Bringing Time and Space Together: The PI Integrator for Esri ArcGIS

Dan Lopez, Systems Engineer

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Integrating with Esri: Powered by the PI System

Collect

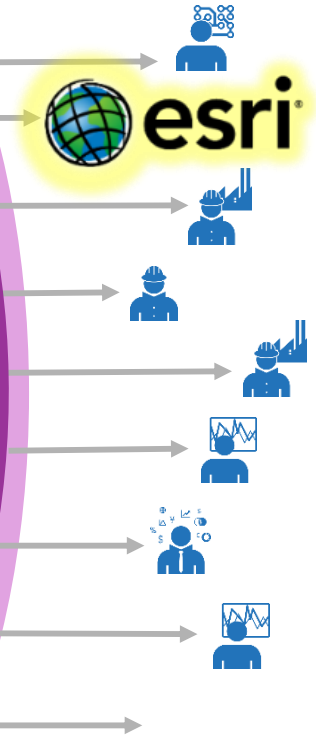
data using
PI Interfaces

Manage & Enhance

data within the
PI Server

Deliver

data via
PI Client Tools



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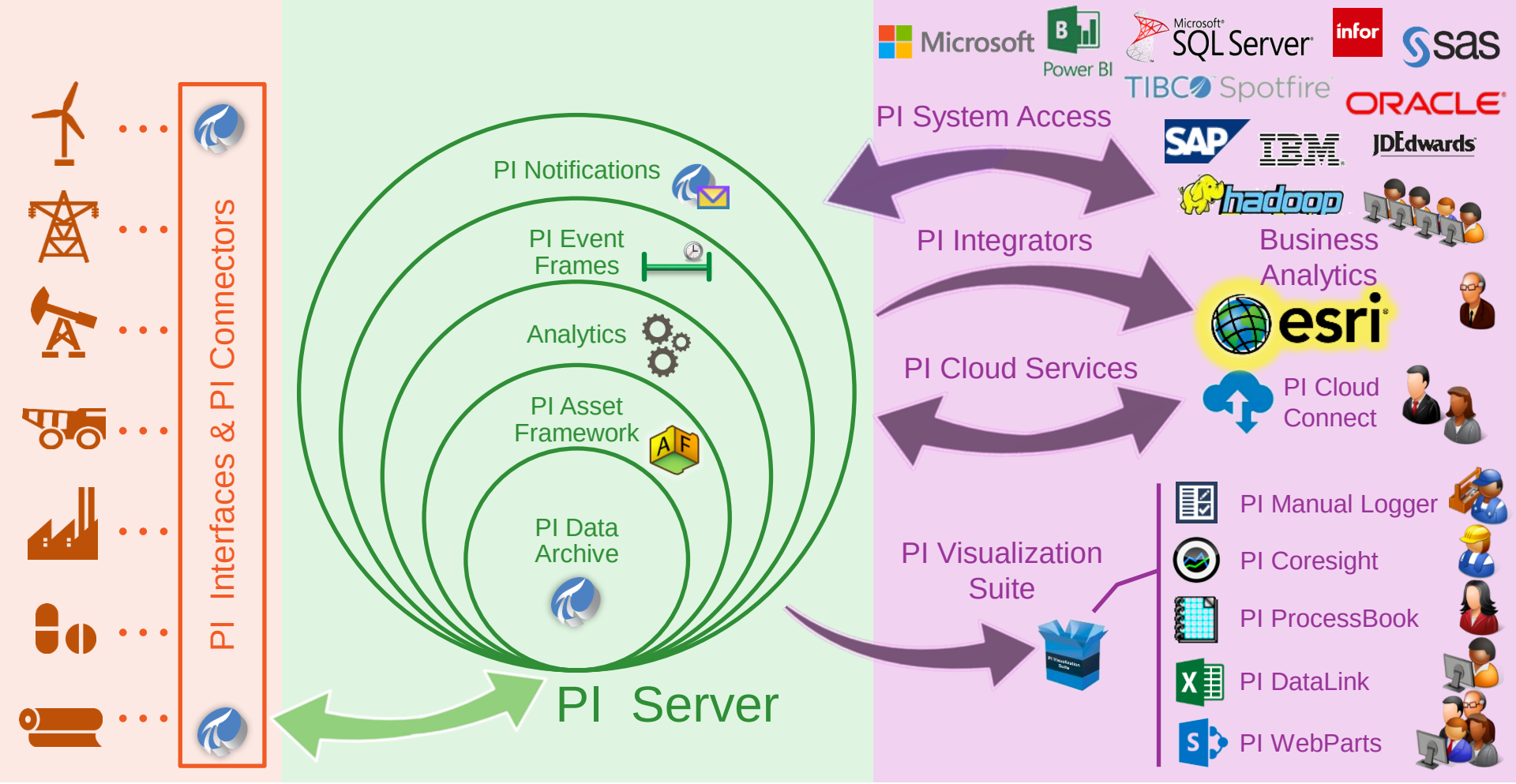

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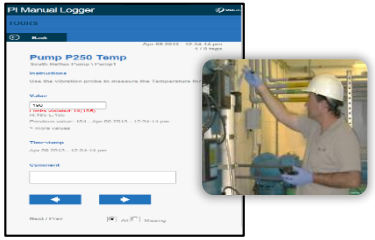
Visualization Landscape

PI Manual Logger
Manual entries, fast and secure from anywhere

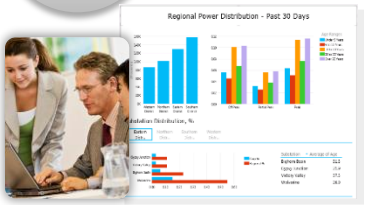


PI Coresight
Ad hoc analysis and collaboration

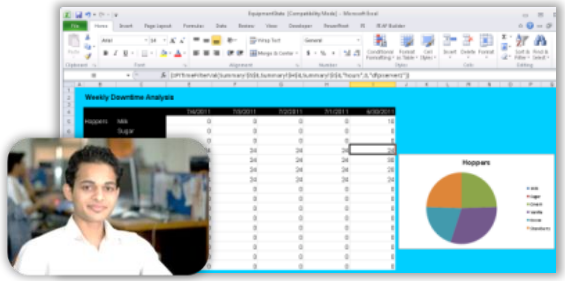
PI WebParts
Composite apps for Microsoft SharePoint

