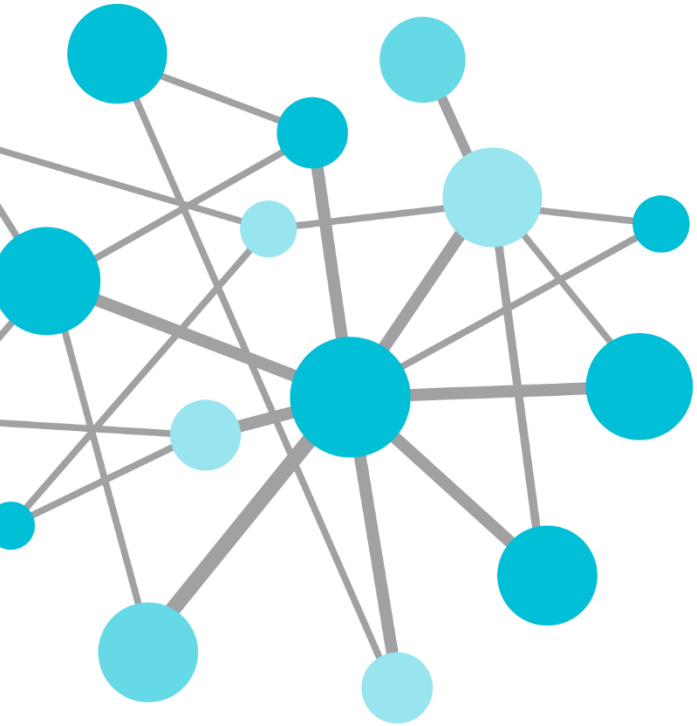

Topics on the Road(map)

Presented by **Hans Otto Weinhold**
Senior System Engineer
OSIsoft Europe GmbH

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Topics

- PI and Big Data
- Connecting Space and Time (already covered)
- Interfaces vs. Connectors
- PI CoreSight 2014 (already covered)
- Future Data in the PI System
- PI Cloud Connect

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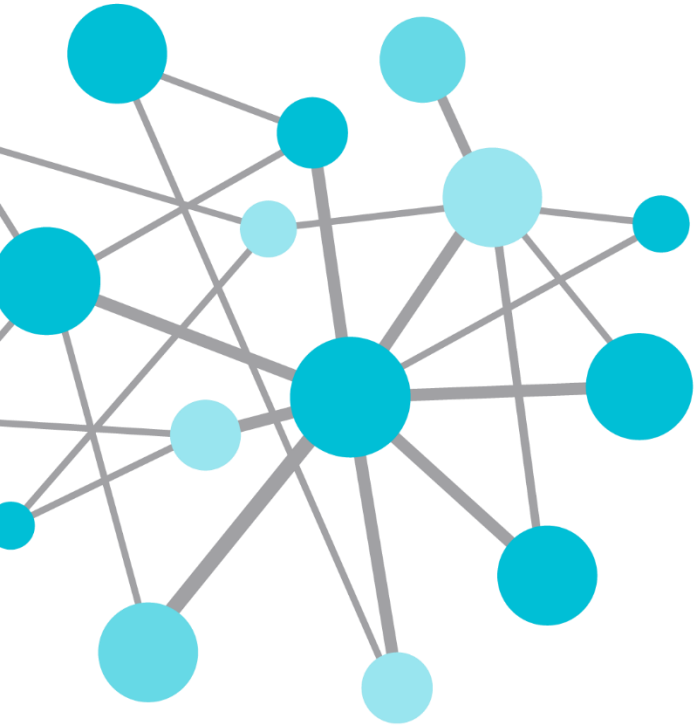

Unleash the Power of Big Data

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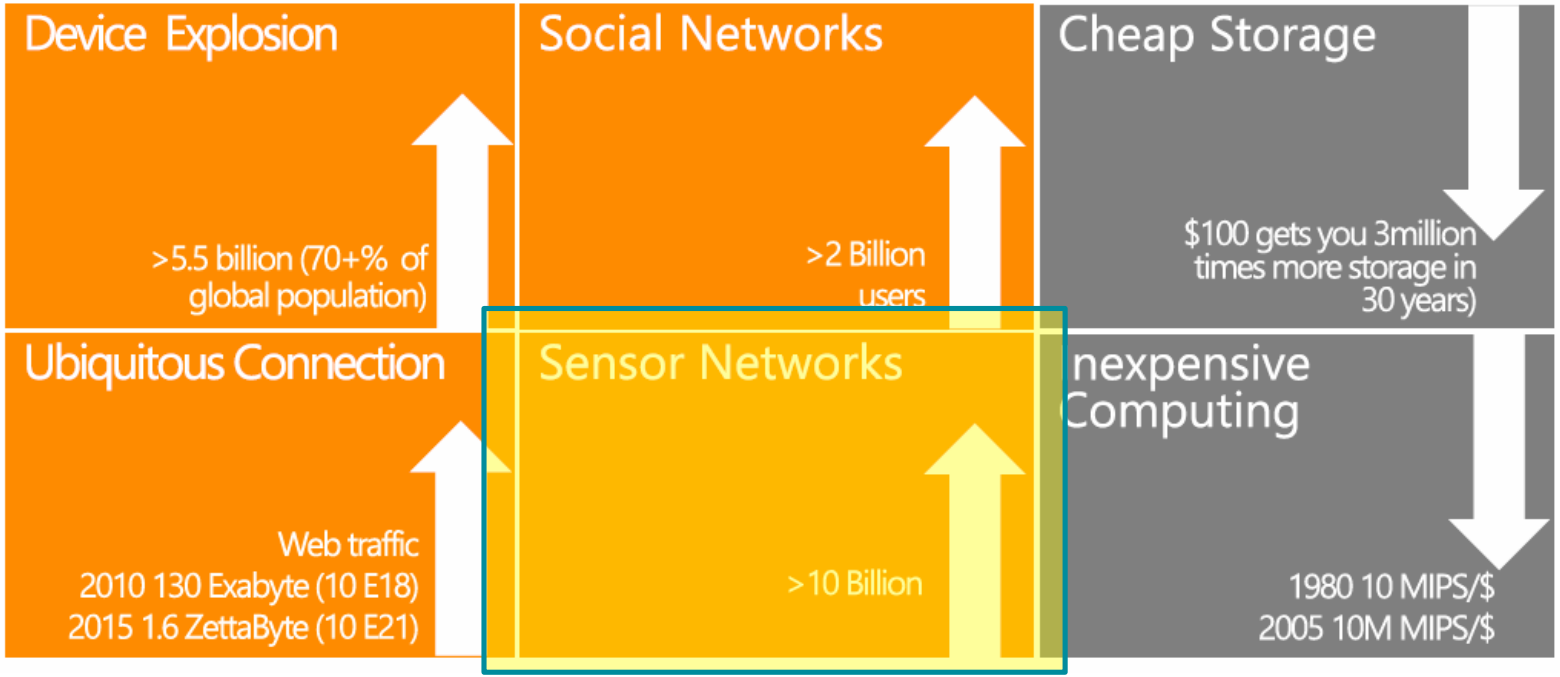
Key Trends



