# Inside Support Quest for Value

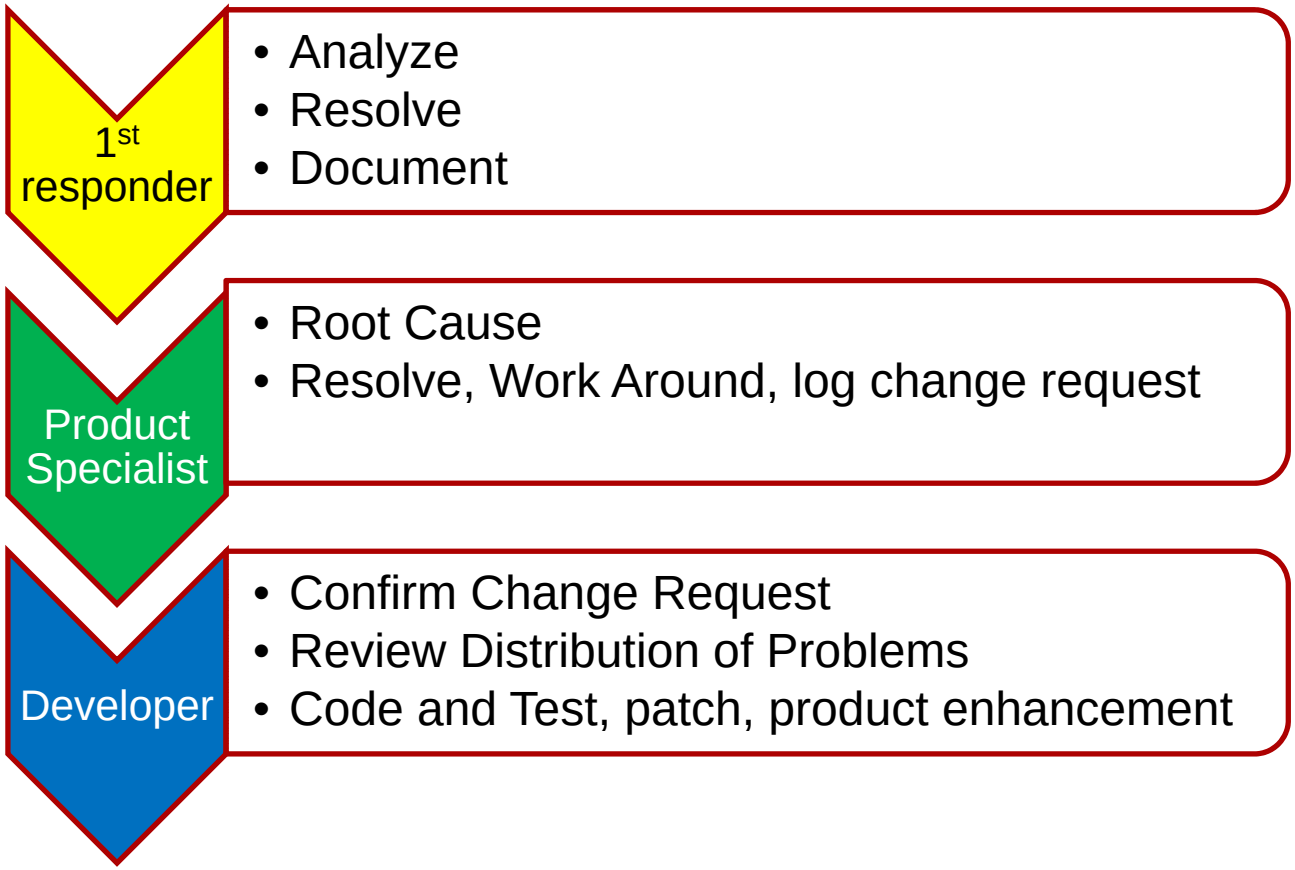
Presented by

Don Smith

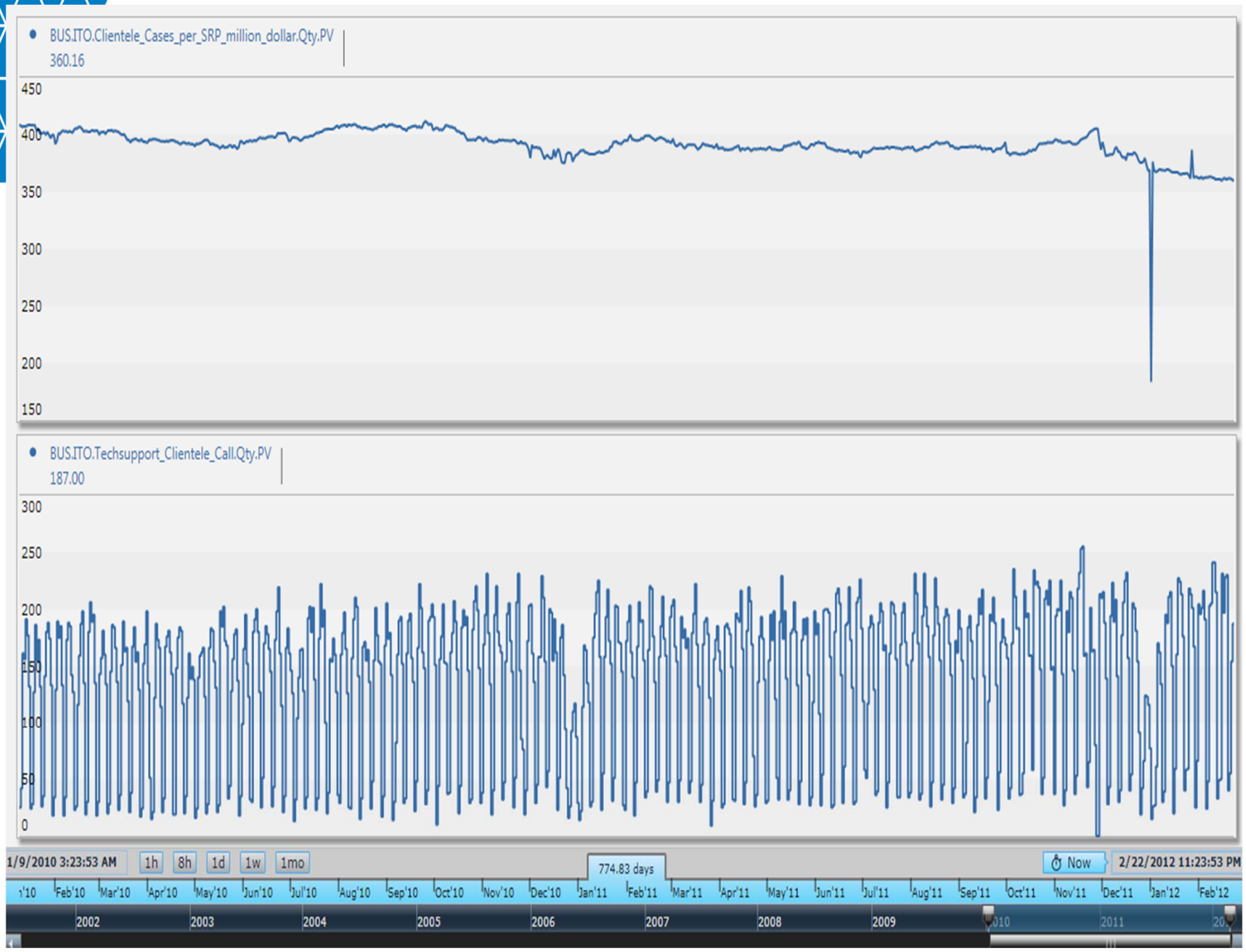
OSIsoft Customer Support Vice President

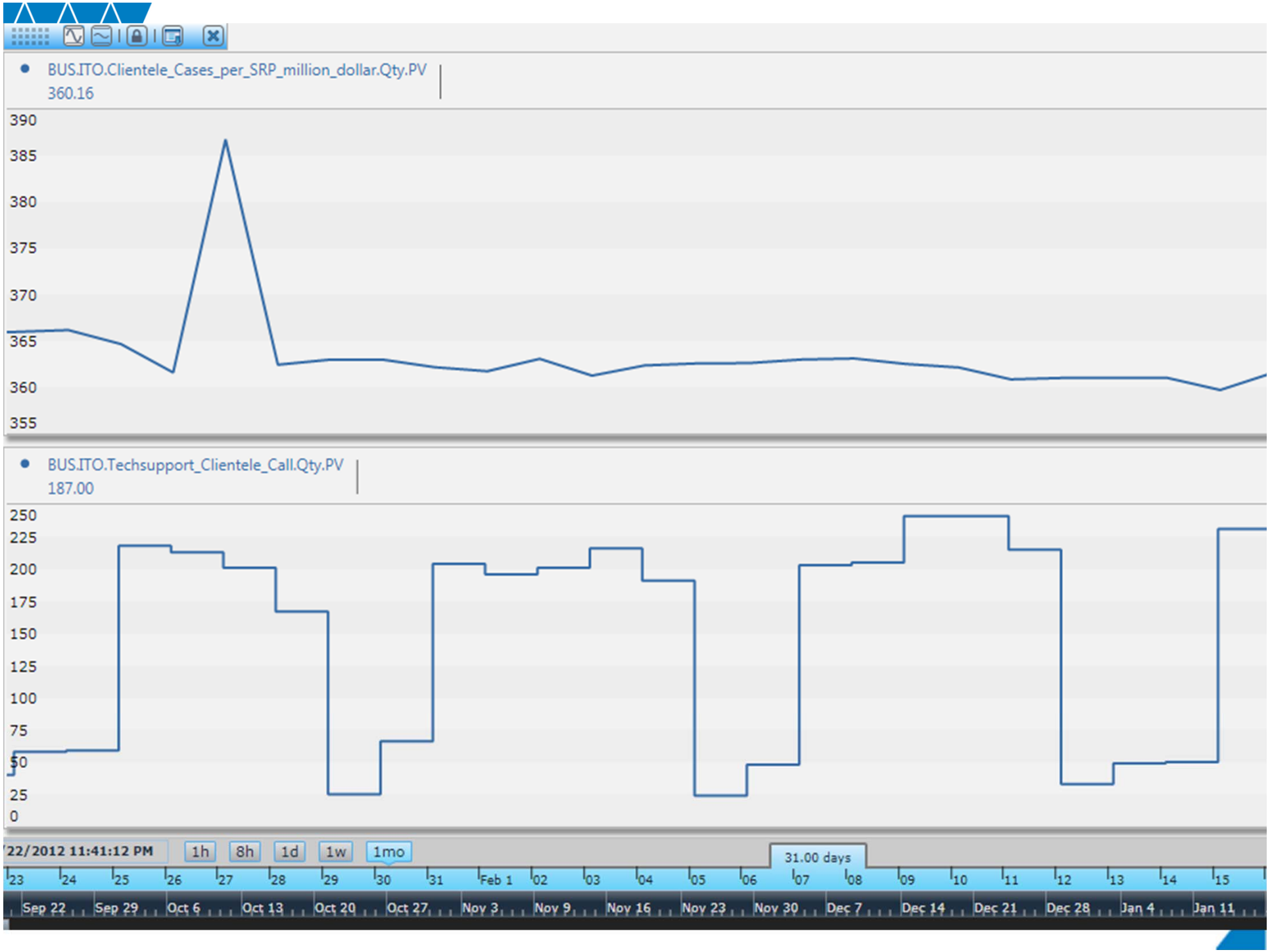
- Initiate a support action
  - Phone call 30% of work
  - Web or Email, allows more complex discussion, english not as critical 40% of work
  - NOC (pi monitoring raises action) customer often doesn’t know of problem, osi engineer has history of performance, changes, loggfiles and customer specific requirements, 30% direct connect w/o permission, service activity is auditable (silent movies) 25% of work
- Conversation of Voice Mail (80% probability of person)