PI ProcessBook
Display authoring and process monitoring

PI System Access
Business analytics for all the corporation



PI DataLink
Reporting and Analytics in Microsoft Excel



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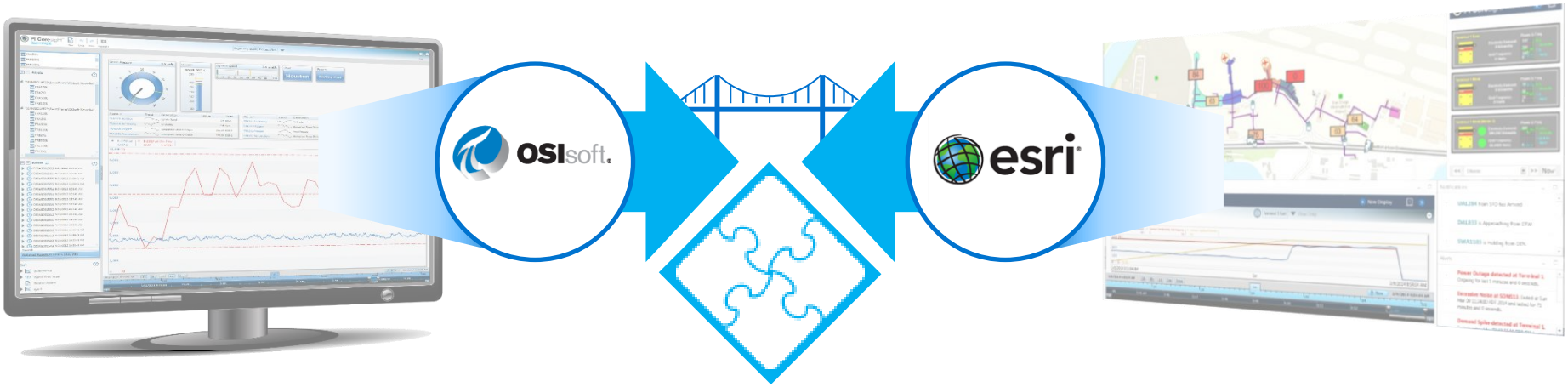

PI Integrator for Esri ArcGIS

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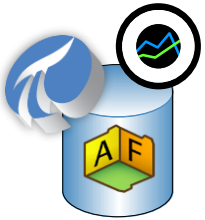
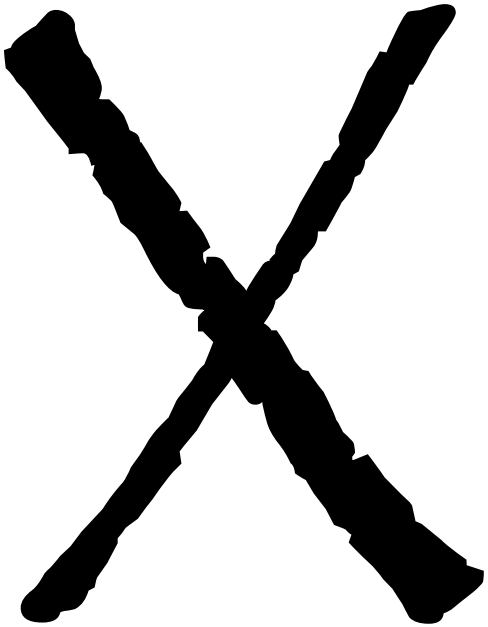
What Existed Prior to the Integrator

PI System

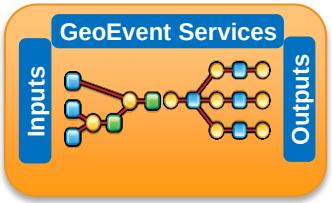


*PI Data Archive **2014***
PI Asset Framework
2014
PI Coresight

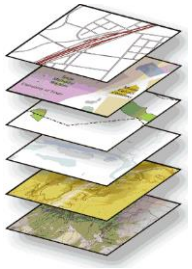
(Real-time data infrastructure)



Esri GeoEvent Extension 10.2.1



Esri Feature Services



Esri Client Tools

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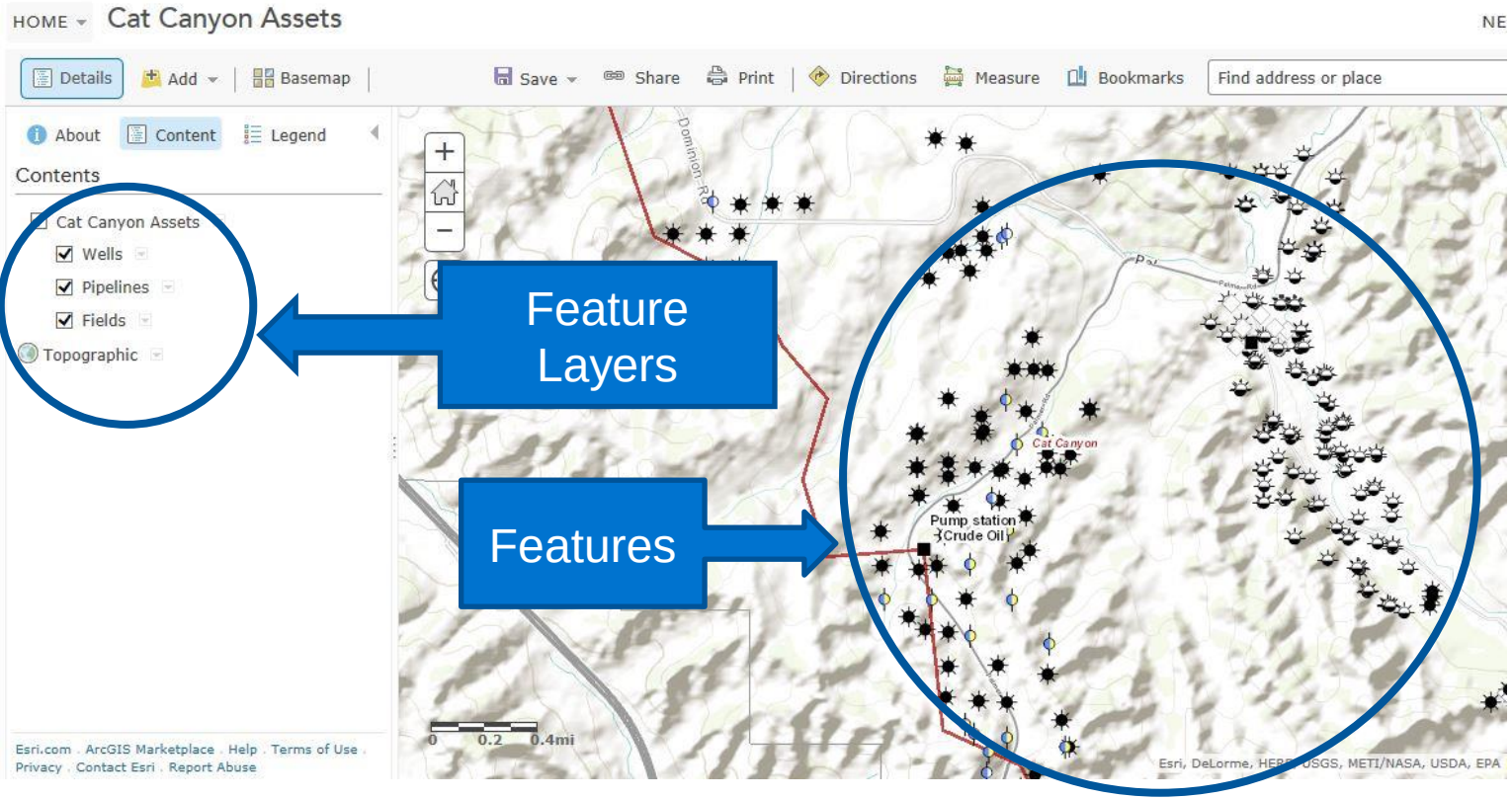
Key Similarity: Esri *Feature* Layers and *Features* are Comparable…