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Insight

Time Series

Relational

Unstructured

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Real-time Data isn't perfect

The Truth about Real-time Data

- Naturally incomplete
- Doesn't look like SQL (unevenly spaced, no transactions)
- Subject to errors in measurement
- Varies in fidelity

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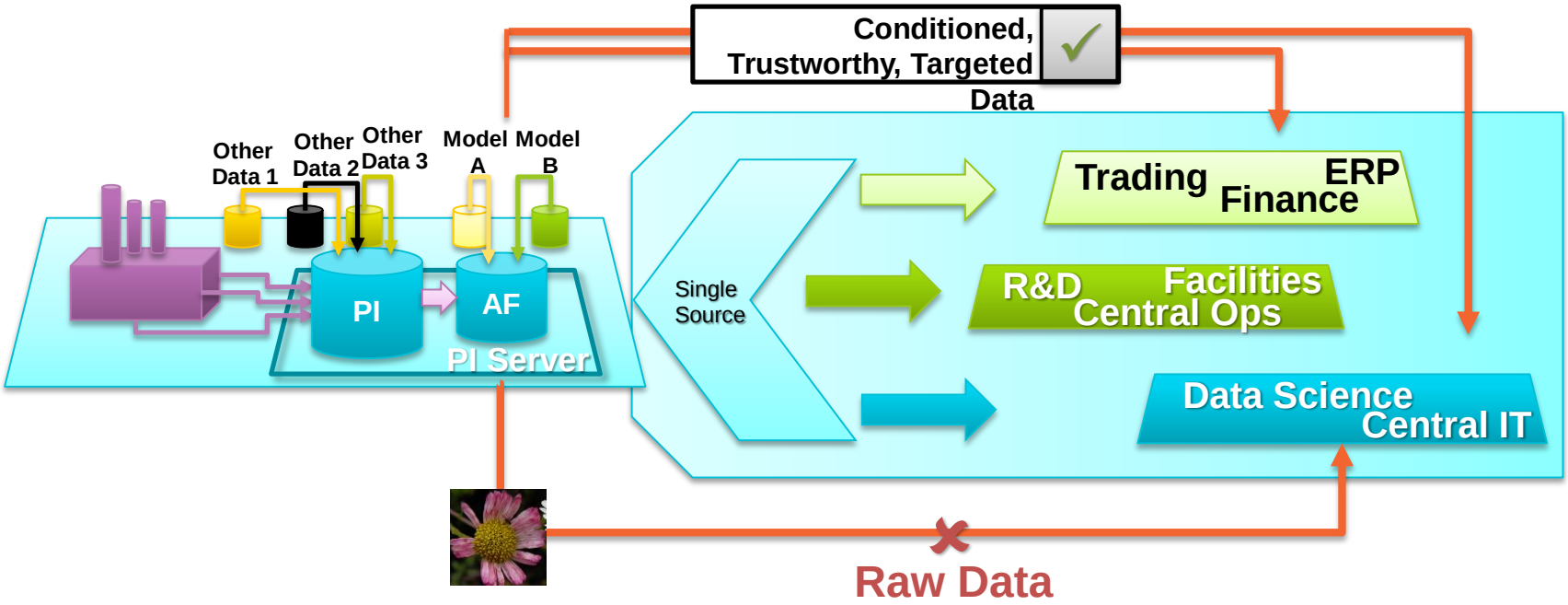
Decision-Ready Data



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Big Data and the PI System

From an OSIsoft perspective Big Data is three separate categories of things:

Bring calculations to the data

Systems of engagement vs systems of record

Identify the conversation

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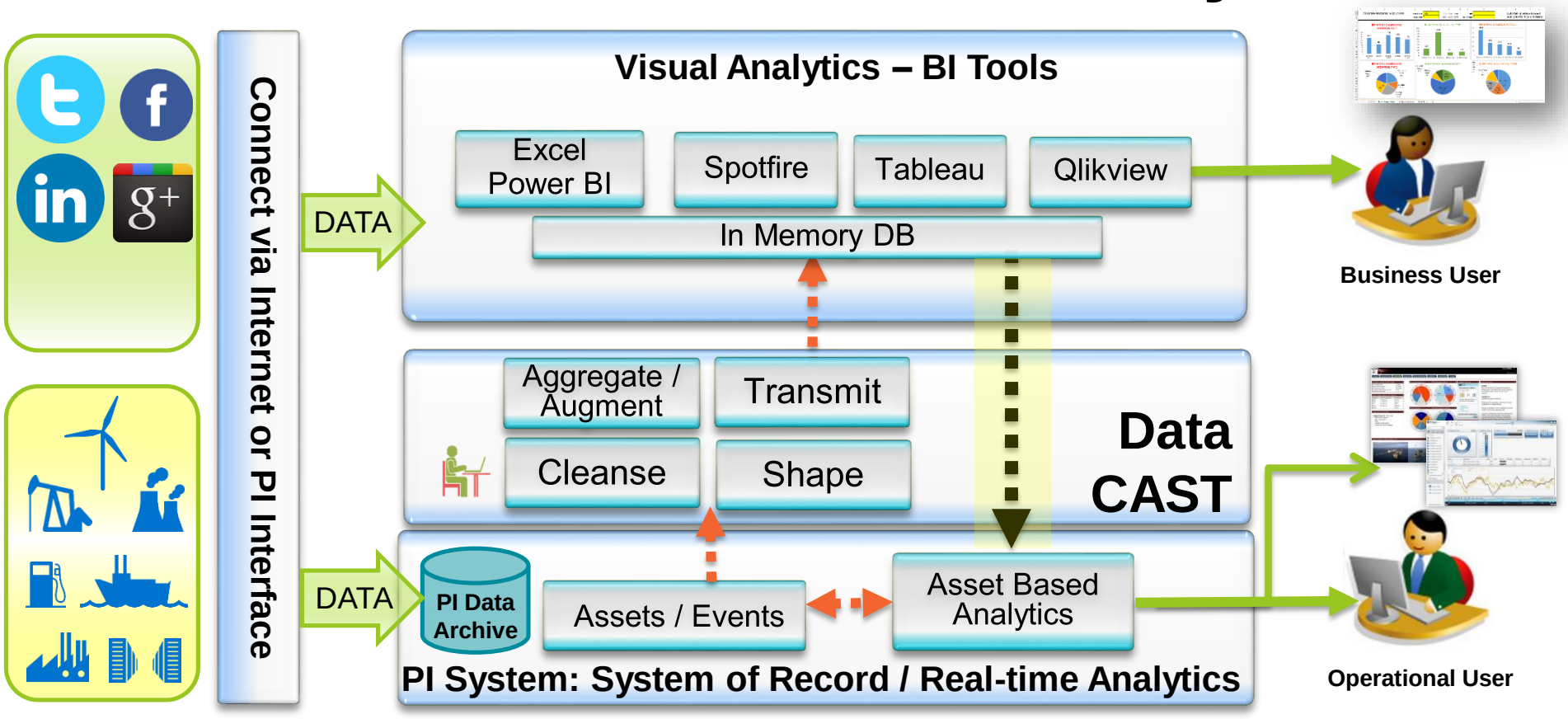
PI Infrastructure for Visual Analytics



