

OSIsoft.
**T&D USERS
GROUP** 2014
The **Power** of **Data**
DECISION READY IN REAL-TIME



Presented by **Stephen Kwan, Product Manager**

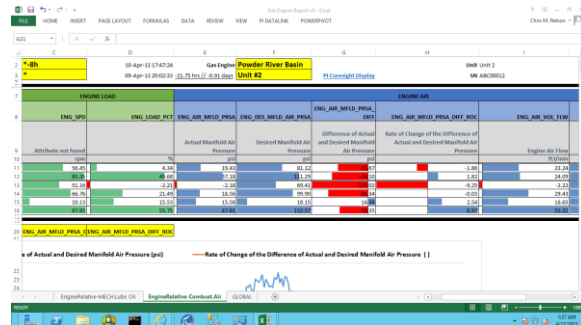
Themes

1. Asset-based PI System
2. Event Frames
3. Future Data
4. Mobility/Visualization
5. Downstream Systems
6. Cloud Services

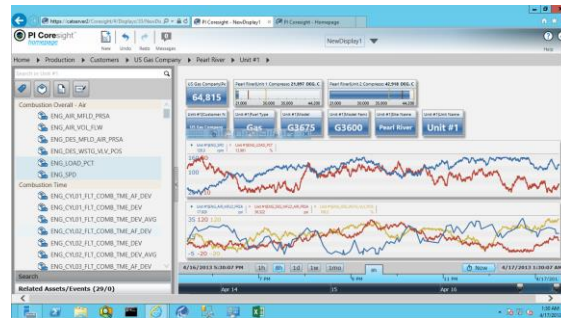
Theme 1: Asset-based PI System

An easier way to manage a PI System

2013

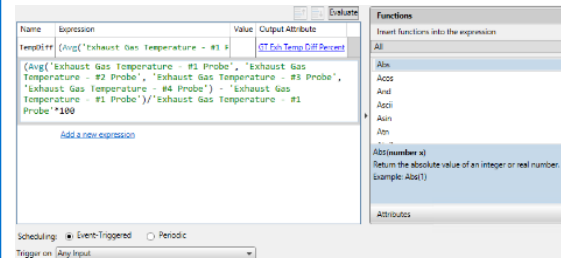


PI DataLink 2013

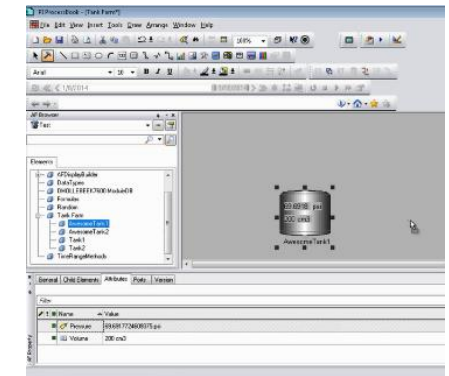


PI Coresight 2013

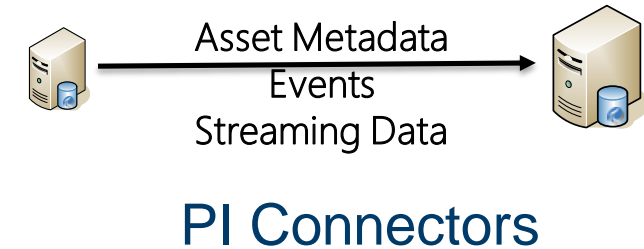
2014

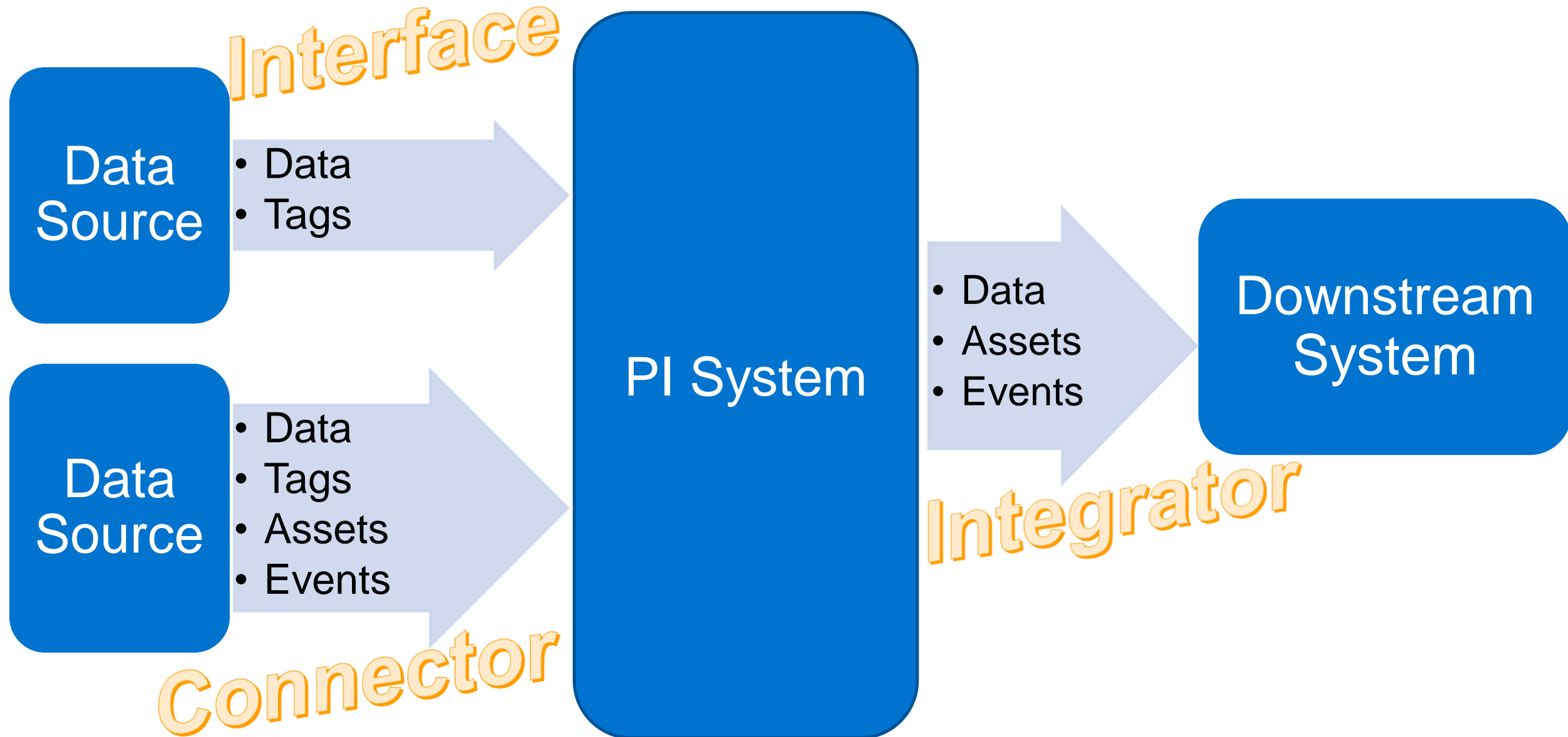


PI Server 2014 (R2)
(Analytics)



PI ProcessBook 2014
AF Display Builder





The screenshot shows a web browser window with the address bar displaying `http://localhost:5460/` and the page title `CygNet Administration`. The main content area is titled **CygNet Connector Administration Site**. On the left, a sidebar contains a list of navigation items: **Overview**, **Data Source List**, **Server List**, and **Diagnostics**. An orange arrow points from the **Data Source List** item to the **CygNet Data Source** section in the main content area.

