



# PI System Roadmap – New and on the Way

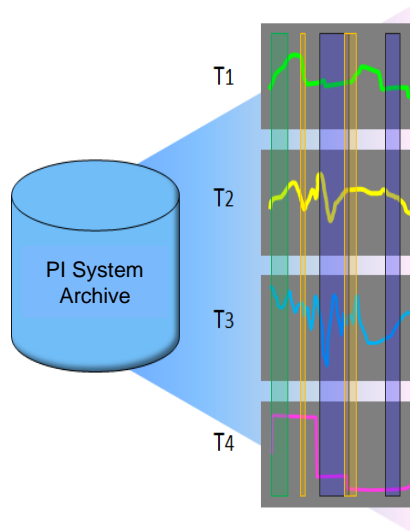
Presented by

**Tadeas Marciniak**, Field Service and Customer Support EMEA, OSIsoft

# Agenda and Expectations

- This presentation assumes:
  - You know the PI System basics
  - You want to hear about what is coming to the PI System in the >6 month horizon
- Very few specific dates
- All information is subject to change
- We want your feedback and suggestions!

# PI System Themes - Future



## Asset Centric PI System

Manage data via Asset context – Reuse many times

## Event Frames

Identify and use important events and related data

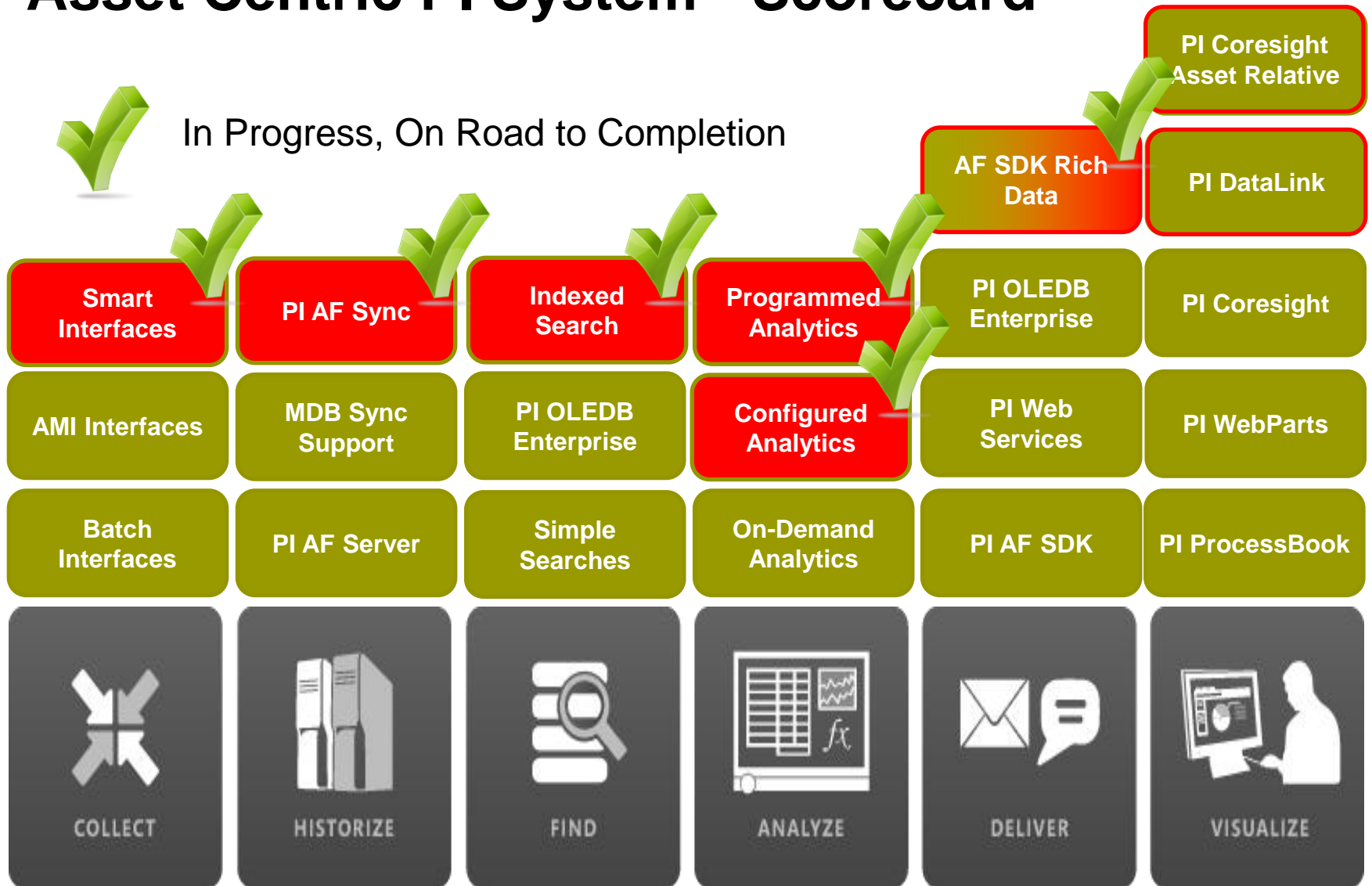
## Mobile

Many Devices  
Touch Centric  
Role Focused

## Cloud

More Data  
Access Anywhere  
Trans-Enterprise

# Asset Centric PI System - Scorecard

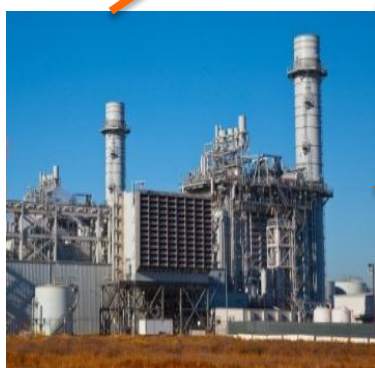


# PI AF to PI AF Scenarios

- Implement corporate standards
- Ensure commonality across enterprise
- Configuration changes, updates
- PI Event Frames and data to support analysis and KPIs



