Improving Gas Equipment Inspections Using GIS
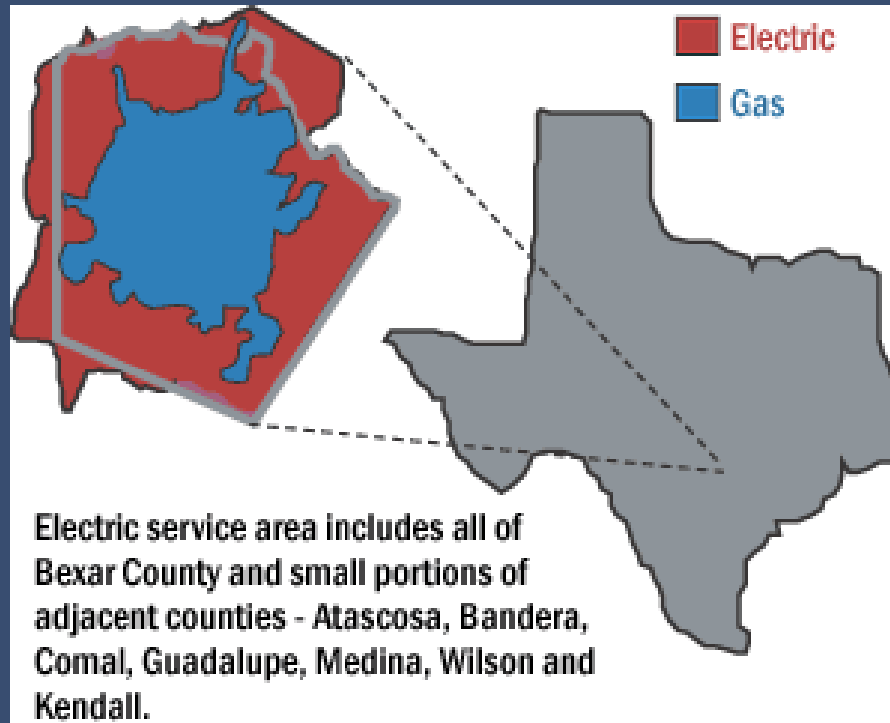
ArcFM Viewer , SAP, and Ventyx Integrations

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CPS ENERGY ®

San Antonio

Electric service area includes all of Bexar County and small portions of adjacent