



**GD Asset Management  
Geographic Information System**

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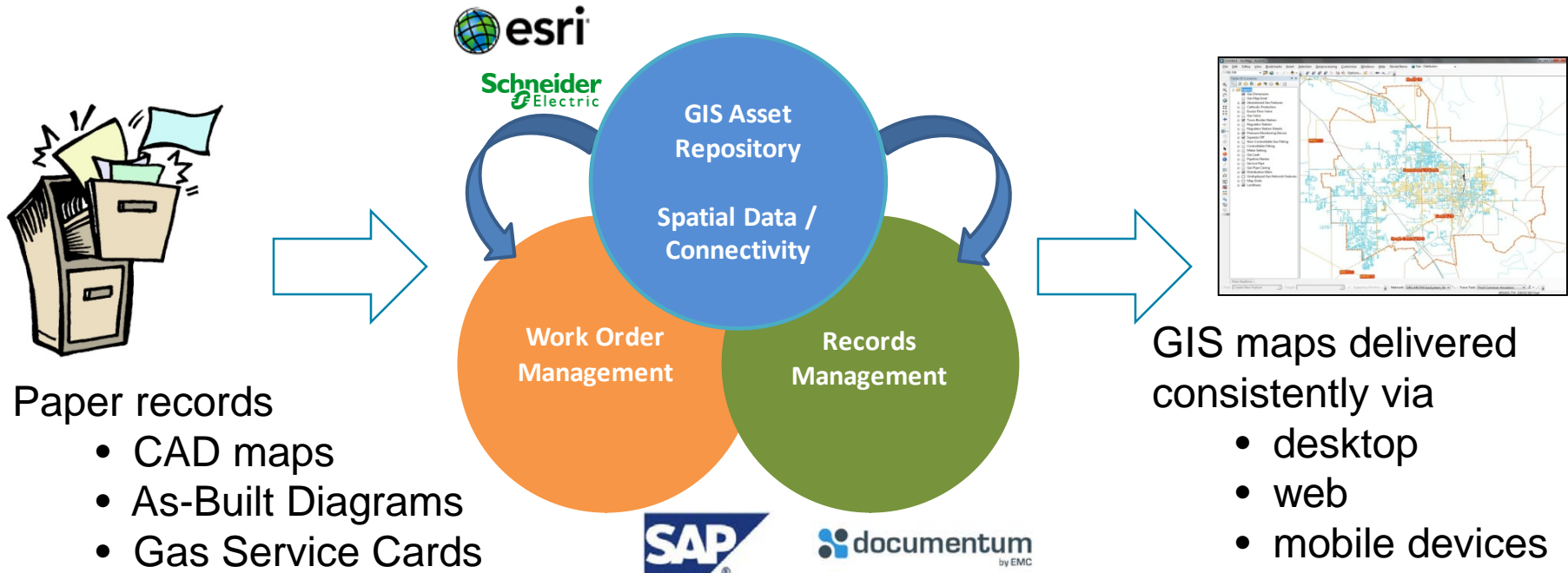
# **PG&E Pathfinder Gas Distribution GIS Lessons Learned**

**July 22, 2015**



- PG&E incorporated in California in 1905
- Serves about 15M people throughout a 70,000 square-mile service area
- ~ 42,000 miles of gas distribution pipeline
- 4.3M natural gas customer accounts
- Deliver 970 BCF / year

- The mission statement for our gas business is to become the safest, most reliable gas utility in the United States.
- The GIS-centric transformation programs that we are delivering establish the foundation for achieving this goal by delivering data that is **Verifiable**, **Traceable** and **Complete**



## Data Conversion / Data Maintenance

- Digitize ~ 22,000 CAD-based distribution plat maps
- Maintain asset connectivity model
- QA / QC tools to maintain data quality over time

## GIS / SAP / Documentum Integration

- Asset data and location
- Leaks / Leak Survey Areas
- Cathodic Protection Areas
- Work Order Status
- Gas Service Records