Templates







# Project Abacus

Configured and Programmed  
Calculations for PI AF

# Project Abacus Use Case

## Extruding Process

Boiler Efficiency =  $AVG(B1..Bn)$

### Boiler1

Flow Out  
Fuel Flow Rate



Boiler  
Template

Efficiency =  $(\text{Flow Out} / \text{Fuel Flow Rate} * 3.14)$



### Boiler2

Flow Out  
Fuel Flow Rate

Or myProgrammedCalc (Flow Out, Fuel Flow Rate)

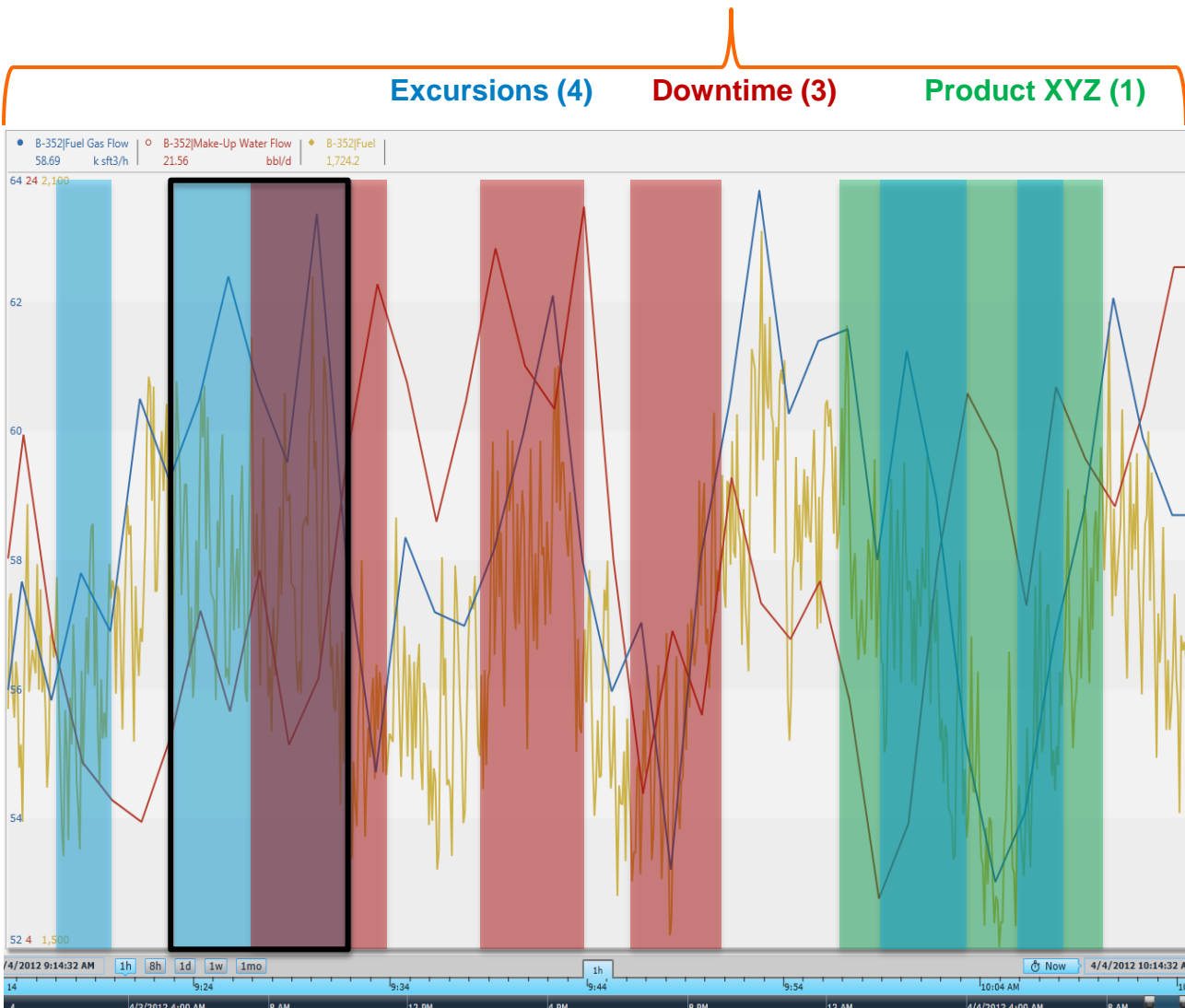
Efficiency

### Boiler3

Flow Out  
Fuel Flow Rate  
Efficiency



# PI Event Frames is a core capability of the PI Server to record important process or business events and help you find the *related data*.