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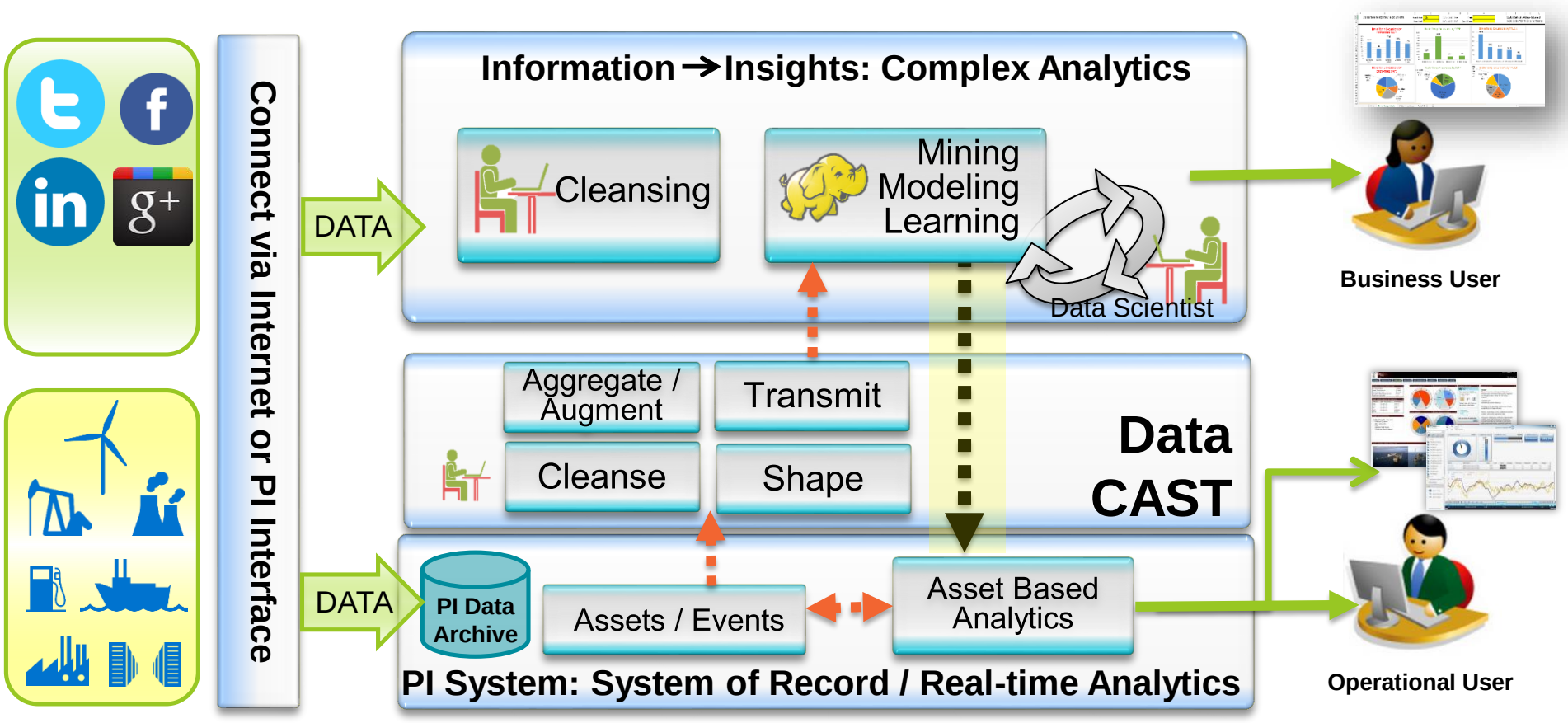
PI Infrastructure for Statistical Analytics



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CAST Features

- Fully leveraging PI AF/EF on any PI AF Model, any style
- Curated, Trusted Data Publication
- Published Data is complete and relevant
- Support Small and Large Publications
- Evergreen Publications
- Enable Collaboration
- Feedback into the PI System

Cleanse, Augment Shape Transmit = CAST

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Direct Visual Analytics

Transformer	Count
0985336707	52279
3945435251	8308
3945935235	4217
3946635311	12848
3946835212	4217
3947235159	17414
3958335267	4381
4020234162	4386
4020334115	2919
4024534242	10006
4025234237	10264
4025734267	12153
4026135386	1388
4028735584	12278
4031635525	8628
4031735581	13155
4035235461	4385
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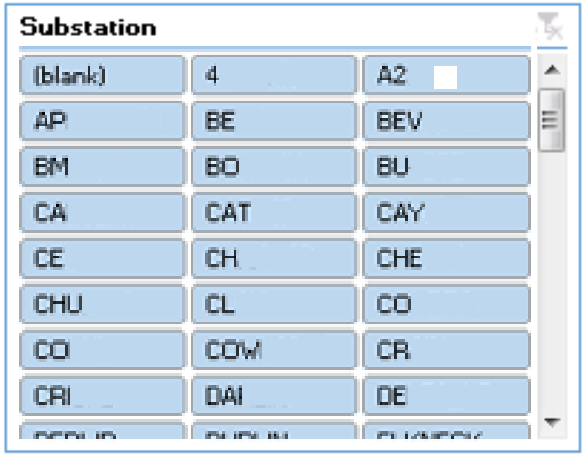