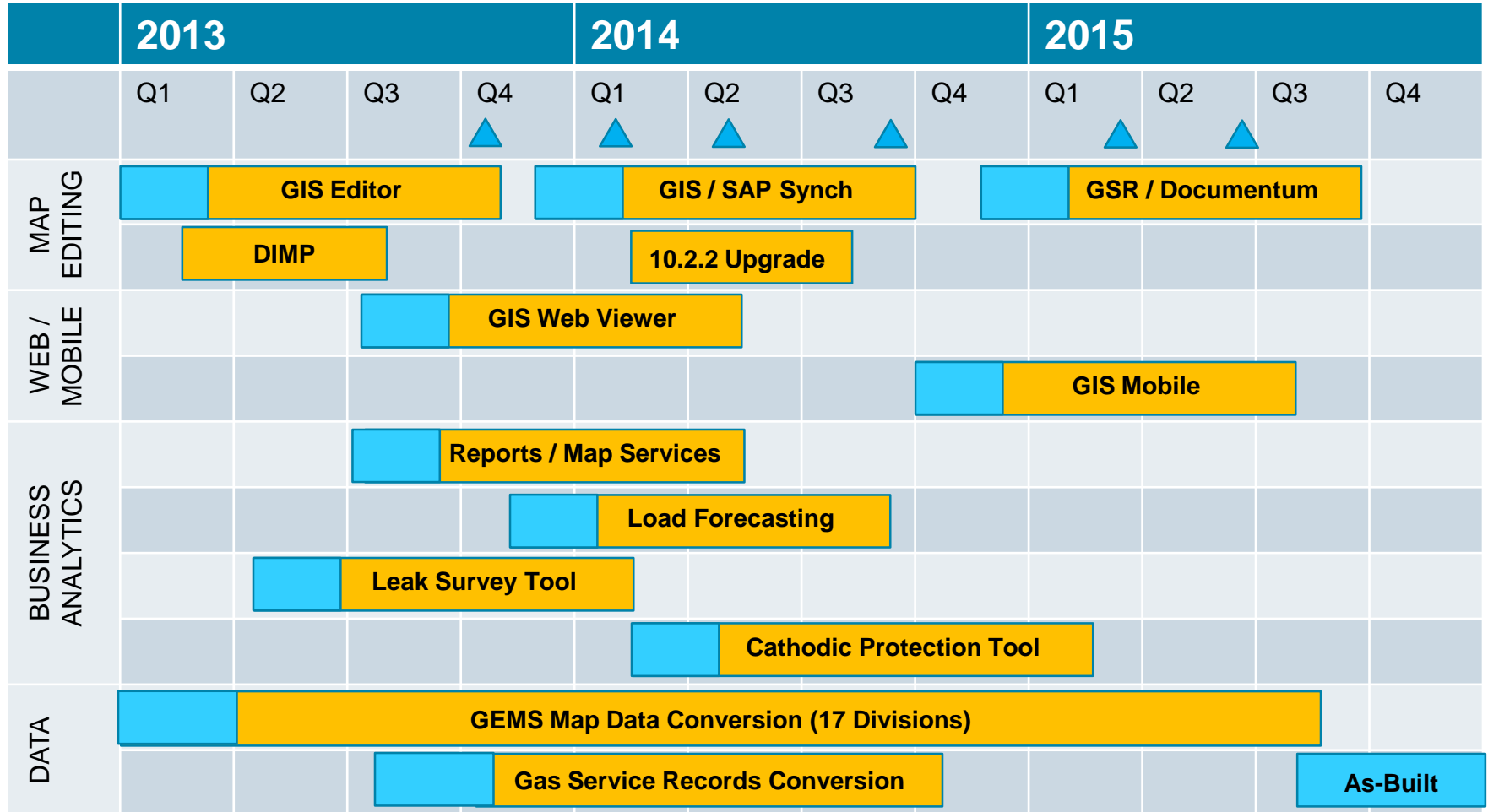
## GIS Web Viewer / Mobile Capabilities

- CAD Export
- Work-In-Progress (WIP) Clouds
- Gas Service Record search / retrieval
- CP Functional Area verification
- Pressure System verification

## Reporting and Analytics

- Single source of feature/attribute counts
- Provide visibility to risk-related features
- Support DOT report requirements
- Integrations to DIMP and Synergiee

*PG&E's GIS transformation is a complex effort requiring > 1M man-hours across 10+ delivery organization*



