"where PI geeks meet"

OSIsoft® vCampus LIVE! 2009

OSIsoft and Microsoft Partnering to Deliver Value

John Baier – OSIsoft

Jonathan Wise – Microsoft

Roman Schindlauer – Microsoft

Laurent Garrigues - OSIsoft

Greg Leizerowicz - OSIsoft

OSIsoft and Microsoft - Alliance History

Microsoft GOLD CERTIFIED Partner | 2009 GLOBAL ISV Industry PARTNER OF THE YEAR WINNER | Microsoft GOLD CERTIFIED Partner | 2009 OFFICE BUSINESS APPLICATION PARTNER OF THE YEAR WINNER

OSIsoft | Microsoft

- OSIsoft – Microsoft Alliance Partnership 2007
- OSIsoft – Gold Certified Microsoft Partner in 2004
- PI System – Certified on Windows Server 2003
- OSIsoft released first version of the web offering on SharePoint version 1 (Digital Dashboard)
- OSIsoft #3 company to sign up for VBA in 1997
- OSIsoft ProcessBook #1 manufacturing company certified on Windows 95
- OSIsoft started converting PI Server to beta version of NT in 1993

Microsoft GOLD CERTIFIED Partner

Microsoft Windows Server 2003

Microsoft SharePoint Portal Server 2001

Microsoft Visual Basic for Applications

Designed for Microsoft Windows 95

Microsoft Windows NT

Building On Your Existing Infrastructure

OSIsoft & Microsoft have forged a strong relationship to drive business value for joint customers, building on existing infrastructure

PI Infrastructure

PI DataLink

PI DataLink for Excel Services

PI WebParts

Dynamic OBA Accelerators

+

Microsoft

SharePoint Server

Excel Services

PerformancePoint

Office 2007

SQL Server

=

BUSINESS VALUE

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Technical Roadmap Alignment

- **Office 2010 Integration (Launch Partner)**
  - PI data and events within Office 2010
  - BI – PowerPivot, Excel 2010, SharePoint 2010
  - Office Communication Server CS R2
- **Silverlight Visualization**
  - For PI Web Parts and Rich Internet Visualization
- **StreamInsight (Launch Partner)**
  - Advanced Analytics and Edge Processing for PI

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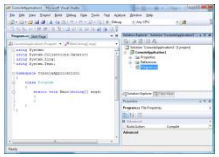
Microsoft StreamInsight

Roman Schindlauer – Program Manager, Microsoft

Laurent Garrigues – Product Manager, OSIsoft

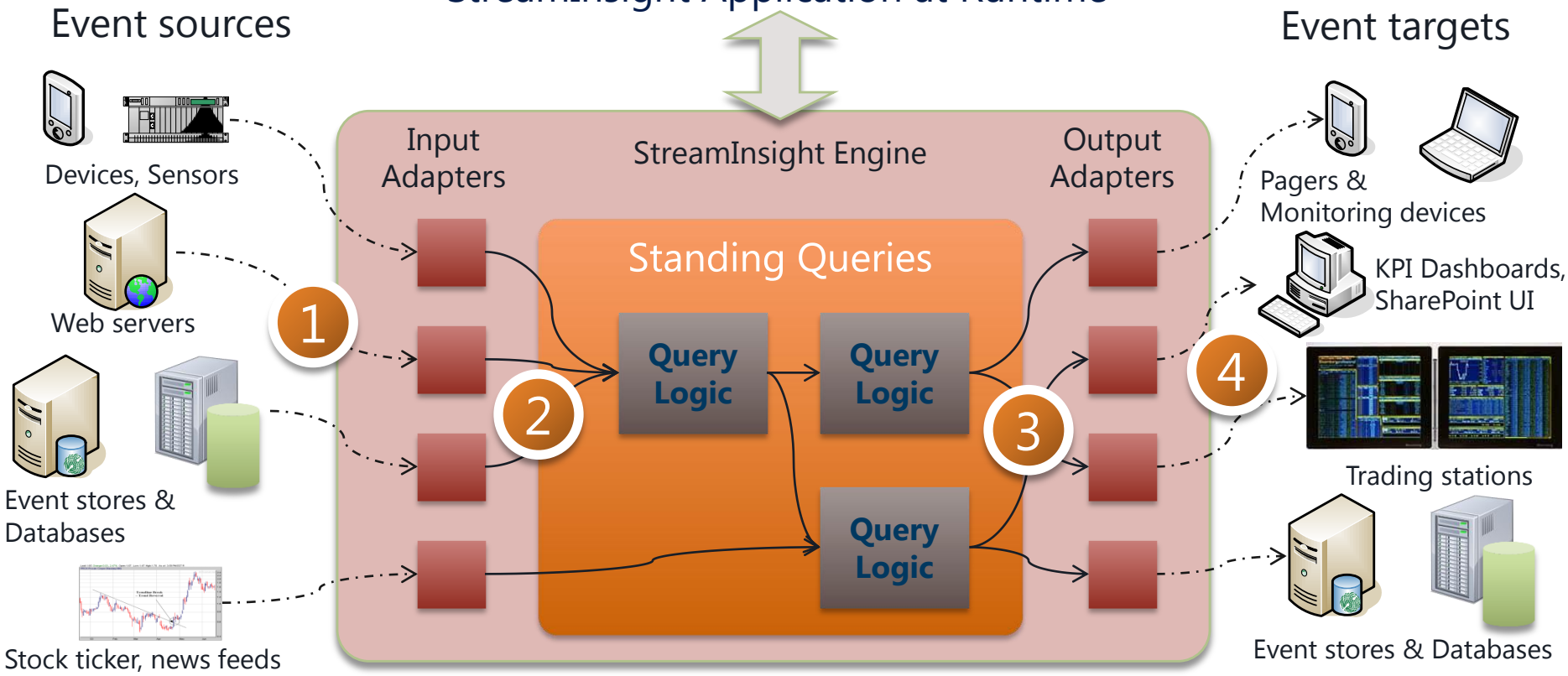
StreamInsight Platform

StreamInsight Application Development



.NET
C#
LINQ

StreamInsight Application at Runtime



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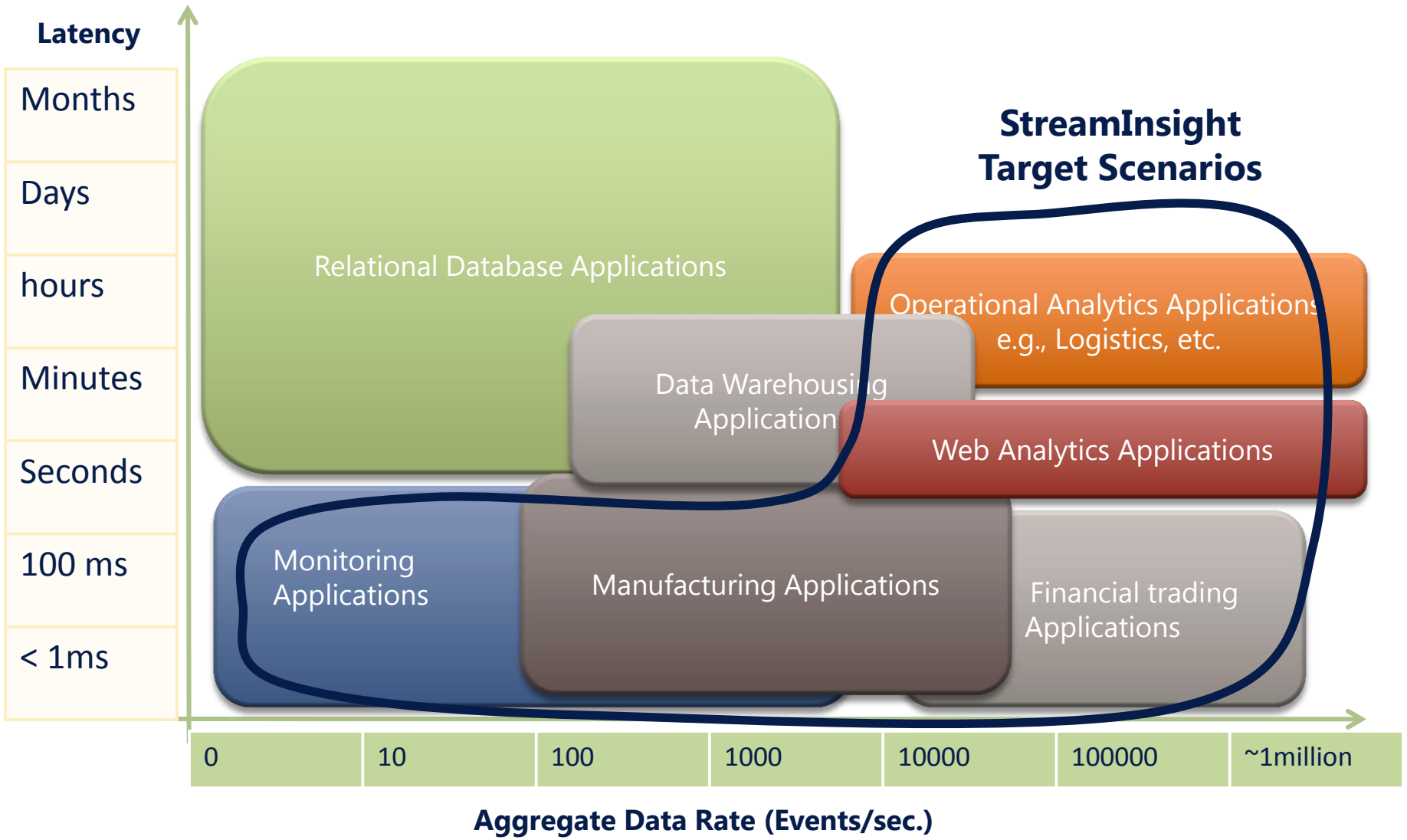
StreamInsight Scenarios



