



OSIsoft.

REGIONAL SEMINAR

E M E A

2012



Welcome

Presented by

Martin Otterson
Istanbul Regional Seminar
October 27, 2011

About OSIsoft

- Established in 1980
- Founder - J. Patrick Kennedy
- Private
- Headquarters - San Leandro, CA
- 800 + employees
- 200 + employees in product development
- PI System Installed base
 - 15,000 + systems (excluding OEMs)
 - 110 + countries
- Footprint in:
 - 40% of Fortune 1 000 process & manufacturing companies
 - 65% of Global 500 process & manufacturing companies



Industry Roles of the PI System



POWER & UTILITIES



OIL & GAS



CHEMICALS & PETROCHEMICALS



PHARMACEUTICALS, FOOD & LIFE SCIENCES



MATERIALS, MINES, METALS & METALLURGY

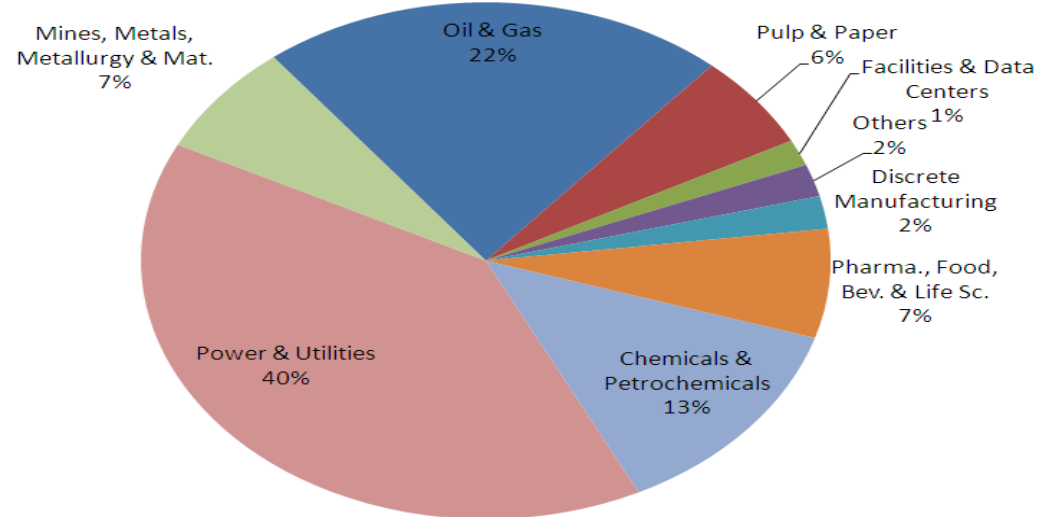


PULP & PAPER



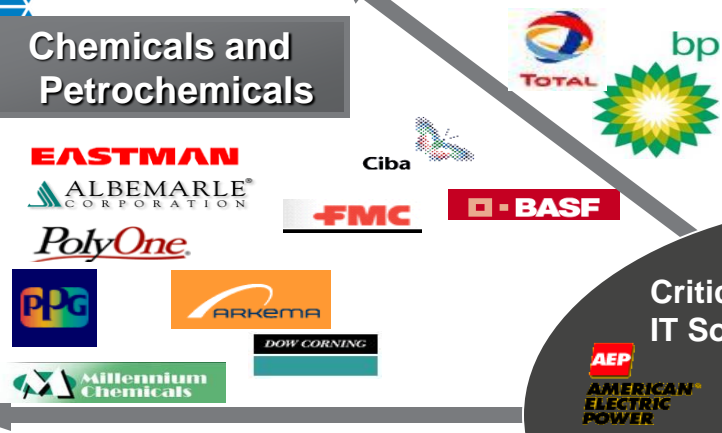
DATACENTERS, IT & TELECOM

Invoices by Industry (%)



Diverse Customer Base Across Industries

Chemicals and Petrochemicals



Oil and Gas



Pulp and Paper



Pharmaceutical and Life Sciences



Utilities and Power



Mining, Metals & Materials



Marshall
boya

akenerji
Enerjimiz Geleceğimiz

TEKSER
İNŞAAT SANAYİ VE TİCARET A.Ş.

ENERJİSA

EMERSON

bp

AESentek
2009 Her Hakkı Saklıdır

eren

BASF
The Chemical Company

EÜAŞ
ELEKTRİK ÜRETİM
ANONİM ŞİRKETİ

GE
imagination at work

GE Fanuc Automati

ENKA

Gebze Elektrik Üretim Ltd

Eczacıbaşı

Georgia-Pacific

Ipek Kagit

TÜBİTAK

Türkiye Bilimsel ve Teknolojik Araştırma Kurumu

DOĞA ENERJİ
ÜRETİM SANAYİ VE TİCARET LTD. ŞTİ.



Roche

GAMA HOLDİNG İZMİR ELEKTRİK ÜRETİM

OYAK

MARDİN CIMENTO

Carall Camis Elektrik Uretim A.S.

TEDAS
BİLGİ EDİNME SİSTEMİ

SIEMENS

ZORLU

Zorlu Enerji

SANDOZ

Unilever

Tüpraş

aktek

UNIMAR
Leaders in Obstruction Lighting™

Amylum Nişasta Sanayi



OSIsoft Overview

EMEA – Europe Middle East Africa



Where is OSIssoft in the world?