# Support Workflow



- 1st responder
  - No untrained responders,
  - Currently able to solve 86% of all cases without assistance.
  - Esclates based on time, urgency and personal knowledge
- Product Escalation Engineer
- Developer
- Developer Testing
- User Acceptance Test by team to confirm solution


BUS.ITO.Clientele_Cases_per_SRP_million_dollar.Qty.PV
360.16
450
400
350
300
250
200
150
BUS.ITO.Techsupport_Clientele_Call.Qty.PV
187.00
300
250
200
150
100
50
0
1/9/2010 3:23:53 AM
1h
8h
1d
1w
1mo
774.83 days
Now
2/22/2012 11:23:53 PM
Feb'10
Mar'10
Apr'10
May'10
Jun'10
Jul'10
Aug'10
Sep'10
Oct'10
Nov'10
Dec'10
Jan'11
Feb'11
Mar'11
Apr'11
May'11
Jun'11
Jul'11
Aug'11
Sep'11
Oct'11
Nov'11
Dec'11
Jan'12
Feb'12
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011


BUS.ITO.Clientele_Cases_per_SRP_million_dollar.Qty.PV
360.16
390
385
380
375
370
365
360
355
BUS.ITO.Techsupport_Clientele_Call.Qty.PV
187.00
250
225
200
175
150
125
100
75
50
25
0
22/2012 11:41:12 PM
1h
8h
1d
1w
1mo
31.00 days
23
24
25
26
27
28
29
30
31
Feb 1
02
03
04
05
06
07
08
09
10
11
12
13
14
15
Sep 22
Sep 29
Oct 6
Oct 13
Oct 20
Oct 27
Nov 3
Nov 9
Nov 16
Nov 23
Nov 30
Dec 7
Dec 14
Dec 21
Dec 28
Jan 4
Jan 11

# Tracking Customer Satisfaction

- provide services which are valued by our customers
- Define Gold Star of Service
- Annual Survey
- Support Survey sent to 25% of cases served, daily feedback stream
  - One minute to fill
  - 35% of customers respond
  - We need to know
- Challenges
  - Growth (143 us, 282 global), plan to add 50 people
  - Extensive training program
  - Deliver good value for the cost
  - Support new markets and growing Enterprise Relationships

# Support Facets, Many activities, One job

- Technical Support – fix it
- Field Service – install and upgrades
- Learning-
  - content for classes,
  - Learning Channel
- Enterprise Project Management –
  - Track the relationship,
  - schedule resources,
  - track progress
- Center of Excellence –
  - work with customer to understand value plans
  - Create and validate architecture for customers
  - Create Best Practices Content
  - Assist in understanding EA customer expectations