counties - Atascosa, Bandera, Comal, Guadalupe, Medina, Wilson and Kendall.

- Nation's Largest Municipally Owned Utility serving Gas and Electric

- Over 330,000 Gas Customers

- 5155 miles of Distribution Gas Mains
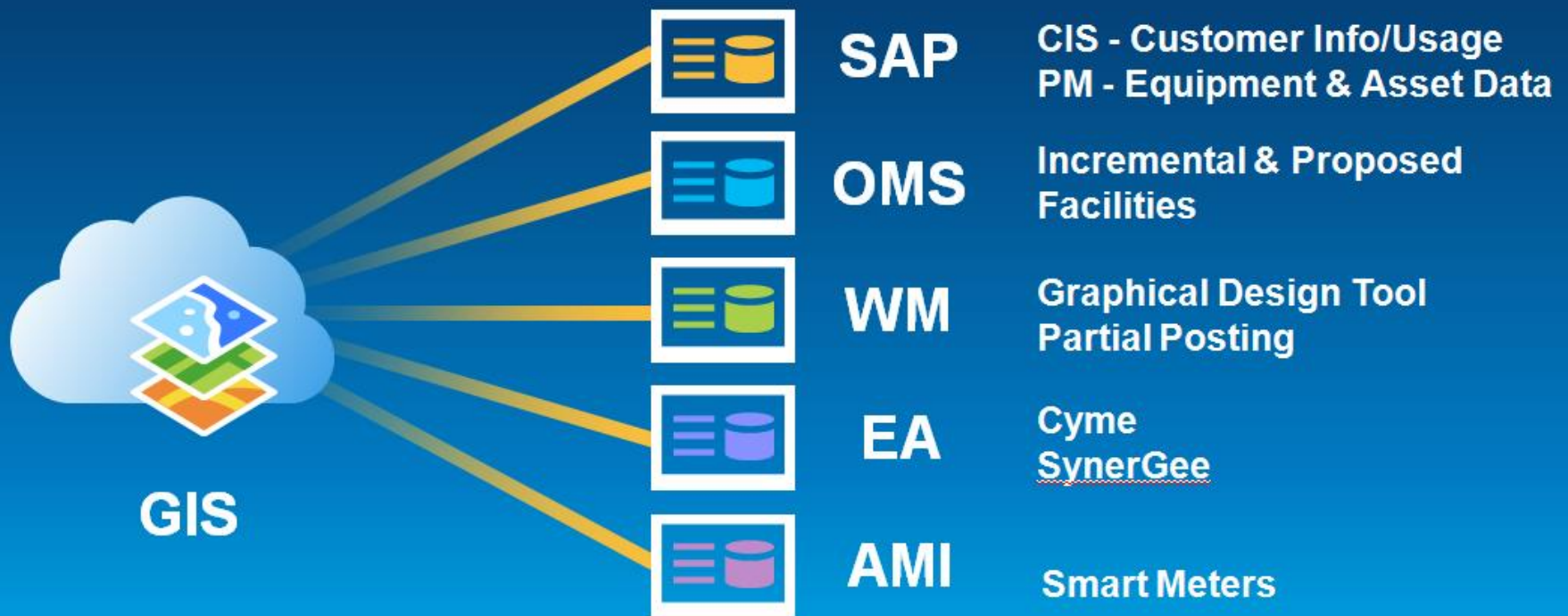
- 90 miles of Transmission Gas Mains