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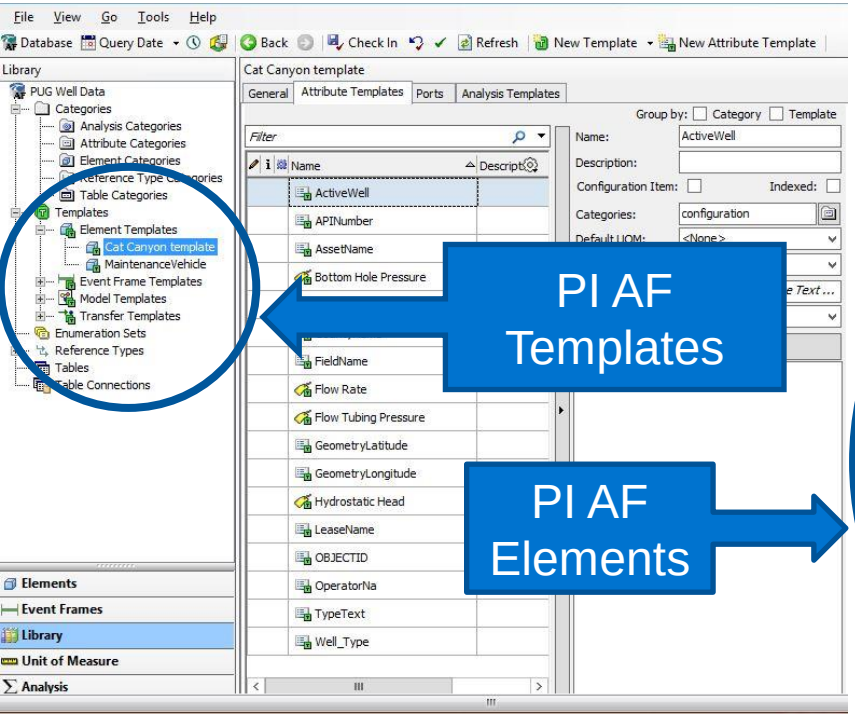
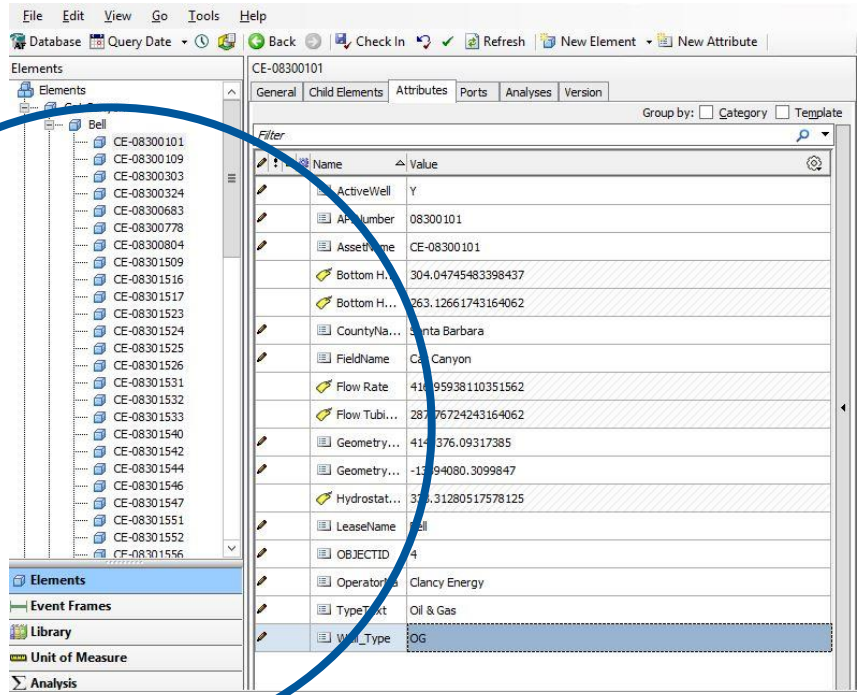
...To PI Asset Framework (AF) *Element* Templates and *Elements*