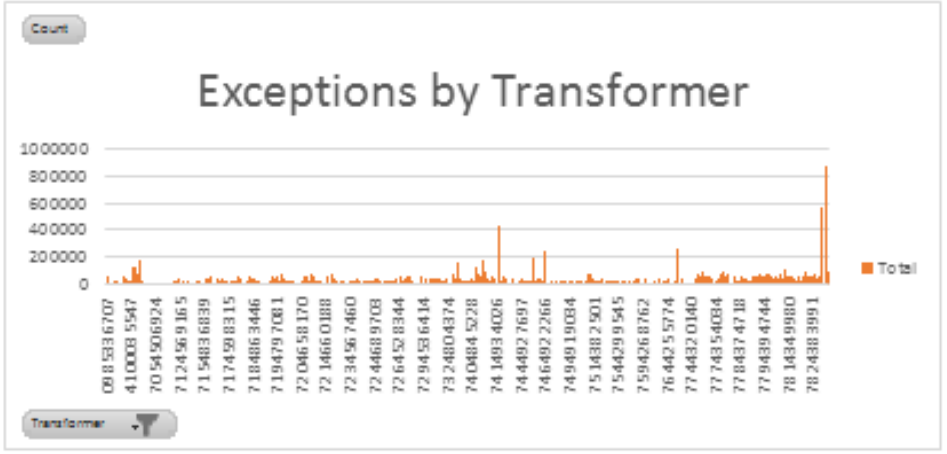

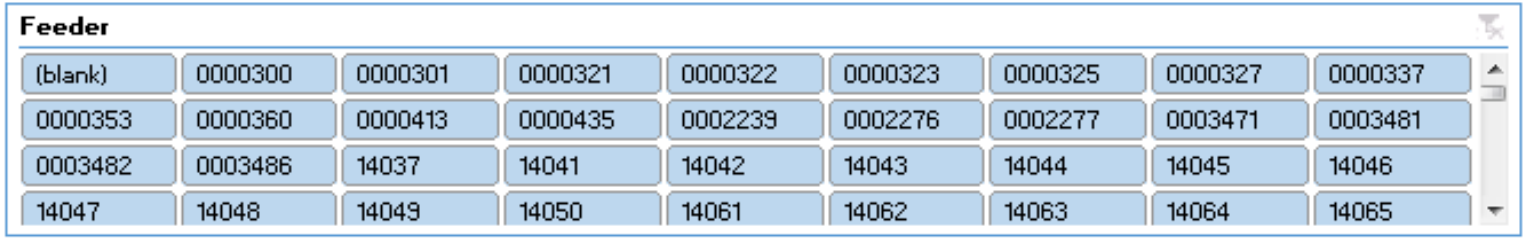

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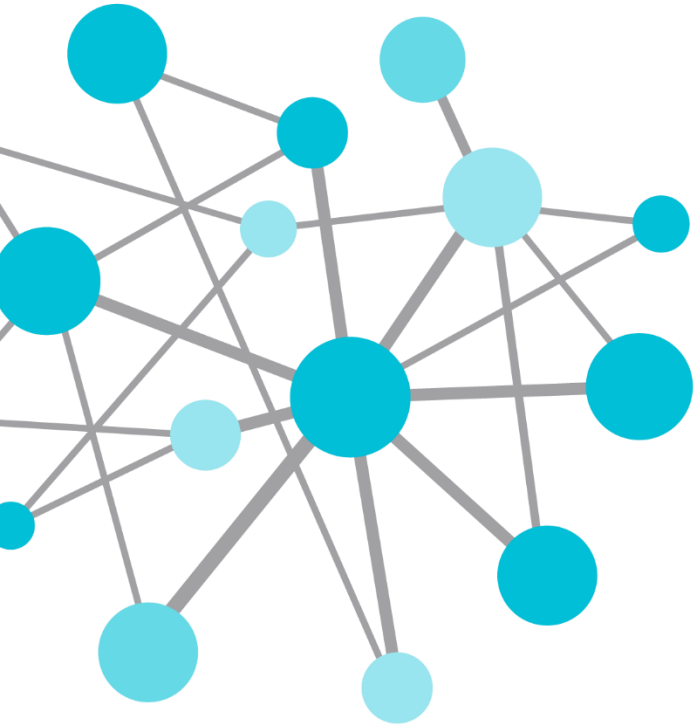

Interfaces vs. Connectors

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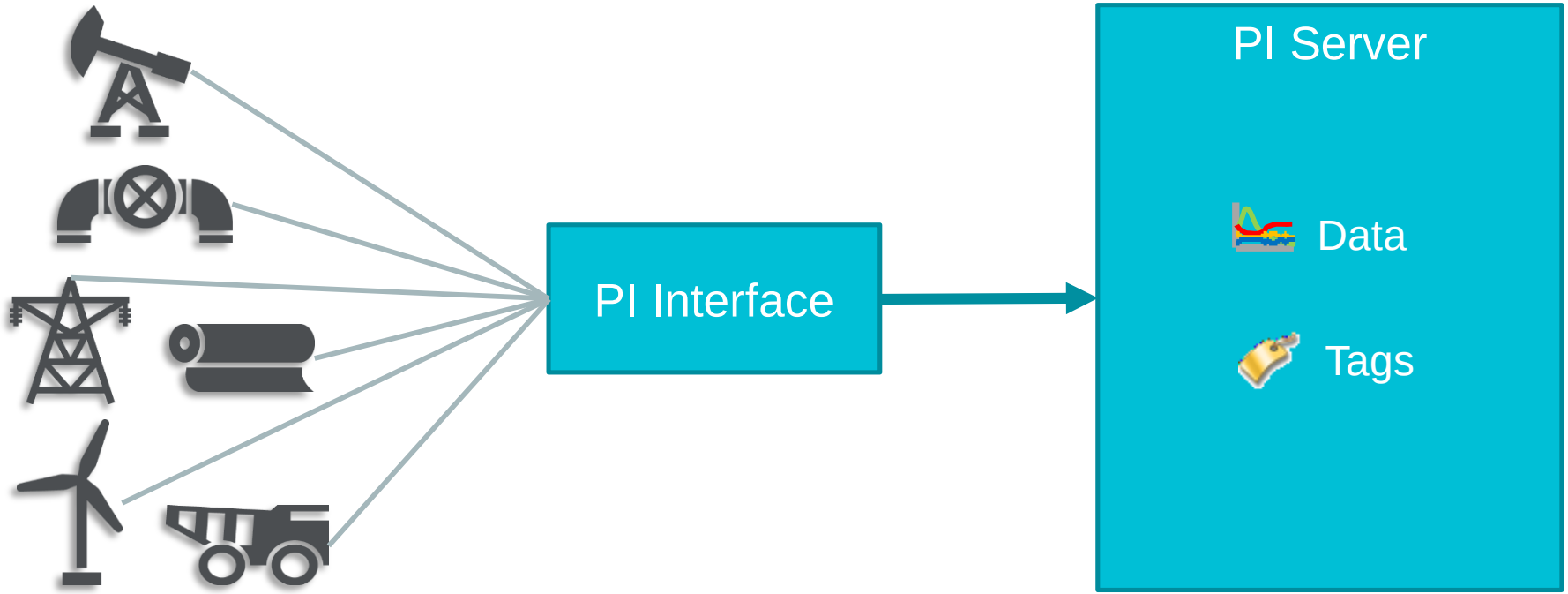
PI Interfaces:
Proven and reliable data collection



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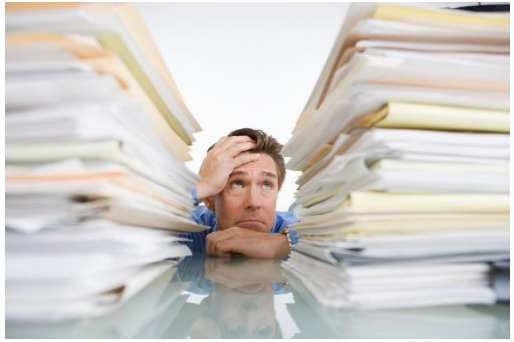
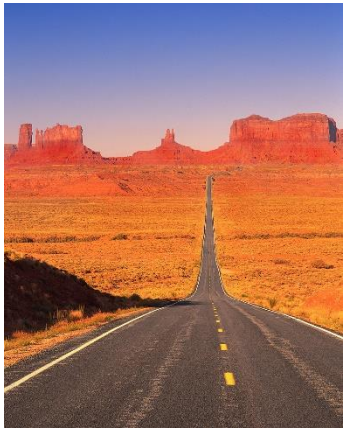
Challenges We Have Heard



- Spend lots of time configuring tags
- Challenging to configure interface
- Time consuming to build an asset model



- Collect high speed data
- Collect data from many new systems

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Can I opt out of collecting some of the data?

