



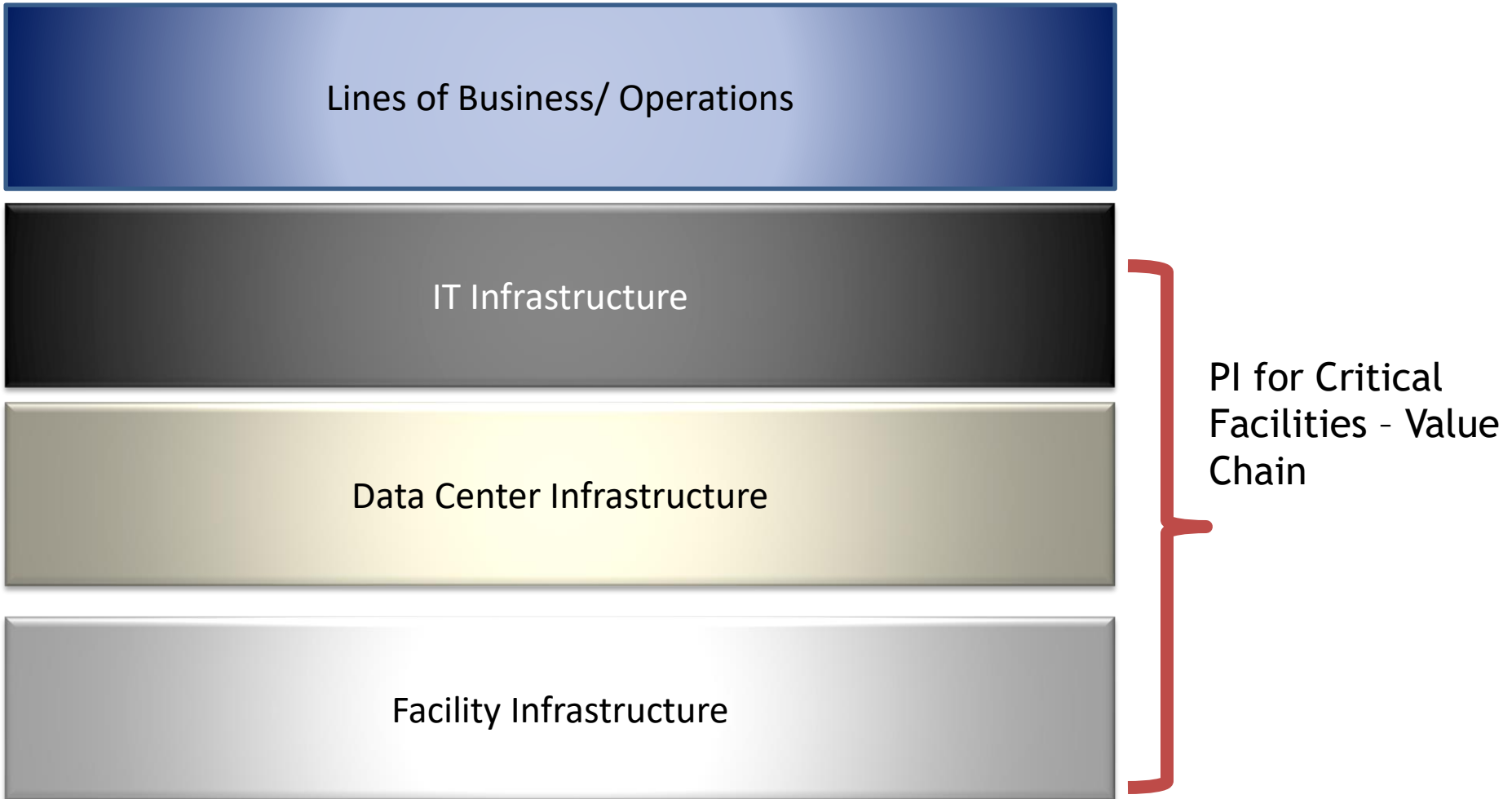
Regional Seminar Series Richmond



Introduction - PI for Critical Facilities

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Regional Manager - Northeastern US
OSIsoft, Inc.

September 22, 2009



Customers using Pi for Critical Facilities



Facility Customers



Kodak

IBM



Data Center Customers



Microsoft



accenture
High performance. Delivered.



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.

BENEFITS

Significant ROI – Millions of dollars in savings . Improved demand side management and optimization of generation assets.

Continuous Process Improvement – Identified opportunities in manufacturing to implement an energy conservation mode between product runs

Kodak Park facts

- Area > 20,000,000 Square Feet
- 11,000 Employees
- Operates its own fire department
- Operates its own rail road
- Performs its own water and waste water treatment
- Operates 2 power plants
- Benefits > \$10MM !