PI AF Templates

PI AF Elements



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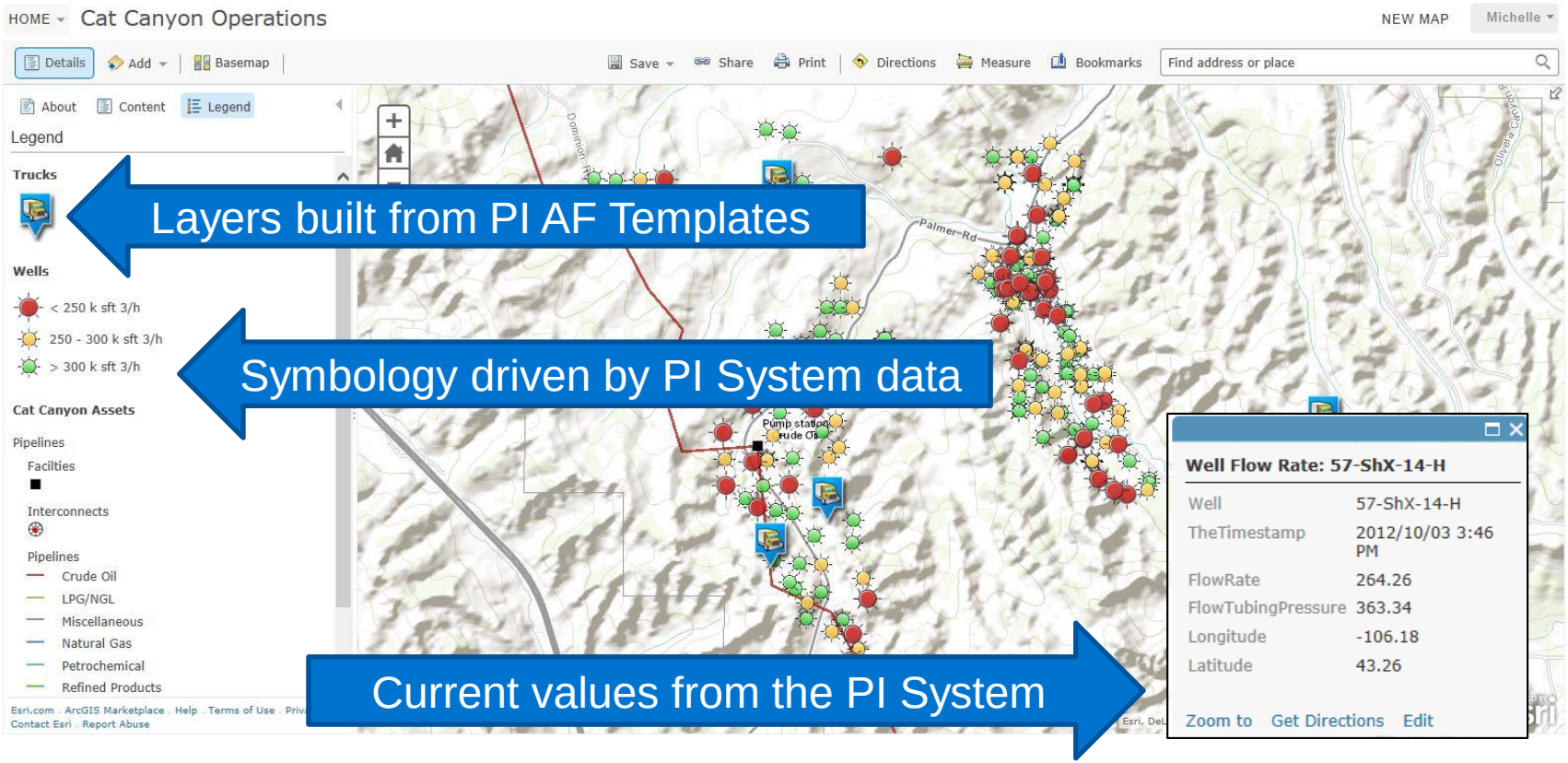
Leverage Your Existing Expertise



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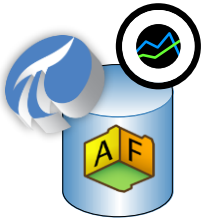
How Does It Work? Recap: What Existed Prior to the Integrator

PI System



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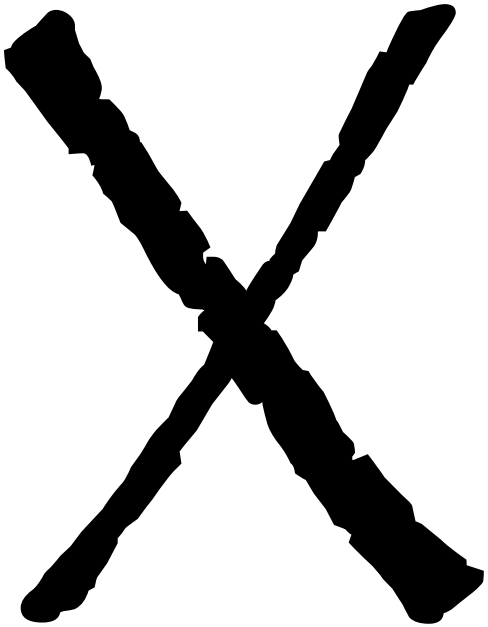

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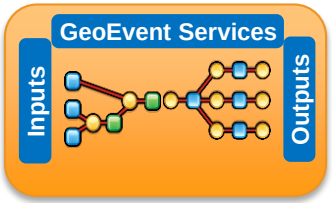
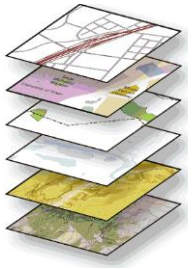


Esri Feature Services



Esri Client Tools

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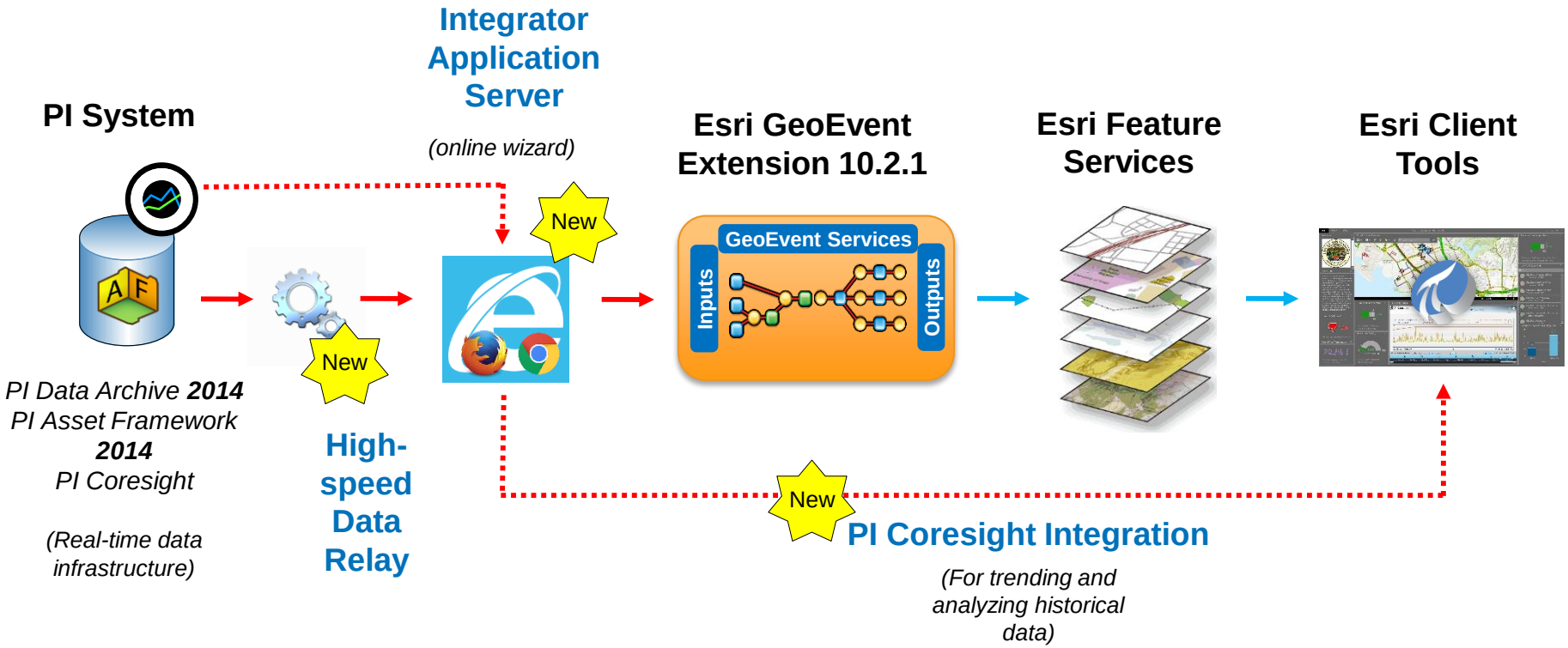
Our Solution: the PI Integrator for Esri ArcGIS