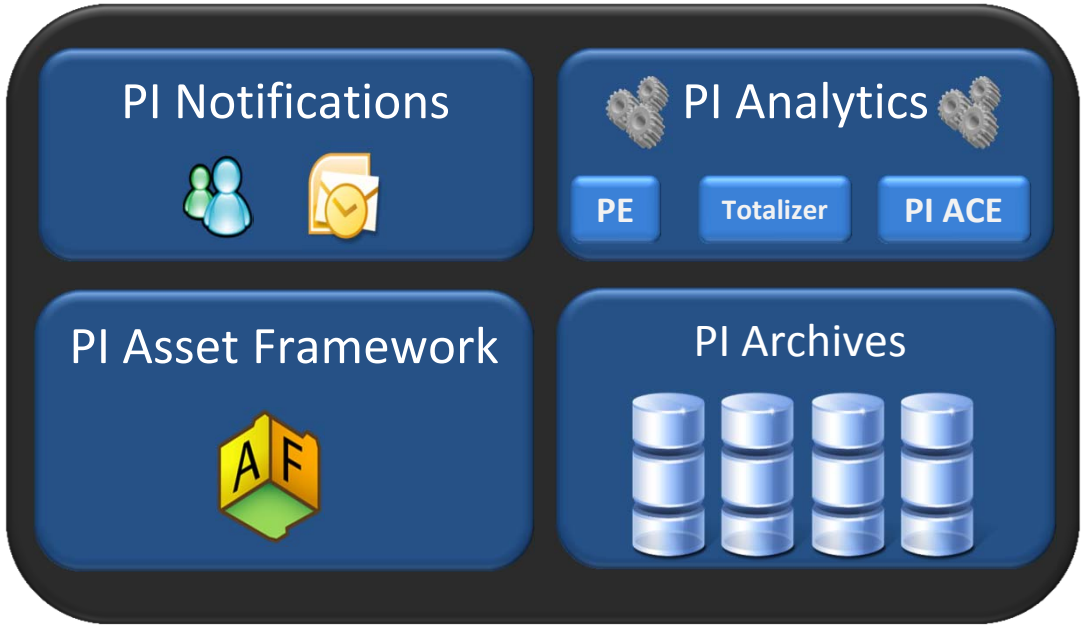
# Customer Statement

- "In your email to me you state "Our goal at OSIsoft is to provide best-in-the-industry service to our customers."
- Trust me, when ever I speak to other vendors about customer service and tech support, I mention the bar they have to match is OSI. Your service is hands down the best we have.
- We pay about 10% more but gain 50-75% better service for the price. Well worth it. Keep doing what you are doing but be watchful not to slip.
- Larry Mantei Process Control Engineer Fairbanks Gold Mining Fairbanks, Alaska"

# PI as an Infrastructure vs Application(s)

- Application Focus
  - Feature oriented
  - Purpose built to satisfy the function
  - Project Design
- Infrastructure Focus
  - Expectation to support many applications
  - Design to share “one version of the truth” across business
  - Not specifically designed for any purpose
  - More focus on Life Cycle Maintenance evolution
  - High reliability requirements

# PI System 2010




**Real-time Interfaces**

**Real-Time Data**
DCS / PLC / SCADA / OPC
HISTORIANS / INTERFACES

**Custom Data**
APIs / SDKs

**IT Data**
IT MONITOR

**Relational Data**
OLEDB / ODBC
SQL SERVER /
ORACLE

**Web Services**
SOA / EXTERNAL DATA
LEGACY APPS

**Windows Integrated Security**

**High Availability**

**64-bit product**

**Virtualization**

Windows Server 2008
Hyper-V

# Business Activities

- The importance of Power and Energy
- Political Interactions
- Managing the worlds limited resources
- Innovate on products, operations, marketing

- **Act on emerging opportunities**

# Today’s Business are Challenged

- Exponential quantities of data
- Need to respond and make decisions in real-time
- Global demand and competition
- Rapidly changing technology