EMEA (Europe Middle East & Africa)

- Europe – **Jesus Hernandez**
 - London, UK
 - Frankfurt, Germany
 - Paris, France
 - Madrid, Spain
 - Ostrava, Czech Republic
- Russia/CIS – **Alexander Tunyatkin**
 - Moscow, Russia
- Middle East/ Northern Africa/ Eurasia – **Pasha Ahmed**
 - Manama, Bahrain
 - Istanbul Turkey
- Sub-Saharan Africa/ South Africa – **Dean Trattles**
 - Durban, South Africa

OSIsoft - What we do



PI
System



COLLECT



HISTORIZE



FIND



ANALYZE



DELIVER



VISUALIZE

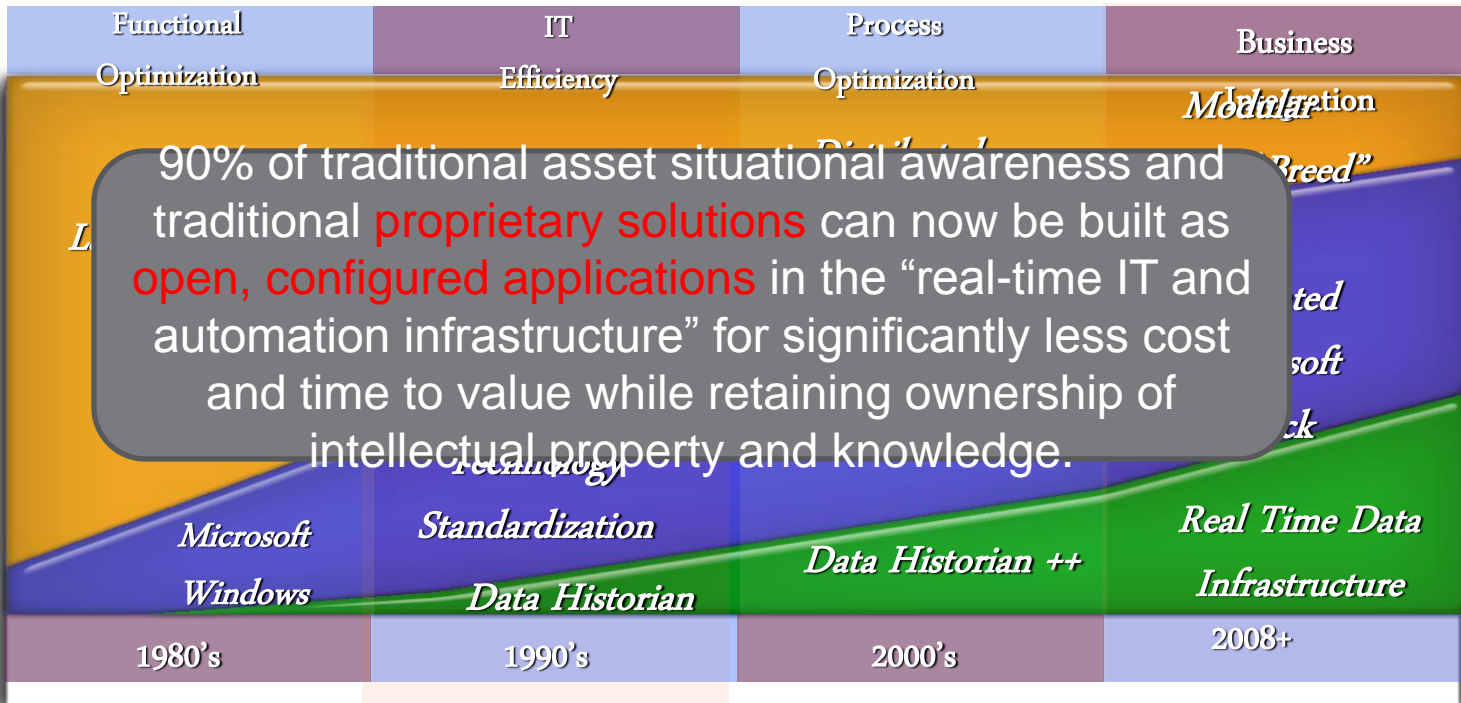


The Evolving Capability & Role of IT Infrastructure

Areas of Focus



“% of Solution Functionality”