Overview

CygNet connector details
Version 1.0.0.10

Status of the connector
Connector running as OSI\bandersen
✔ Connector is running - [Stop connector](#)

Data sources for the CygNet connector
! **CygNet Data Source**
[Add or modify data sources](#)

Servers configured to receive data from the connector
✔ PI Data server : IntOne
✔ PI Asset server : IntOne
[Add or modify servers](#)

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← → http://localhost:5460/DatasourceL CygNet Administration x

⌂ ☆ ⚙

CygNet Connector Administration Site

CygNet Data Source Configuration

Data source description (optional)
A Test CygNet System

CygNetSite
OSILARGE

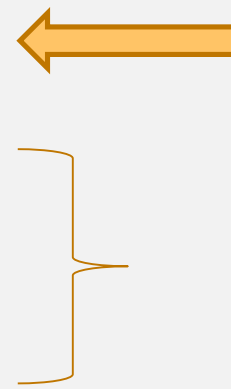
CVSScanRate
1

VHSScanRate
15

VHSStartTime
*-5m

CygNetSiteService
osilarge_uis64

Save Cancel



CygNet Explorer - Domain [5410]OSILARGE.FAC

File View Help

Filtered Services-Type-Status

Domain [5410]

- OSILARGE
 - Facility Service
 - Point Service
 - UIS 64-bit
 - VHS 64-bit

Contents of: Domain [5410]

