



Microsoft

Strategic Alliance

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Manufacturing Resources

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Data Center & Critical Facilities

What We Bring to the Table

OSIsoft & Microsoft have forged a strong relationship
to drive business value for joint customers

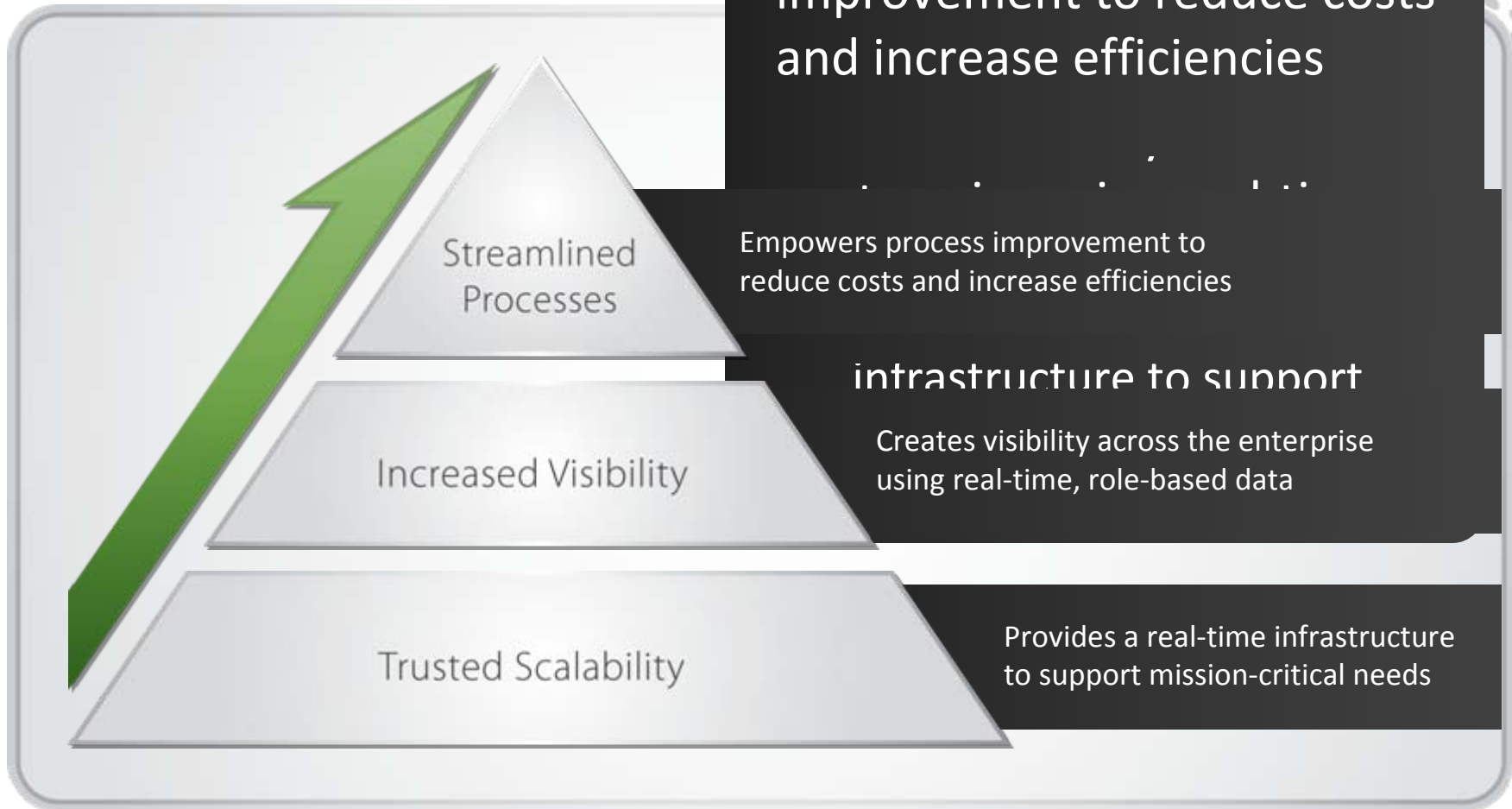


Provides operational visibility
through real time data and event
infrastructure.



Connects you with information to
make informed business decisions
via familiar tools.

Our Vision



Enterprise Technology Tools

● Platform for Integration and Collaboration

- Microsoft Office SharePoint 2007
- RtWeb Parts (PI Infrastructure)

● Business Intelligence

- Microsoft SQL Reporting Services, PerformancePoint
- DataLink for Excel Services