GOAL – Make it easy for you to collect data

Under development:

1. Filter out asset types you don't want
2. Filter out data you don't want from a specific asset type
3. Preview of what will be created in PI Server

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PI Connector for CygNet

- CygNet SCADA system collects data from various assets, such as:
  - Batteries (Oil treatment facilities)
  - Communication Devices
  - Wells

- Real-time data and metadata

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PI Connector for EtherNet/IP

- EtherNet/IP standard managed by ODVA
- Industrial Protocol over Ethernet based on CIP

PI Connector

PI Server

Tags

Data

Assets

Events

- Class 1 messages
- High rates (<10millisecond)

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On the road

- PI Connector for CygNet
- PI Connector for EtherNet/IP
- PI Connector for Kongsberg
- PI Connector for DC Systems RTscada
- PI Connector for Wonderware Historian

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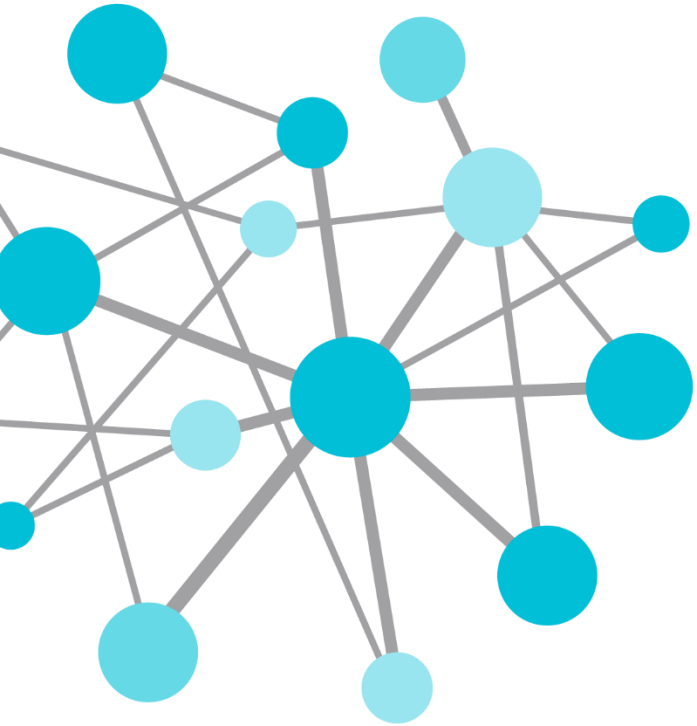

Future Data in the PI Data Archive

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PI Server 2015: Future Data

STORE

ANALYZE

MONITOR

REPORT

PI Server 2015 lets you manage large amounts of both historical and future data.

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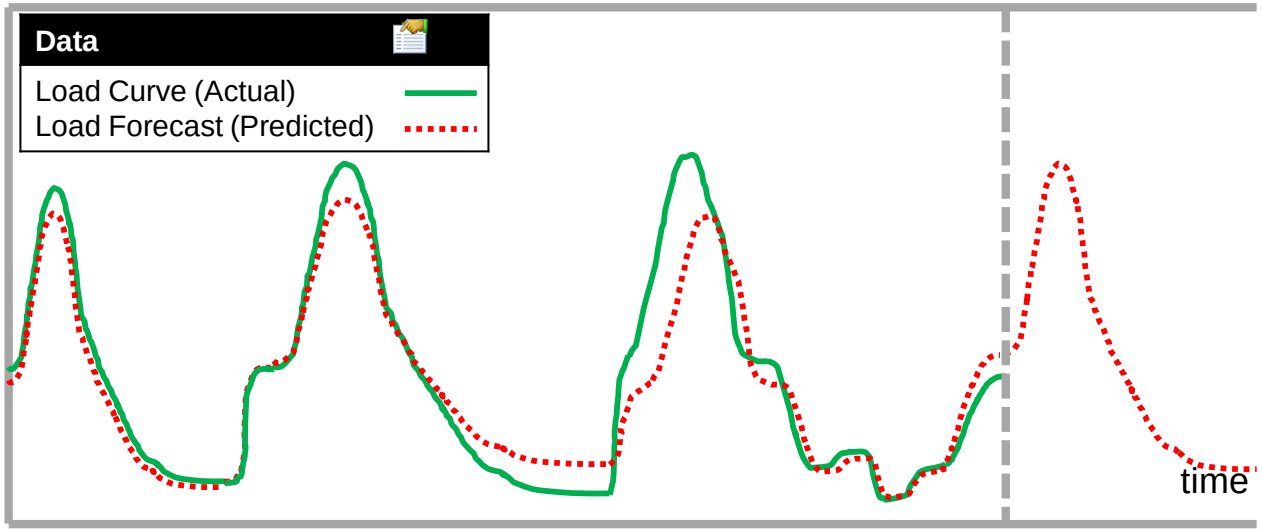
Future Data



- PI Server 2015
- Visualization enhancements
- Batch Database to Event Frames Migration integrated
- Beta available now!

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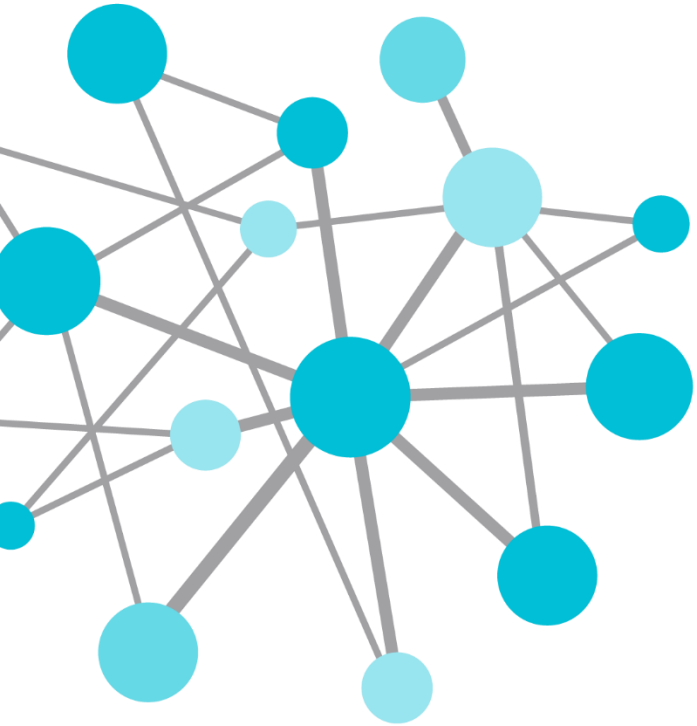