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StreamInsight Features

- Runtime environment for continuous and event-driven processing
- In-memory, no persistence
- Declarative query language: LINQ
- .NET APIs for Input/Output Adapters
- Flexible deployment models
- Extensibility: Aggregates, Operators
- Rich diagnostic & debugging interface

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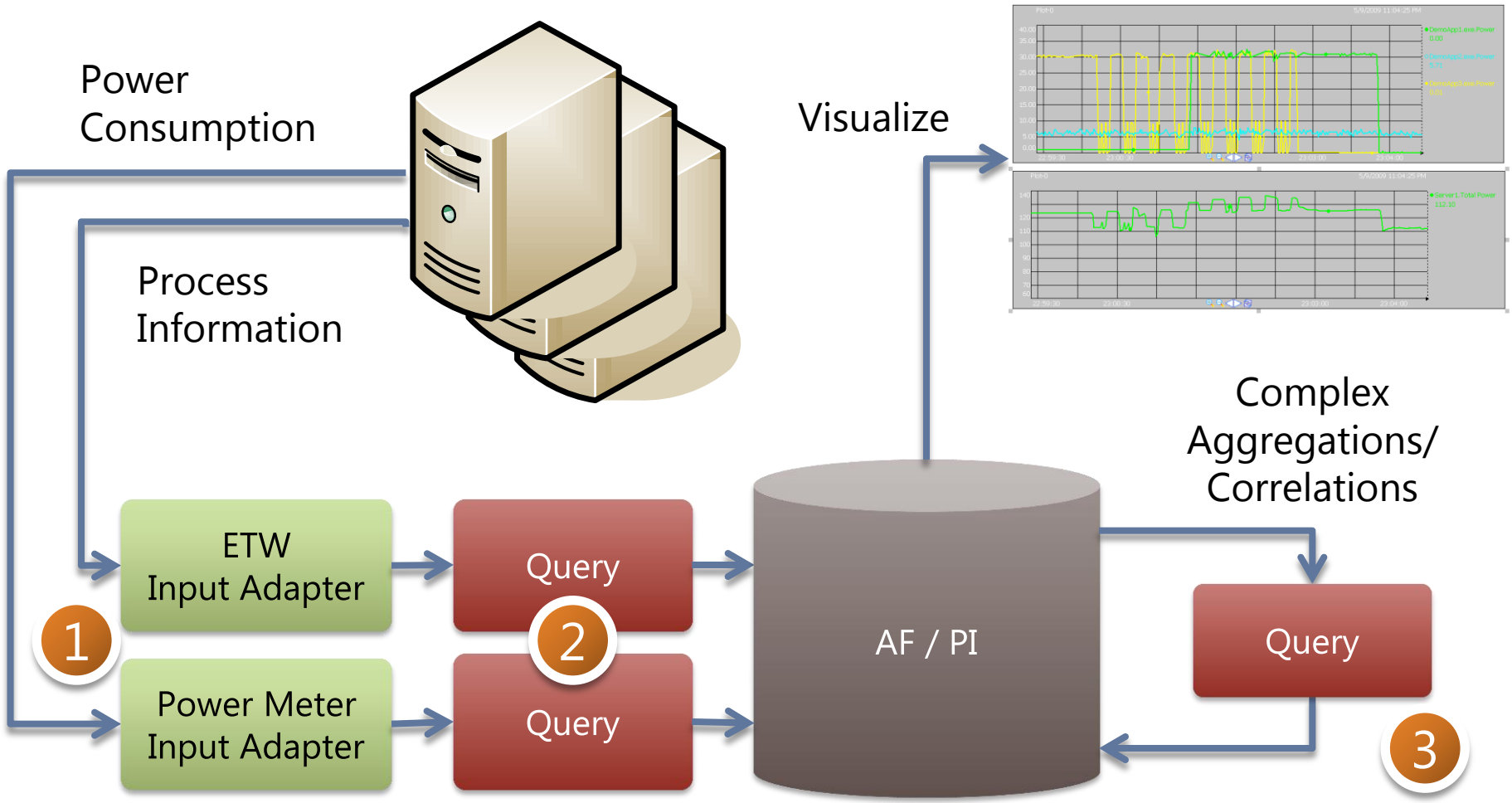
Power Consumption Monitoring



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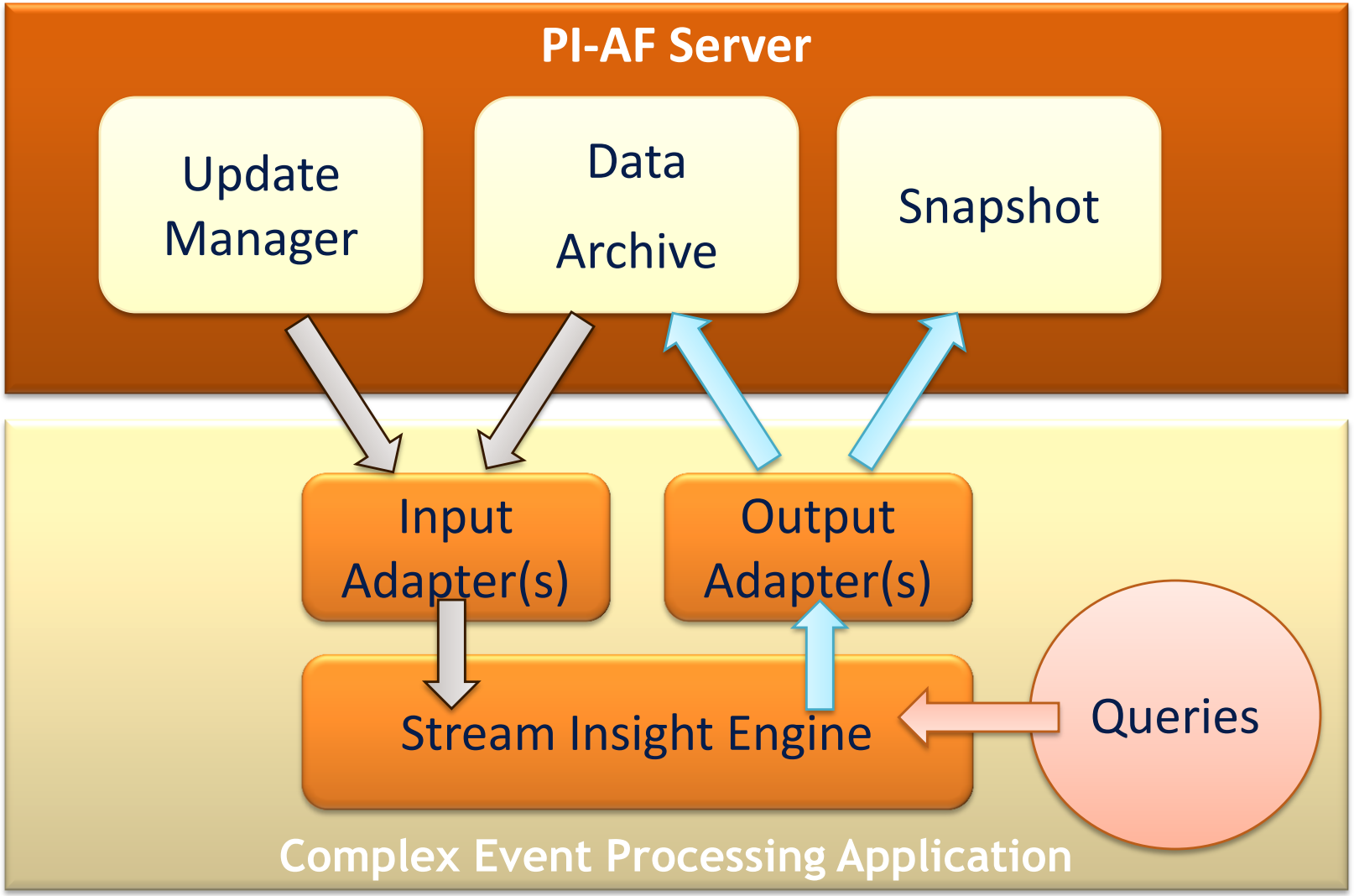
StreamInsight with the PI Server