● Real-Time Notifications

- Microsoft Unified Communications
- PI Notifications

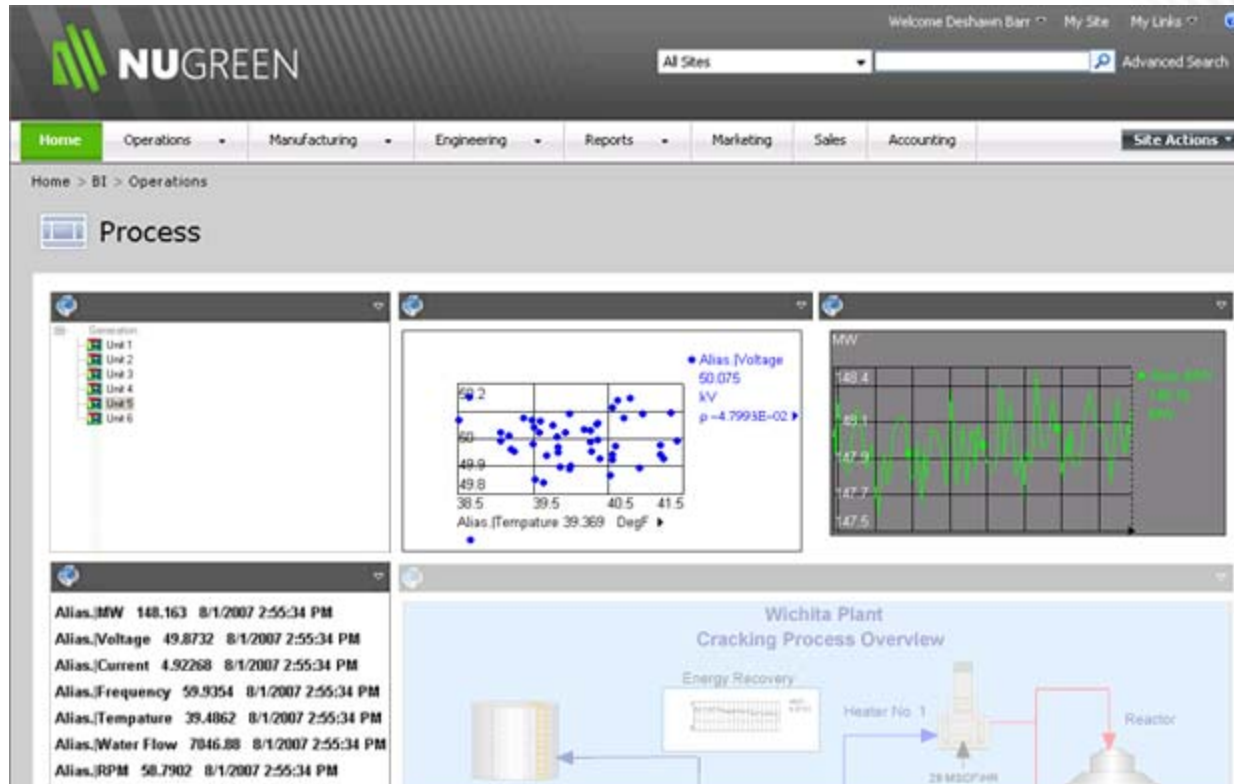


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ProcessBook Graphics

=> Real-time SharePoint 2007 Web Parts



Technology Integration – MOSS 2007 Enterprise

Welcome John Smith | My Site | My Links | ?

Home
Operations
Manufacturing
Engineering
Reports
Marketing
Sales
Accounting
Site Actions

View All Site Content

Documents

News

Offices

Departments

Search

Help

Manufacturing

Engineering

Support Team

- Wichita Operations
 - Fred Smith
 - Carol Berger
- Cracking Technology
 - Deshawn Barr
 - Wilson Adams
- Production Logistics
 - Carrie Frederickson

Operations Performance Scorecard

	To Date	Houston Today	Target	Trend	To Date
Safety	0	0	●	→	0
Environment	97.1	97.0	●	→	99.0
Energy Savings	0.4%	0.4%	●	→	0.5%
Quality	97.6	97.9	●	→	97.3
Reliability	95.7	96.4	●	→	95.6

Process Overview

Wichita Plant Cracking Process Overview

Production Schedule Worksheet

Open | Update

Cracking Production Schedule

Current Inventories						Today's Performance		
Raw Material	Product		Sales	Energy	Reliability	Quality		
	Tons	Days						
Houston	30,141	35.9	9,353	7.8	1200	0.5%	95.1%	97.4%
Tucson	30,166	47.1	8,136	8.1	1000	1.9%	96.0%	97.3%
Wichita	21,300	26.6	17,300	23.1	750	-0.3%	94.3%	94.3%

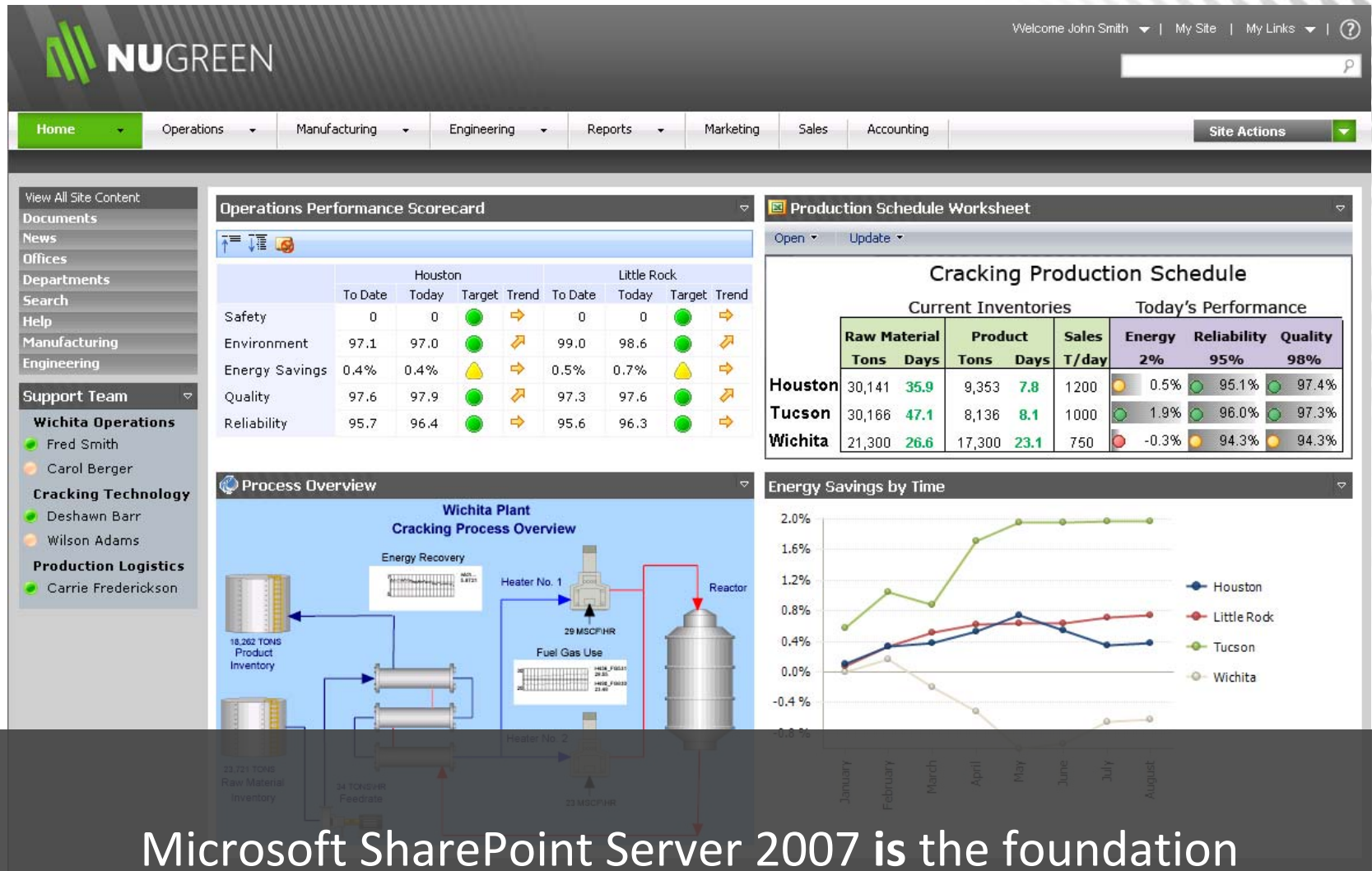
PI Data Displayed Through Excel Services