PI Cloud Connect

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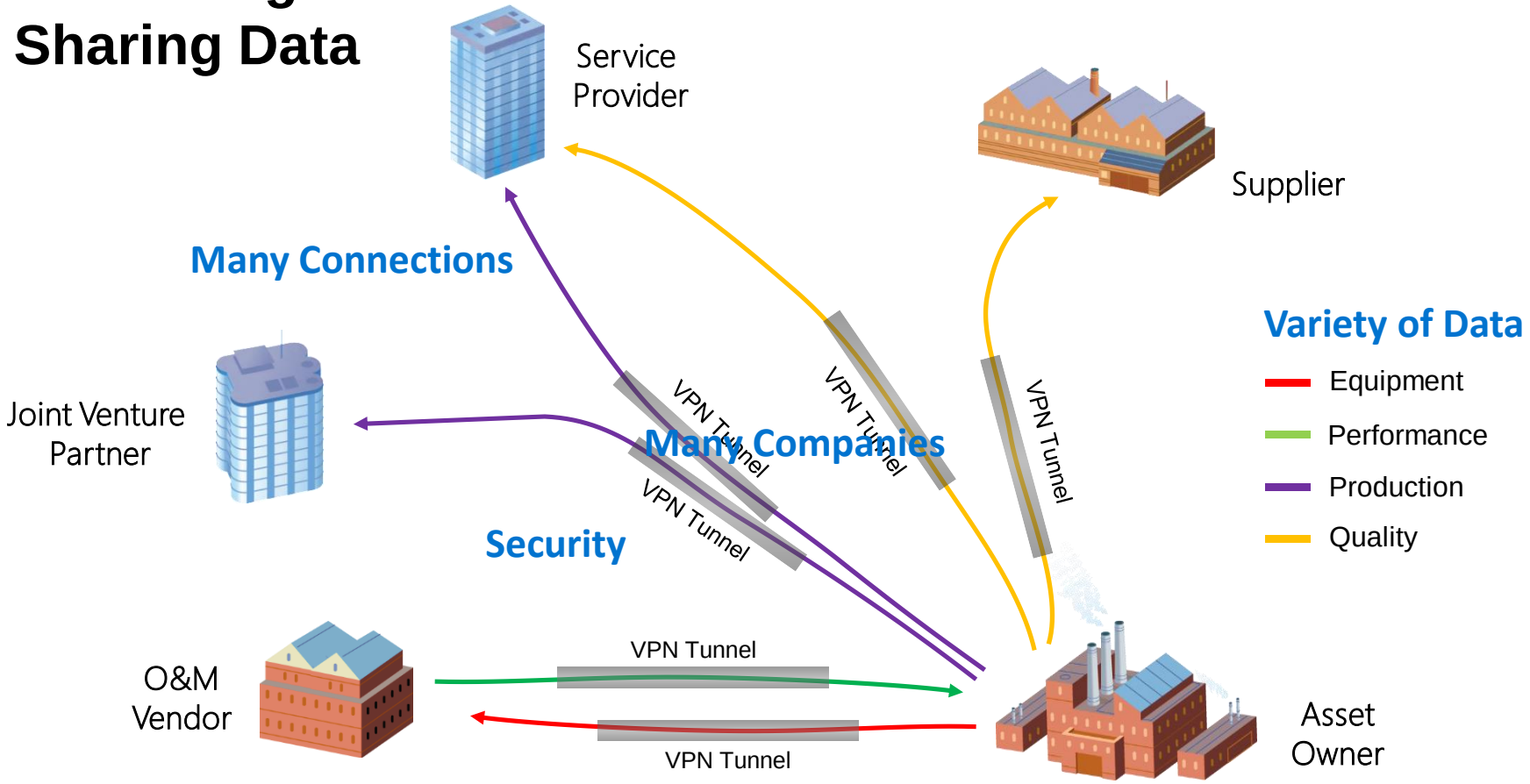
The Challenges of Sharing Data



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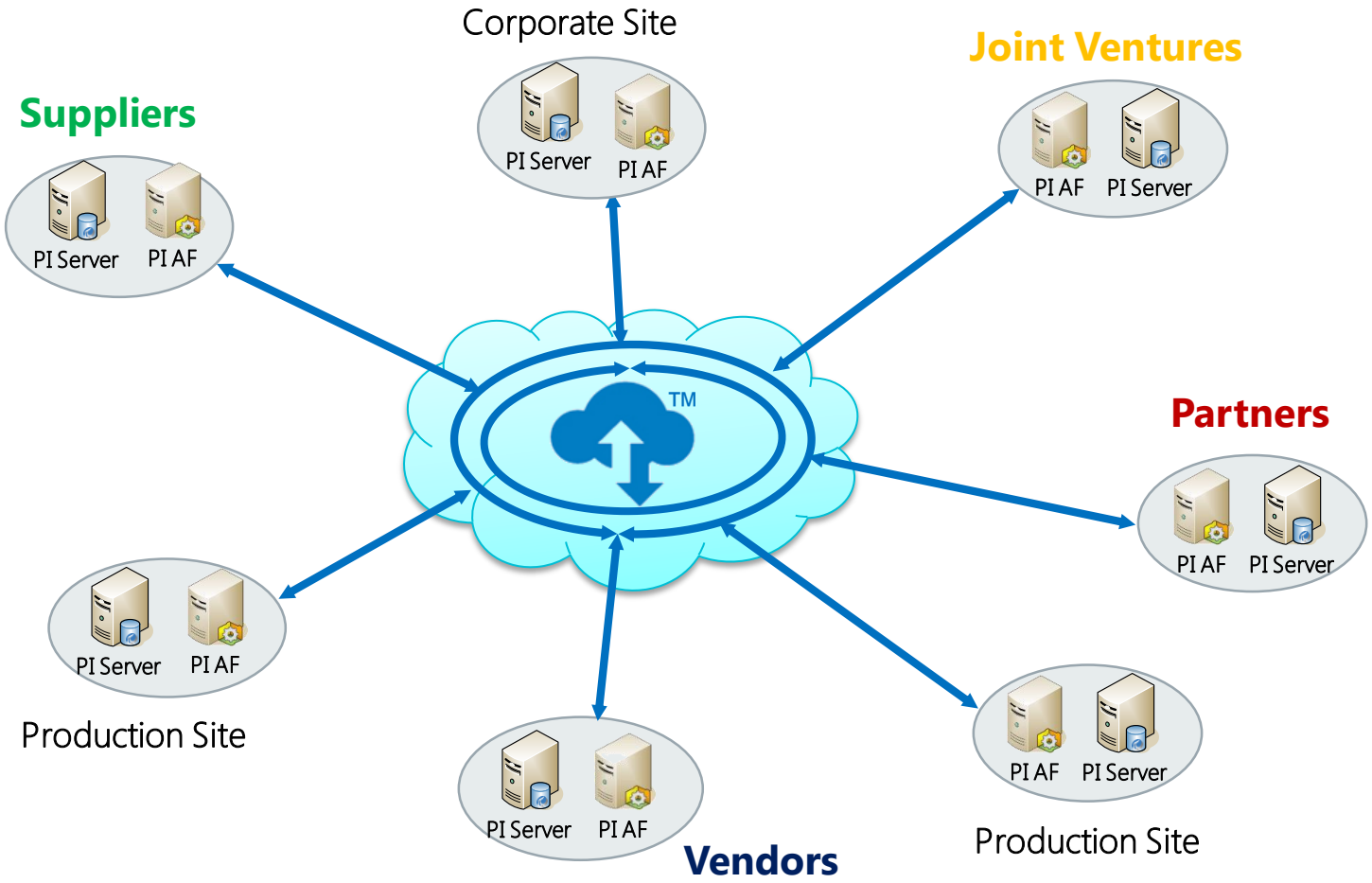