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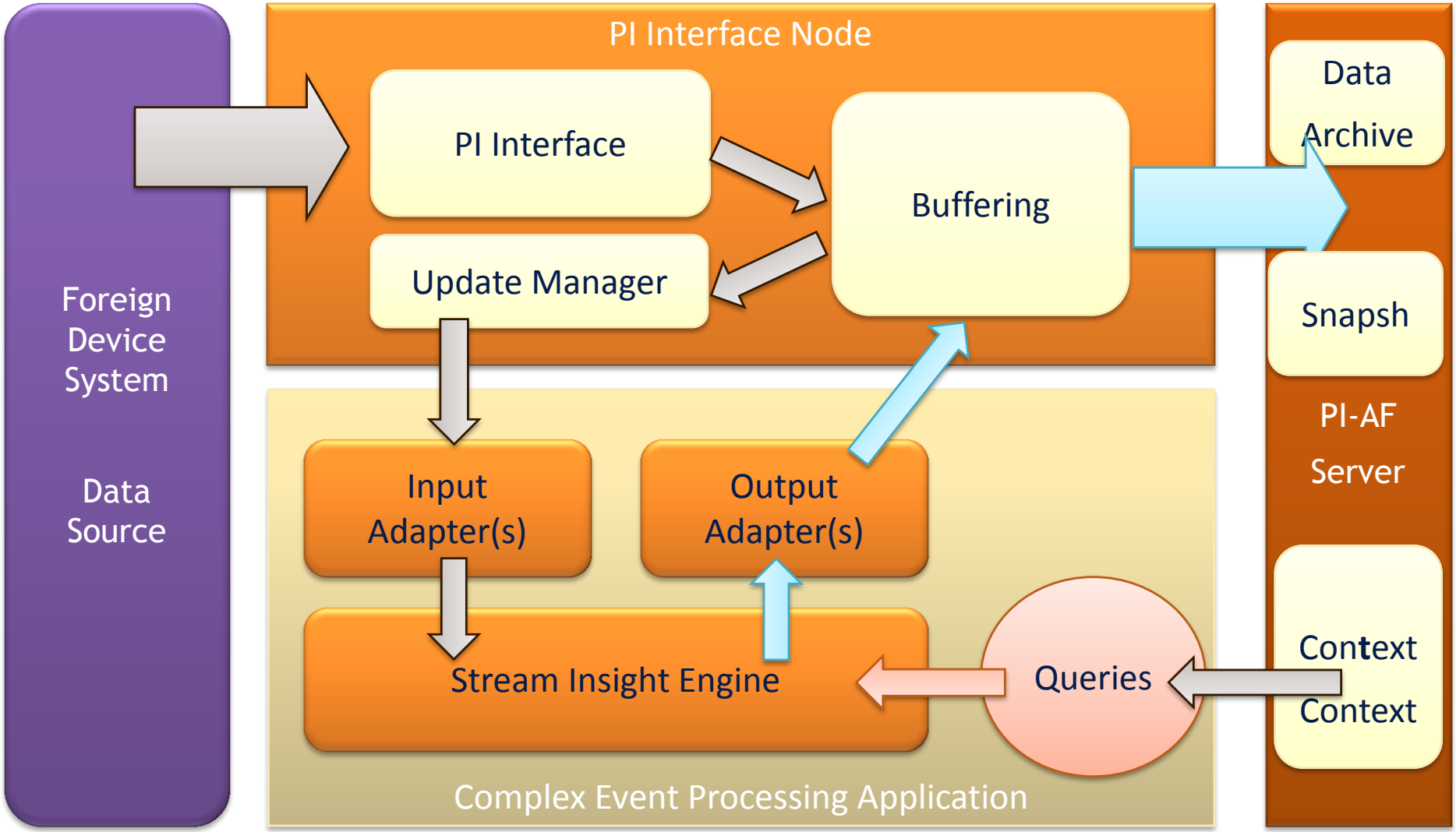
Edge processing – CEP at the interface



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Adapter Prototypes

- Read from / write to PI & AF, using SDKs
- Streams Defined by
  - PI Point(s)
  - AF Attributes
  - AF Elements
- CTP of PI / AF Adapters on vCampus
- Hands on Opportunity Tomorrow in the Learning Labs

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What is an Office Business Application?

And what makes them Dynamic?

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Enabling Dynamic Office Business Applications

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Jonathan Wise, Developer Evangelist

Microsoft®

Your potential. Our passion.™

Microsoft®
Office 2010

Microsoft Business Productivity Infrastructure

Best Productivity Experience Across PC, Phone, Browser

IT Choice and Value

Unified Communications

Business Intelligence

Enterprise Content Management

Collaboration

Enterprise Search

Unified Business Platform

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Microsoft Business Productivity Infrastructure

Office Brings Even More Value to Server & Services Capabilities

Deliver the value of servers & services to users

- **Promote faster adoption of new capabilities through tools used every day**
- **Surface LOB information in**
- **Single-interface training helps manage support costs**

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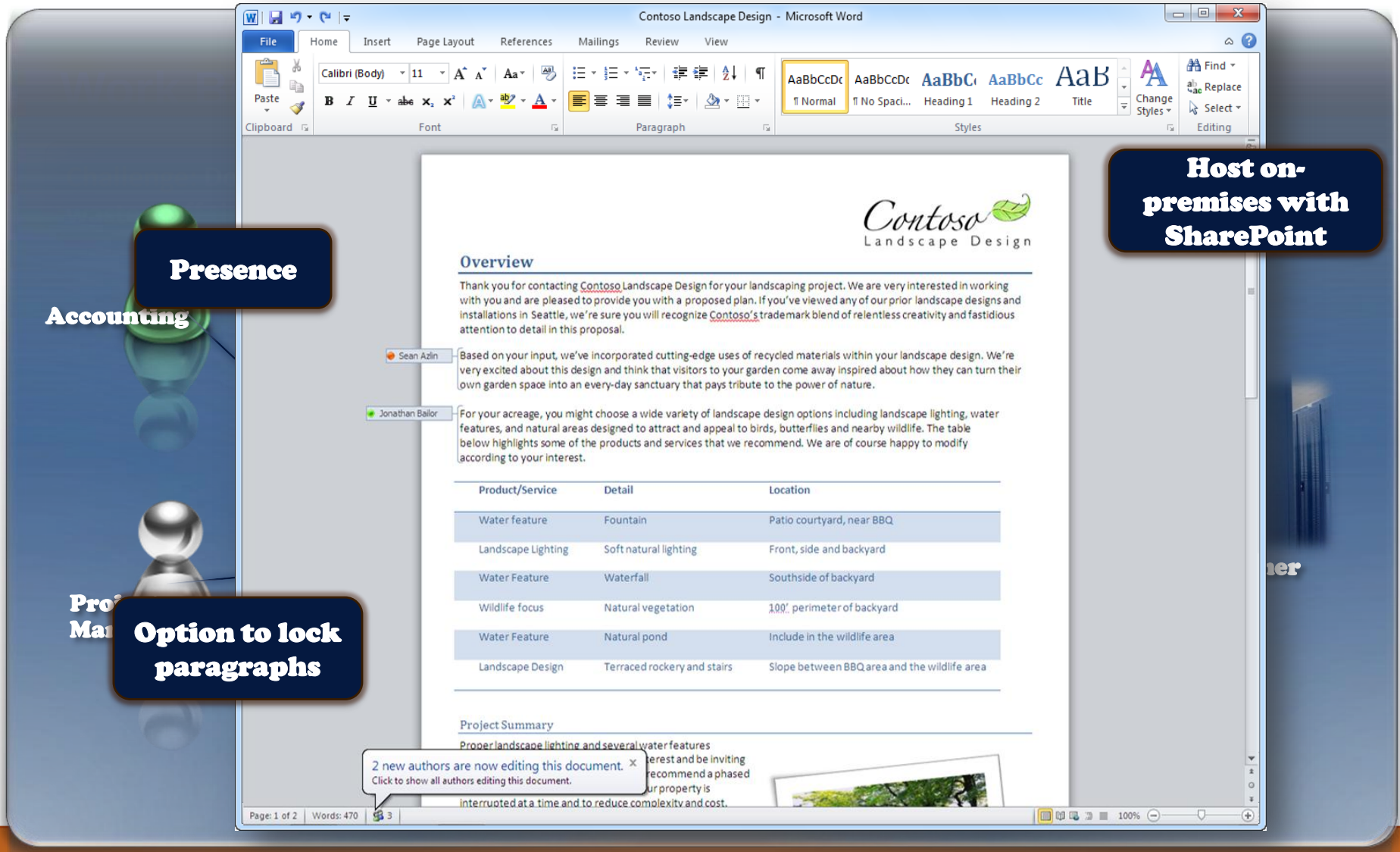
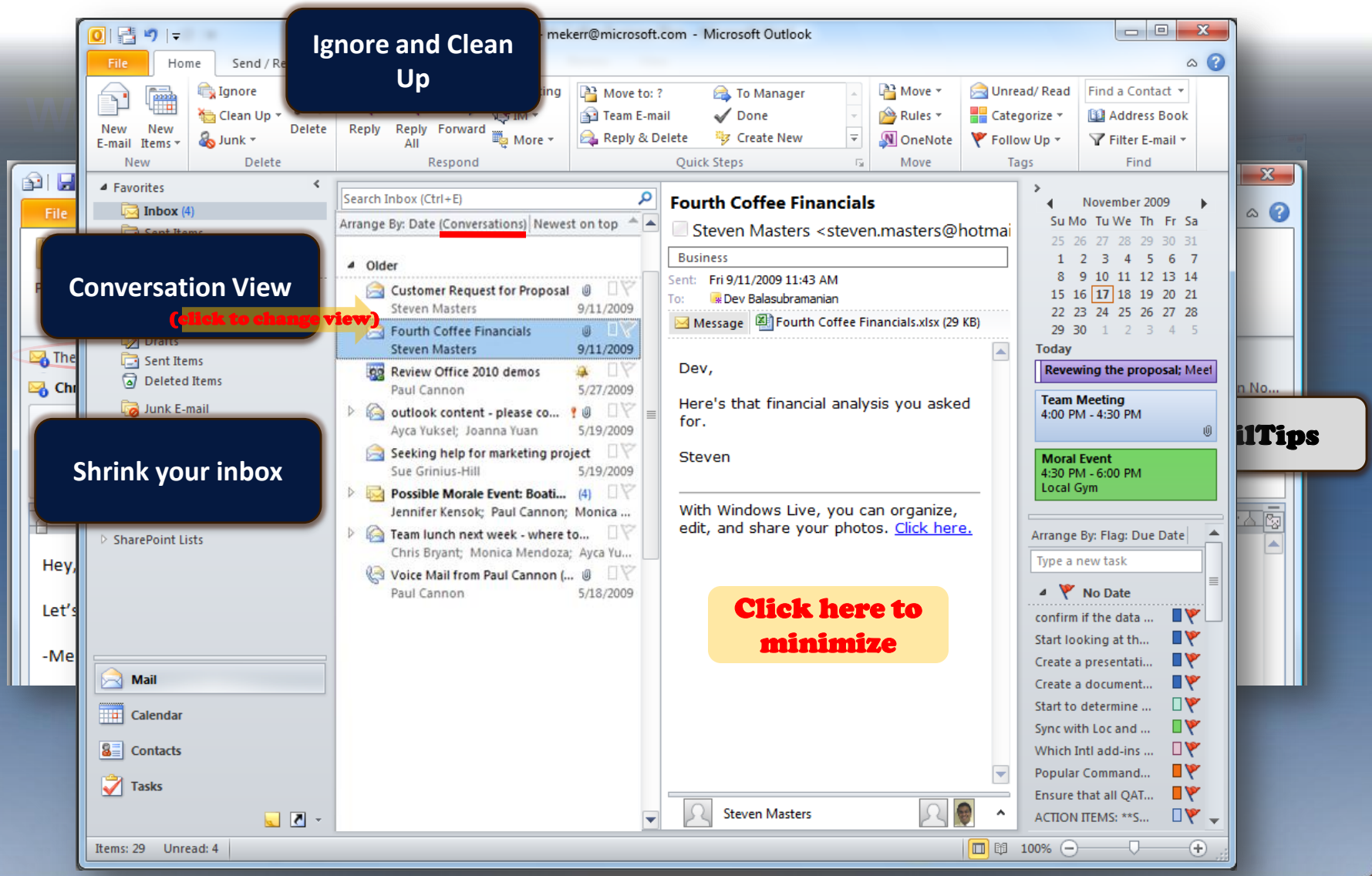
Meet Deadlines & Reduce Time Spent Coordinating Changes