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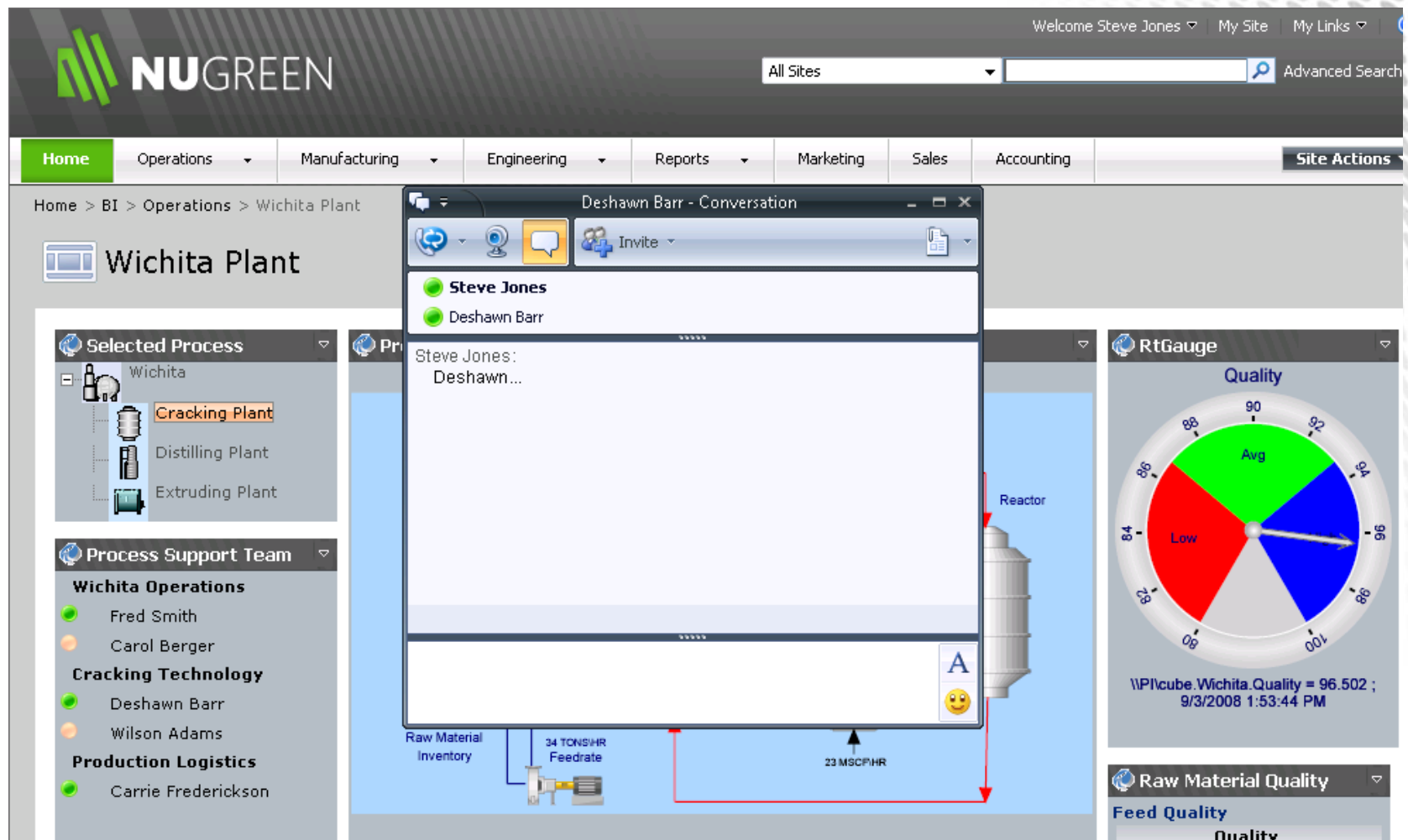
Microsoft

Technology Integration – Business Intelligence



Microsoft SharePoint Server 2007 is the foundation

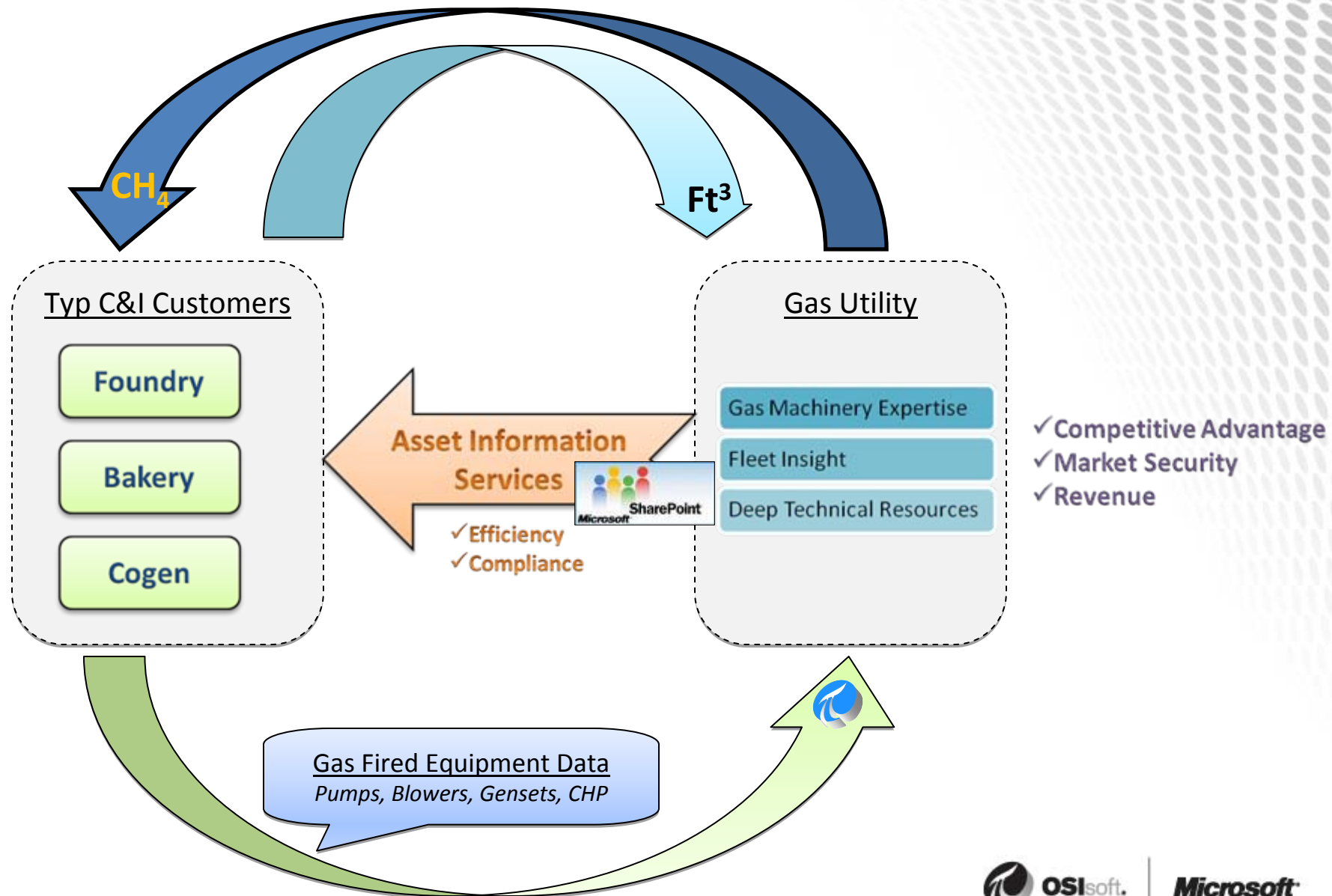
Technology Integration – Communications Server