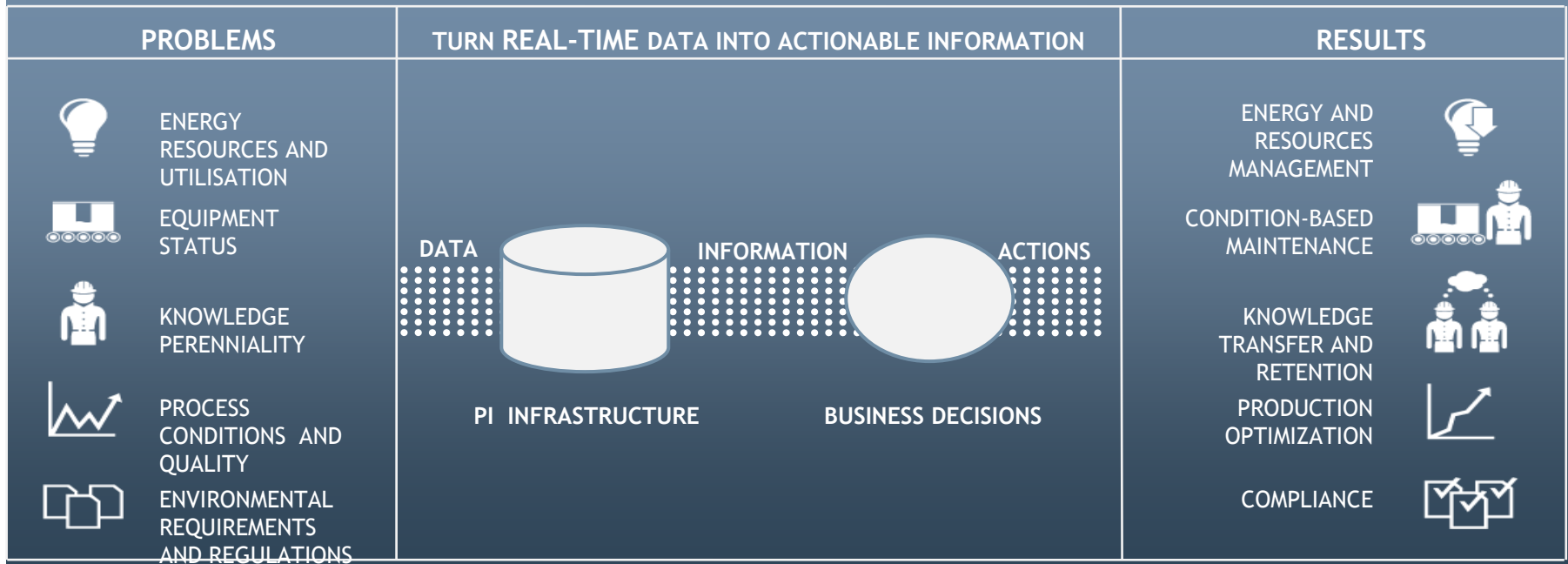
90% of traditional asset situational awareness and traditional **proprietary solutions** can now be built as **open, configured applications** in the “real-time IT and automation infrastructure” for significantly less cost and time to value while retaining ownership of intellectual property and knowledge.

Evolution of the Real-Time Infrastructure



Turn Real-time Data Into Actionable Information

THE PI TECHNOLOGY GIVES THE POSSIBILITY TO PUT IN PLACE BUSINESS SOLUTIONS



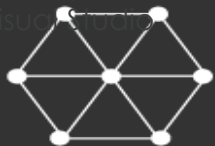
Microsoft Technologies

PI Requires:

- Windows Server
- SQL Server
- Office
- SharePoint

Advanced Features:

- SharePoint Enterprise
- SQL Enterprise
- OCS/Lync
- Visual Studio



CONNECT

Collect data from hundreds of sources.

INTERFACES

PI Server (incl. AF)

Microsoft SQL Server 2008

Windows Server 2008



MANAGE

Gather and archive large volumes of data. Scale to meet your growing business needs.

SERVERS

PI Server

Microsoft SQL Server

Analytics

Analysis/Reporting Services

Microsoft Visual Studio

Microsoft Office



ANALYZE

Access real-time or historical role-based data for the entire enterprise at any time.

ANALYTICS

PI Server

Microsoft SharePoint 2010

Visualization

PowerPivot

Microsoft Lync Server 2010

Microsoft Silverlight



PRESENT

View data, identify problems, and take corrective action with familiar, easy-to-use graphical tools.