By Enabling Multiple Team Members to Work Together in Real-time



Take Control of Your E-mail and Calendar

With New Shortcuts and Views in Outlook 2010



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Make Fast, Effective Comparisons from Lists of Data

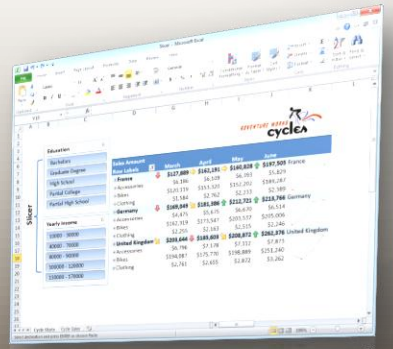
By Using PowerPivot for Excel and New Tools to Visualize Data

Bring Ideas to Life

Challenge: Large volumes of data can be slow and cumbersome to analyze.

New data analysis tools: *PowerPivot for Excel* provides lighting fast query and sorting capabilities with hundreds of million of records. *Sparklines* convey trends for a string of numbers in a single cell.

Potential savings/efficiency gains: Rich data analysis is more easily accessible to more people and can eliminate the need to buy Business Intelligence software that can be costly or difficult to learn to use. Saves time identifying business trends.



Sparklines and Conditional Formatting (Click Image)

PowerPivot for Excel Add-in (Click Image)

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Microsoft SharePoint 2010

Microsoft®
SharePoint® 2010

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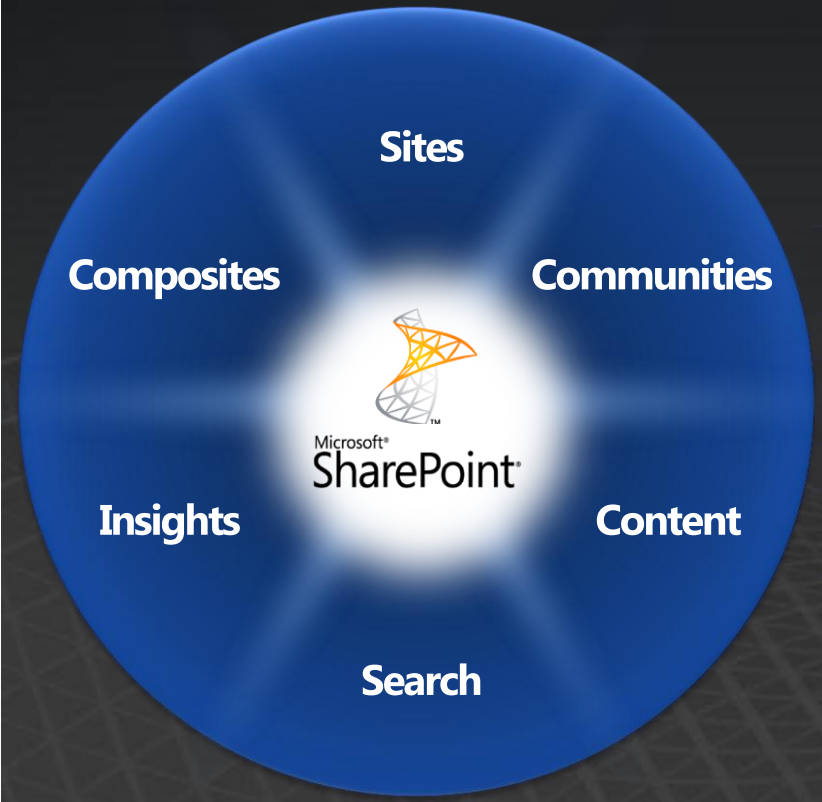
Microsoft SharePoint 2010

Business Collaboration Platform for the Enterprise and the Web



Connect and Empower People

Cut Costs with a Unified Infrastructure

Rapidly Respond to Business Needs

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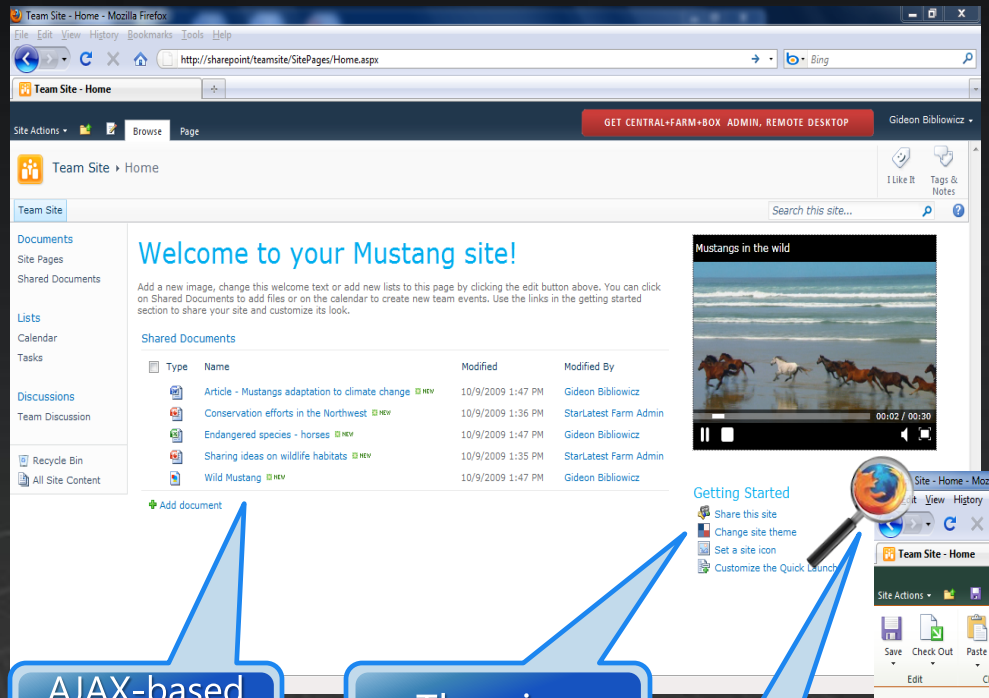
Microsoft SharePoint 2010