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Asset Information Services – Gas Utility





"We expect to see the solution support a 5 percent increase in our revenues. Given the more than billion-dollar size of our market, that could be a substantial revenue increase."

Terry Burleson, Vice President,
Downstream Energy Services, Nalco

Microsoft®



Process services firm aims to significantly boost profits for its customers

Customer Business Challenge

- Nalco used a manual and time-consuming data collection process at customer sites
- It wanted a real-time, automated solution
- Its goal: better customer support, satisfaction, and loyalty

Solution

- To integrate the OSIsoft PI enterprise infrastructure with the Microsoft® application platform and its own systems
- Solution can securely upload customer data over the Internet for detailed analysis and reporting.

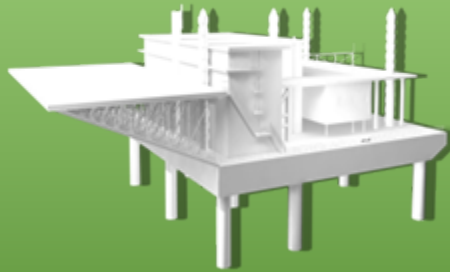
Customer Results/Benefits

- Cuts time-to-market in half, provides new capabilities
- Contributes to double-digit revenue growth
- Meets customer needs better, faster



Microsoft

The Data Center is a 21st Century Plant



Plants & Operational Facilities

Complex Processes

- Pulp & Paper
- Oil & Gas
- Pharmaceuticals
- Power

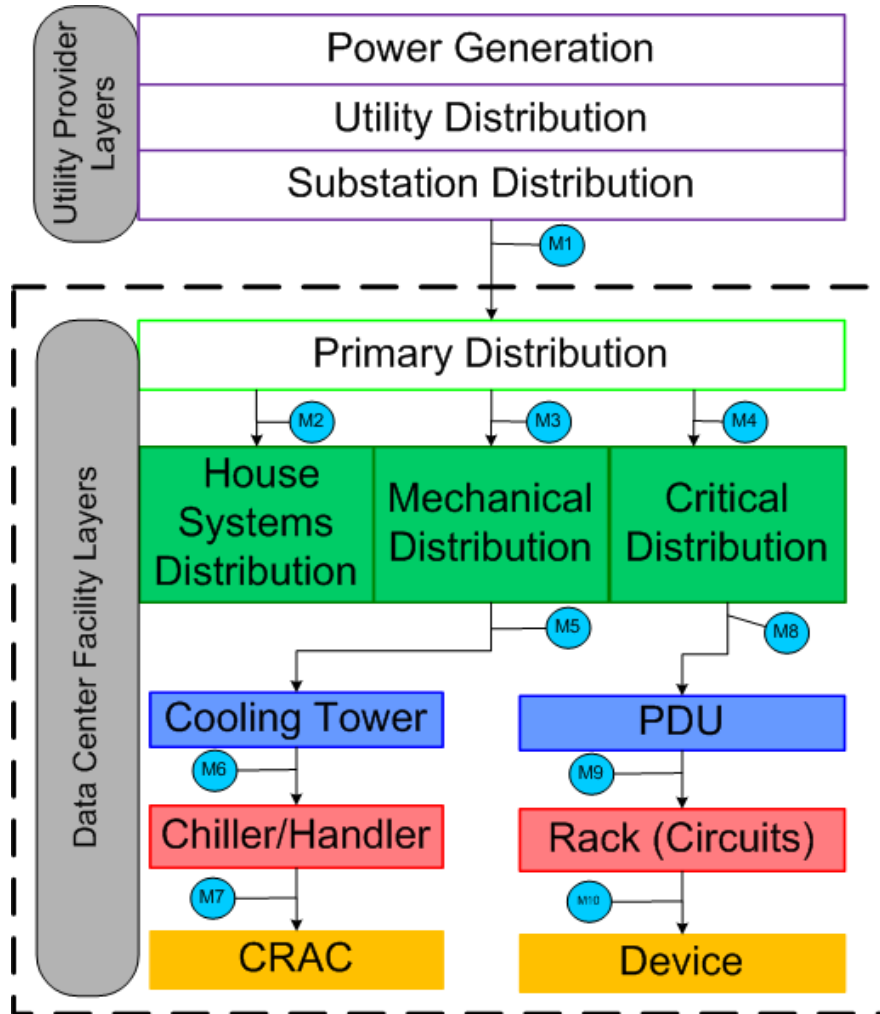


Data Center

Complex Processes

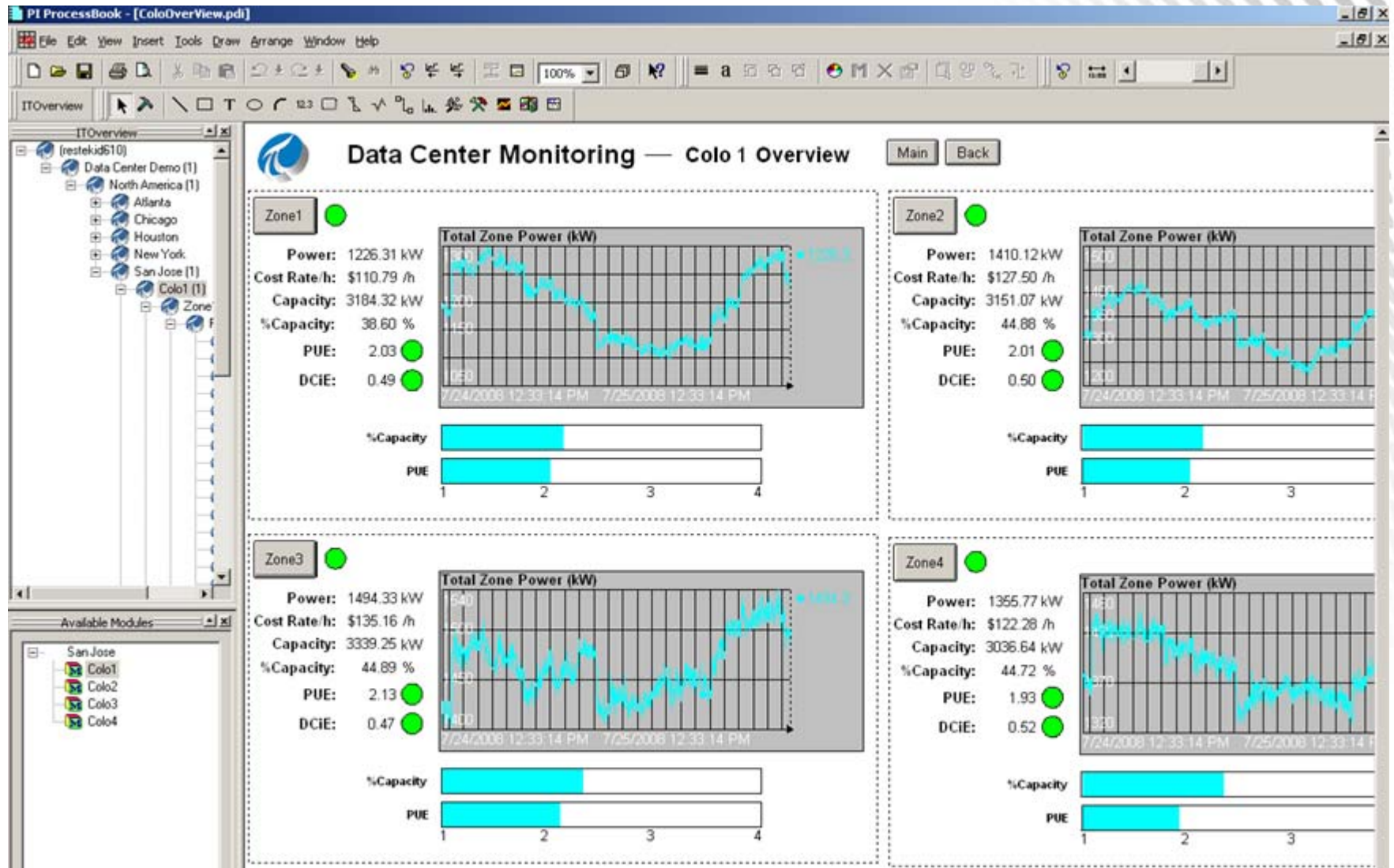
- Bits and Bytes
- Data
- Information
- Power

Power Flow...



Measurement ID	Description
M1	Utility Provider Total Power Load Measurement
M2	Power Load for Non-critical systems (lighting, offices, etc.)
M3	Power Load for HVAC and Other Mechanical Systems
M4	Total Power Load for Devices and Other Critical Systems
M5	Cooling Tower Load
M6	Chiller, Air Handler Load
M7	CRAC Unit Load
M8	UPS Load Measurements
M9	Pole, Circuit and Rack Loads
M10	IT Asset