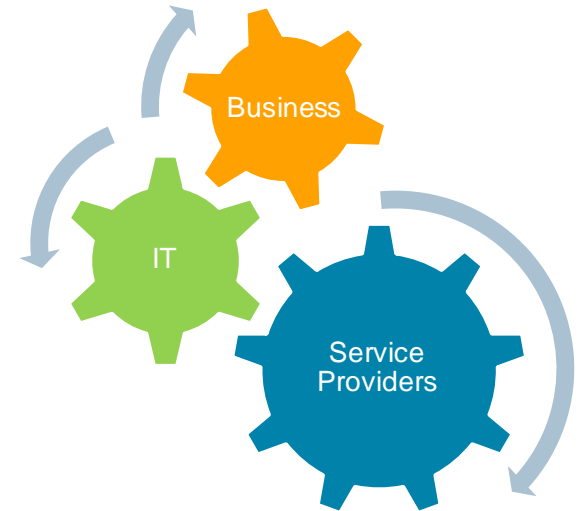
▲ = Software release; Division go-live will coincide with data availability from conversion team.

POC / Pilot
Full Release

## Program Team Model

**Business and Executive Sponsorship**

- Clear vision and success criteria
- Timely decision-making



**Leadership and Governance**

- Strong focus on planning
- Proactive risk-assessment and issue management
- Rigorous change control

**Expertise and Execution**

- Shared accountability for execution
- Securing critical skills and expertise

*Pathfinder team maintained alignment across the program through strong communication at all levels*

- Kickoff meeting with all partner IT teams
- Deployment:
  - Checklist
  - Cutover plan with timings
  - Communication plan
- O&M involvement since initial Pilot
- Plan for multiple releases
- Hybrid agile approach
- Performance Testing



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- Building a GIS skillset
- Staff consistency
- Staggered onsite schedules before / after releases





- SME involvement for critical project milestones
- Weekly standup meetings to reinforce one team across all groups
- Program-level communication
- Differing stakeholder views for asset integration
  - Mappers vs. Asset Strategists

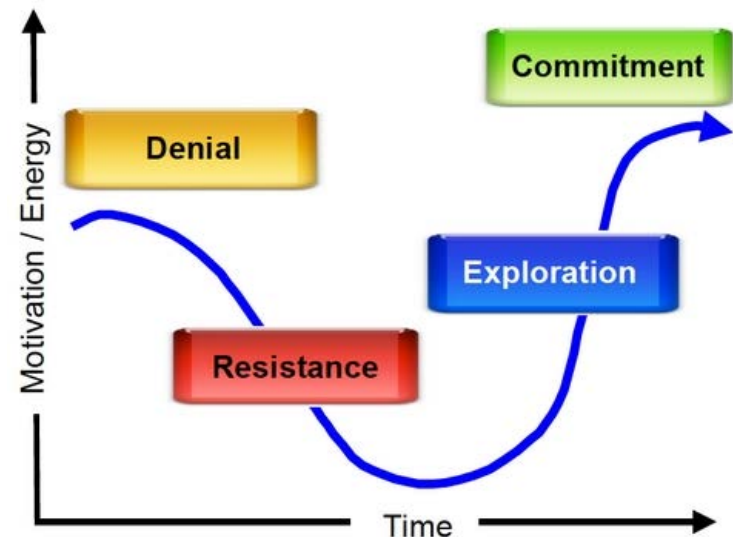


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- Phased Conversion/Deployment
- Upfront Source Analysis
- Continuous Improvement
- Internal Audits



- Collaboration between Data Conversion and Change Management
- Understand how technology supported / changed processes
- Onsite in-person demonstrations and presentations
- Onsite support to end users after Go-live
- Robust remote support



- Training Continuity
  - Credibility
  - Understanding of processes
  
- Training Methodology
  - Centralized
  - Task focused
  - Direct comparison old vs. new
  - Breaking down into sizeable topics
  - Show - Do



- Co-Location with IT
  - Collaboration
  - Communication
  - Business Supported Testing
    - Integration
    - Regression
    - User Acceptance Testing (UAT)





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# Questions & Comments

Thank You for Coming