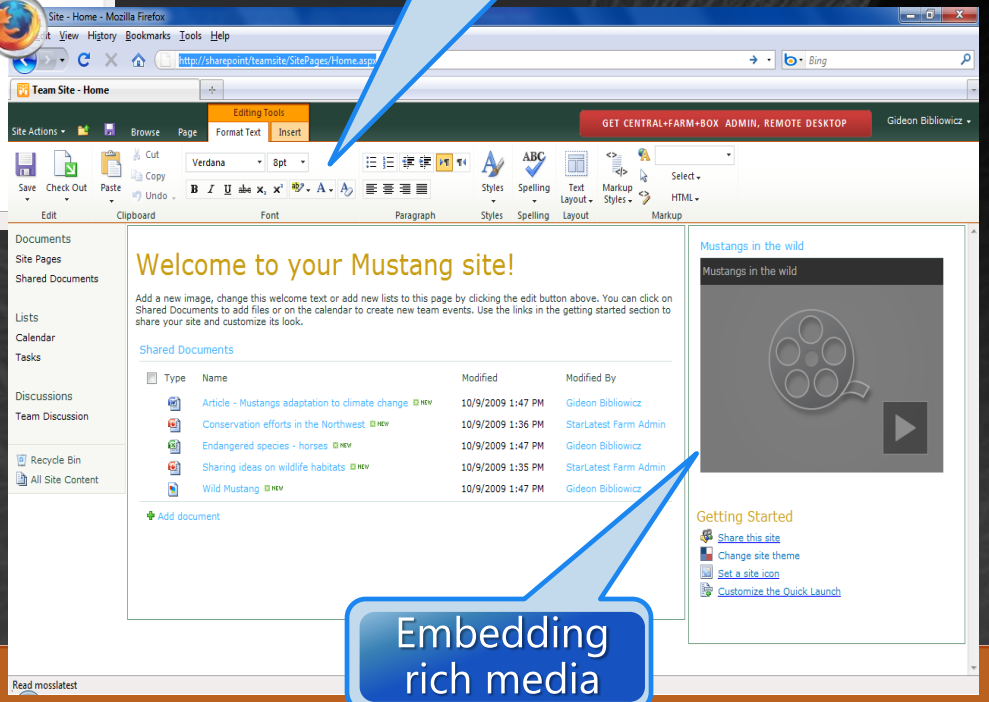


AJAX-based usability

Theming

Cross-browser web access

The Office Ribbon UI in SharePoint !



Embedding rich media

Pre-Beta screenshots, subject to change

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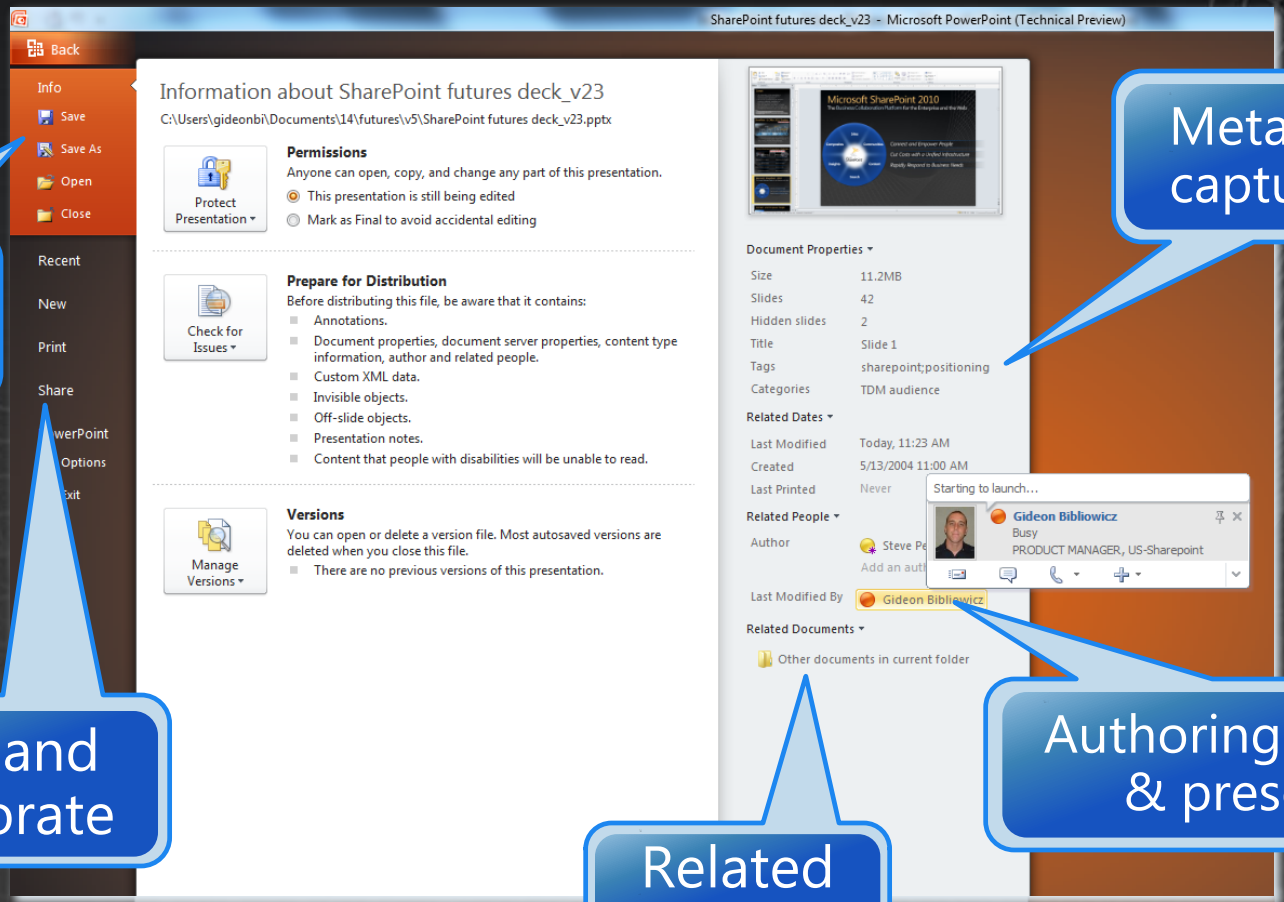
Microsoft SharePoint 2010

In-context collaboration through the new Office Backstage



Pre-Beta screenshots, subject to change

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Operational Business Intelligence

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Business Intelligence Basics

- It's about Decision Making
  - Every level of management makes decisions – with or without the right data
    - Strategic to Tactical to Operational
    - Personal to Team to Enterprise
  - To have value, BI needs "the **Right Information** at the **Right Time** in the **Right Format**"
- Typical BI data
  - **F**inancial, **O**perational, **S**ales, **H**uman Resources
  - F, S, and H are typically from ERP or other RDB
  - OSIsoft enables the **O**perational data