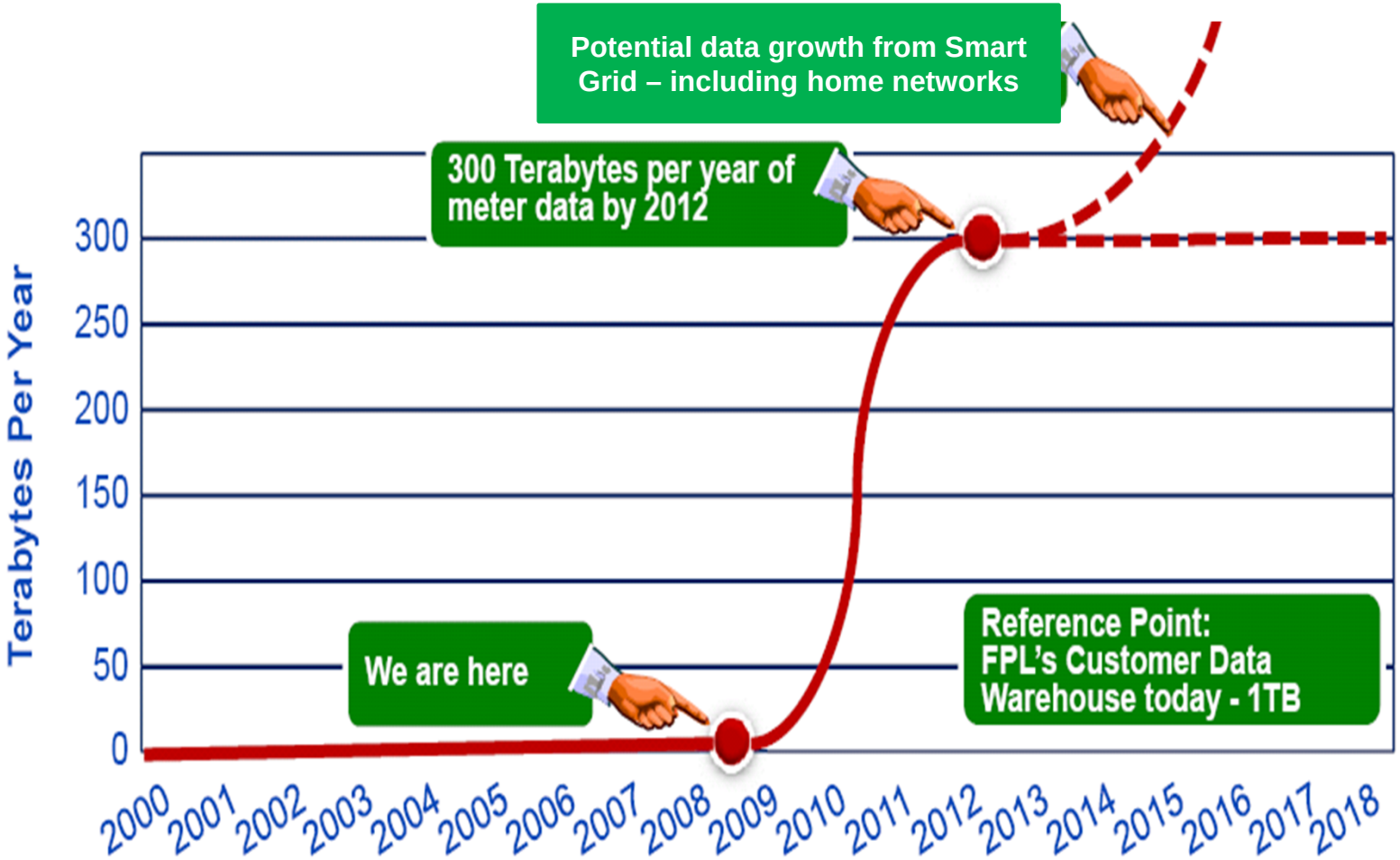
- **Are you listening to your data?**

# Utility Business Model Evolution


Energy Delivery


Energy Delivery **+**
Energy Information Management

# Data, Data, and More Data




**AMI and Smart Grid will increase the amount of measurement and control points far beyond anything we have today. How can we leverage this data to compete?**

# Proliferation of People & Devices

2013

There Will Be

**ONE TRILLION**

Devices Connected to the Network,

up from 35 BILLION in 2010

Cisco IBSG

# Saudi Aramco

Clip from 60 Minutes depicting the "Command Center" at Saudi Aramco.

http://vimeo.com/2463494

# Saudi Aramco

# California ISO – Monitoring Center

# California ISO – Monitoring Center

# Examples of PI in use for:

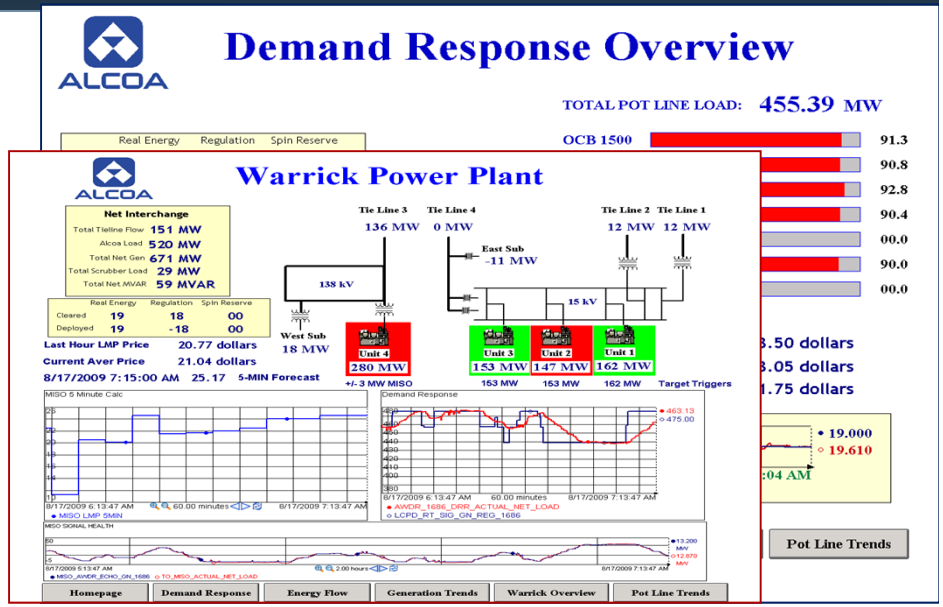
- Energy Management by Industrials
- Oil and Gas Industry
- Chemicals and Petrochemicals Industry

## **Alcoa:** Industrial Scale Demand Response

Warrick is Alcoa's Largest Operating US Aluminum Smelter

- 330,000 MT capacity/year
- Energy is 30-40% of Aluminum Production Costs
- Generate power for Smelter & Rigid Packaging