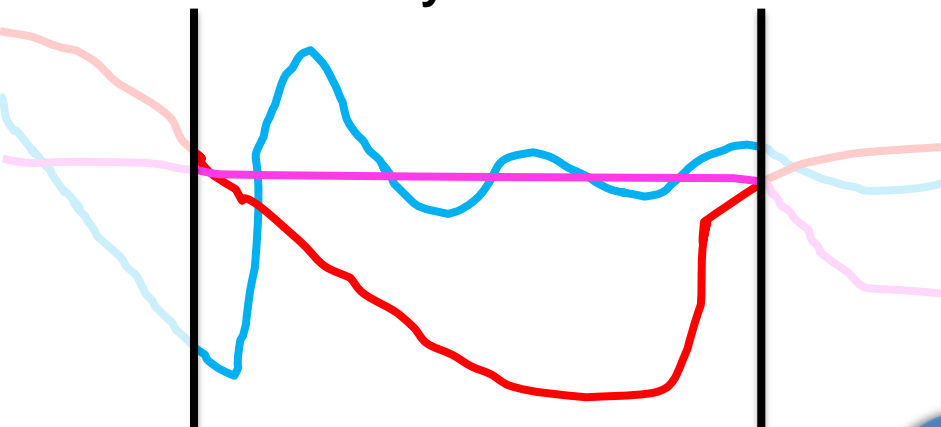


Event Attribute	Value
Name	Ex 20121215-0002
Start	15-Dec-2012 10:35:02
End	15-Dec-2012 10:47:26
Duration	12 min, 24 sec
Asset	Boiler-459
Excursion Type	High Violation
Fuel Gas Flow.Avg	37.12 k sft3/h
Fuel.Start	823.48 k sft3/ton
myPIKPI.Max	47.19 bbl/d

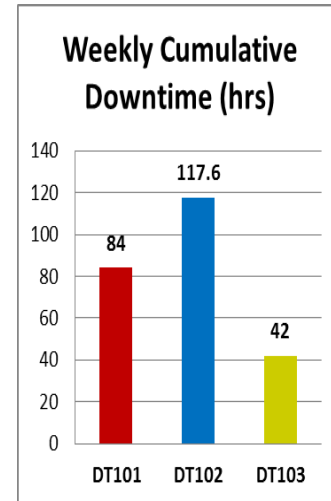
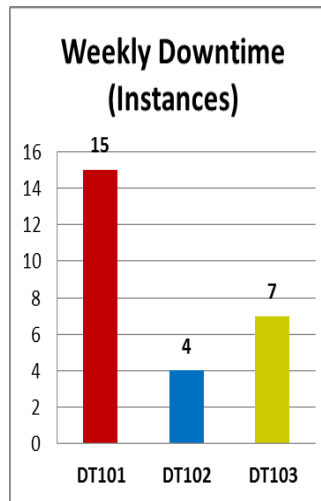


# Simplify Data Analysis

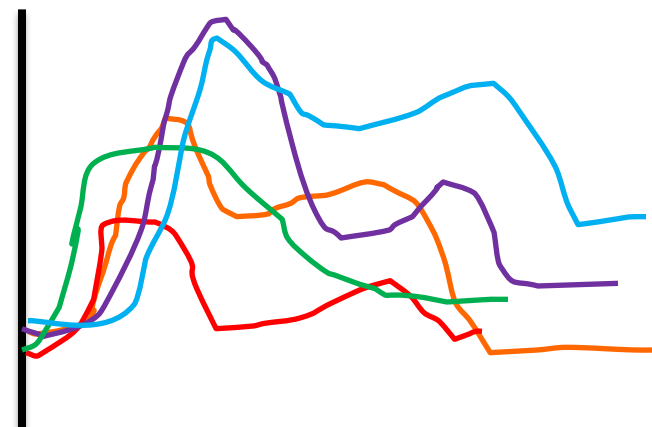
## myEvent



# Perform Asset Comparisons



## Event Overlay Trend (Temp)

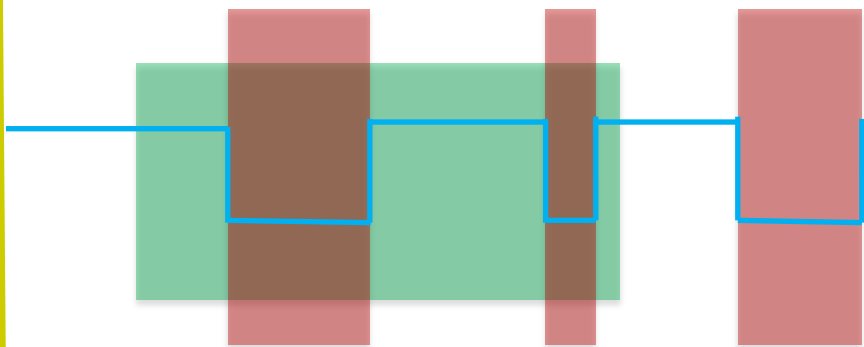


Name	Temp.Max
EF1	122.47
EF2	109.34
EF3	112.73
EF4	98.61
EF5	125.24

## Downtime Events for Product XYZ

Product XYZ (1)

Downtime (2)