VISUALS

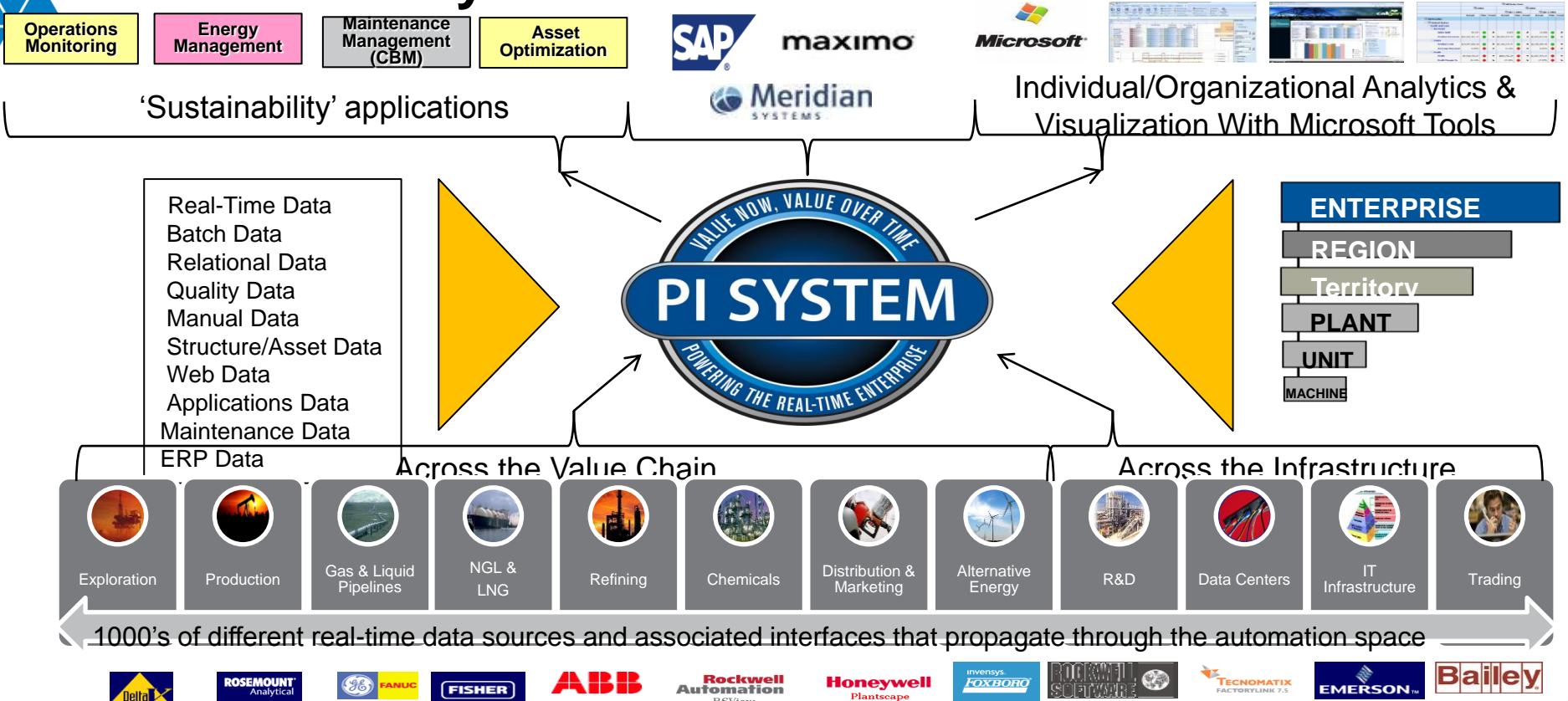
Managed PI

ENTERPRISE AGREEMENTS

Software + Services

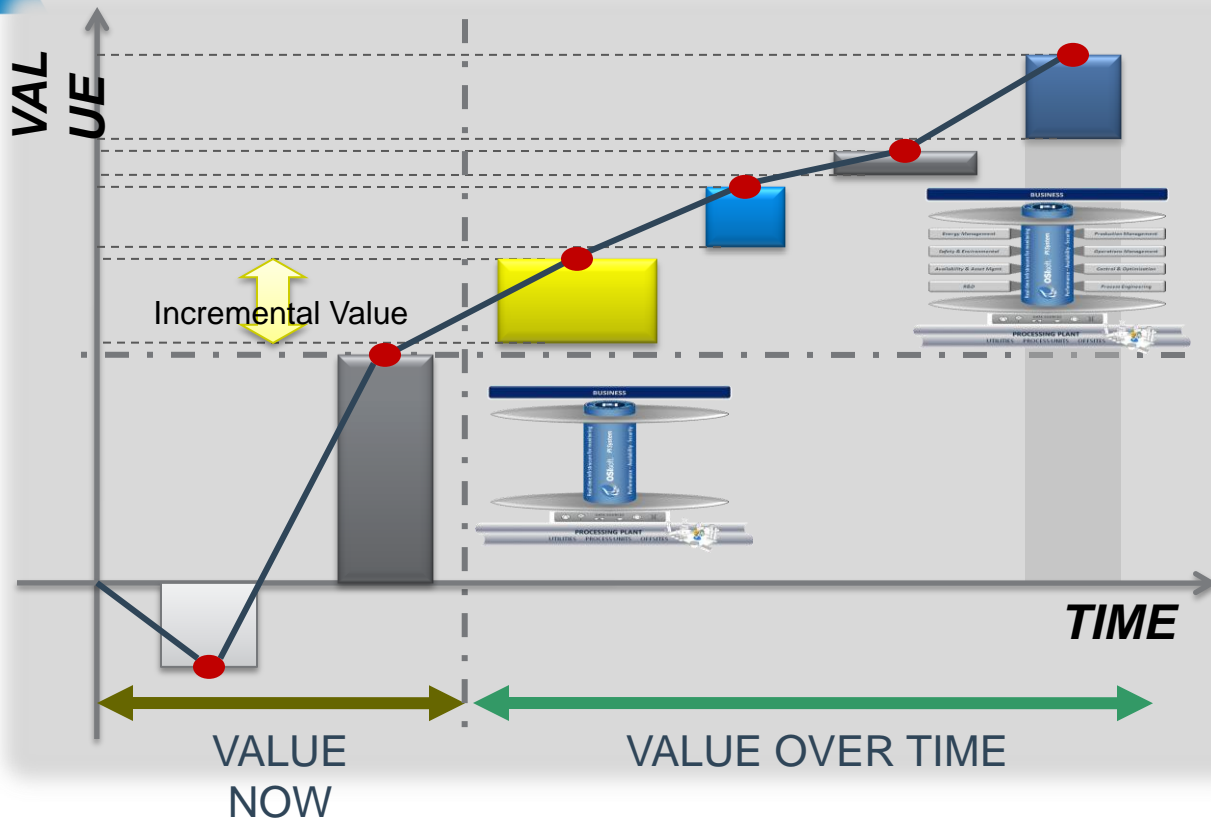
SERVICES

A PI System Infrastructure – Enabling Real-Time Sustainability



Innovative Infrastructure for Continuous Improvement

Value Now, Value Overtime




- ← Application
- ← ~~Operations~~
- ← ~~Benefits~~
- ← Management
- ← Environmental
- ← Reporting
- ← Equipment Health
- ← Mgmt. Performance
- ← Management
- ← Infrastructure Value
- ← Initial Investment

Microsoft & OSIsoft Alliance



- OSIsoft converted The PI System to Windows NT in 1993
- OSIsoft #3 company to sign up for VBA in 1997
- 100% Microsoft focus – we don't offer any competing technology
- Globally managed ISV Partner: One of a select few in the M&R sector
 - Christian Roller, Global BDM, Microsoft (based in Munich)
 - 25+ Solution area wins in FY11, PSP's across EMEA in FY12
- Strong Microsoft Alliance team - makes us easy to partner with
- Understand how to co-sell, willing to share information