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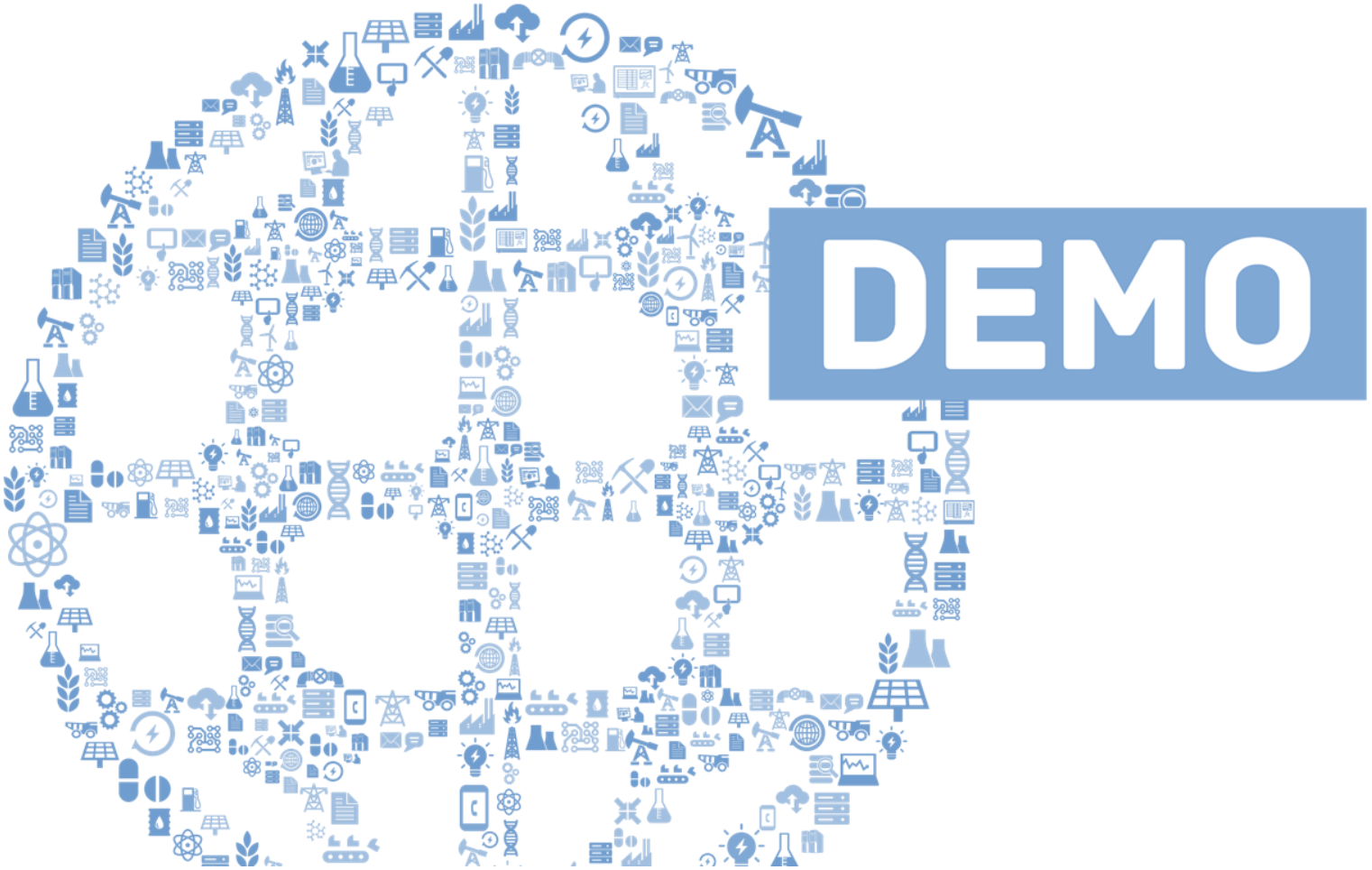

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Use Cases

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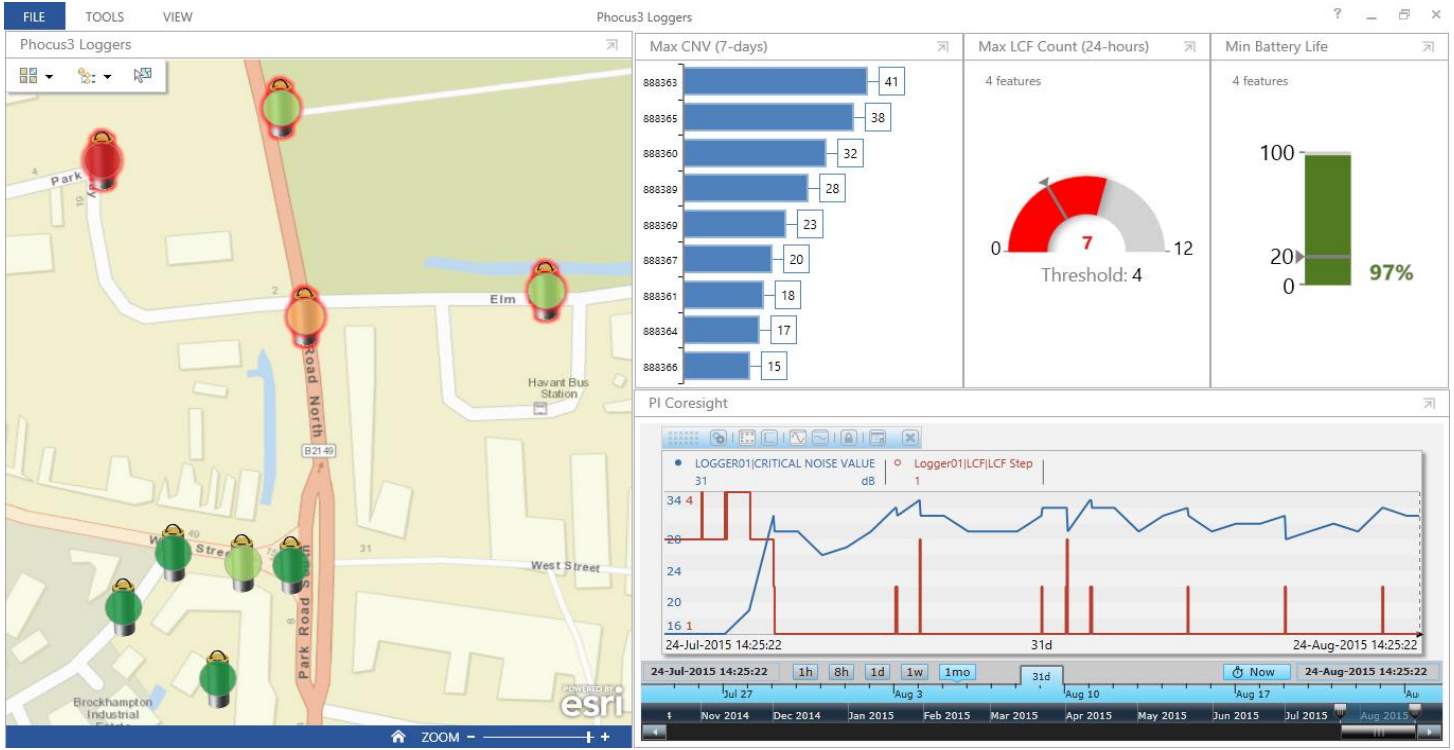
Water Leak Detection Using Acoustic Noise Loggers