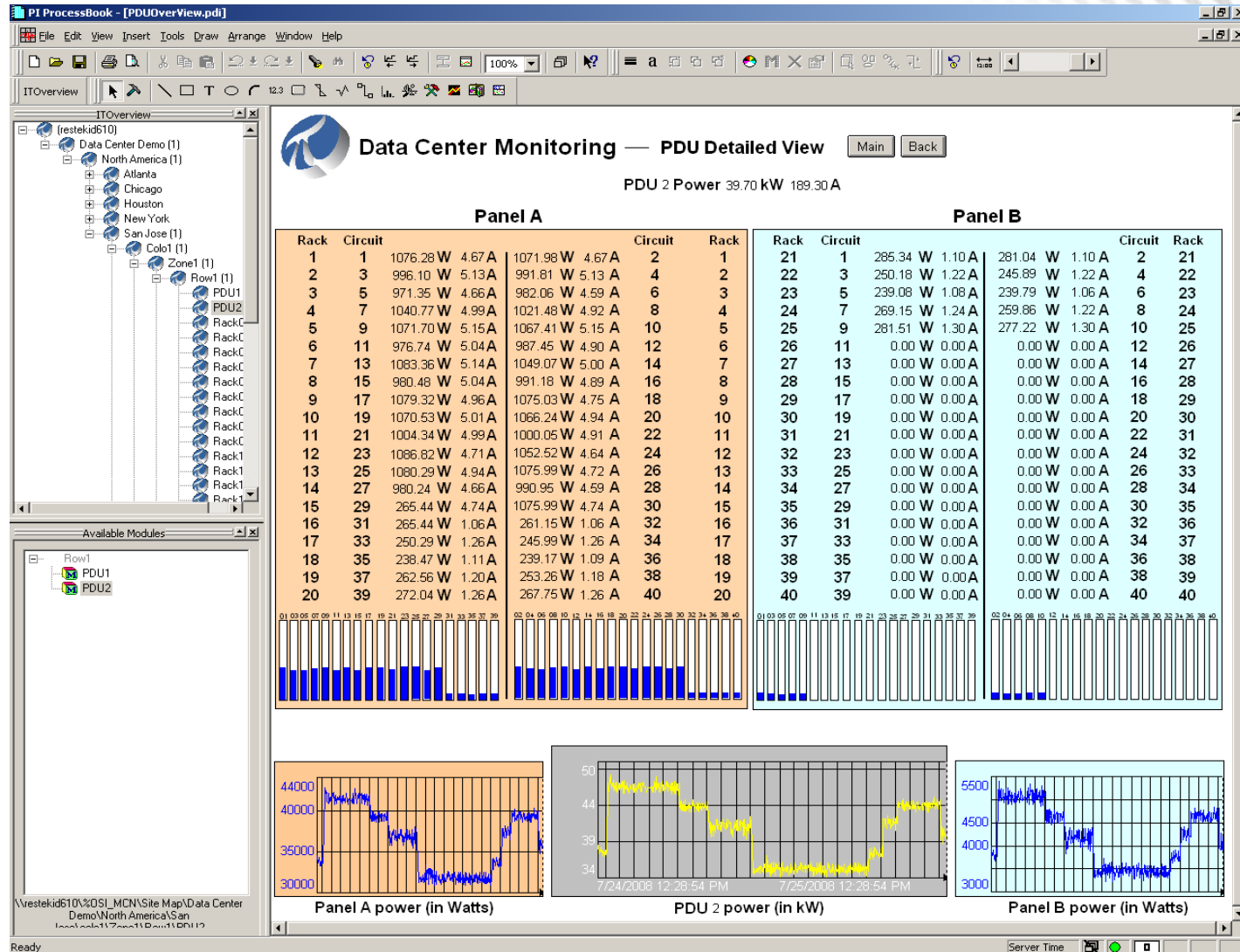
Power Usage



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PDU Detail



UPS Detail

APC UPS: Symmetra Bldg1

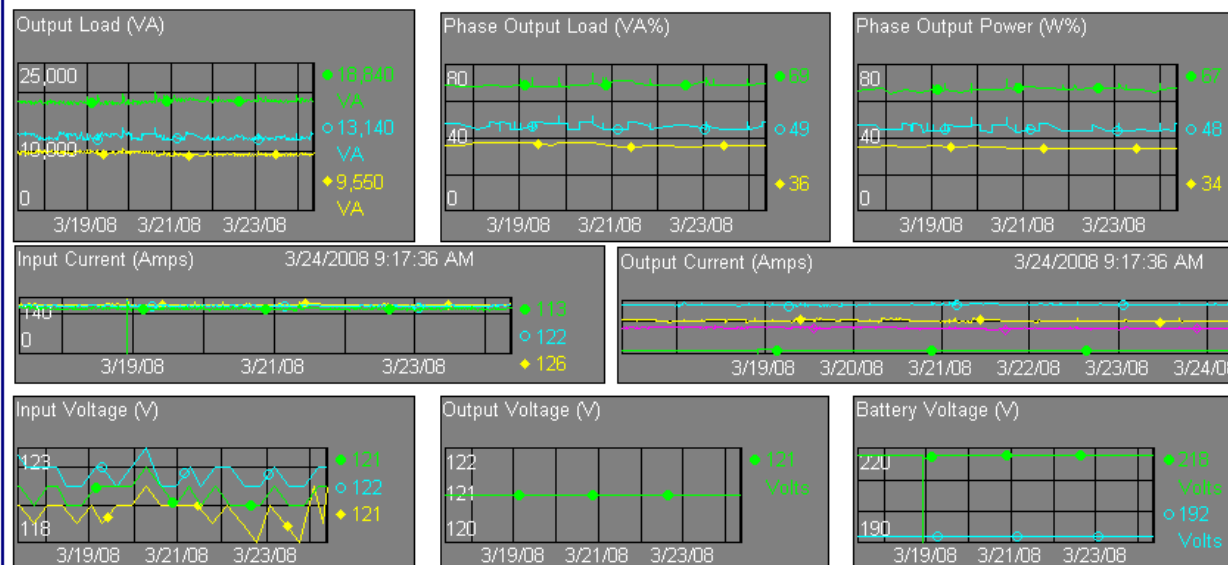
Main Back



APC UPS

Model: Symmetra 80K	Phase 1 Output Load%: 69	Basic Battery Status: Normal
Basic Output Status: online	Phase 2 Output Load%: 49	Battery Run Time Remaining: Over Range
Reason for Last Transfer to UPS: selfTest	Phase 3 Output Load%: 36	Battery Replace Indicator: noBatteryNeedsReplacing
Total Output Load %: 70	Output Current: 12 Amps	Battery Last Replace Date: 05/11/07
SwitchGearStatus: OK	Output Voltage: 121 Volts	Battery Voltage: 218 Volts
	Output Frequency: 60 Hz	Battery Temperature: 31 F

Trends



Switchgear Status

SwitchGear Input Switch Status: **closed** SwitchGear Output Switch Status: **closed** SwitchGearBypassSwitchStatus: **opened**