Highlights

- 741,467 Electric Customers

- 12,506 miles of Distribution

- 1,511 miles of Transmission

- Schneider ArcFM Designer 9.3.1

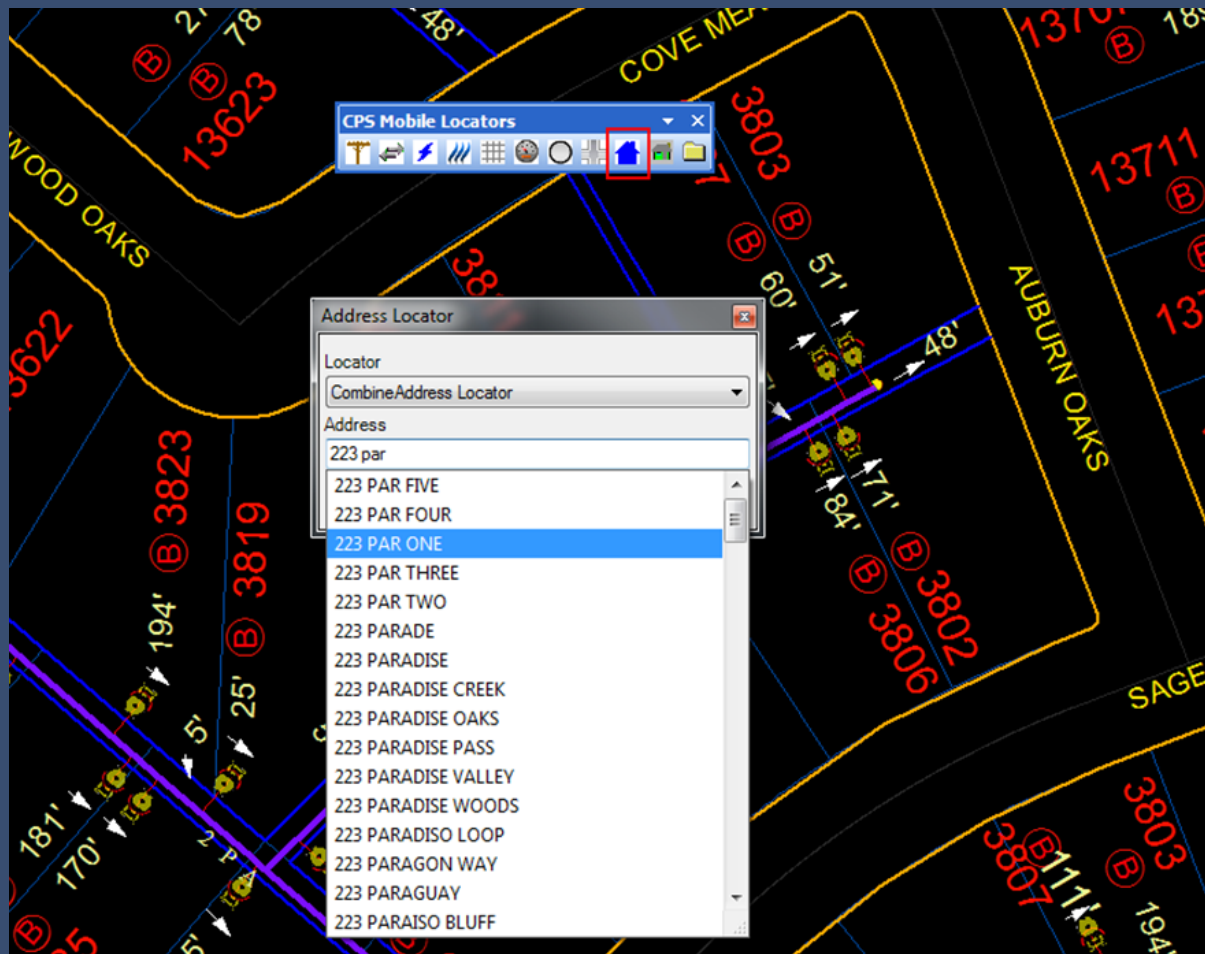# Interfaces

Enterprise GIS & Spatial Integration

GIS

SAP — CIS - Customer Info/Usage / PM - Equipment & Asset Data

OMS — Incremental & Proposed Facilities

WM — Graphical Design Tool / Partial Posting

EA — Cyme / SynerGee

AMI — Smart Meters

Mobile GIS

- Schneider's ArcFM Viewer

- Replication of Electric, Gas and Land

- Over 400 Mobile Users

CPS ENERGY®

Locate by Meter

Locate by Address

Memphis 2002

Overview

- Mobile Data upgrade opportunity

- Utilize SAP PM

- ArcFM Viewer and Ventyx interface

- Store in Service Suite Historical DB

Send Gas Data to SAP

➢ Added Gas Data to SAP PM process

1. Valves
2. Regulators
3. Odorizer Station

Mobile Data Inspection Forms

- Carbon Monoxide Complaint

- Casing Vent

- System Regulator Inspection

- Valve Inspection

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AN ABB COMPANY

Get Map Workflow

➢ Current Method

➢ Orders originate in SAP with a ping to GIS

➢ Orders Created in Service Suite

➢ Dispatched to Mobile User

➢ Option to Identify Orders on Map (Green House)

Get Map Workflow

Get Map

Why Extend the Ventyx / Schneider Integration?

- Take advantage of key application strengths

- Scheduling of maintenance activities through orders

- Deriving feature metrics e.g. what has or has not been inspected by planned inspection dates

- Deriving personnel performance metrics e.g. who has or has not met planned inspection dates