Energy Management - Use Case examples

The Services Foundation

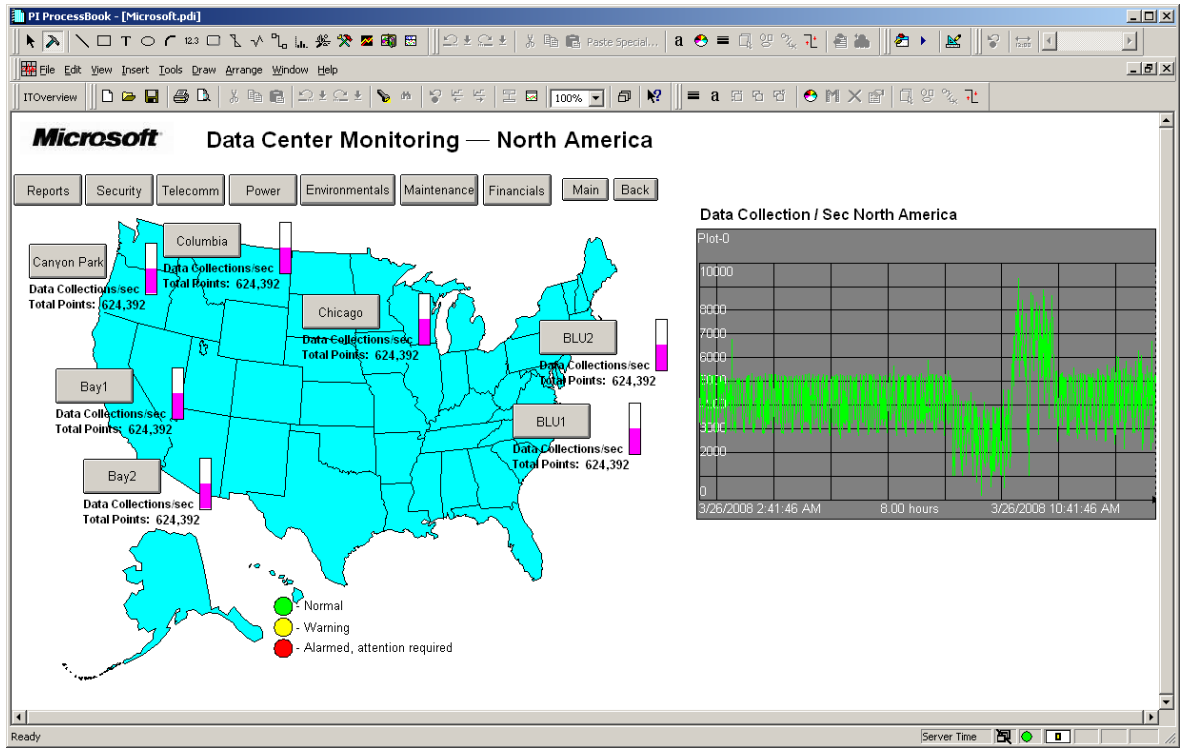
Across the company, all over the world, around the clock



Microsoft on OSIssoft on PI in the Data Center

“We are using the **OSIssoft PI System to monitor all the critical points within our data centers**, and in turn are laying the foundation for a **high-availability, global Live infrastructure**,”

“**The return on investment is tremendous**. We are enabling innovation through increased collaboration, social networking and commerce—leading to breakthroughs in software plus services. We are setting industry standards **with increased utilization of facility resources, real time business continuity, and green computing technologies**. As we continue to expand our Live services, the combination of **OSIssoft and Microsoft technologies** are bringing new levels of performance and reliability to our world-class data centers.”



USE case PI –Datalink PDU Maintenance

Failover Report on PDU 3D, RPP 3D2

Primary RPP: 3D2		Redundant RPP: 3A3		Failover Risk: HIGH	
General Notes: Further single source device analysis will be required for this RPP.					
TOTAL Fail Over Phase Amps:		A Phase: 181.8Amps		B Phase: 155.5Amps	
				C Phase: 135Amps	
Racks/Circuits that exceed 80% of Failover capacity:					Number of Items: 3
1. COLO3.R04.C20 is currently at 18amps (failover). 2amps below the 20amp capacity. 90%					
COLO3.R04.C20	1 3	20 20	9.3 9.3	18.00 17.90	8.7 8.6
2. COLO3.R04.C14 is currently at 17.9amps (failover). 2.1amps below the 20amp capacity. 90%					
COLO3.R04.C14	25 27	20 20	8.7 8.7	17.90 17.80	9.2 9.1
3. COLO3.R04.C13 is currently at 20.8amps (failover). .8amps above the 20amp capacity. 104%					
COLO3.R04.C13	29 31	20 20	11.7 11.6	20.80 20.80	9 8
Notes:					

1

2

3

4

BUSINESS SITUATION

Kodak Park wanted to find a way to present real-time energy data on their portal lowering the cost of curiosity and significantly reduce their energy utilization.

Kodak Park



- Area > 20,000,000 Square Feet

BENEFITS

Significant ROI

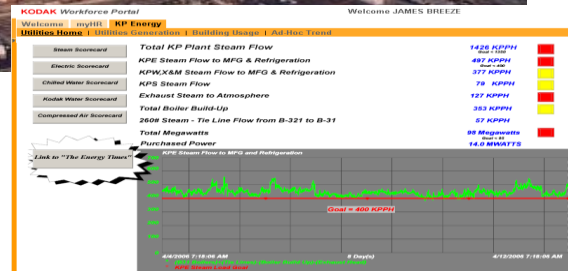
- Operates its own fire department
- Operates its own rail road
- Millions of dollars in savings Improved demand side
- Performs its own water and waste water treatment
- Operated 2 power plants

Continuous Process Improvement –

Identified opportunities in manufacturing to implement an Measurements energy conservation mode between product runs

- 600 **Electric Distribution Meters**
- 600 Additional Distribution **Meters** for Steam, Chilled water, Brine, Compressed air, Process water, Nitrogen, Natural gas etc.

