Solve with VIA

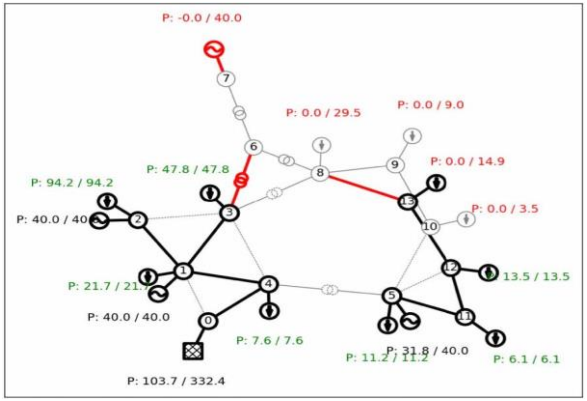
AI for forecasting and resiliency in energy

Forecasting And Resiliency

AI is already being used to improve day ahead forecasting and resiliency.

Gas – Electric Interchange

45,000 Transmission Towers



N-1-1 Restoration and Recovery

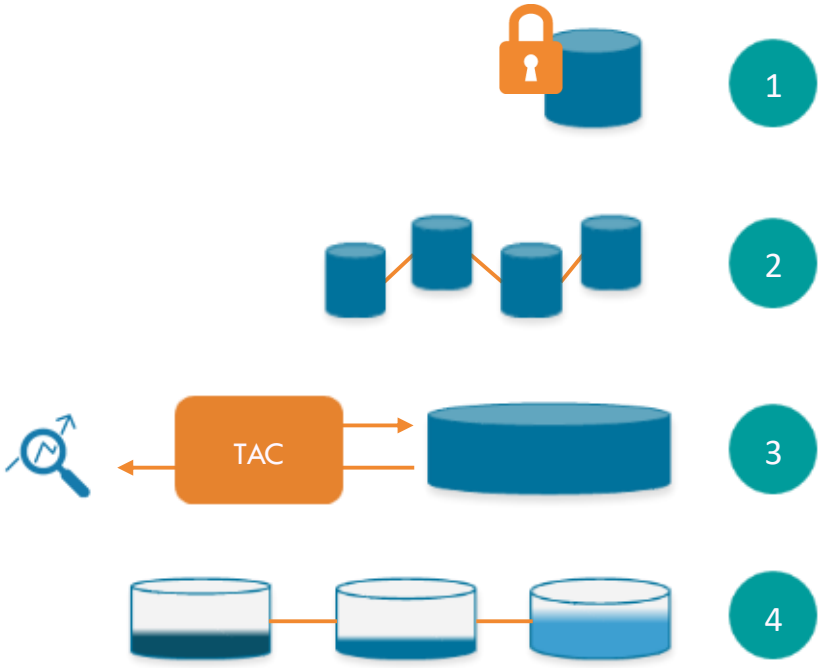
AI Is Hard

Many energy companies, however, struggle with making their data "analyzable" by AI algorithms.

1. Can't share their data for analysis due to confidentiality, privacy, or security reasons
2. Can't aggregate their data across distributed locations for analysis
3. Have too much data to physically send to experts or interested analysts
4. Have too little signal in their data to make analysis rigorous

TAC Fuels Collaboration

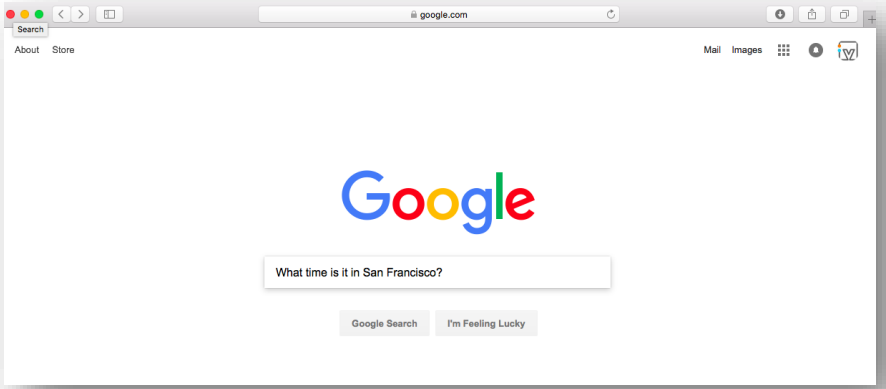
VIA is launching Trusted Analytics Chain to learn from multiple data sources and / or multiple analysts while maintaining privacy.