# Perform Event Comparisons

# Discover Event Interrelationships

### EVENT FILTERS

**Duration**  
 Longer Than  Shorter Than   
 0 m  200 m

**Category**

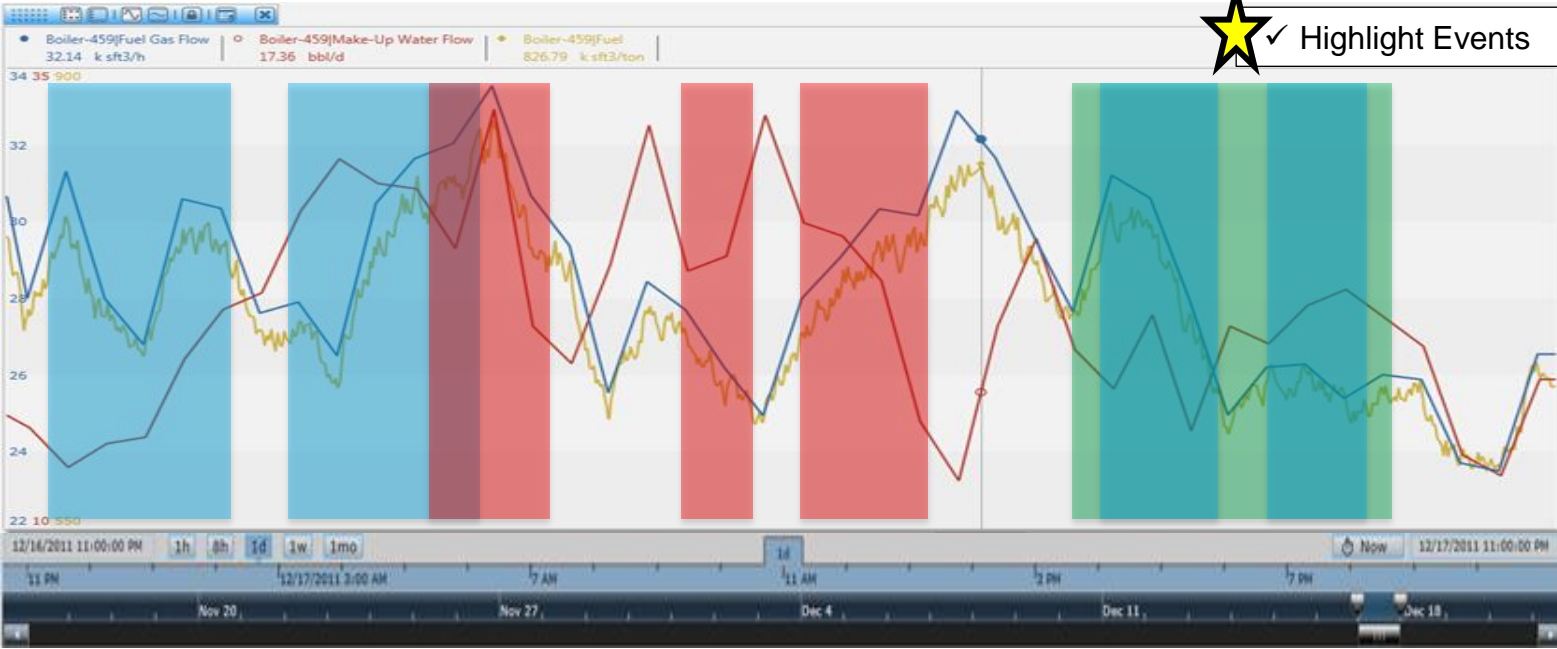
- Excursions (4)
- Downtime (3)
- Product XYZ (1)

**Template**

- Boiler Downtime (3)
- Boiler KPI Excursion (4)
- PIUnitBatch (1)

**Temp.Max**  
 Greater Than  Less Than   
 C  100 C

Name	Start	End	Duration	Element	Category	Template	Reason Code	Temp.Max
Ex01	16-Dec-2011 23:05:48	17-Dec-2011 00:25:24	01:19:36	B-459	Excursions	Boiler KPI Excursion	High Temp	91.2
Ex02	17-Dec-2011 02:37:19	17-Dec-2011 04:12:07	01:34:48	B-459	Excursions	Boiler KPI Excursion	Low Pressure	54.1
DT45	17-Dec-2011 04:31:22	17-Dec-2011 05:20:34	00:49:12	B-459	Downtime	Boiler Downtime	Broken Thermo	32.4
DT46	17-Dec-2011 07:56:58	17-Dec-2011 08:19:46	00:22:48	B-459	Downtime	Boiler Downtime	Broken Thermo	31.7
DT47	17-Dec-2011 09:41:22	17-Dec-2011 10:52:58	01:11:36	B-459	Downtime	Boiler Downtime	Safety Shutdown	87.2
XYZ146	17-Dec-2011 13:12:34	17-Dec-2011 16:29:22	03:16:48	B-459	Product XYZ	PIUnitBatch	n/a	48.9
Ex03	17-Dec-2011 19:28:58	17-Dec-2011 20:41:22	01:12:24	B-459	Excursions	Boiler KPI Excursion	High Temp	95.3
Ex04	17-Dec-2011 21:44:58	17-Dec-2011 22:45:46	01:00:48	B-459	Excursions	Boiler KPI Excursion	Low Temp	20.4