Tech Order Create Workflow

- Modified Method

- Orders Created in Mobile Application by Field Tech

- Option to Select UAIs from Map. Forms are auto-created and filled with data from selection.
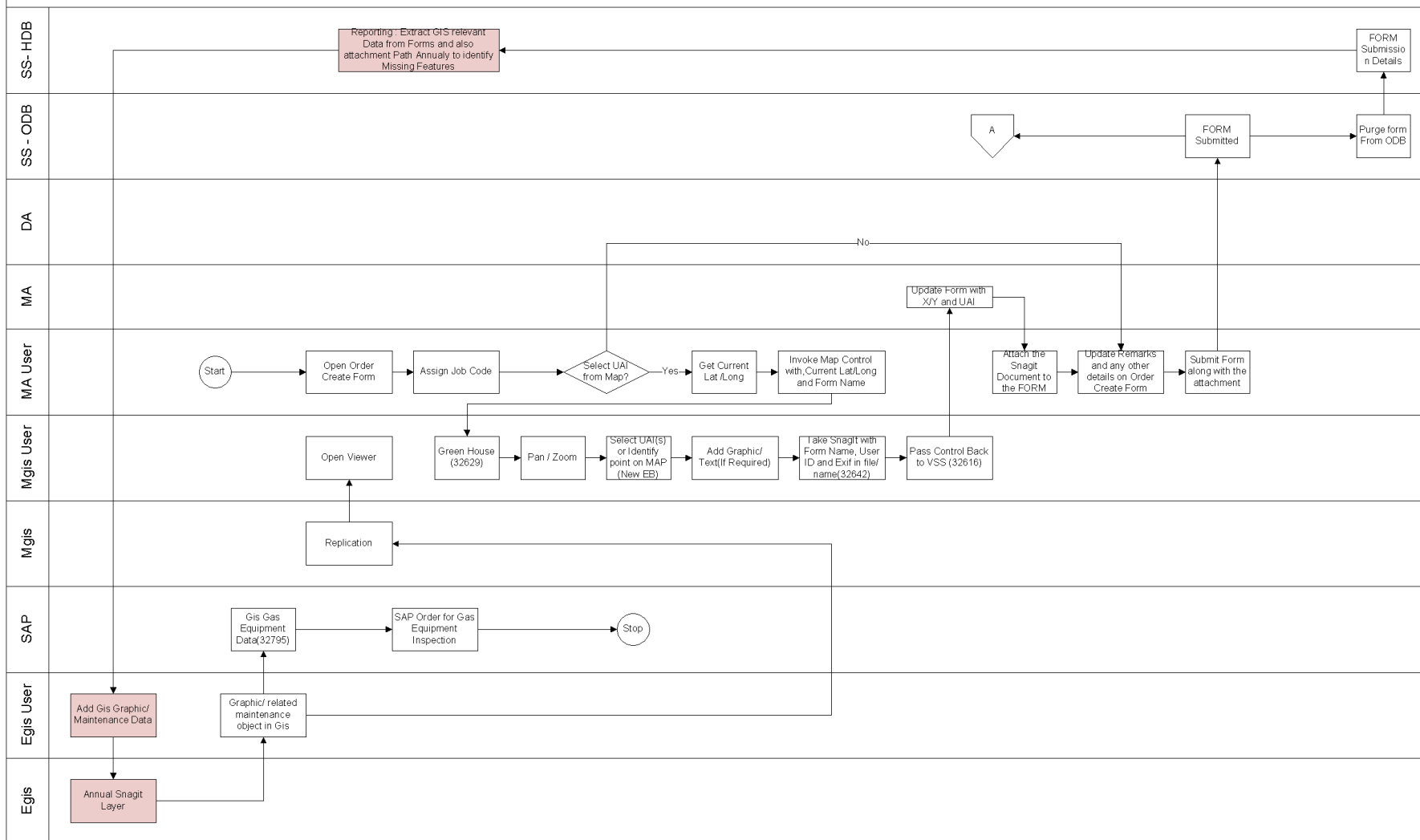
- Text and Graphic markups in ArcFM Viewer and Snagit for missing GIS features

- Route to Service Suite Historical DB

- Send Snagit with Exif to GIS

Tech Order Create Workflow

MDS Upgrade Gas Maintenance Forms: Tech Order CREATE Workflow

SS- HDB	Reporting : Extract GIS relevant Data from Forms and also attachment Path Annualy to identify Missing Features — FORM Submission Details
SS - ODB	A — FORM Submitted — Purge form From ODB
DA	No
MA	Update Form with X/Y and UAI
MA User	Start → Open Order Create Form → Assign Job Code → Select UAI from Map? → Yes → Get Current Lat /Long → Invoke Map Control with,Current Lat/Long and Form Name → Attach the Snagit Document to the FORM → Update Remarks and any other details on Order Create Form → Submit Form along with the attachment
Mgis User	Open Viewer — Green House (32629) → Pan / Zoom → Select UAI(s) or Identify point on MAP (New EB) → Add Graphic/ Text(If Required) → Take Snagit with Form Name, User ID and Exif in file/ name(32642) → Pass Control Back to VSS (32616)
Mgis	Replication
SAP	Gis Gas Equipment Data(32795) → SAP Order for Gas Equipment Inspection → Stop
Egis User	Add Gis Graphic/ Maintenance Data — Graphic/ related maintenance object in Gis
Egis	Annual Snagit Layer