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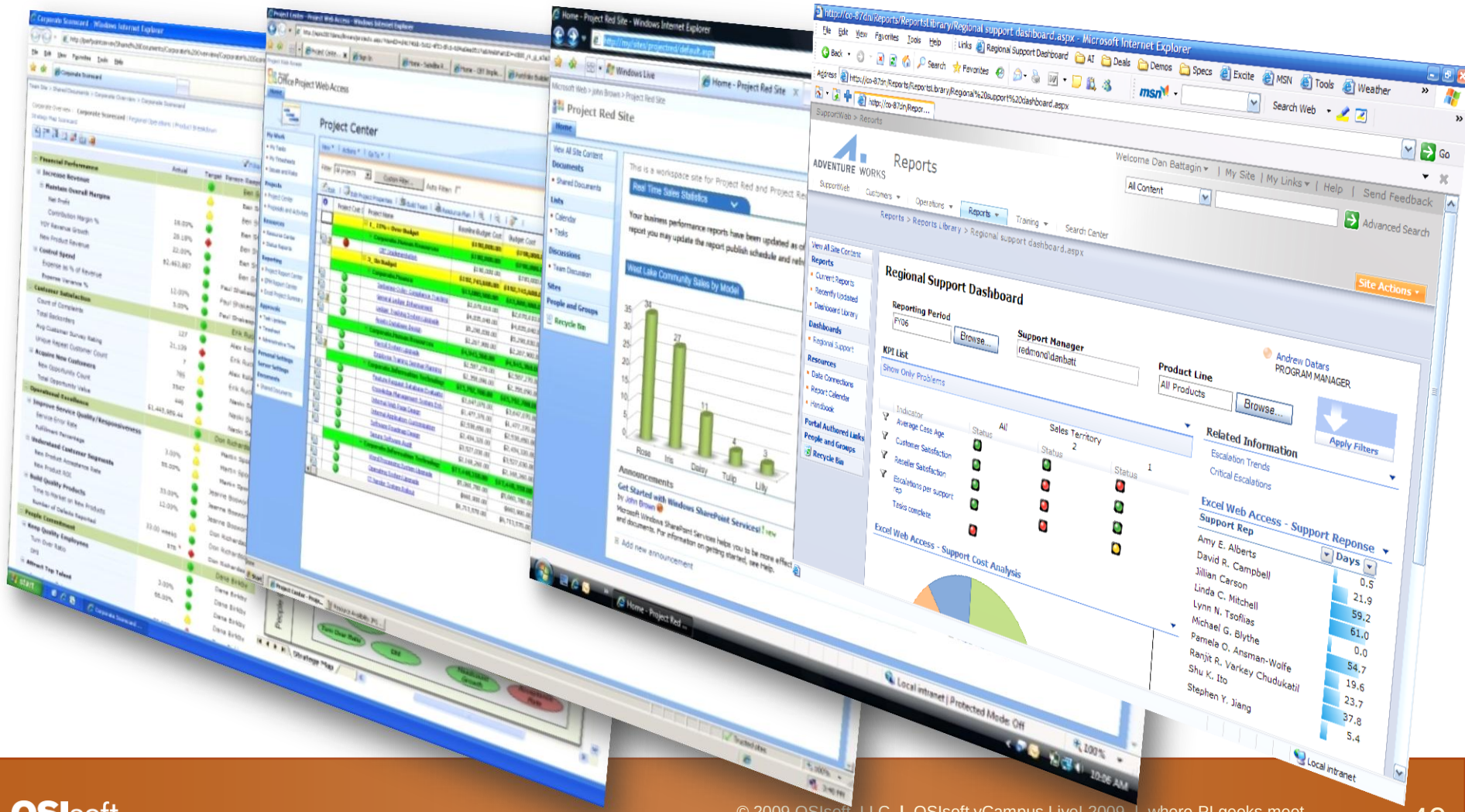
Familiar Environment Drives Adoption

Amplify the impact of your people with the tools you already know



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Technology Integration – PI WebParts for SharePoint

PI WebParts Provides Instant Access to Real-Time and Historical Information Through a SharePoint Portal