Facility Identifier	Status
OSILARGE_HSS	O
OSI_BATTERY_1	O
OSI_BATTERY_2	O
OSI_COMMDEV_1	O
OSI_COMMDEV_2	O
OSI_DDSFAC_1	O
OSI_DDSFAC_2	O
OSI_DMD_1	O
OSI_DMD_2	O

Elements

- Connectors
 - CygNet Connector
 - OSILARGE.UIS64::OSI_BATTERY_1
 - OSI_BATTERY_1_BATE**
 - OSI_BATTERY_1_CP1P
 - OSI_BATTERY_1_CP1PSH
 - OSI_BATTERY_1_FR1FALM
 - OSI_BATTERY_1_LTOIL1
 - OSI_BATTERY_1_PP1F
 - OSI_BATTERY_1_PP1V
 - OSI_BATTERY_1_SYDEVADDR
 - OSILARGE.UIS64::OSI_BATTERY_2
 - OSILARGE.UIS64::OSI_COMMDEV_1
 - OSILARGE.UIS64::OSI_COMMDEV_2
 - OSILARGE.UIS64::OSI_DDSFAC_1
 - OSILARGE.UIS64::OSI_DDSFAC_2
 - OSILARGE.UIS64::OSI_DMD_1
 - OSILARGE.UIS64::OSI_DMD_2
 - OSILARGE.UIS64::OSI_DRIVE_1
 - OSILARGE.UIS64::OSI_DRIVE_2
 - OSILARGE.UIS64::OSI_POC_1
 - OSILARGE.UIS64::OSI_POC_2
 - OSILARGE.UIS64::OSI_SWD_1
 - OSILARGE.UIS64::OSI_SWD_2
 - OSILARGE.UIS64::OSI_WELL_1
 - OSILARGE.UIS64::OSI_WELL_2

General Child Elements Attributes Ports Version

Filter

Name	Value
tagfull	
taglong	
twopntscale	Y
uniformdatacode	BATE
uniformdatacode_desc	
Unreliable	N
userflag1	N
userflag2	N
userflag3	N
userflag4	N
userflag5	N
userflag6	N
userflag7	N
userflag8	N
Value	65

PI Connector for IPMI

**Intelligent Platform Management
Interface (IPMI)**

**Monitors the health of the system
hardware**

**Independent of main processors,
BIOS, and OS**

**Available when the system is powered
down**



Elements

- Elements
 - Connectors
 - IPMI Connector
 - 123.45.67.1
 - Disk Drive Bay (26.3) ROMB Battery
 - Power Supply (10.1) Current 1
 - Power Supply (10.1) Temp
 - Power Supply (10.1) Voltage 1
 - Power Supply (10.2) Current 2
 - Power Supply (10.2) Temp
 - Power Supply (10.2) Voltage 2
 - Processor (3.1) Temp**
 - Processor (3.2) Temp
 - System Board (7.1) 0.9V Over Volt
 - System Board (7.1) 0.9V PG
 - System Board (7.1) 1.5V PG
 - System Board (7.1) 1.8V PG
 - System Board (7.1) 3.3V PG
 - System Board (7.1) 5V PG
 - System Board (7.1) Ambient Temp
 - System Board (7.1) Backplane PG
 - System Board (7.1) CMOS Battery
 - System Board (7.1) CPU Power Fault
 - System Board (7.1) CPU Temp Interf
 - System Board (7.1) CPU VTT
 - System Board (7.1) FAN 1 RPM
 - System Board (7.1) FAN 2 RPM
 - System Board (7.1) FAN 3 RPM

Processor (3.1) Temp

General

Child Elements

Attributes

Ports

Version

Group

Filter

	Name	Value	Timestamp
	Entity ID	Processor	1/1/1970 12:00:00 AM
	IP Address	123.45.67.1	1/1/1970 12:00:00 AM
	Lower Critical	—	1/1/1970 12:00:00 AM
	Lower Non Critical	—	1/1/1970 12:00:00 AM
	Lower Non Recoverable	—	1/1/1970 12:00:00 AM
	Nominal Reading	50	1/1/1970 12:00:00 AM
	Normal Maximum	69	1/1/1970 12:00:00 AM
	Normal Minimum	11	1/1/1970 12:00:00 AM
	Scaled Reading	87	3/19/2014 4:40:15.53 PM
	Sensor Accuracy %	1.94	1/1/1970 12:00:00 AM
	Sensor Direction	unspecified	1/1/1970 12:00:00 AM
	Sensor ID	Temp	1/1/1970 12:00:00 AM
	Sensor Maximum	127	1/1/1970 12:00:00 AM
	Sensor Minimum	-128	1/1/1970 12:00:00 AM
	Sensor Status	OK	3/19/2014 4:40:15.53 PM



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Empowering Business in Real-time.