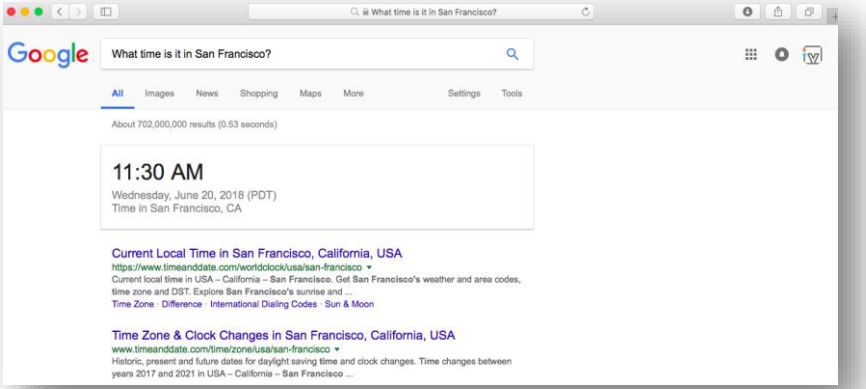


1. Preserves data privacy so analysis can be performed by internal and / or external experts
2. Train and test algorithms across multiple data sources and physical locations
3. Sends analysis questions to the data and retrieves answers – data stays on premise or VPC
4. Allows data owners to pool data with others for greater signal without compromising privacy

What's The Basic Premise?

Analysts send queries to the data rather the data being sent to analysts.

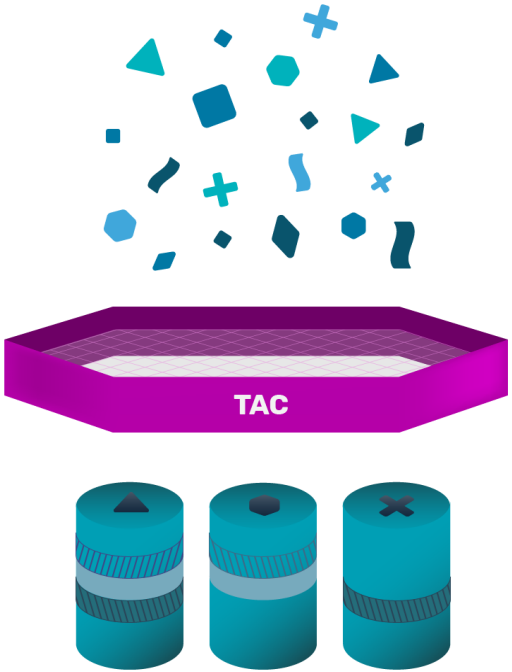




What's Different?

TAC provides additional privacy and security features to ensure that data is kept anonymous.

Analysts submit queries



TAC validates queries and results

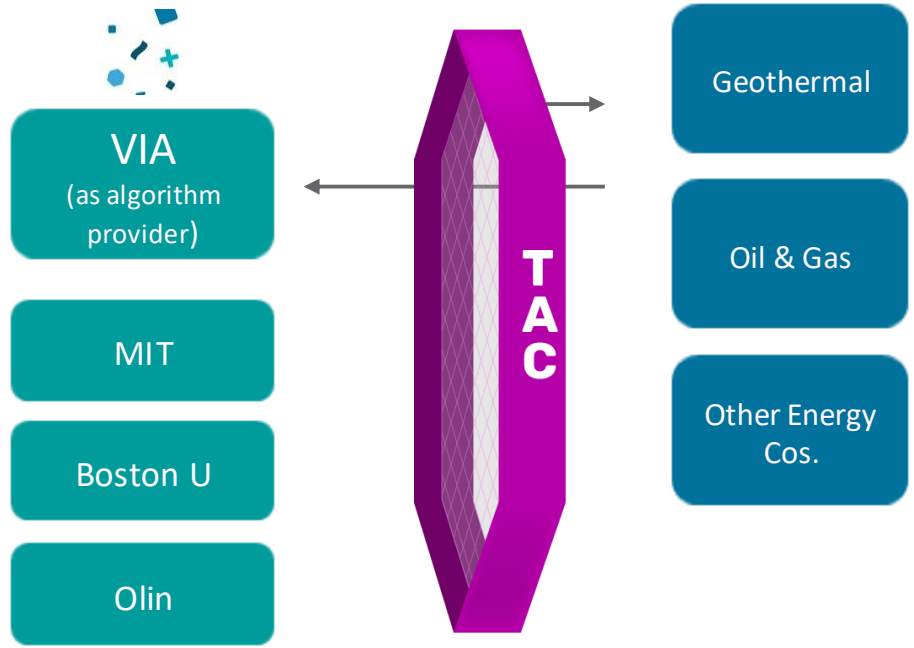
Organizations set rules about what data can be used and by whom