**Brian Helms**
Power Markets Coordinator
Alcoa Power Generation

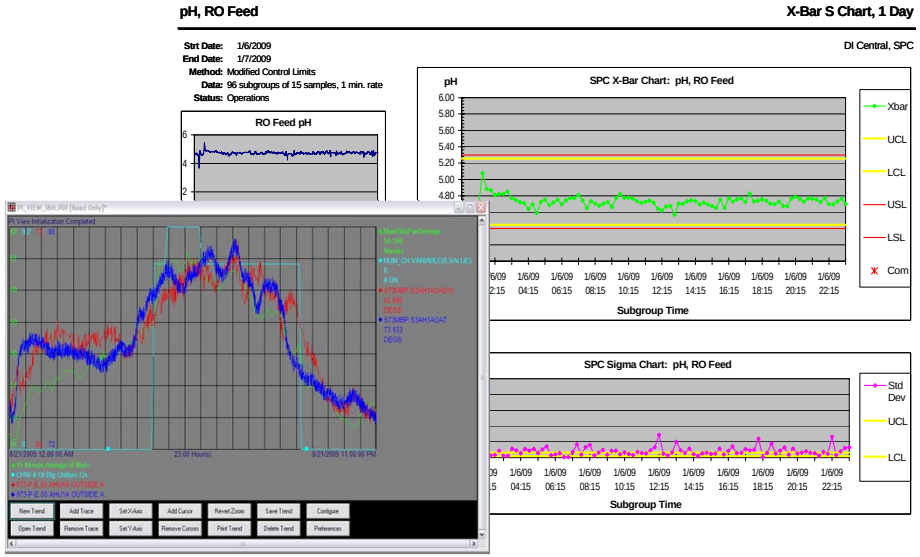




| Customer Business Challenge | Solution | Customer Results / Benefits |
|---|---|---|
| • Worldwide commodities price competition<br>• Older (1960s) facility<br>• Business took a major hit due to economic downturn<br>• Needed to find a way to sustain the business & keep from going under | • Use PI for energy regulation – Sell generated electricity back into Midwest ISO (MISO)<br>• Monitor MISO for energy demand notifications, and respond accordingly<br>• Submit forecasted load data from PI<br>• Focused on selling regulation (20MW) and spinning reserve (40MW) | • Total project cost was $700,000<br>• Project payback was in 4 months<br>• System runs efficiently<br>• Gets a weekly check from MISO for the power they generate in the grid<br>• Use this money to sustain their Aluminum business<br>• Revenue now above competition |

## **IBM Vermont:** Advanced Industrial Water & Energy Management saves $10M annually

Advanced Water Management Case Study: IBM 200mm Wafer Fabricator in Burlington, Vermont

**Jeff Chapman**
Ultra Pure Water Engineer, Senior Technical Team Leader
Center of Excellence for Enterprise Operations




### Customer Business Challenge

- Reduce water consumption (and associated energy, chemicals, maintenance and labor) to reduce operating cost and minimize environmental impact
- Leverage end-to-end data acquisition, storage and visualization techniques to monitor water usage and improve efficiency

### Solution

- Implemented data collection and storage infrastructure: sensors, IT network and servers
- Statistical process control techniques used to continually analyze vast amounts of operational data and present information in efficient, concise interface
- IBM's Green Sigma methodology – for reducing water and electrical power consumption and increase process efficiency.

### Customer Results / Benefits

- IBM has achieved over $3.6M in annual savings, reduced water usage by 27% while increasing manufacturing capability over 30%

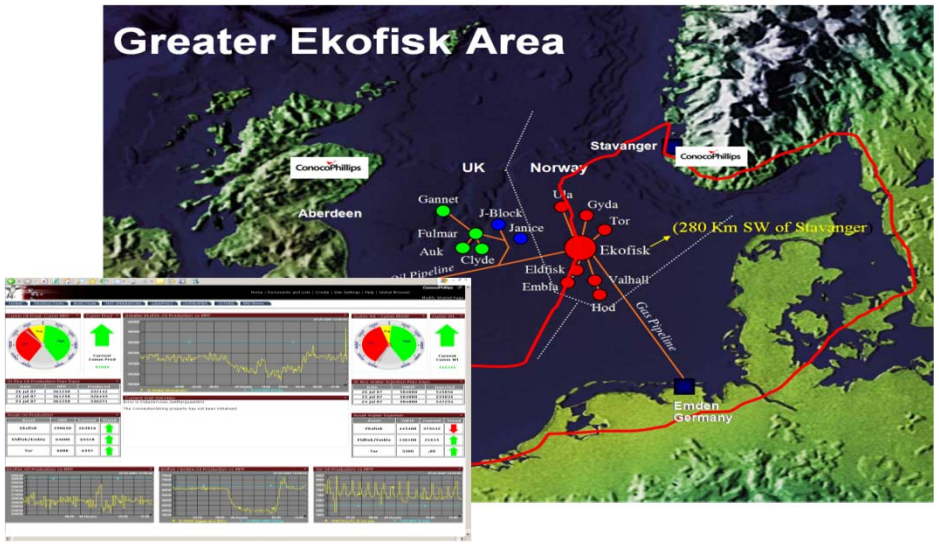
OIL & GAS

# **ConocoPhillips:** Collaboration Onshore/Offshore

ConocoPhillips is an international, integrated energy company with interests around the world. Headquartered in Houston, Texas.

Presentation by **Henning Lillejord, ConocoPhillips Norway**
OSIsoft UC 2007

ConocoPhillips




## Customer Business Challenge

- Collaboration between onshore and offshore
- Achieving production, maintenance and efficiency targets
- Automated real-time warnings
- Consolidated views into real time production and maintenance data
- Leverage existing technology platforms such as Microsoft SharePoint and OSIsoft tools

## Solution

- Installed PI Enterprise Server as the central historian
- Installed PI ACE for notification determination
- Installed DAP for accessing multiple data sources such as Oracle and SQLServer as well as PI WebParts and SharePoint for thin client visibility and collaboration
- Installed RtMessenger for collaboration
- Integrated with BI products from SAS Institute

## Customer Results / Benefits

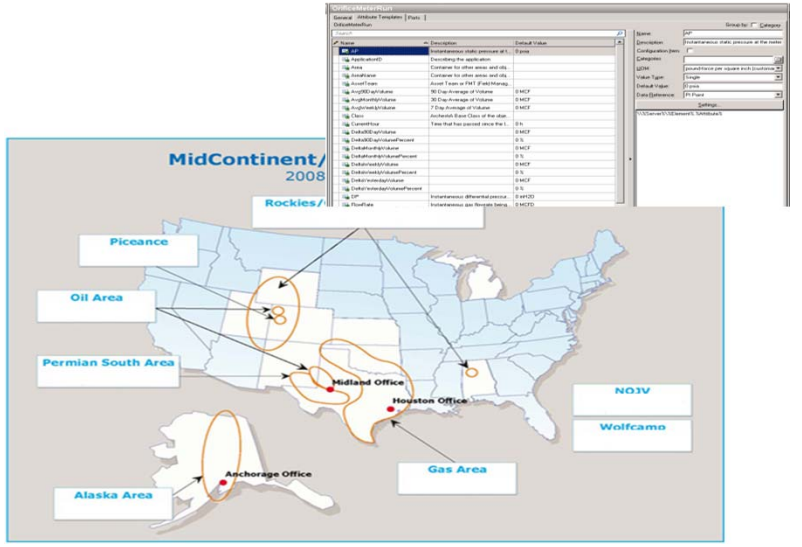
- Consistent enterprise real-time platform
- Single version of the truth
- Simplified topology/architecture
- Proved the process and the platform
- Work processes and technology improvements