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Programmatic Access for Asset-based PI

- PI ODBC client
- PI Web API
- Programmable Analytics

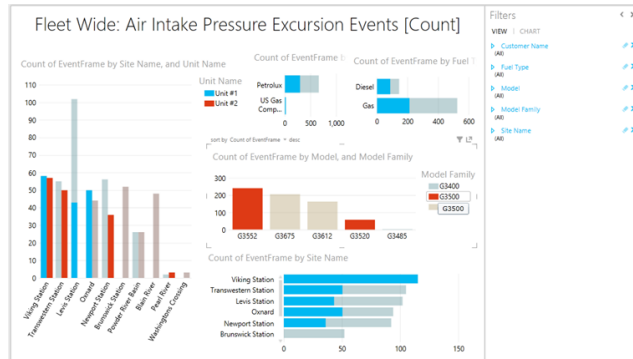
Theme 2: Event Frames

Capability of the PI System to record and analyze important process or business events

Industry	Event Frames	Value
Power & Utilities	Turbine Startups & Shutdowns	Respond to MW dispatch requests
Power & Utilities	Equipment failures	Increase grid reliability
Oil & Gas	Truck offloads into facility storage	Inventory Tracking
Oil & Gas	Pump vibrations, downtime, ramp ups	Safety, optimization, asset reliability
Pulp & Paper	Paper runs, grade changes	Reduce grade change time
Metals & Mining	Rolls of Aluminum	Quality, roll comparisons
Chemicals	Batches, processing steps	Equipment effectiveness
Life Sciences	Batches, unit procedures, phases	Product quality, regulatory

Event Frames

2013



OLEDB Enterprise 2012

- PI Web Services
- BES/MES Interfaces
- EF Generator

Coresight 2013

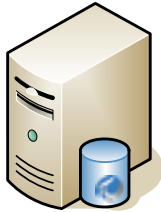
2014

Analytics in PI Server
2014 (R2)



PI DataLink 2014

For Batch Customers



Batch to Event
Frame Migration in
PI Server 2015

PI DataLink

- PI DataLink 2014
 - Event Frames functions
 - New filter function based on AF templates
 - Tag search enhancements
- PI DataLink Server 2014
 - Included with PI DataLink 2014 license
 - Will support Microsoft SharePoint 2010 and 2013
 - Release Q4/2014

Coming Soon for Event Frames

- PI DataLink Server 2014
- Overlay trend in PI Coresight
- RtReports
- PI Notifications
- Batch to Event Frame migration in PI Server 2015

Themes

1. Asset-based PI System
2. Event Frames
3. **Future Data**
4. Mobility/Visualization
5. Downstream Systems
6. Cloud Services

Theme 3: Future Data



Theme 4: Mobility/Visualization

- Web-based technologies
- Multiple devices for each user
- Notify you of exceptions instead of relying on monitoring

PI Coresight 2014

- Fast and easy access to PI System data
- PI ProcessBook display viewing in any browser
- New mobile web site designed for small screens and accessible on any device