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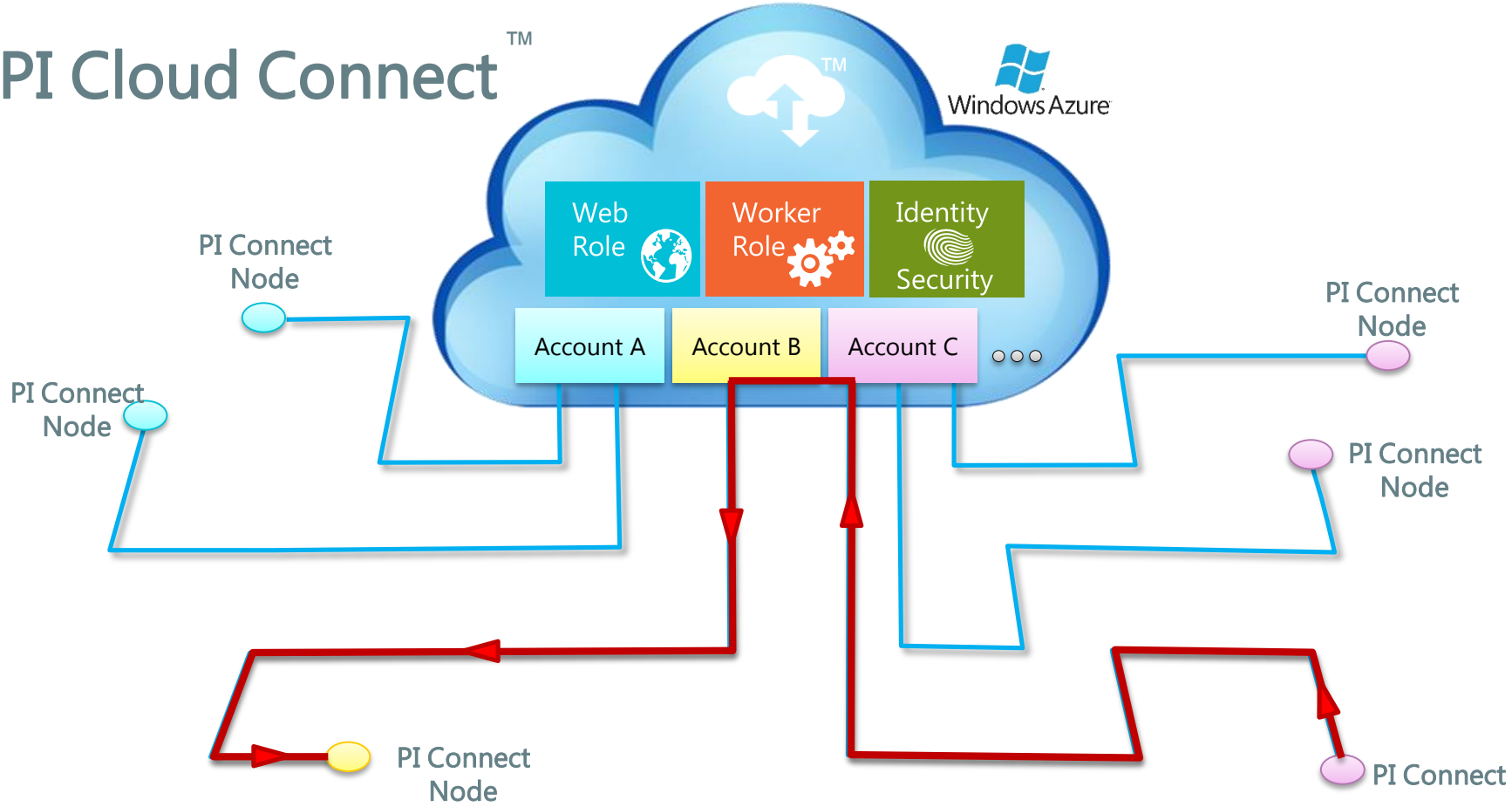
PI Cloud Connect™



