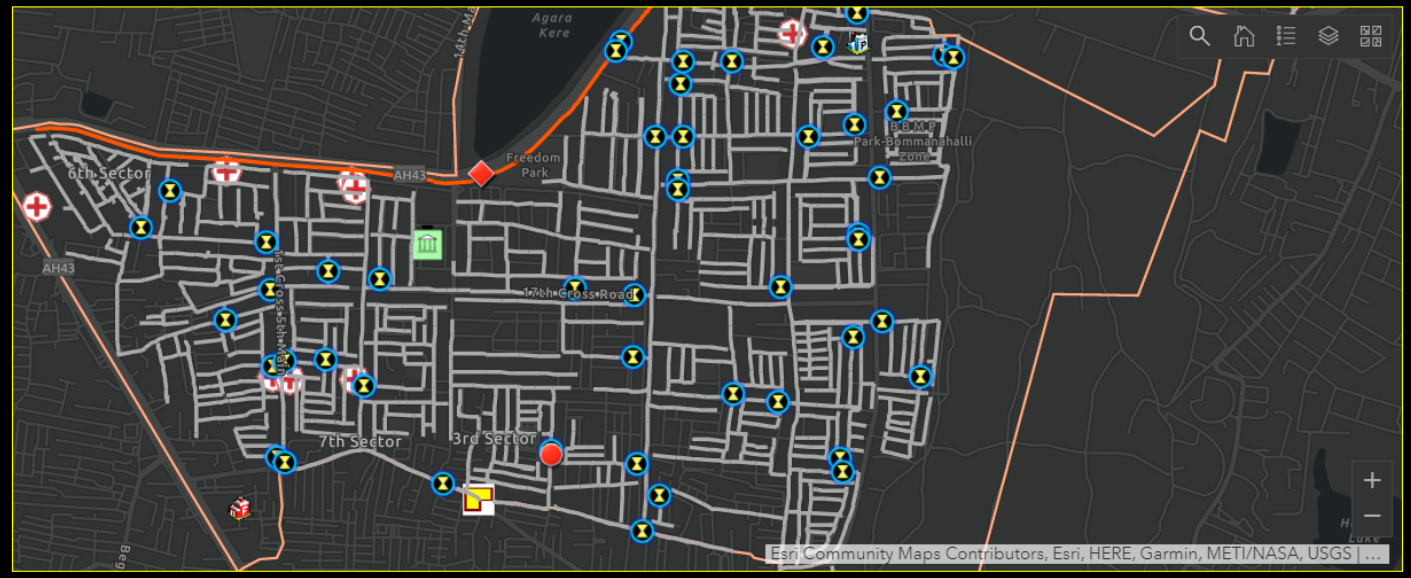
1

Last update: a few seconds ago

Gas Fittings

2,850

Last update: a few seconds ago

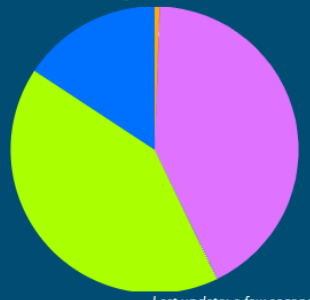


Leak Reported

4

Last update: a few seconds ago

Installation Type of Pipeline



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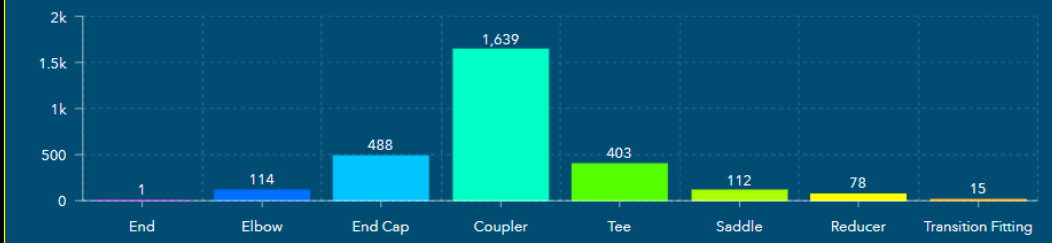
Type of Fittings