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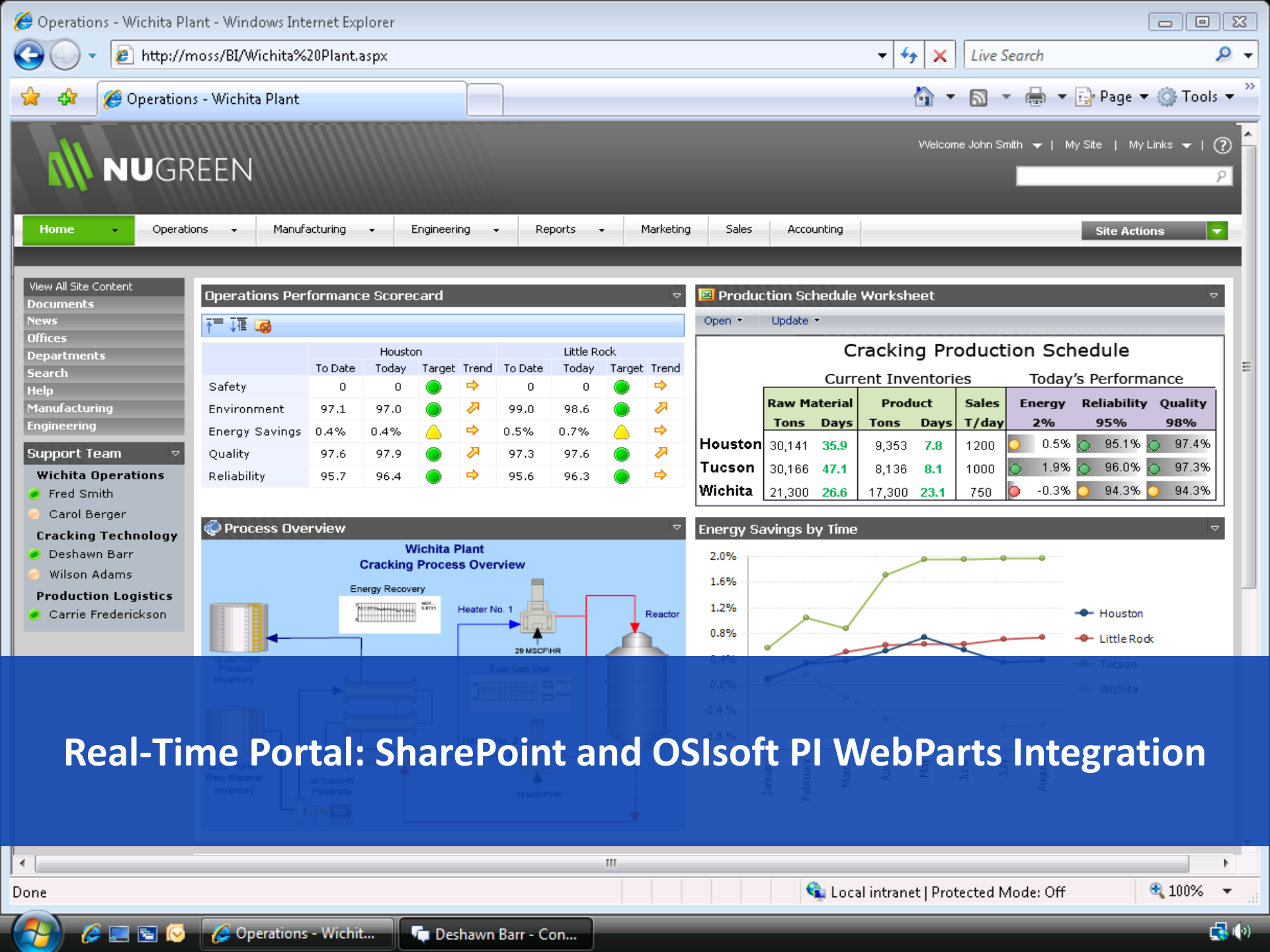
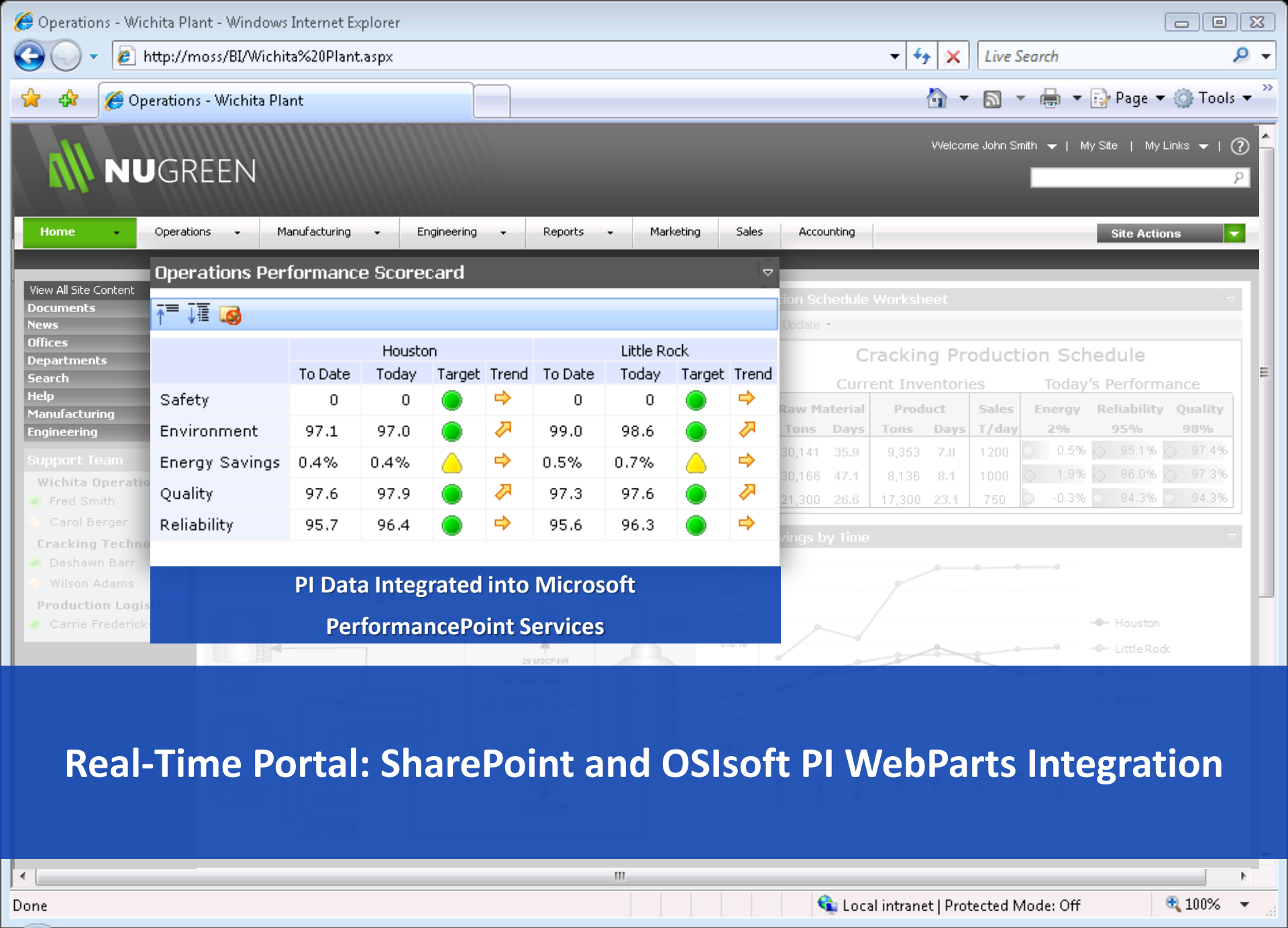
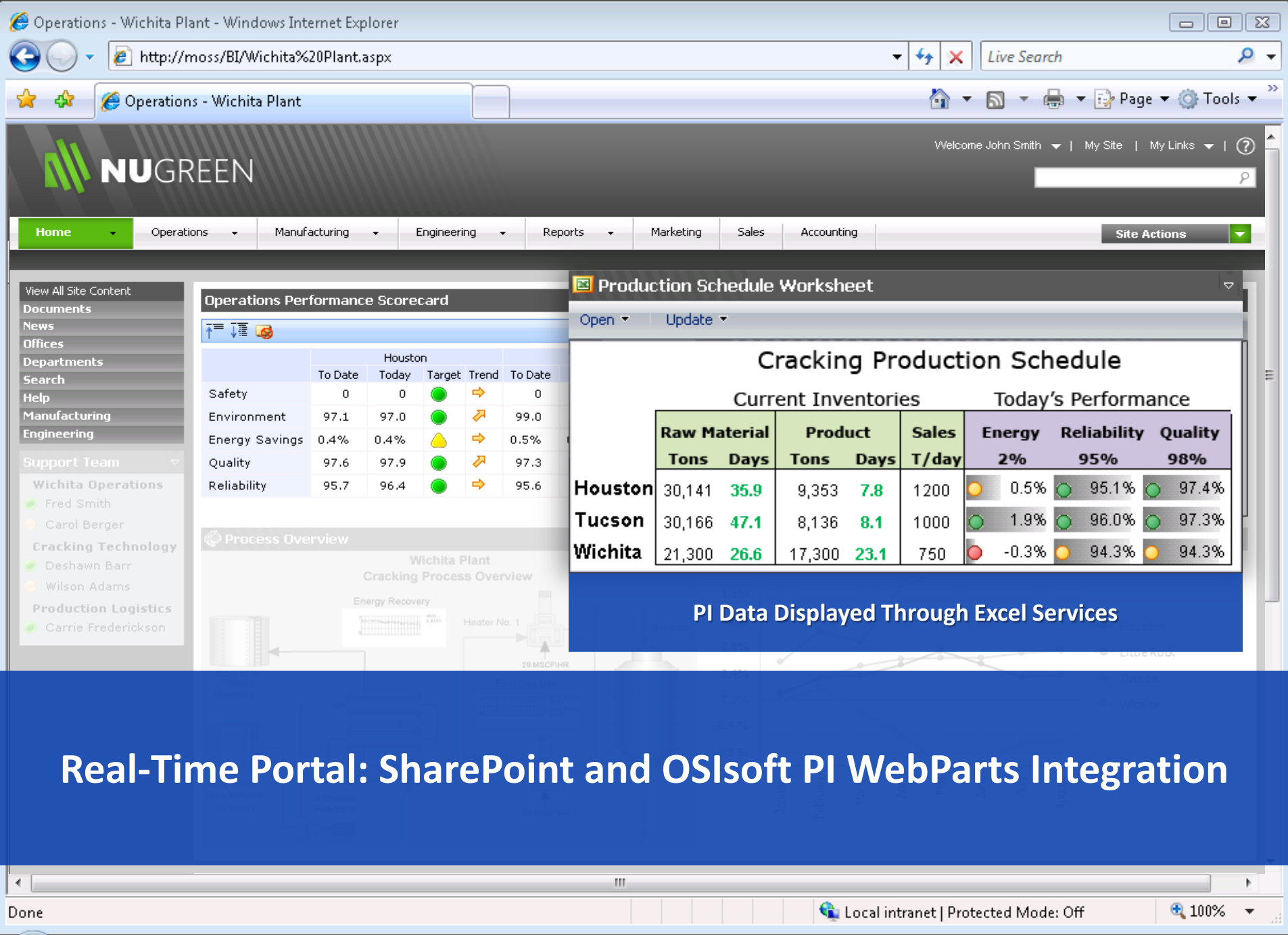
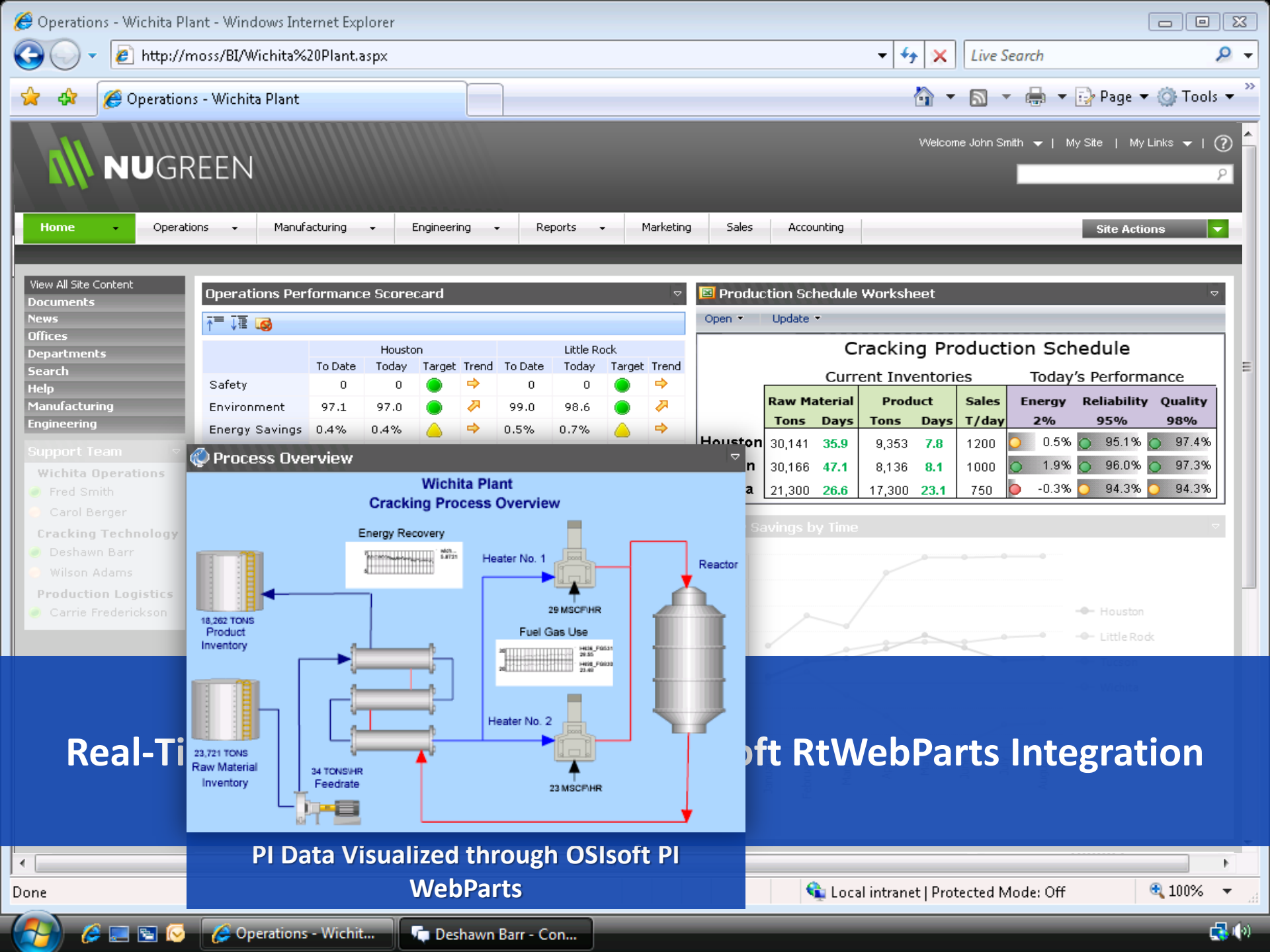