Leverage the ability to stream *any* PI System data into ArcGIS



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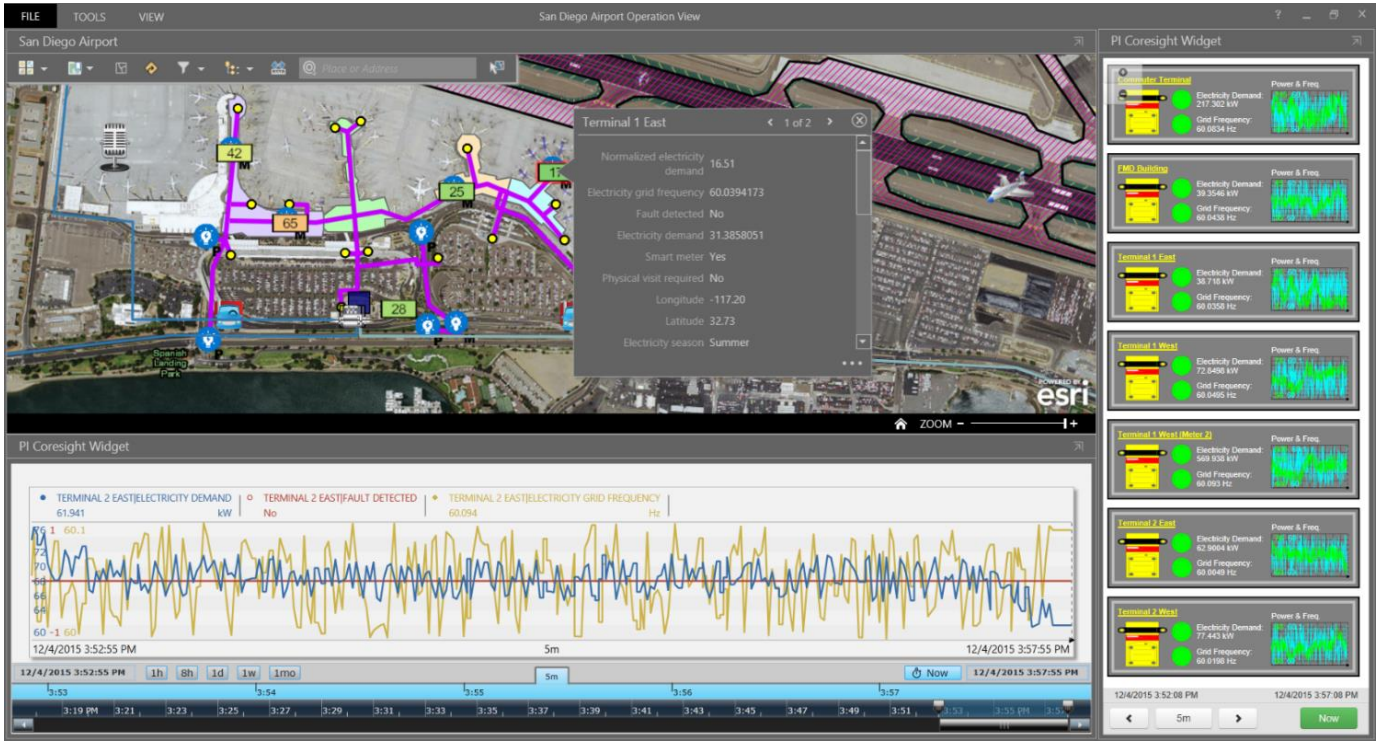
Enhancing Situational Awareness

Overlay live data layers on top of traditional GIS layers



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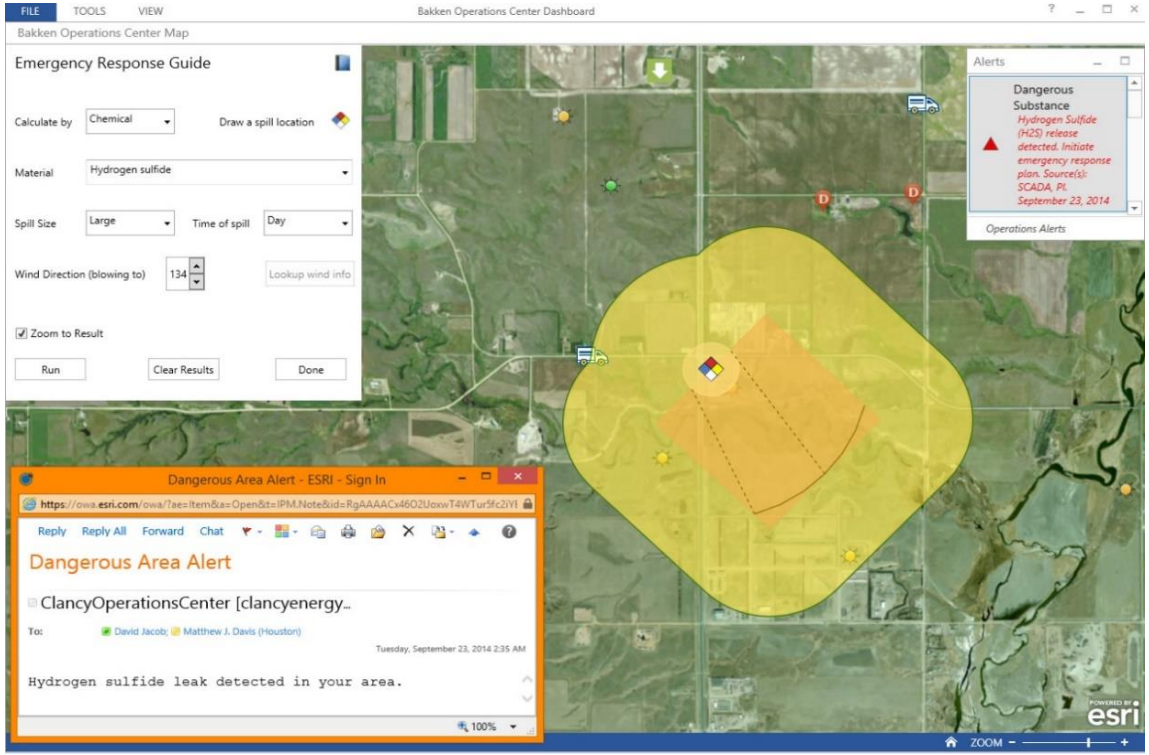
Improving Health, Safety, and the Environment