Measurements

- 600 **Electric Distribution Meters**
- 600 Additional Distribution **Meters** for Steam, Chilled water, Brine, Compressed air, Process water, Nitrogen, Natural gas etc.
- Significant **Metering** Used within the Power Houses to Manage the **Generation Side**

Kodak Benchmarked their Process



KODAK Workforce Portal

Welcome JAMES BREEZE

Welcome myHR **KP Energy**

Utilities Home | Utilities Generation | Building Usage | Ad-Hoc Trend

Steam Scorecard

Total KP Plant Steam Flow

1426 KPPH
Goal < 1350



Electric Scorecard

KPE Steam Flow to MFG & Refrigeration

497 KPPH
Goal < 400



Chilled Water Scorecard

KPW,X&M Steam Flow to MFG & Refrigeration

377 KPPH



Kodak Water Scorecard

KPS Steam Flow

79 KPPH



Compressed Air Scorecard

Exhaust Steam to Atmosphere

127 KPPH



Total Boiler Build-Up

353 KPPH



260# Steam - Tie Line Flow from B-321 to B-31

57 KPPH

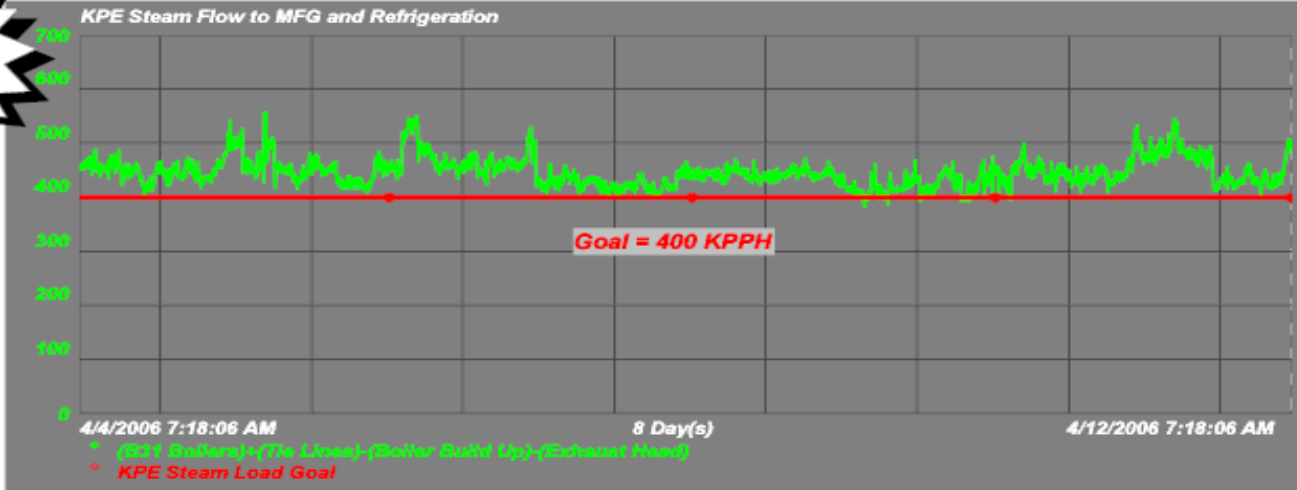
Total Megawatts

98 Megawatts
Goal < 95



Purchased Power

14.0 MWATTS



KP - 22 Inch Fire Suppression Water Main



KODAK Workforce Portal

Welcome JAMES BREEZE

[Log Out](#)

Welcome | myHR | KP Energy Admin | Content Administration | **KP Energy**
Utilities Home | **Utilities Generation and Fire** | Building Usage | Eastman Gelatine | Ad-Hoc Trend