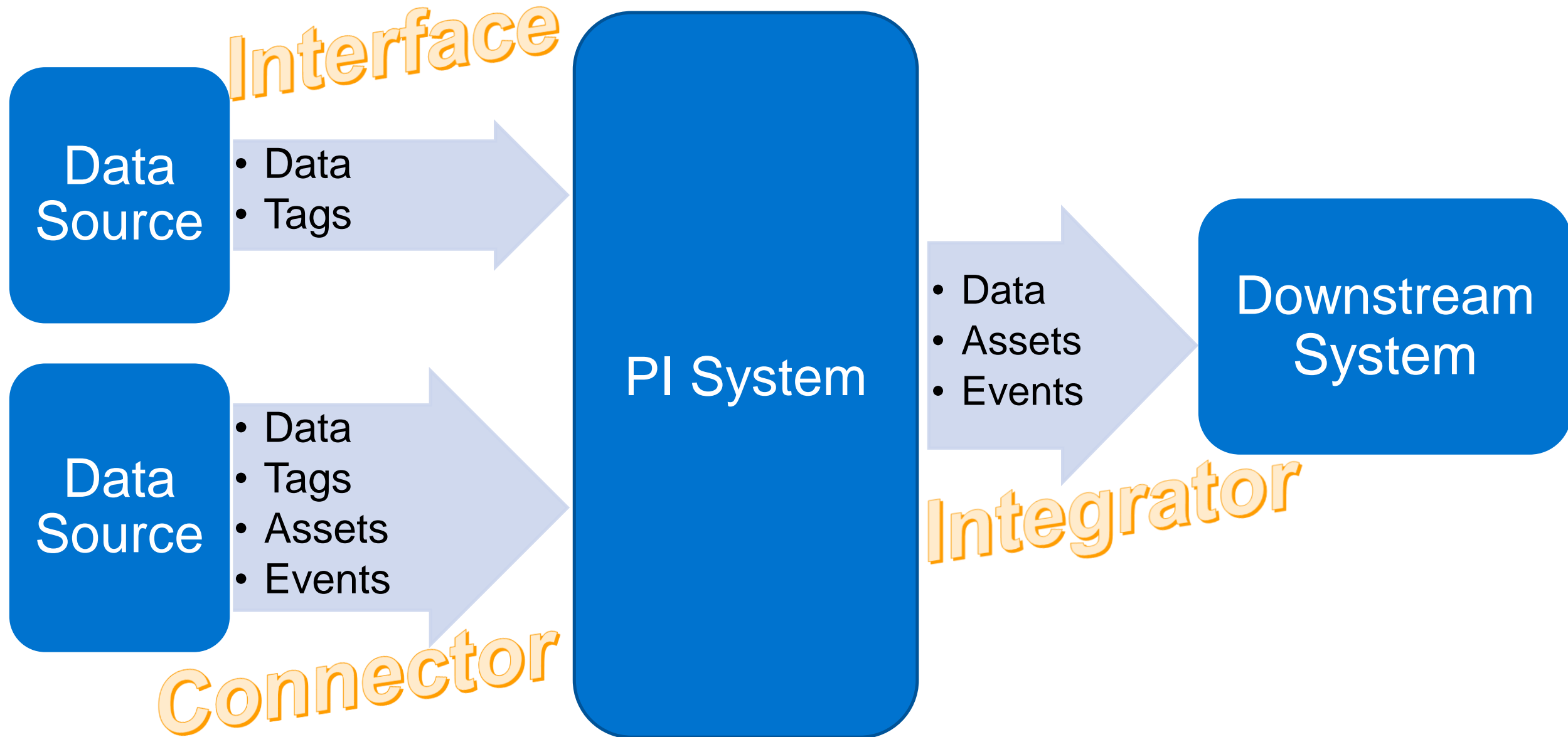


Visualization Releases

- PI Coresight 2014
- Manual Logger 2014
- PI ProcessBook 2014
- PI WebParts 2013 SP1