Battery Status

Number of Battery Packs: **32**



Legend

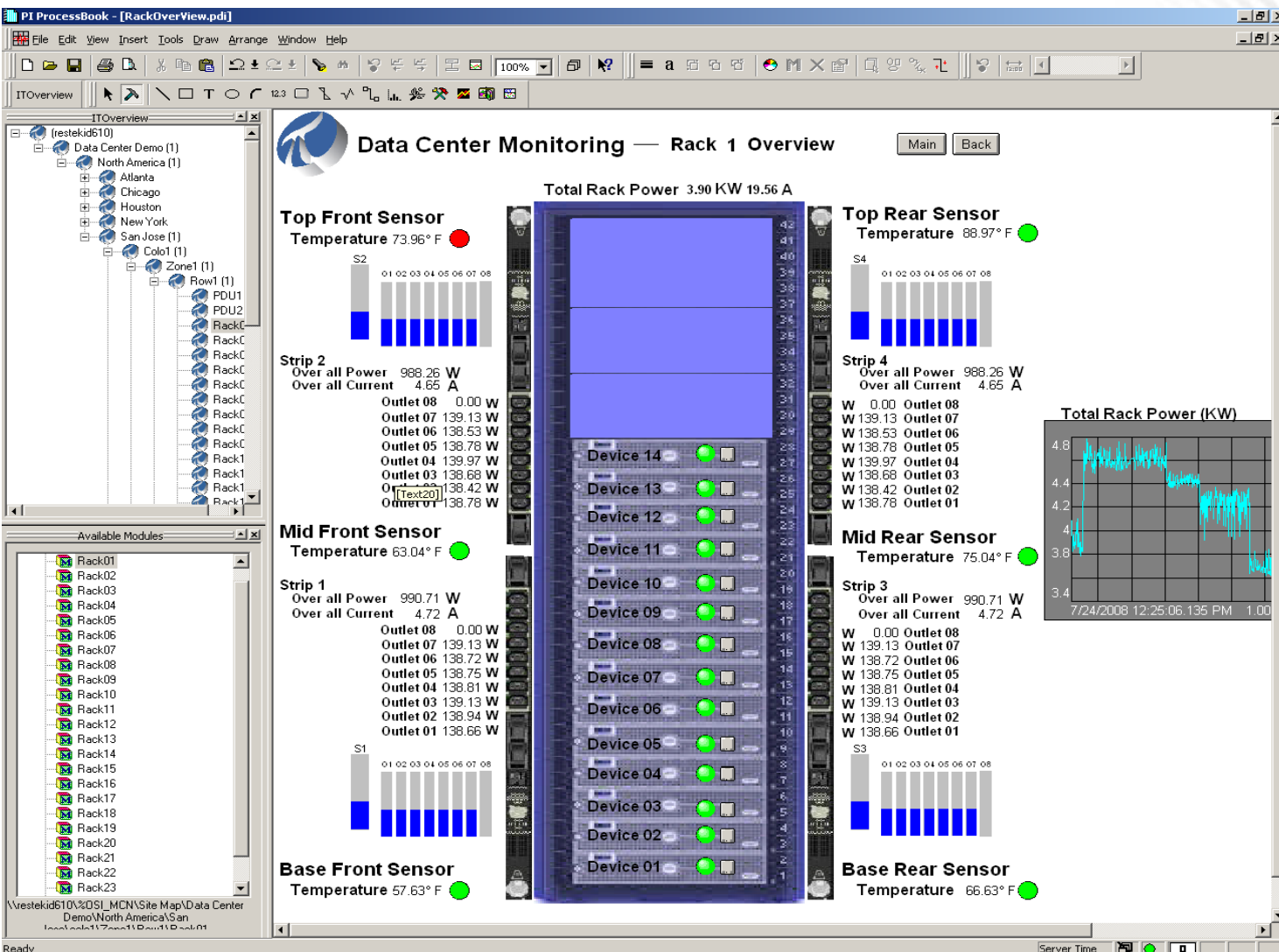
- Not Configured
- Unknown
- Not Installed
- OK
- Failed
- High Temperature
- Replace Immediately
- Low Capacity



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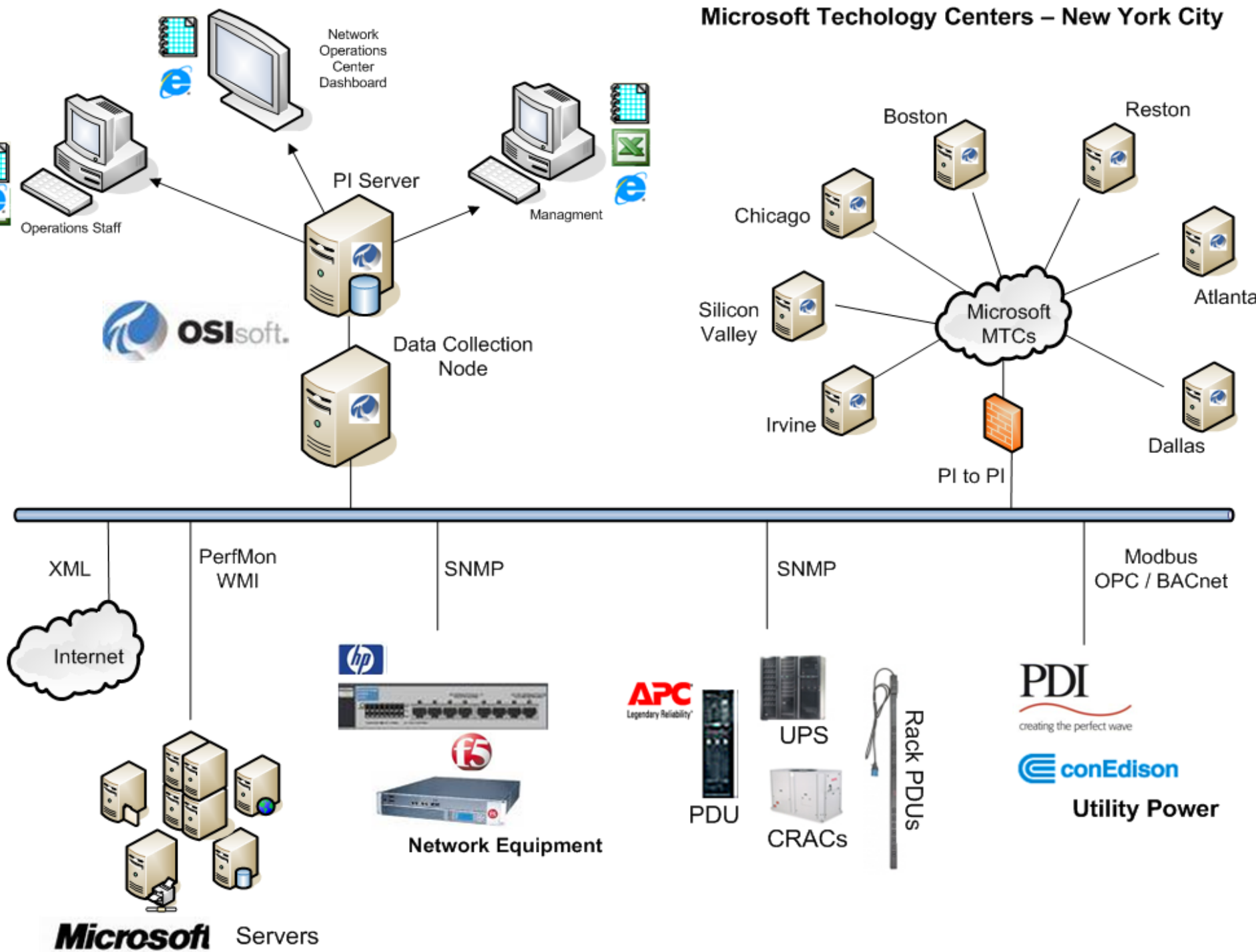
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Rack Detail