Significant Metering Used With the **Over \$27+\$30 Million In Savings** Power Houses to Manage the **Generation**



Kodak Case Study - Energy



Summary of Results

Generation side findings

- Plant loading optimization
- Boilerfan optimization
- Exhaust head improvements
- Better management of self generation vs. purchased power

The Energy Information System (EIS) has been an essential tool to help us reach our Goal of:

“One Powerhouse for Eastman Business Park”

(10:41:53 March 28, 2007)

- Collectively the “annual” savings rate in 2007 was \$27 Million
- Today the “annual” savings has grown to more than \$30 Million
- The cumulative savings is now in excess of \$100 Million
(>50% Savings From Ongoing Operations)



realized water

Kodak Case Study - Water

Kodak

Water Reduction Results

- 2009 Kodak Water Reduction was 16.5%
- 1,087,000,000 Gallons (or 1,087,000 K Gallons) saved in 2009
- 1st Quarter of 2010 – an additional savings of 450 Million gallons from the 2008 Baseline
- Roughly 1.5 Billion Gallons saved in the last 15 Months
- This is enough water to fill approximately 250 average backyard swimming pools each and every day !!!
- \$0.00 In Capital Spent
- These Water Savings are calculated for only the last 15 months and are totally independent of the site's energy reductions

Kodak

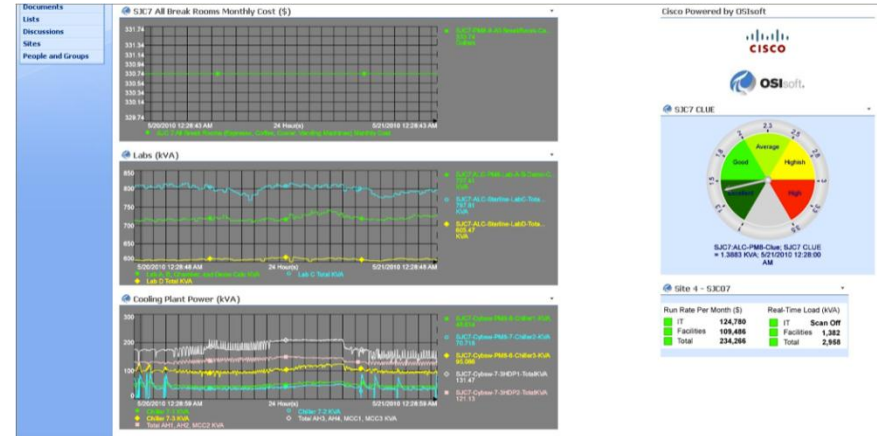
CISCO Systems

BUSINESS SITUATION

- July 2008, Publicly Announced 25% Absolute Reduction 2007-2012
- Global, Enterprise Wide Effort across Owned & Leased Properties
- \$150M USD Paid for Energy in FY 2006 ~80% Labs & Data Centers

BENEFITS

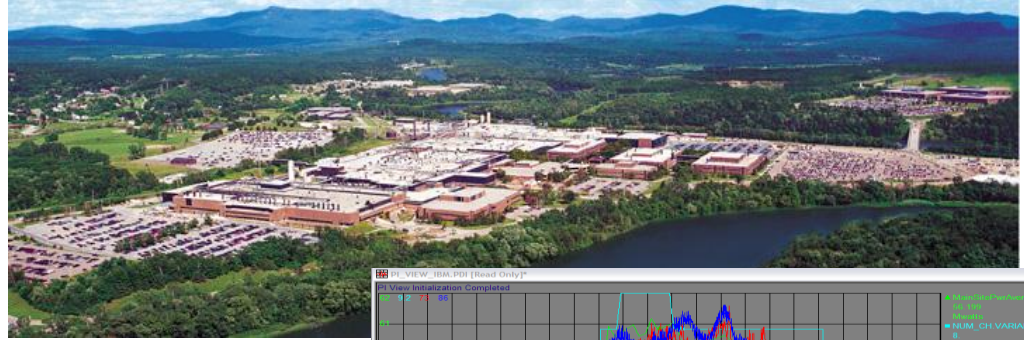
- **Faster Decision Making** – Data that took a month to access available in real time. Information manually distributed to 80 cost centers now available electronically.
- **Continuous Process Improvement** – Facilities and financial analysts collaborating to make profitable decisions.
- **Reduced Costs** – Adverted transformer overload/ outage saving hundreds of thousands of dollars in single event





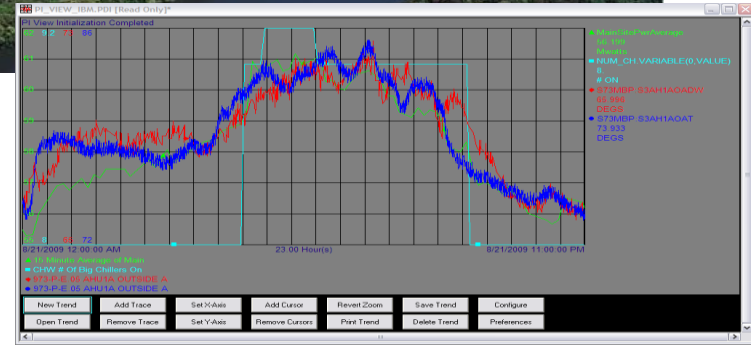
IBM – Burlington Facility

IBM Burlington is a large semiconductor manufacturing site which consumes 3.2 million gallons per day of water and 446 million kilowatt hrs. of electricity annually.