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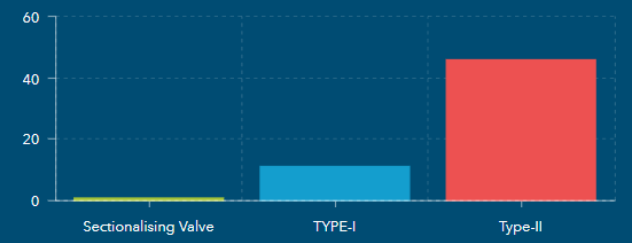
Type of Valves



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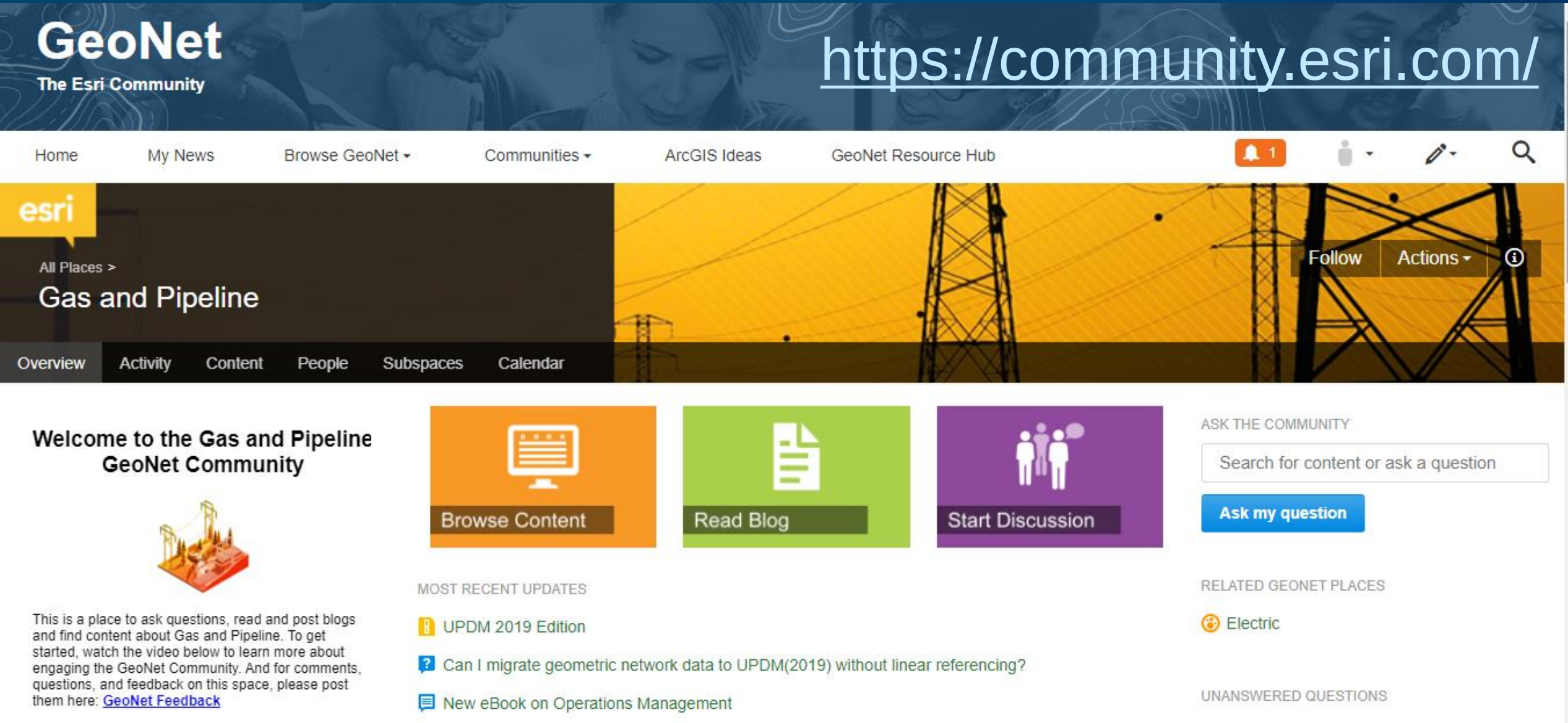
Upcoming Webinars

Register at https://www.esri.in/en-in/industries/utilities/webinars

Join GeoNet Community - Connect, Collaborate and Share experiences

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



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