OIL & GAS

# **Chevron:** Faster Deployment of Digital Oil Field Applications

Chevron is one of the world's largest integrated energy companies. Headquartered in San Ramon, California, and conducts business in more than 100 countries. Chevron is engaged in every aspect of the oil and natural gas industry, including exploration and production, manufacturing, marketing and transportation, chemicals manufacturing and sales, geothermal, and power generation.

**OSIsoft UC 2009**



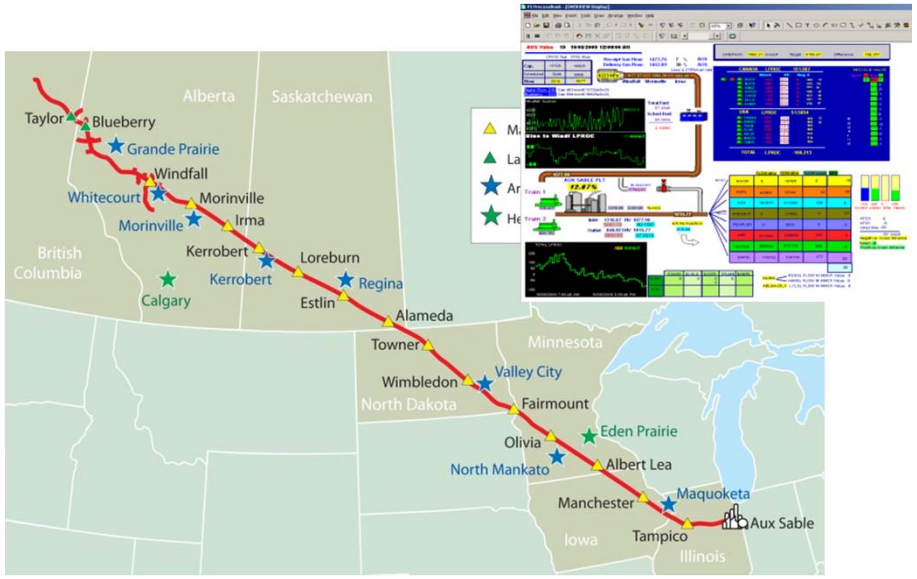

| Customer Business Challenge | Solution | Customer Results / Benefits |
|---|---|---|
| • Business applications require robust access to real-time process data<br>• No aggregated centralized repository<br>• Complex configuration of data access<br>• Performance issues with legacy historian<br>• Dozens of SCADA Servers<br>• Tens of thousands Tags | • Standardized on PI as the central historian to serve process data to business applications<br>• Used AF for operational meta-data, object hierarchy and provides context<br>• AF maintains the meta-data about the tags such as their geographical locations and other business properties<br>• Elements in AF follow the structure defined in the AF Element Templates to ensure uniformity across Elements | • Reduced turnaround time for projects sourcing and delivering real time data streams from 5 months to 2 weeks<br>• Rationalized process control naming standards from several (before PI) to one uniform standard across the business unit<br>• Enabled development and deployment of centralized & reusable services to source data from PI for multiple applications, thereby significantly reducing development time for such applications. |

OIL & GAS

## **Alliance Pipeline:** Network delivers approximately 2.5% of US consumption

Alliance delivers more than 1.6 billion cubic feet per day of rich, high-energy natural gas to the Chicago market, enough to fuel the needs of seven million homes every day.

Presentation by **Steven Kociuba, P.Eng, Alliance Pipeline**
OSIsoft UC 2010




### Customer Business Challenge

- Data integrity: Data calculated and stored in local Excel spreadsheets
- Manual processes: Manual setup, data entry, distribution, and archiving
- Data access: Data only existed on mission critical systems that very few had access to
- Data requests had difficulties and were long in duration
- Performance impacts on mission critical systems
- Difficult to maintain

### Solution

- PI Collective, 7 server machines
- Interfaces - OPC, RDBMS, UFL
- PE- For projected gas volumes & total volume/energy
- Backfilled archives on an offline development PI server (9 years of history )
- ProcessBook & DataLink
- PI Data Access
  - –ODBC and OLE DB
- Citrix access

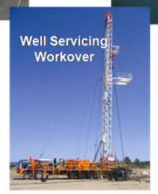
### Customer Results / Benefits

- Phase I of the project addressed their immediate needs
- PI was easy to implement
- Users no longer have to copy data from multiple systems
- Smooth operation, no major issues
- Business users very pleased with PI functionality
- Low Intervention initiative could save Alliance approx. $70,000 per facility
- Excitement at Alliance about future PI growth

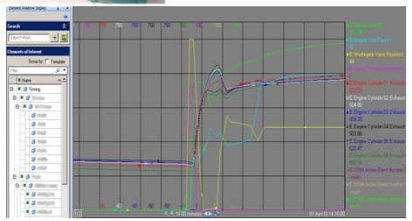
OIL & GAS

# **Caterpillar: Global Petroleum:** Enabling Connected Worksites







Provide customers with an end-to-end solution that delivers actionable recommendations from electronic equipment and operating data in order that informed decisions can be made for reducing the frequency and cost of unscheduled repairs.