Themes

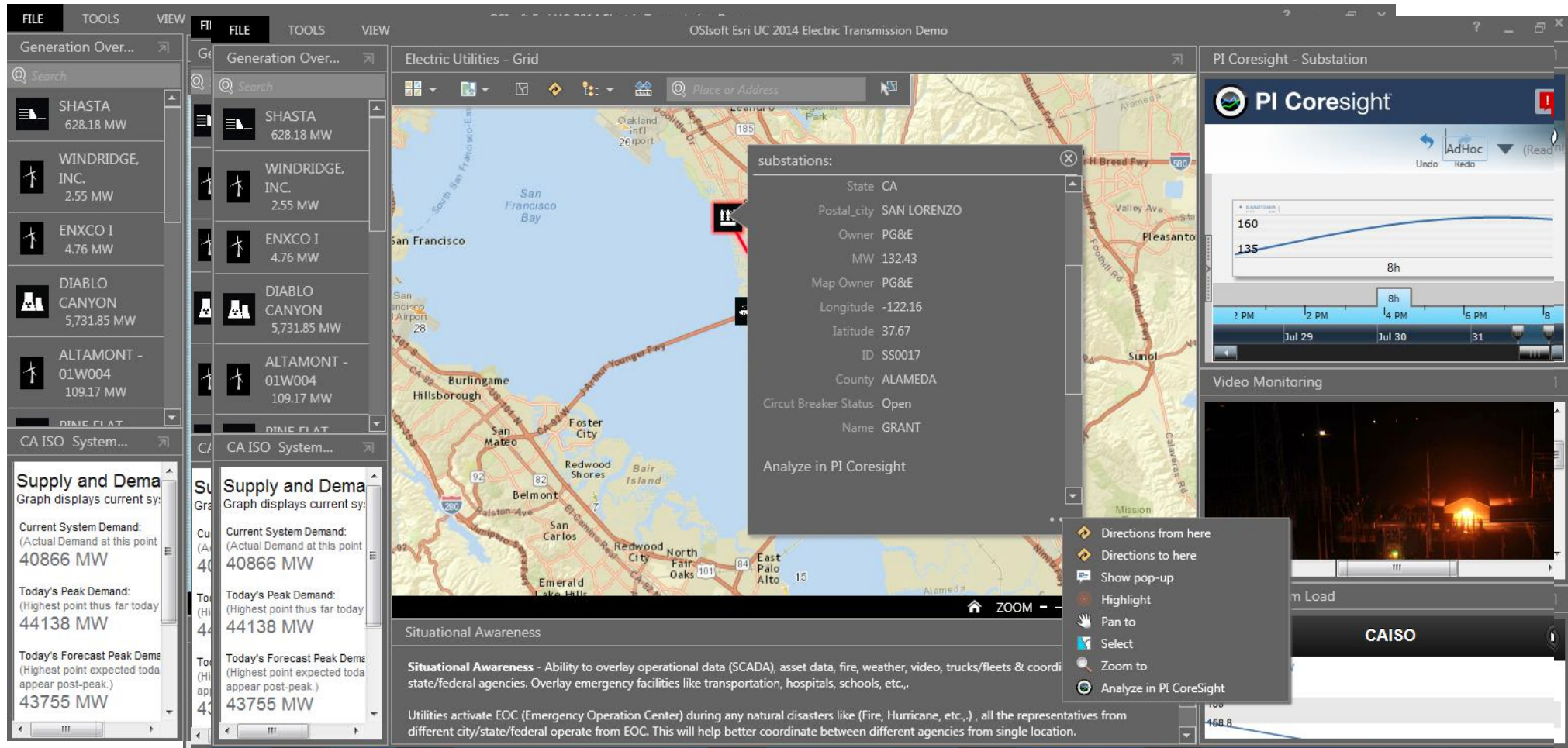
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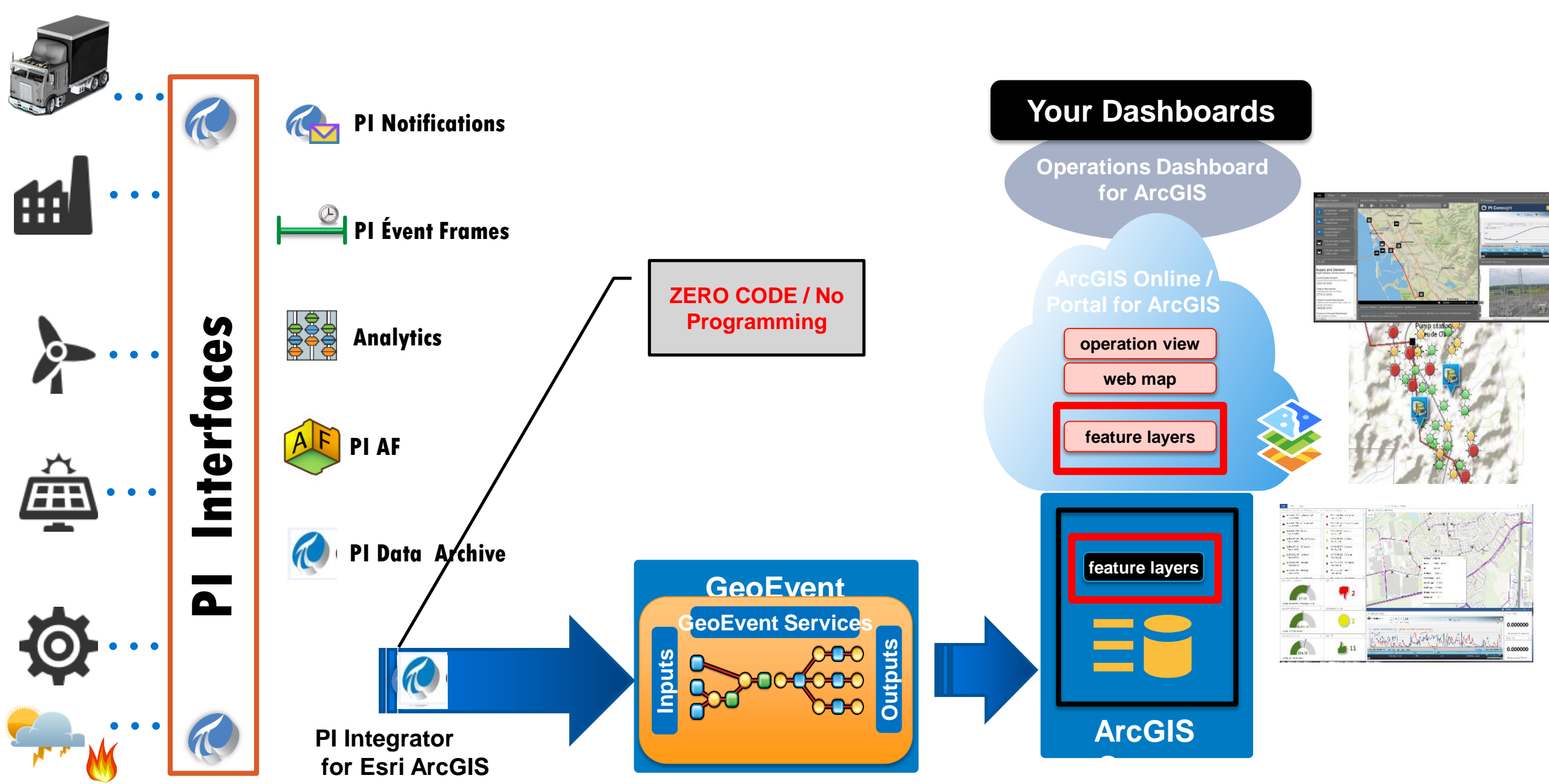