Enhance disaster response plans and resiliency



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Harnessing the Internet of Things

Arduino Yun (32g)

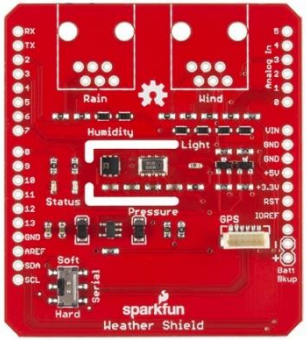
- Linux OS
- WiFi
- Analog Input
- mSD storage

Energy Shield (52g)

- Rechargeable battery
- 1200 mAh capacity
- Arduino compatible

Weather Shield (20g)

- Temperature
- Humidity
- Light Level
- Barometric Pressure
- GPS signal



GPS Receiver (<10g)

- 50 channel
- Latitude
- Longitude
- Altitude
- Speed
- Accurate clock

Total Weight (incl. case and wires): ~130g

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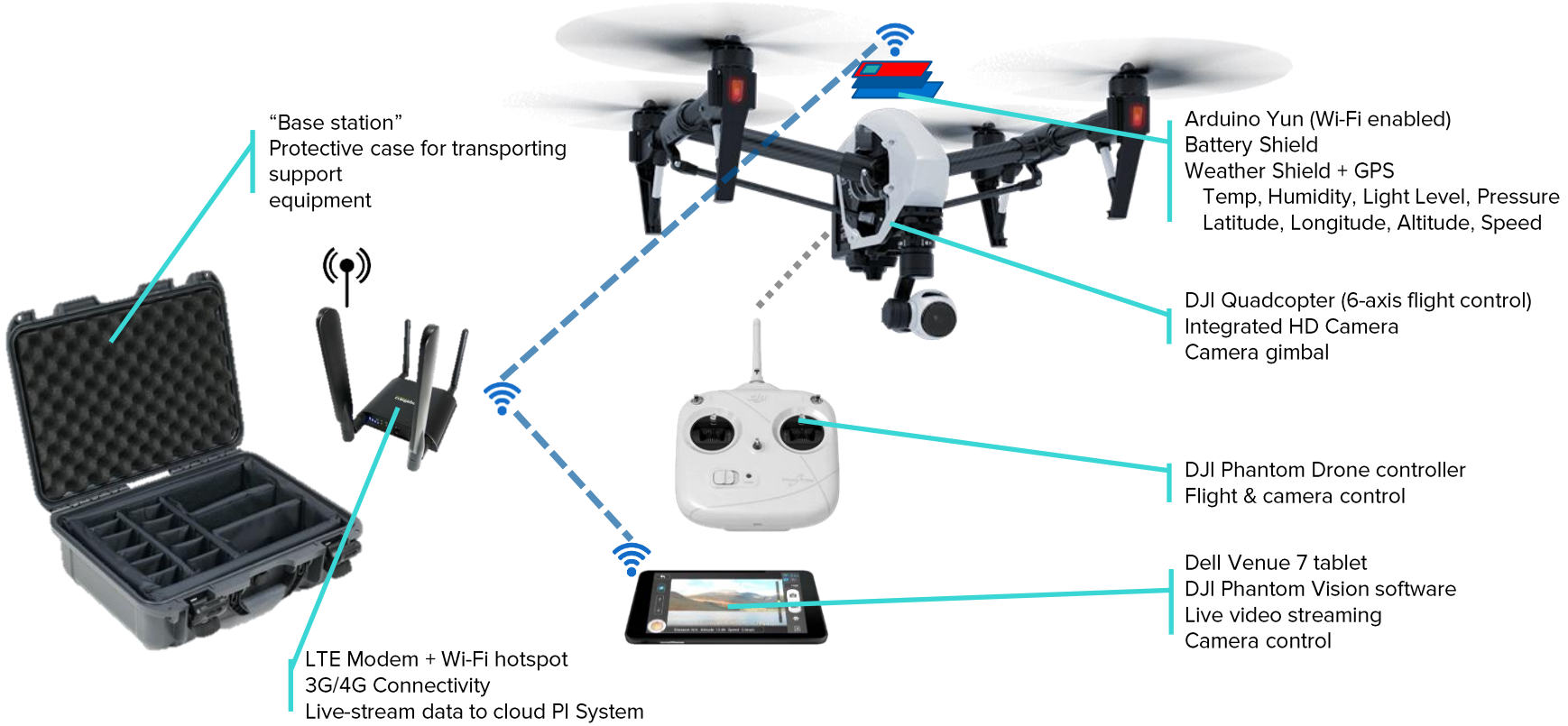
Leveraging Emerging Technologies



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PI Integrator for Esri ArcGIS Roadmap