Presentation by **David Krenek,**
**Equipment Management Solutions, Global Petroleum Division**
OSIsoft UC 2010

CATERPILLAR®

## Customer Business Challenge

- Looking to increase utilization and decrease costs
- Looking to convert unscheduled repairs to scheduled
- Looking to direct resources to high value work
- Wanted to convert ever increasing amounts of data to information
- Achieve safety targets

## Solution

- Aggregate Cat & non-Cat data consistently
- Aggregate Events and Diagnostics with Parameters
- Aggregate and store time-based data from a large number of assets
- Automatic data feed to SmartSignal EPI*Center
- Visualize raw data relative to EPI*Center exceptions
- Compare Events & Diagnostics to exceptions

## Customer Results / Benefits

- PI System provides data management backbone as an equipment agnostic solution
- Off-the-Shelf Commercial Solution
  - Improves Time to Market for solution
  - Reduces Development Cost
  - Reduces Maintenance Cost

# **Eastman Chemicals:** Role-based decision support for the enterprise using OSIsoft's PI System and SAP's MII application

*"This project was deployed at Eastman Chemical Company to help executives more easily and efficiently gather data needed for decision making"*

*Jerry Hale*
*CIO Eastman 2006*

## Customer Business Challenge

- Need to consolidate silos of business and production data
- Data replication was inefficient and time-consuming – human integrators using Excel
- Reports were not delivered with sufficient frequency
- Workers were challenged turning data into useful information for right time decision making
- Lack of "a single version of the truth" across the enterprise

## Solution

- Implemented the PI System as data historian and analytical engine.
- Used SAP's MII as the user interface for business data on the shop floor and as reporting and display mechanism.

## Customer Results / Benefits

- Delivered tailored information relevant to business processes at the right time
- Empowered employees to make decisions and rapidly answer critical questions thru actionable intelligence
- Lowered operational costs from the demand fulfillment and procurement processes
- Lower TCO

# The OSIsoft Learning Channel


***New Release Info***


***Training***

YouTube

http://www.youtube.com/OSIsoftLearning

# The Learning Story from 2011

**1510** Public Students

**12** Training Centers

**1926** Registered Users

**1697** Sessions

**11214** Hours

Virtual Learning Environment

**345**

OSIsoft Internal Customers (Employees)

**130,066** Views

**444** Subscribers

**200** Comments

*Onsite training numbers not included – these are Field Service statistics.*

# Things to think about

- Innovation where can we find it?
- Moments of Encouragement can be found at:
  - TED
    - Technology
    - Entertainment
    - Design

- **www.ted.com**

TED Ideas worth spreading

Talks | Speakers | Themes | Translations

TED Conferences | TEDx Events | TED Prize | TED Fellows

TED Conversations NEW | TED Community

About TED | TED Blog | TED Initiatives

Search

# Riveting talks by remarkable people, free to the world

Three days of global TEDx events to engage young people, November 19-21: TEDxYouthDay »

Resize by:

- Newest releases
- Date filmed
- Most viewed
- Most emailed this week
- Most comments this week
- Rated jaw-dropping
- ... persuasive
- ... courageous
- ... ingenious
- ... fascinating
- ... inspiring
- ... beautiful
- ... funny
- ... informative

Show talks related to:

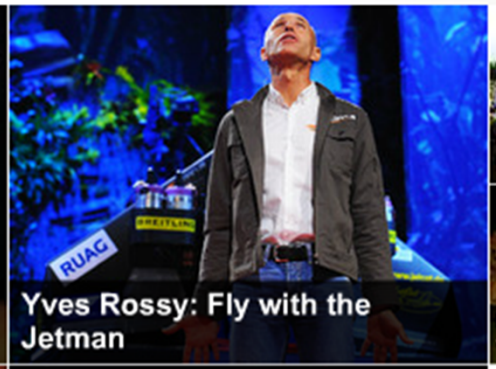
- All
- Technology
- Entertainment
- Design
- Business
- Science
- Global issues


Roger McNamee: Six ways to save the


Allan Jones: A map of the brain


Aparna Rao: High-tech art (with a sense of

Thomas Suarez: A 12-year-old app developer



Yves Rossy: Fly with the Jetman


Charlie Todd: The shared experience of

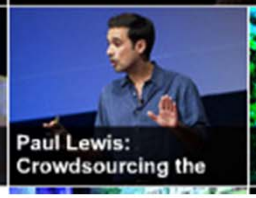

Ben Kacyra: Ancient wonders captured in

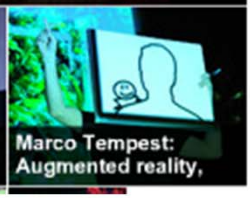

Alexander Tsiaras: Conception to birth -- visualized


Michael Nielsen: Open science now!


Martin Hanczyc: The line between life and

Sandra Fisher-Martins: The right to


Paul Lewis: Crowdsourcing the


Marco Tempest: Augmented reality,