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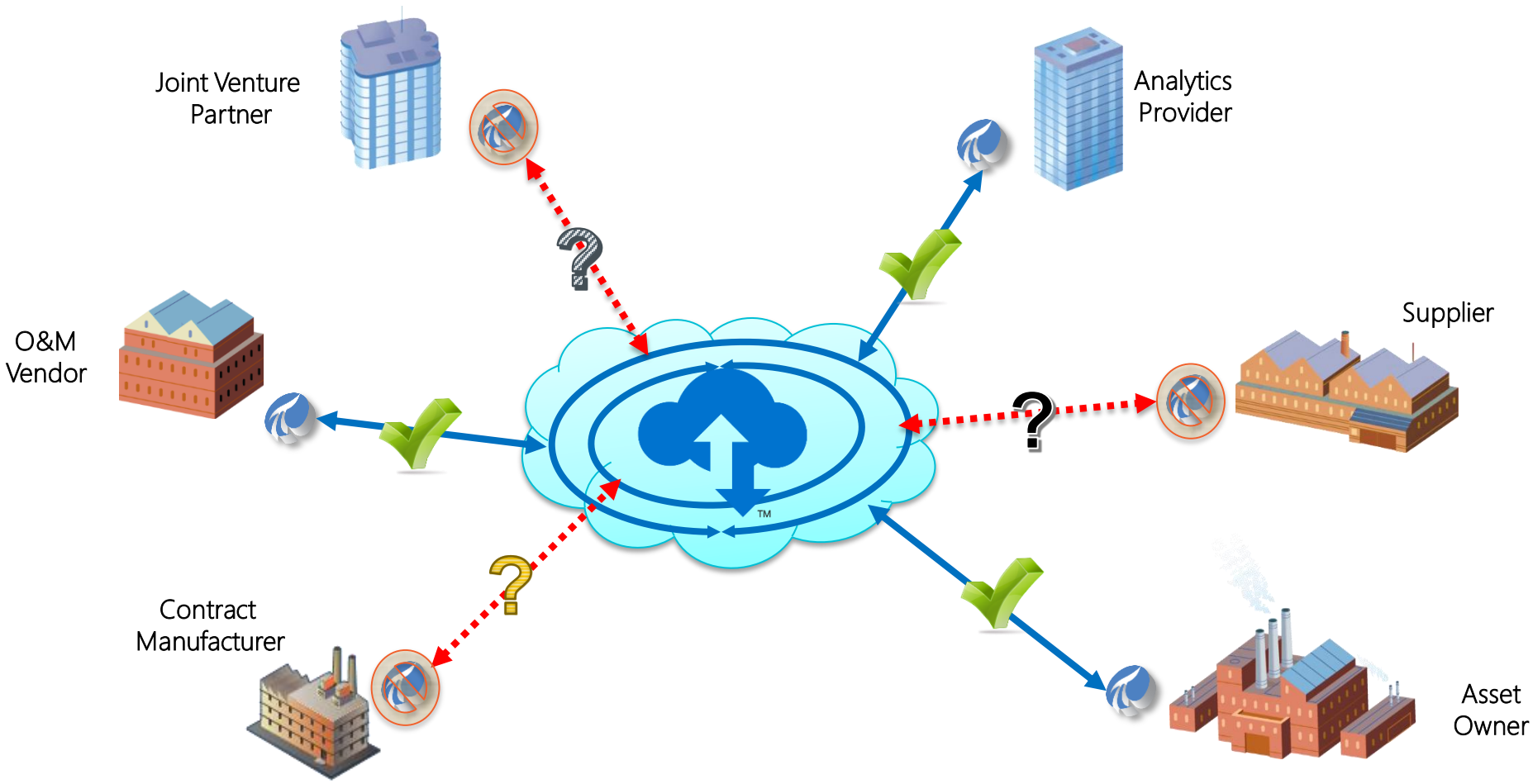

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Solution: Connected Services Agreement

Software

- Custom PI System software bundle needed to successfully deliver value services
  - PI Interface(s)
  - PI Server(s)
  - PI Visualization tools

Cloud Services

- PI Cloud Connect

Support Services

- SRP
- Start-Up Services Package
- OSIsoft NOC Monitoring

- Pay-as-you-Grow Subscription Terms / Non-Perpetual
- Pricing Metrics Based on Assets Monitored
- Offered to Suppliers who do not Own the Equipment

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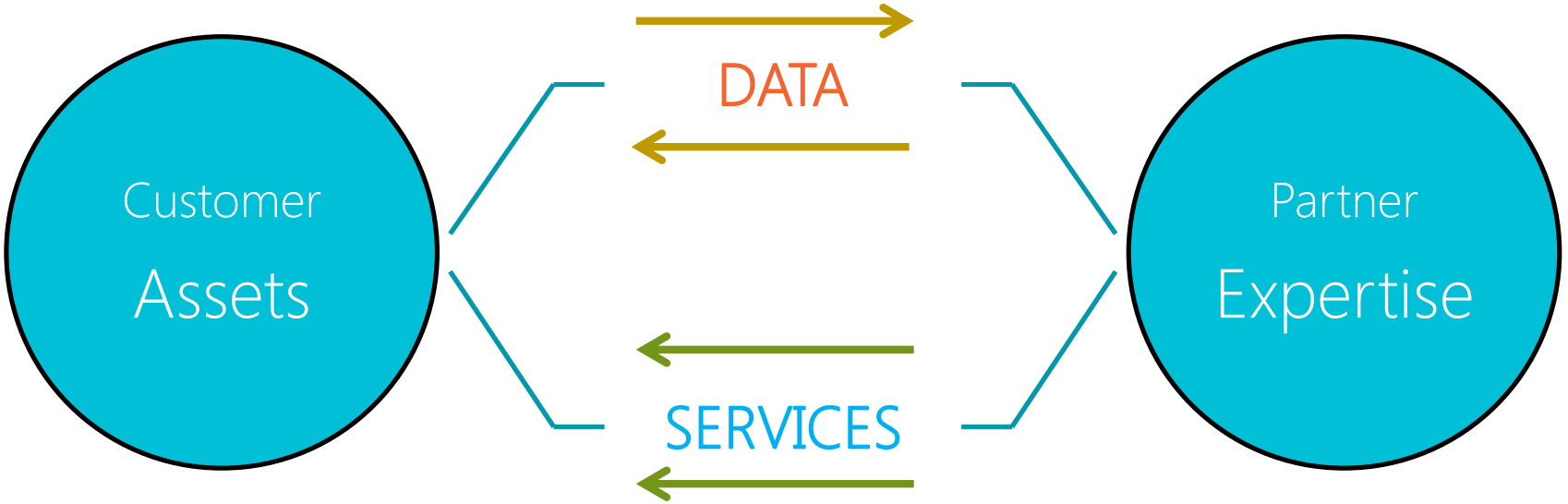
What does this look like?



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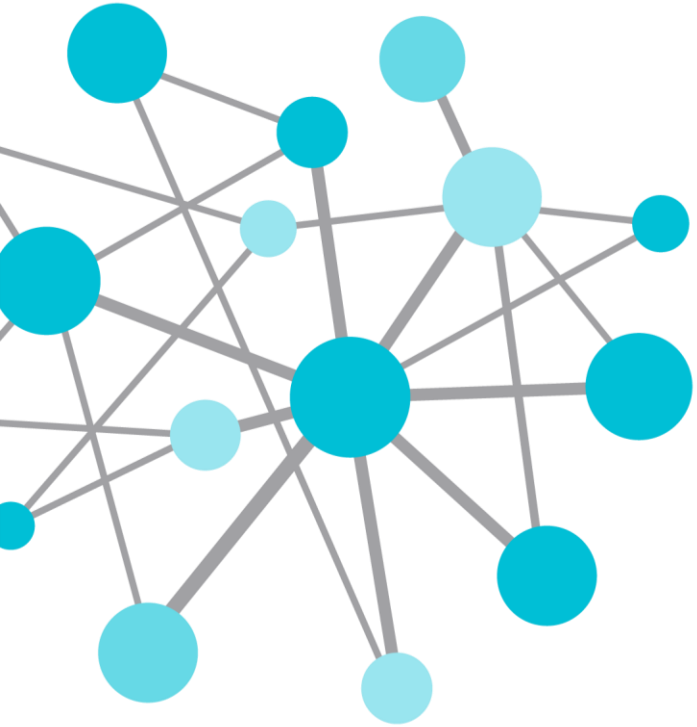

THANK YOU

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