Ex01

Ex02

XYZ146

DT45

DT46

DT47

Ex03

Ex04

# Find - PI System Search

- Optimized Search Engine for the whole PI System
  - And perhaps related systems
- Indexed for high performance
- Weighted / Ranked Results
  - Helps you find things more easily
- Can crawl many PI System machines
- Includes client artifacts
  - PI ProcessBook Displays, PI Coresight Displays
- Common User Experience

# Visualization Landscape

**PI Coresight:**  
Ad Hoc Analysis & Collaboration



**PI WebParts:** Composite Apps, Shared broadly



Explore

Review

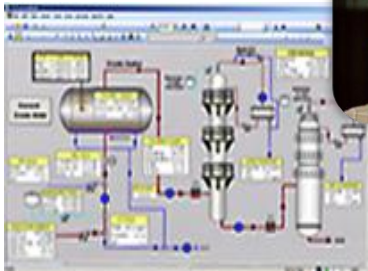
PI Clients

Monitor

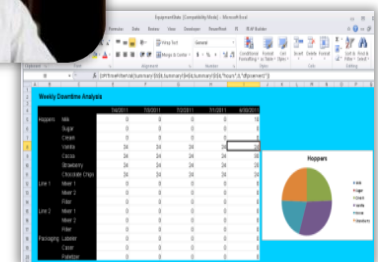
Report



**PI ProcessBook:**  
Display authoring and Process monitoring

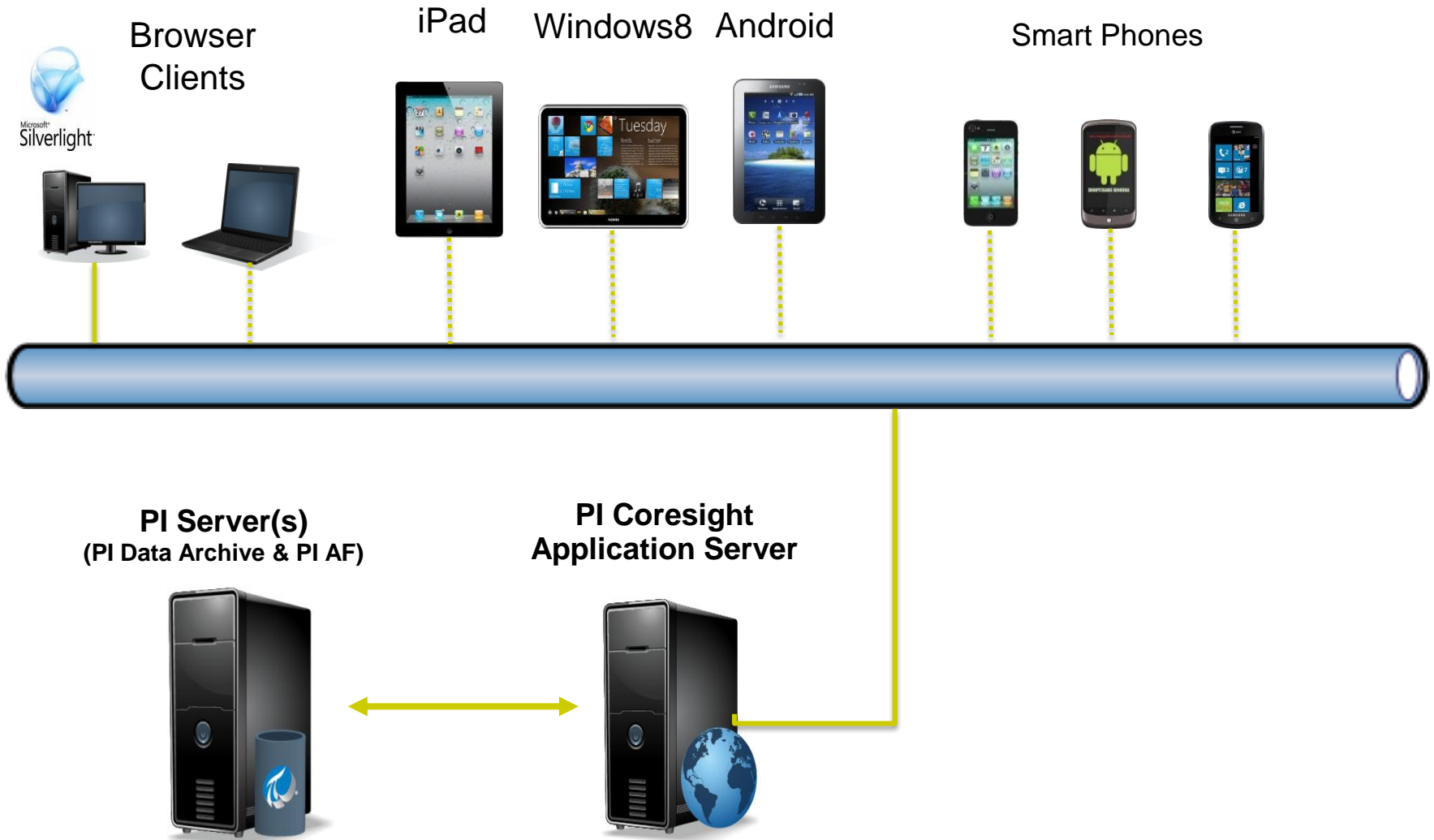


**PI DataLink:**  
Reporting and table based analytics in Microsoft Excel





# PI Coresight with Mobile Clients



# PI Coresight Tablet Edition – Target Audience

- Plant / Operations Management
  - Most likely to have iPad or similar device
  - Overview of how the plant/utility is running
  - Failures, Efficiency, KPIs, Actual vs Forecast
- Process Engineers / Corporate Plant
  - Identifying problems
  - Optimize processes – plant to plant
  - Create Content / Displays for management
- Maintenance
  - Manual Data Entry / Problem Recording
  - Troubleshooting – documents and real-time
  - Calibration