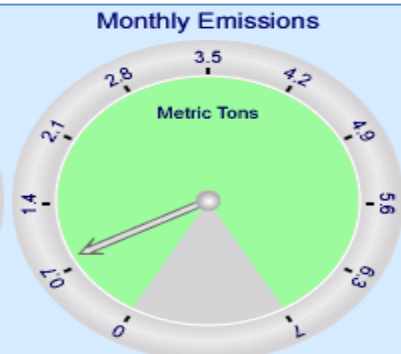
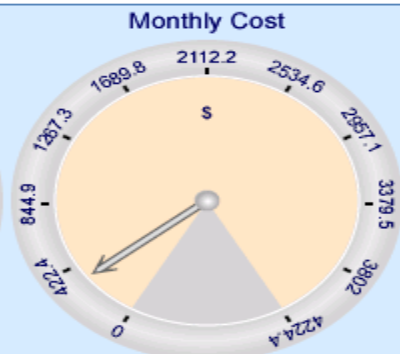
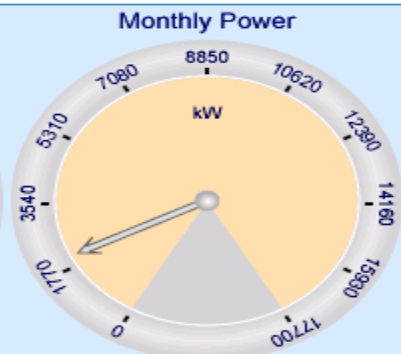
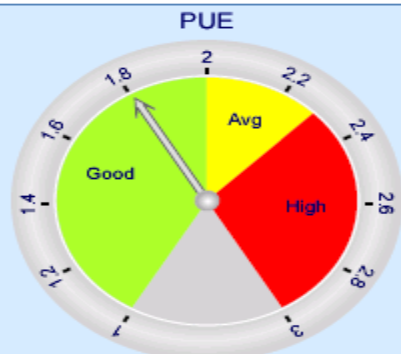


- Power
- Temperature
- Humidity
- Capacity

Microsoft Technology Centers – New York City



North America KPIs



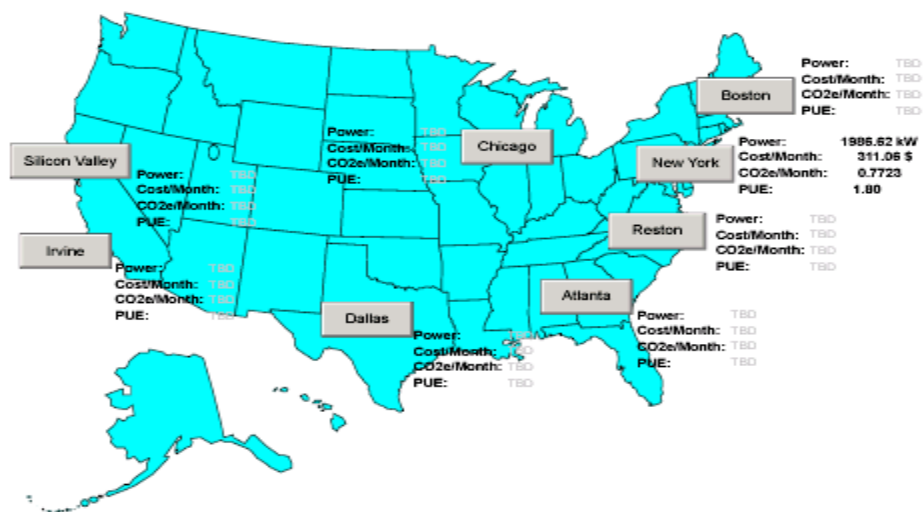
Tree View

- North America
 - Atlanta
 - Boston
 - Chicago
 - Dallas
 - Irvine
 - New York
 - Reston
 - Silicon Valley

MTCs

Microsoft Technology Centers

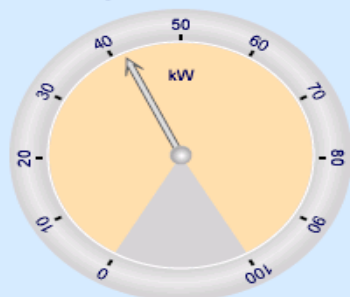
North America



NewYork

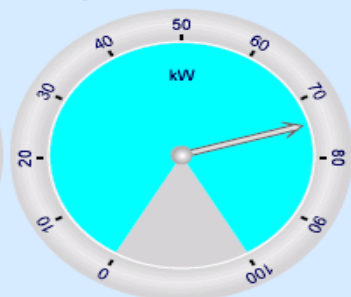
New York PKIs

Current IT Load



= 41.5 ; 3/29/2009 10:39:00 PM

Current Total IT load



= 74.699 ; 3/29/2009 10:39:00 PM

PUE



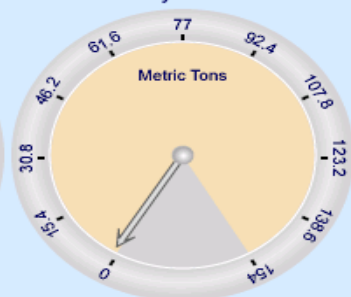
= 1.7999 ; 3/29/2009 10:39:00 PM

Monthly Cost



= 311.45 ; 3/29/2009 10:39:00 PM

Monthly Emission



= 0.7732 ; 3/29/2009 10:39:00 PM

Tree View

- New York
 - APC Products
 - CRACs
 - 192.168.1.15
 - 192.168.1.16
 - PDU's
 - 192.168.1.17
 - Racks
 - Rack 1
 - Rack 10
 - Rack 11
 - Rack 12 Short
 - Rack 12 Tall
 - Rack 13 Short
 - Rack 13 Tall
 - Rack 14
 - Rack 2
 - Rack 3
 - Rack 4
 - Rack 5

New York Data Center

Messages [1]

APC UPS: THORC456



Microsoft on PI in the Data Center

“We are using the **OSIsoft 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 **OSIsoft and Microsoft technologies** are bringing new levels of performance and reliability to our world-class data centers.”



OSIsoft.

Microsoft



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