SAP Order Workflow

- Modified Method

- Orders generated from SAP with UAI and asset info

- Sent to Service Suite and dispatched

- Field Tech will have pre-filled forms available

- Text and graphic markups in ArcFM Viewer and Snagit for missing GIS features

- Route to Service Suite Historical DB

- Send Snagit with Exif to GIS

SAP Order Workflow

MDS Upgrade Gas Maintenance Forms: Order Workflow
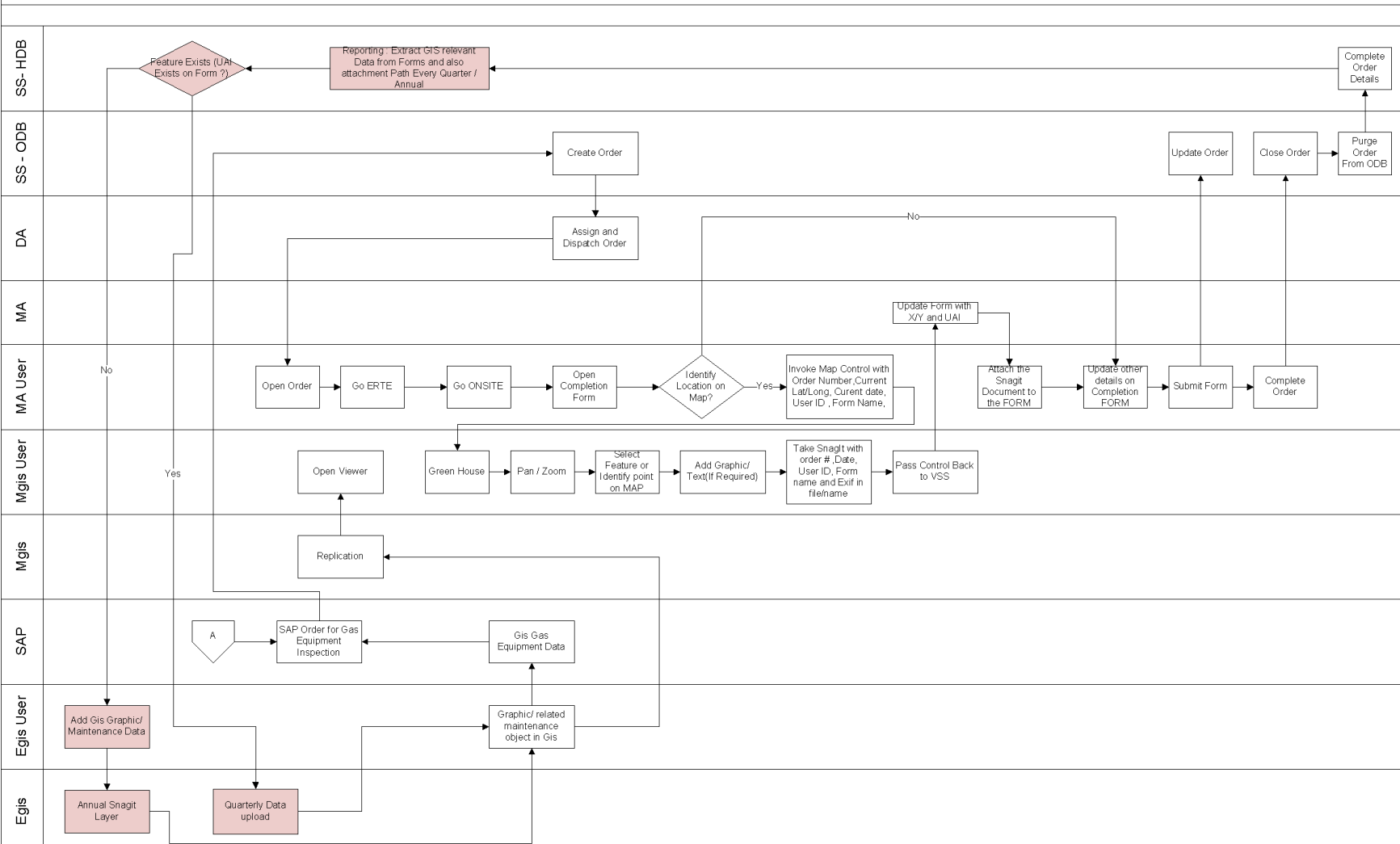
Customizations

➢ Auto-Updaters
  ◉ Send To SAP when Gas Features are edited

➢ Leveraged previous customization to SAP
  PM interface to be configurable
  ◉ Freedom to make changes without a change request

➢ Required additional Ventyx to ArcFM
  Viewer integration (more than GetMap)

Planned Integration

INSPECTION
&
MAINTENANCE
RECORDS

Service Suite
Historical DB
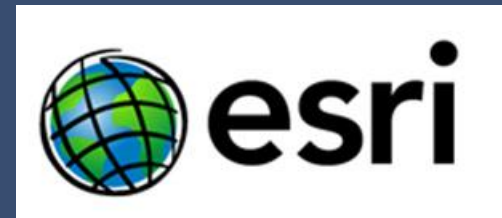
GIS

Conclusion

- Added new interfaces and modified workflows

- Provides for Gas Inspection Data in GIS to meet regulatory compliance

- Automate inspection schedules and derive performance metrics

- Questions, comments or suggestions?