# PI Coresight Phone Edition – Target Audience

- Check in with Plant from Home / Road
- Tell me if something is wrong!
- Focus on Notifications, Acknowledge, Dispatch, and Escalation
- Give me some basic data related to notification
- Outside of plant - 3G, 4G, or public WiFi
- Personalization

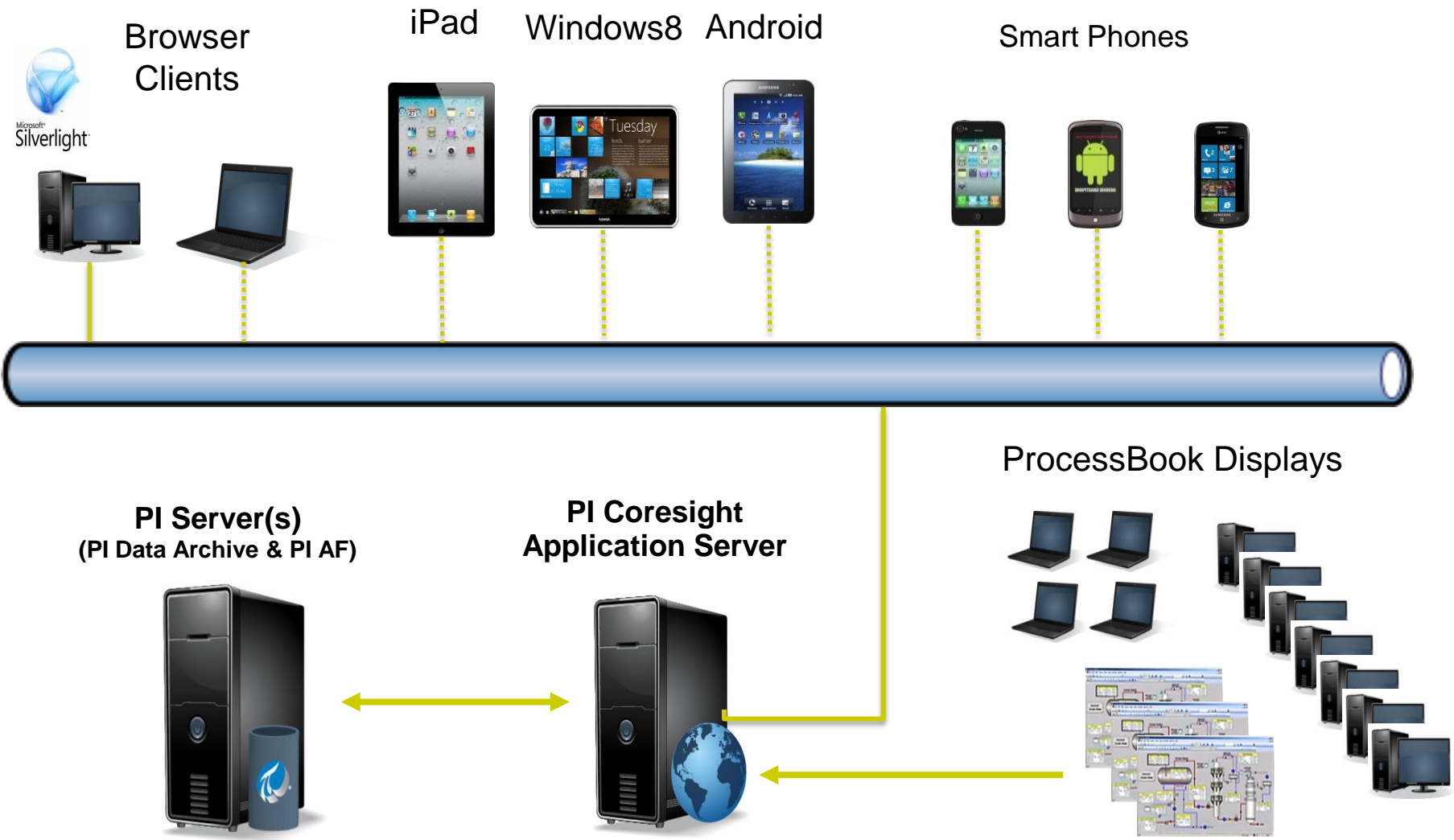