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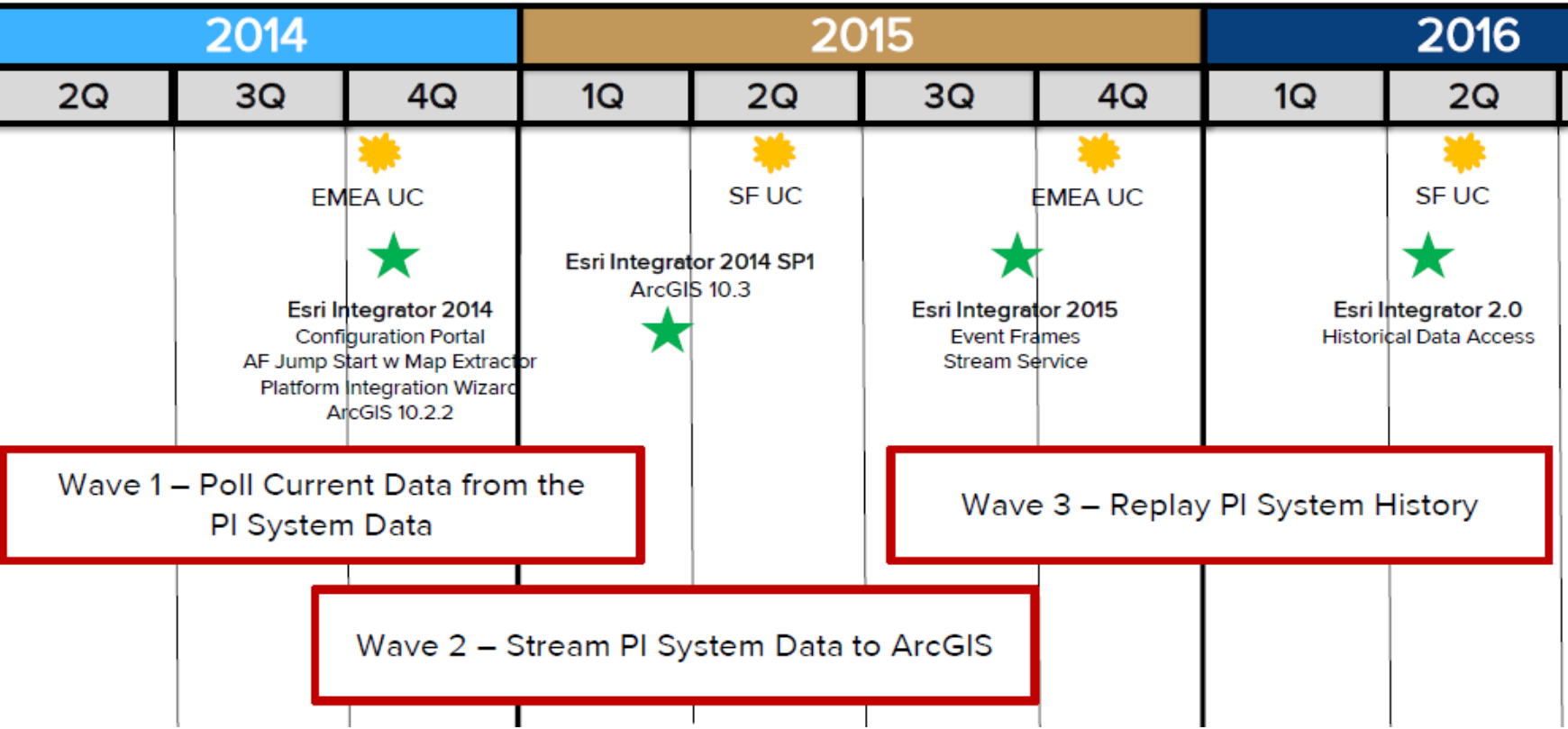
PI Integrator for Esri ArcGIS Roadmap



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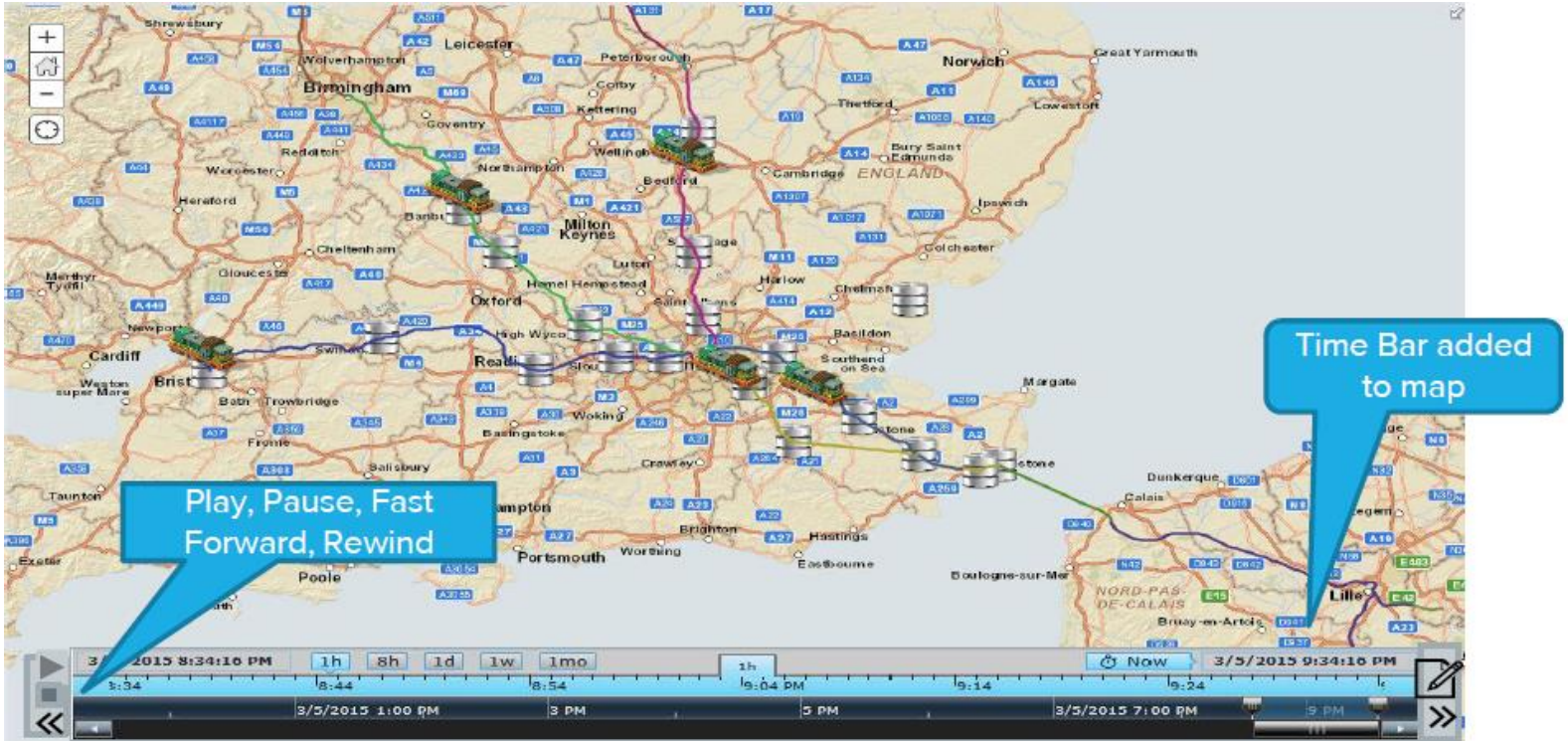
Future Capabilities: Replaying History

Maps could be “rewinded” to show the recent events and history



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Questions?

Please wait for the microphone before asking your question

Please state your name and your company

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감사합니다

谢谢

Danke

Gracias

Merci

Thank You

ありがとう

Спасибо

Obrigado

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