Example: ESP Predictive Maintenance

Millions of dollars are lost when an electrical submersible pump (ESP) fails. ESPs are used in 90% of oil & gas wells and geothermal power.

ESP failure is hard to predict as most companies do not have enough failure data or required expertise. TAC will:

- Enable learning across multiple companies with multiple experts
- Allow the development of predictive maintenance algorithms to reduce the risk of ESP failure
- Save companies millions, reduce emissions, and reduce the risk of environmental disasters

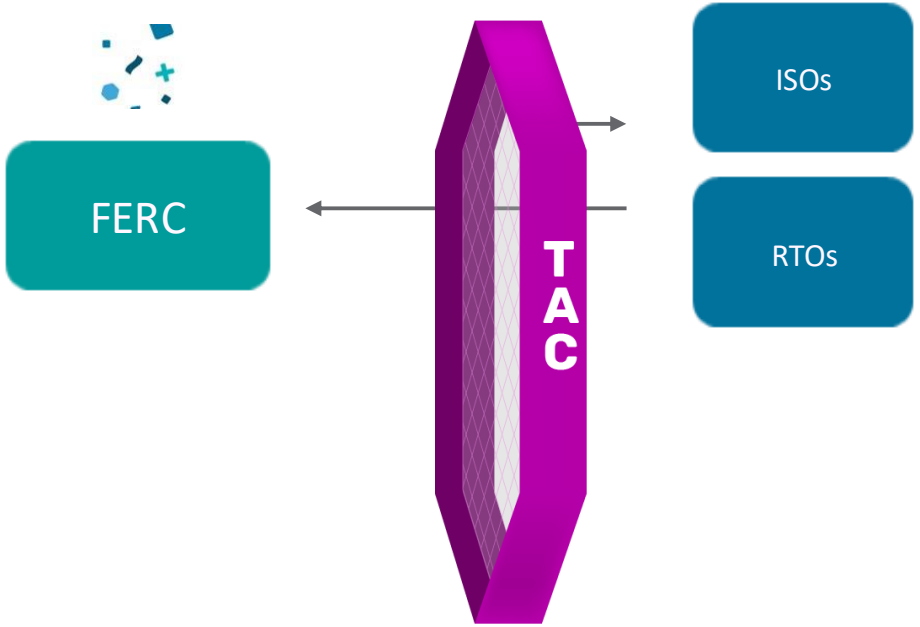


Potential: FERC <-> ISO / RTO

TAC's support of regulatory filings such as Order 760 has immediate value to energy companies.

FERC mandates ISOs / RTOs send data regularly for analysis. TAC would:

- Reduce data transfer burden of large data sets
- Reduce the risk of theft or sabotage of a large, centralized data store
- Allow FERC analysts to spend more time analyzing data instead of transforming data
- Create proactive accountability of compliance



Value To Energy Industry

TAC is a simple way for more data to be accessible to more participants.

BENEFITS TO THE ENERGY INDUSTRY

More analysts = Better AI = Improved Forecasting and Resiliency

AI experts

Academic researchers

Consultants

Industry associations

Government bodies

Industry equipment manufacturers

More data = Better AI = Improved Forecasting and Resiliency

Virtually combine data within an energy company or across energy companies while maintaining privacy

Colin Gounden

cgounden@solvewithvia.com

www.solvewithvia.com