# PI Coresight Phone Demo



# PI Coresight – ProcessBook Display Viewer



# Evolution of Operating Systems



Windows Azure™

# PI Cloud Initiatives

## Add to existing PI System installations

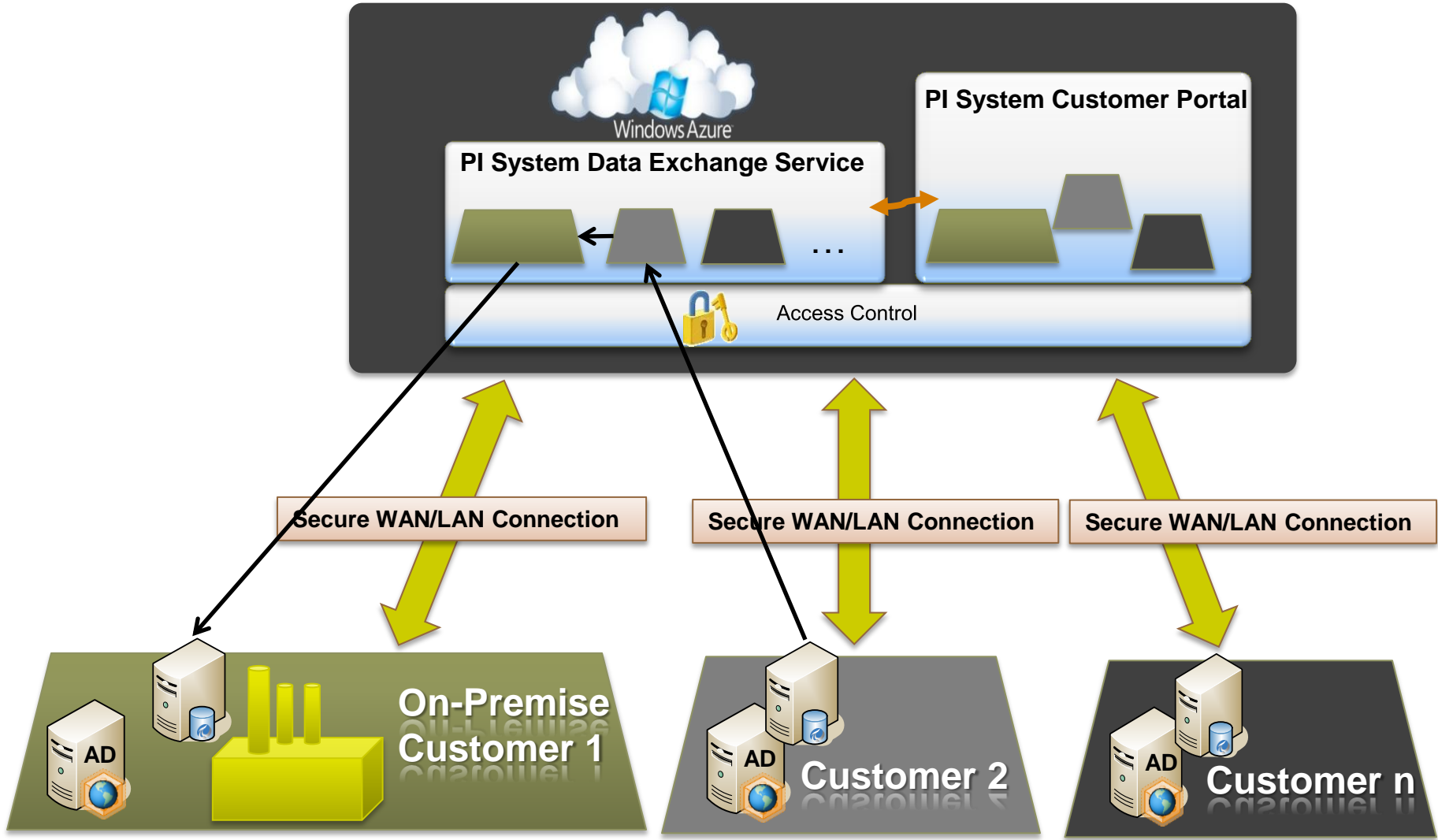
- PI System Management
- PI Data Exchange
- PI Coresight Service
- Data, Visualization and other services for Partner and Custom Apps