IBM's Advanced Data Management techniques have supported nearly a decade of sustained improvements in energy and water management.

Data management techniques employed by IBM allow for a continuous stream of improvement projects.



Advanced Industrial Water & Energy Management Saves \$10 M Annually

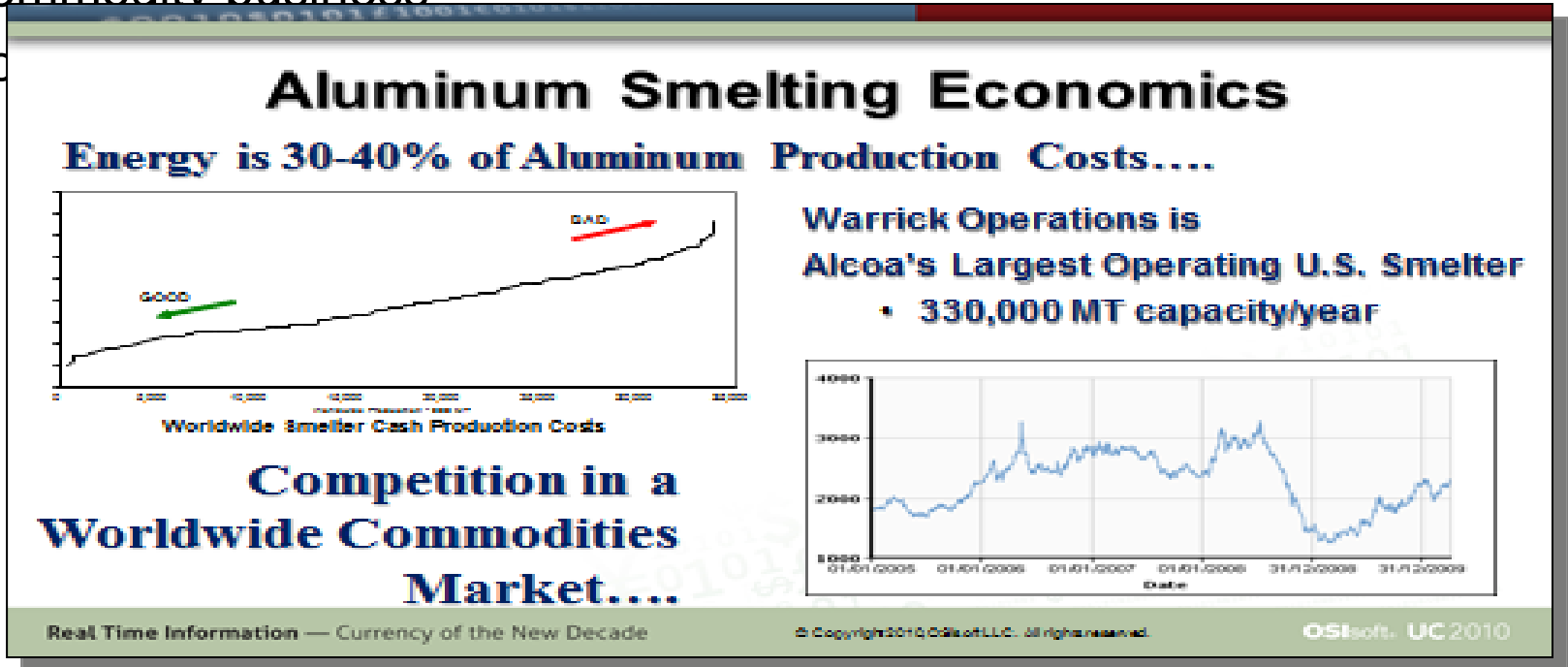
Alcoa

- [Aggressive, transparent Sustainability Program](#)
- Some key concepts
 - Life cycle assessment
 - Product design
 - Economic value of products
- [Industrial Demand Response](#)
 - Provide reliability to the grid
 - Reduce energy costs



Alcoa


- Commodity business
- Co



Alcoa

- 780 MW Generation
- FERC License—participa

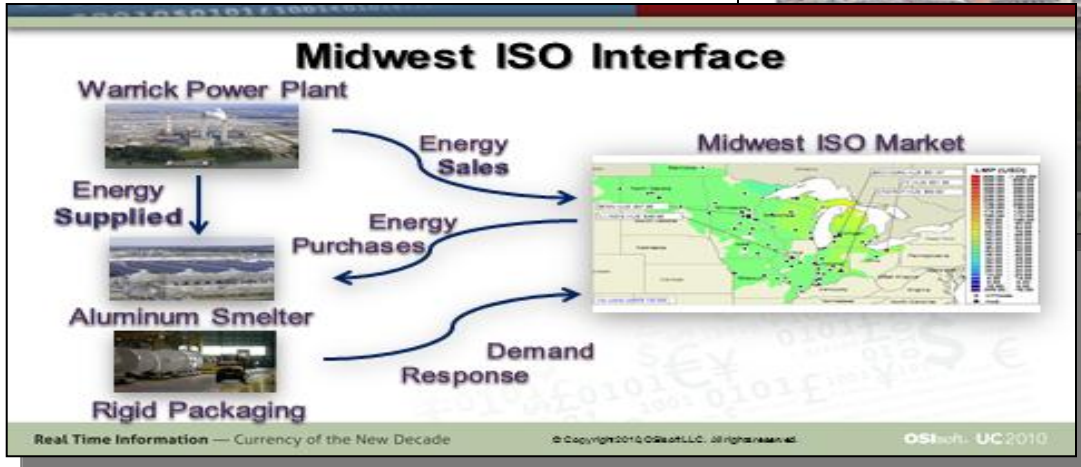
Warrick Power Plant



Generation Assets:

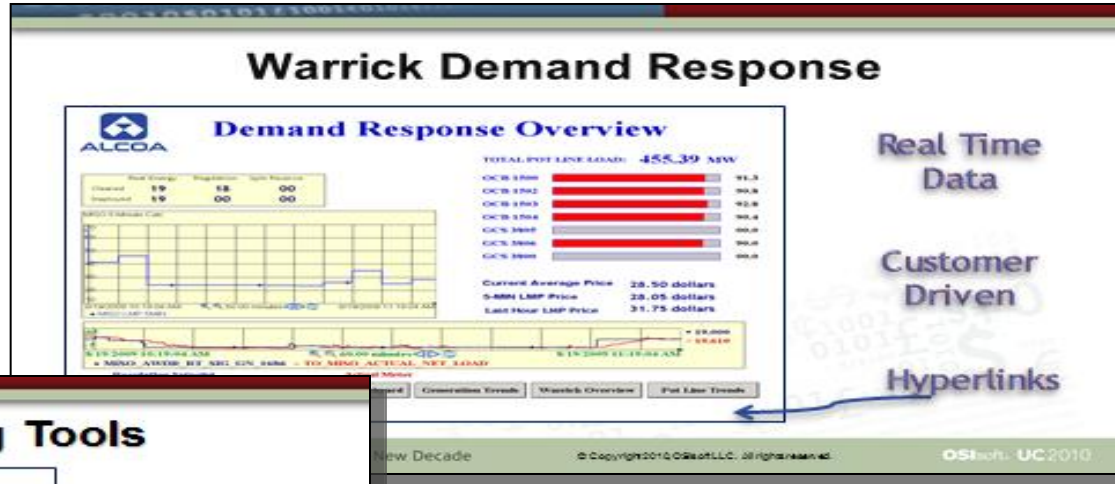
- 780 MW's Coal Generation
- (4) B&W Wall-Fired Boilers
- Vintage 1960's
- 2.8 mm tons coal/annual
- Illinois basin with Low NOx burners/SCR
- FGD Scrubbers

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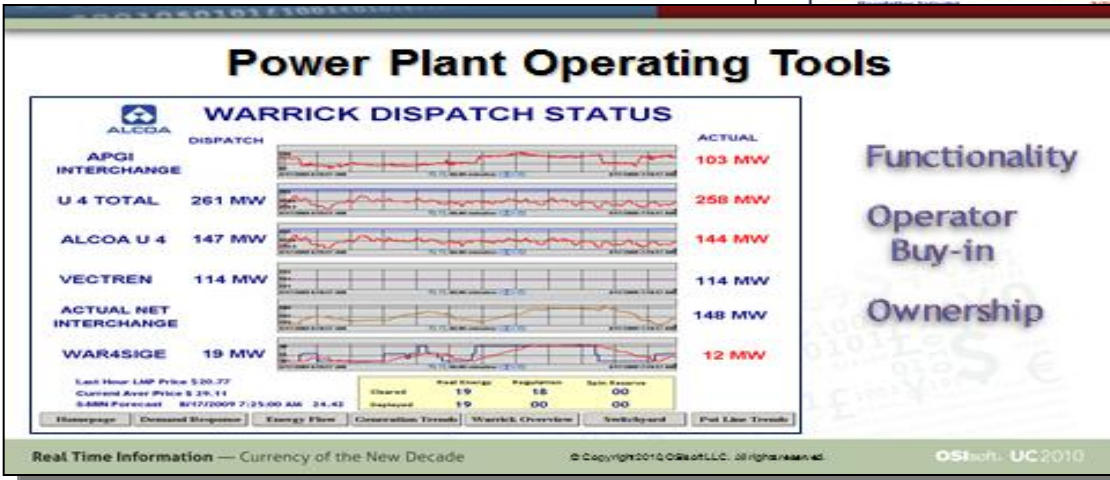


Alcoa

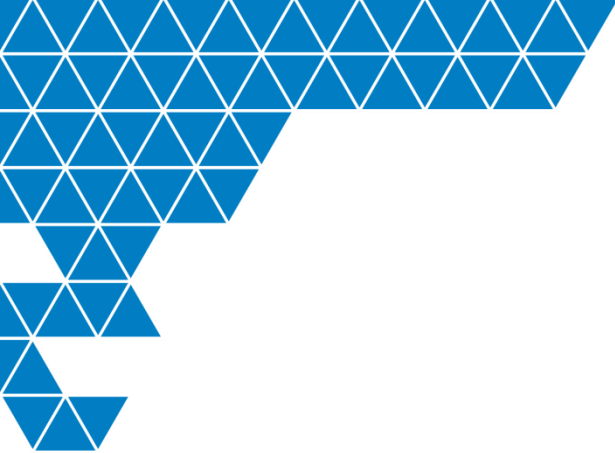
- MISO (Grid operator)
 - Reliability
 - Generation capacity
 - Congestion mitigation



Real Time Data
 Customer Driven
 Hyperlinks



Functionality
 Operator Buy-in
 Ownership



Thank you