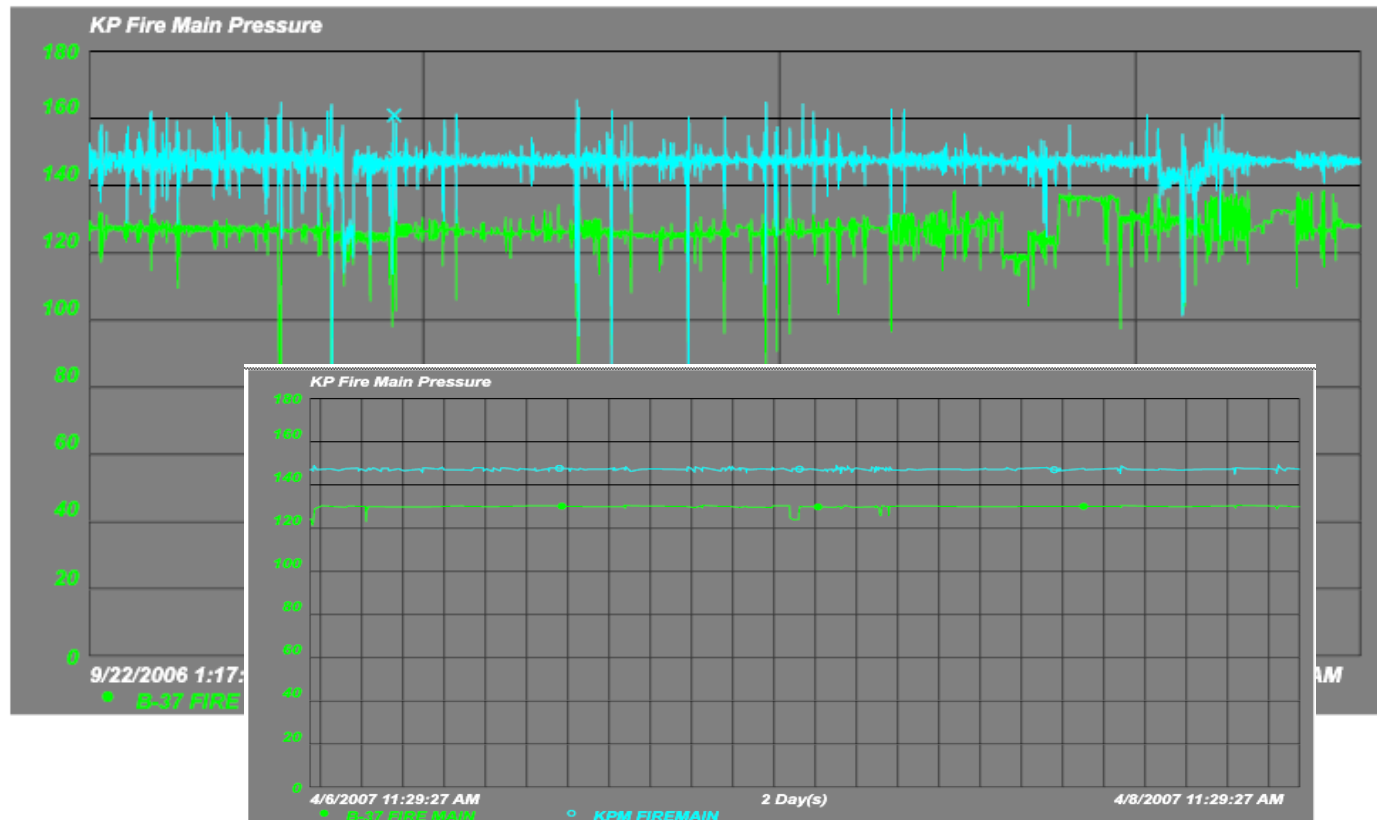
Detailed Navigation

- Steam Elec Overview
- ▼ Steam and Electric
 - Steam Elec Overview
 - KPE Steam Diagram
 - Purchased Power
- ▶ Refrigeration and Water
- ▶ Waste Water Treatment
- ▶ High Purity Water
- ▶ Nitrogen
- ▼ KP Fire Department
 - ▶ **KP Fire Main Pressure**

Start Time: 9/22/2006 1:17:46 PM

End Time: 12/31/2006 11:17:46 AM

Apply



- First step is understanding and benchmarking your operations
- OSIsoft has interfaces for Critical Facilities and IT
- Your Account Manager would be happy to talk with you in order to understand your situation and to see how PI could create value

PI expansion update- see for yourself



UC Davis

<http://facilities.ucdavis.edu/Dashboard/>

Queen's University

<http://livebuilding.queensu.ca/>

Rochester University

<http://meters.energy.rochester.edu/rc%20sharepoint%20files/hutch%20hall%20electric.aspx>

2009 User Conference Critical Facilities Track -

[Industry Observations and Trends](#) (David Jump, Quantum Energy) - [PPT](#)

[The Daily Miracle of Internet Connectivity \(PI Data Centers\)](#) (Greg Dumas, DST Controls, Ernest Holloway, Pamela Brigham, Equinix) - [PPT](#)

[Real time Data for Data Center and Lab Energy Efficiency](#) (Chris Nolan, Cisco Systems, Ken Morikawa, OSIsoft) - [PPT](#)

[The Data Center Dashboard](#) (Steven Berkovich, Teresa Tung, Accenture) - [PPT](#)

[Understand How PI is being used at Microsoft in the 10min. Wrap](#) (Scott Mauvais, Microsoft Technology Center) - [PPT](#)



Thank you

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