## Full PI System Deployment in the Cloud

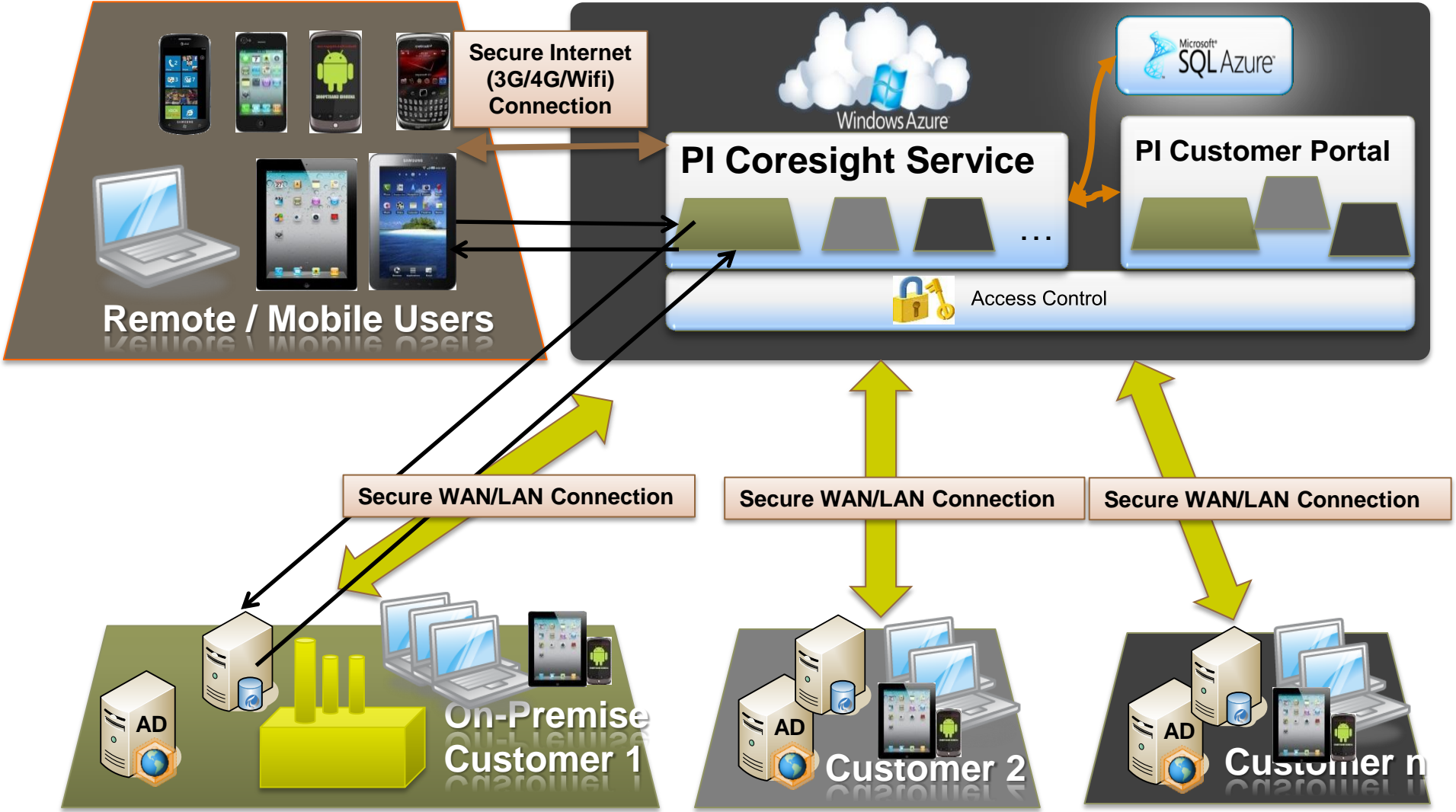
- Simplified Deployment and Management
- Take advantage of the Windows Azure Platform (PaaS)
- Functionality you know in the PI System today plus much more
- Highly efficient and elastic



# PI Data Exchange Service



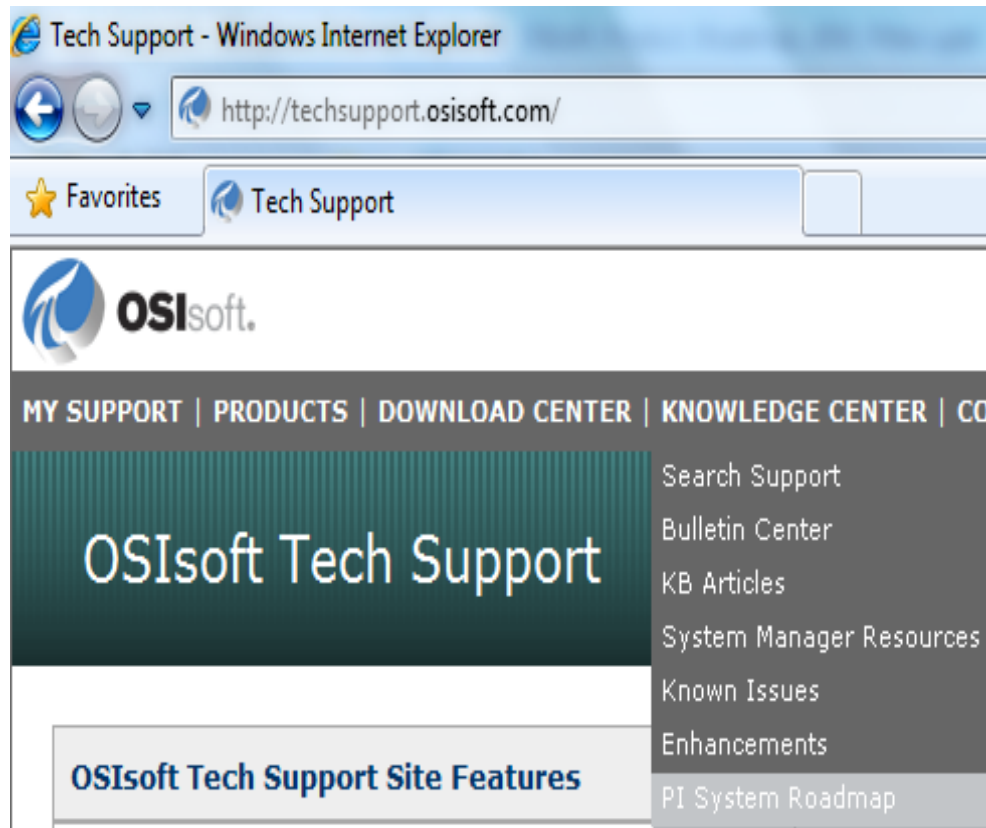
# PI Coresight Service with Mobility



# Stay Up-To-Date on the Web

- PI System Roadmap on OSIsoft Technical Support Site

<http://techsupport.osisoft.com/techsupport/NonTemplates/roadmap.aspx>



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# THANK YOU

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