ESRI UC 2015
Making Tomorrow Possible Today

Mel Christopher
Senior Director
Gas System Operations

Mehmet “DJ” Kutsal
Senior Project Manager
IT Gas Business Technology
About PG&E

- Our Customer Number is 3 digits J
- We have several major GIS initiatives overall.

About Gas System Operations

- TAMI project kicked off May 2013.
- Operational August 2013.
- Continuous improvements since then with monthly releases.
- Supported by 4 environments (Development/Test/QA/Production).
- 28 servers in total, 99.999% availability, runs simultaneously at 2 data centers.
- ArcGIS Server, SDE, and Geoevent server extension based.
- Scripts and SDKs
- HTML5 User Interface
- ORACLE and MS SQL Server databases
PG&E Background

- Serves approximately 15 million people throughout a 70,000-square-mile service area
- Operates approximately 6,750 miles of gas transmission pipeline ~ 42,000 miles of gas distribution pipeline
- 4.3 million natural gas customer accounts.
- Deliver 970 BCF/year
- Approximately 105 BCF of gas storage
- Approximately 203,000 HP of compression
- Gas System Operations – Safe and Reliable Operations of Transmission and Distribution 24X7
**Vision:** The Leading Utility in the United States  
**Strategy:**  
Deliver safe, reliable, and affordable electricity and natural gas  
• Customer Focus  
• Operational Excellence

**Vision:** The Safest, Most Reliable Gas Company in the United States  
**Strategy:**  
We will deliver gas safety excellence by:  
• Putting safety and people at the heart of everything  
• Investing in the reliability and integrity of our gas system  
• Continuously improving the effectiveness and affordability of our processes

**Vision:** The Front Line for Public and Employee Safety and System Reliability  
**Strategy:**  
Transform data into intelligence to operate predictively and proactively in order to identify and mitigate risks in real time.
Leveraging Technology to Reduce and Mitigate Operational Risk
Transmission, Distribution, and Dispatch are collocated
TAMI is a system that provides intelligent use of geospatial and temporal data for managing operational risk.
Napa Earthquake 2014

- 6.0 Magnitude earthquake
- 6km NW of American Canyon
- 0320 on August 24, 2014
Napa Earthquake 2014
Napa Earthquake 2014
Other Ways We Use TAMI
Damage Prevention
Risk: Weather & Outside Forces, Land Movement

Automatically correlate seismic activity, weather events (rain/flood), and areas of landslide potential with pipeline location and notify GOC of increased risk.
Risk: Incorrect Operations

Automatically correlate pressure alarms with work clearances and valve operations within a geographic area and notify GOC of increasing risk.
Risk: Equipment Related

Real time correlation of alarms with integrated system operations.
Intelligent Operations
Questions?