Downstream Systems

- PI Integrator for Esri ArcGIS
 - Beta now
- Integrators for Platforms like Hadoop, Microsoft BI, SAP Hana in development

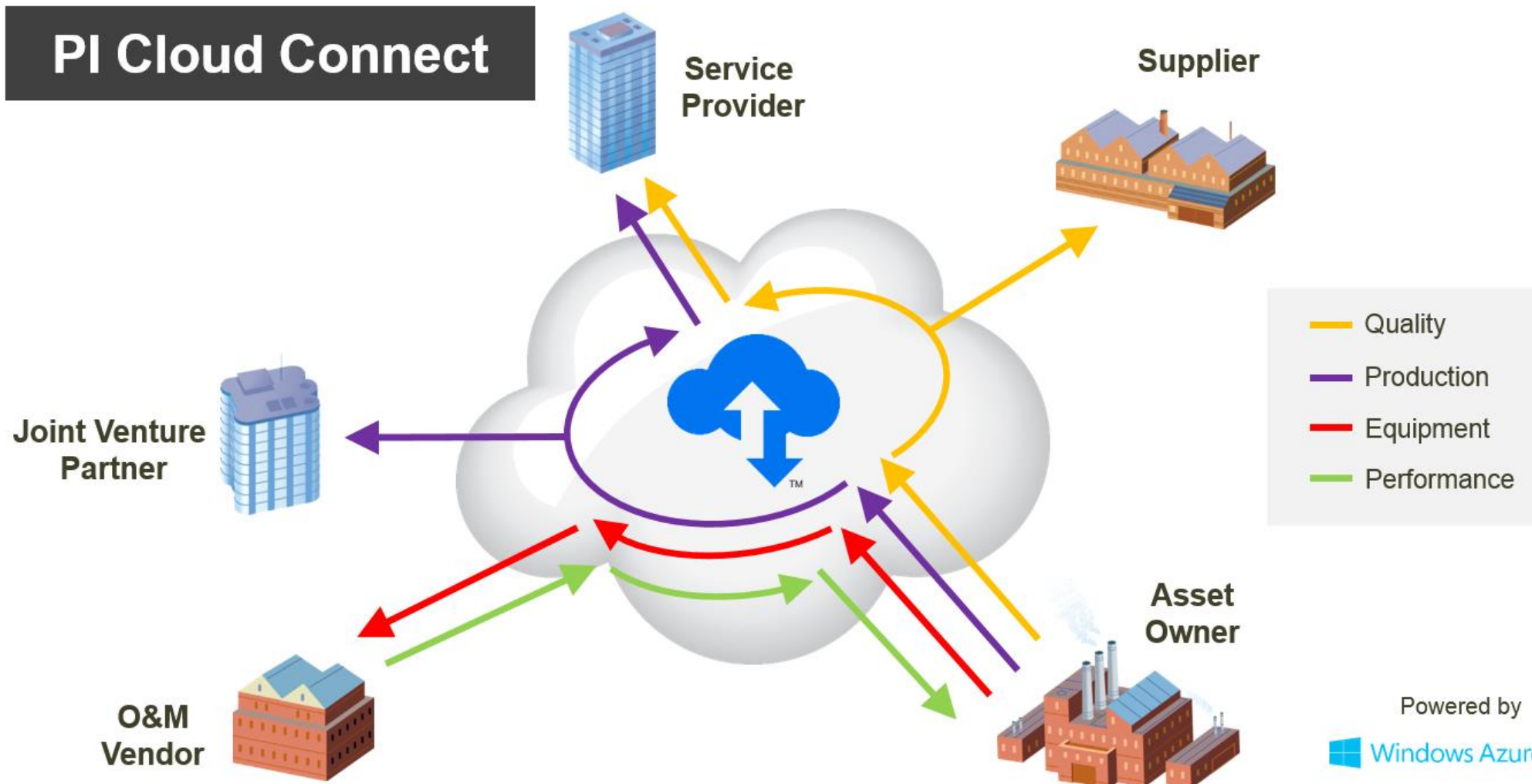
Situational Awareness





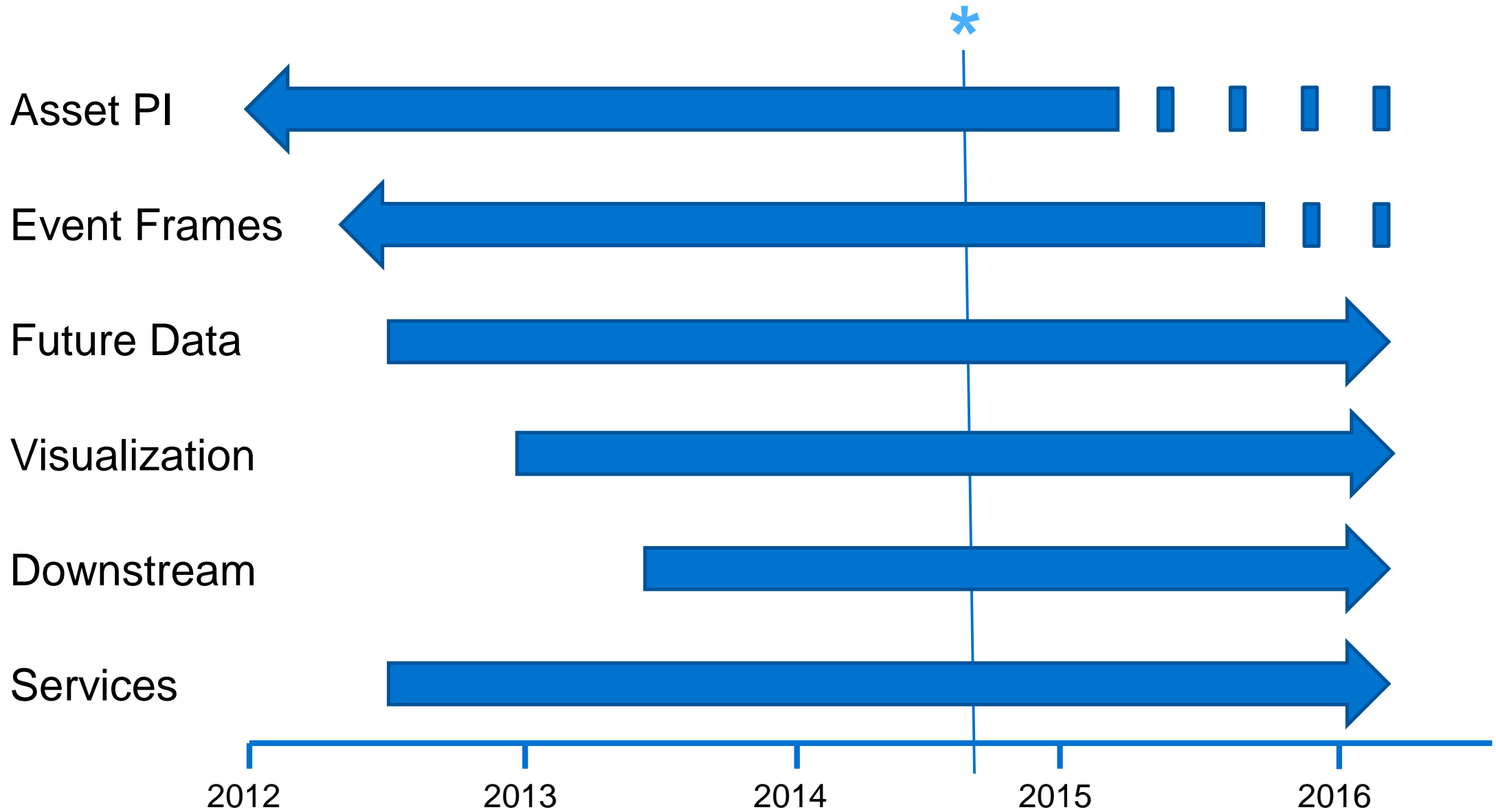
Theme 6: Cloud Services

PI Cloud Connect



Cloud Services growing month by month

- PI Cloud Integrator for Esri ArcGIS (in Beta)
- PI Cloud Access



Conclusions

- Go use Asset Analytics
- Start small with AF, but start
- Event Frames are ready for use
- PI ProcessBook display viewer and mobile device support make PI Coresight much more useful
- What are you going to do with Future Data?