Real-Time Portal: SharePoint and OSIsoft PI WebParts Integration



Real-Time Portal: SharePoint and OSIsoft PI WebParts Integration


Operations - Wichita Plant - Windows Internet Explorer
http://moss/BI/Wichita%20Plant.aspx
Live Search
Operations - Wichita Plant
Page
Tools
NUGREEN
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
Houston
To Date
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
Energy Recovery
Heater No. 1
Production Schedule Worksheet
Open
Update
Cracking Production Schedule
Current Inventories
Today's Performance
Raw Material Tons
Raw Material Days
Product Tons
Product Days
Sales T/day
Energy 2%
Reliability 95%
Quality 98%
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
Real-Time Portal: SharePoint and OSIsoft PI WebParts Integration
Done
Local intranet | Protected Mode: Off
100%
Operations - Wichit...
Deshawn Barr - Con...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View All Site Content
Documents
News
Offices
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Help
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Savings by Time
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Little Rock
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Wichita Plant
Cracking Process Overview
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Heater No. 1
Reactor
29 MSCF\HR
18,262 TONS
Product
Inventory
Fuel Gas Use
Heater No. 2
23,721 TONS
Raw Material
Inventory
34 TONS\HR
Feedrate
23 MSCF\HR
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PI Data Visualized through OSIsoft PI WebParts
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Local intranet | Protected Mode: Off
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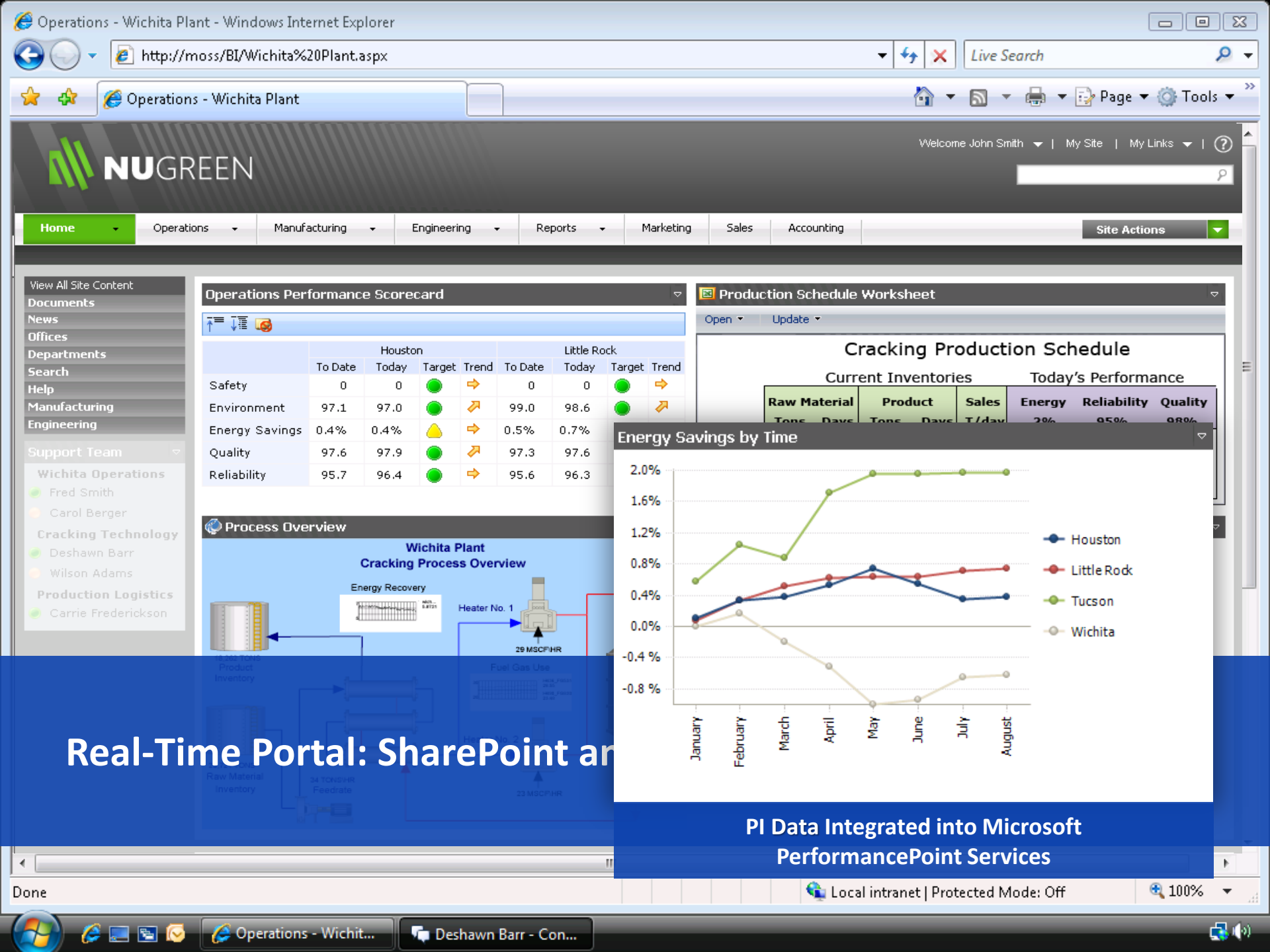
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-0.8 %
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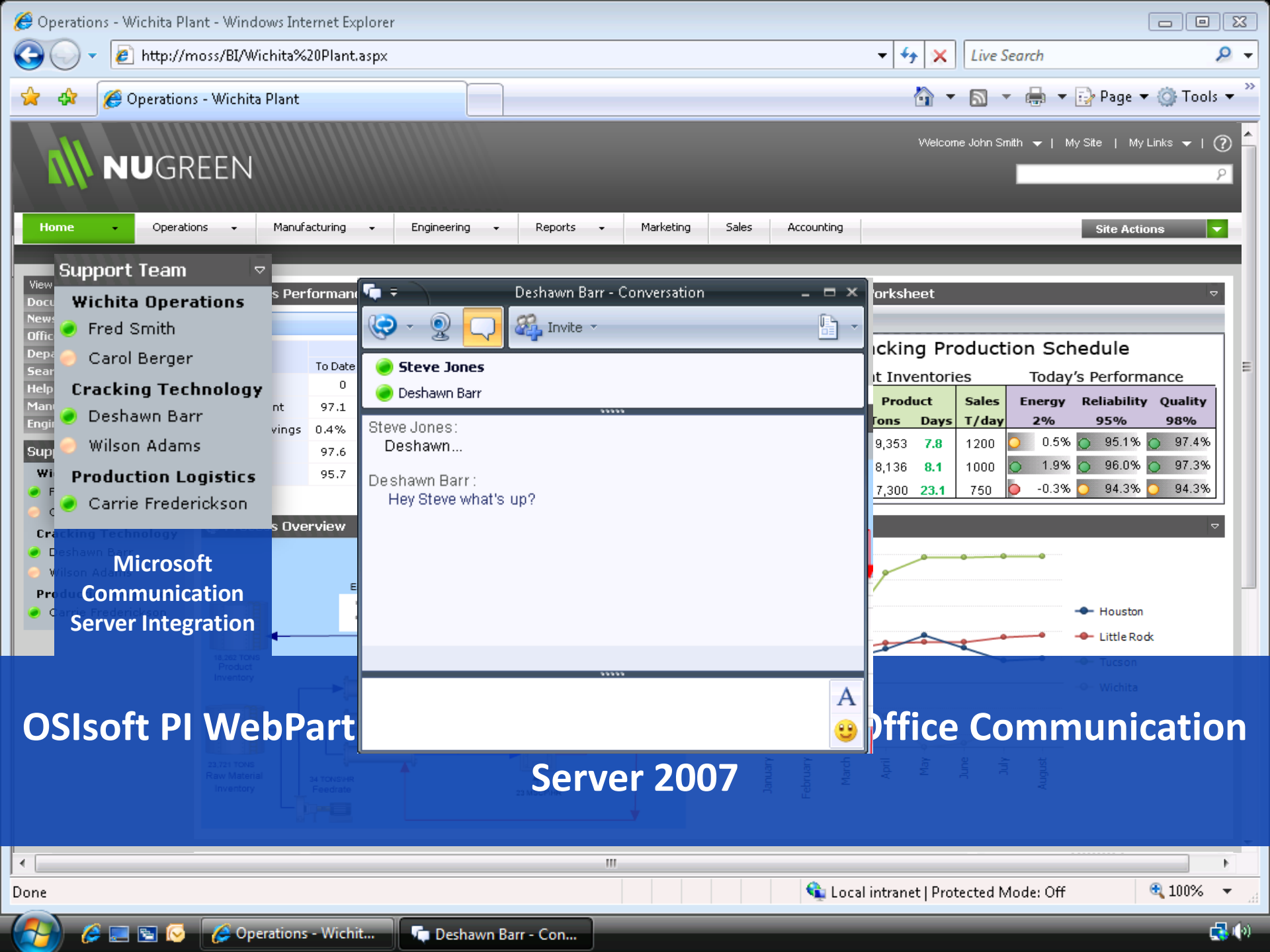
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Carrie Frederickson
Microsoft Communication Server Integration
Deshawn Barr - Conversation
Invite
Steve Jones
Deshawn Barr
Steve Jones:
Deshawn...
Deshawn Barr:
Hey Steve what's up?
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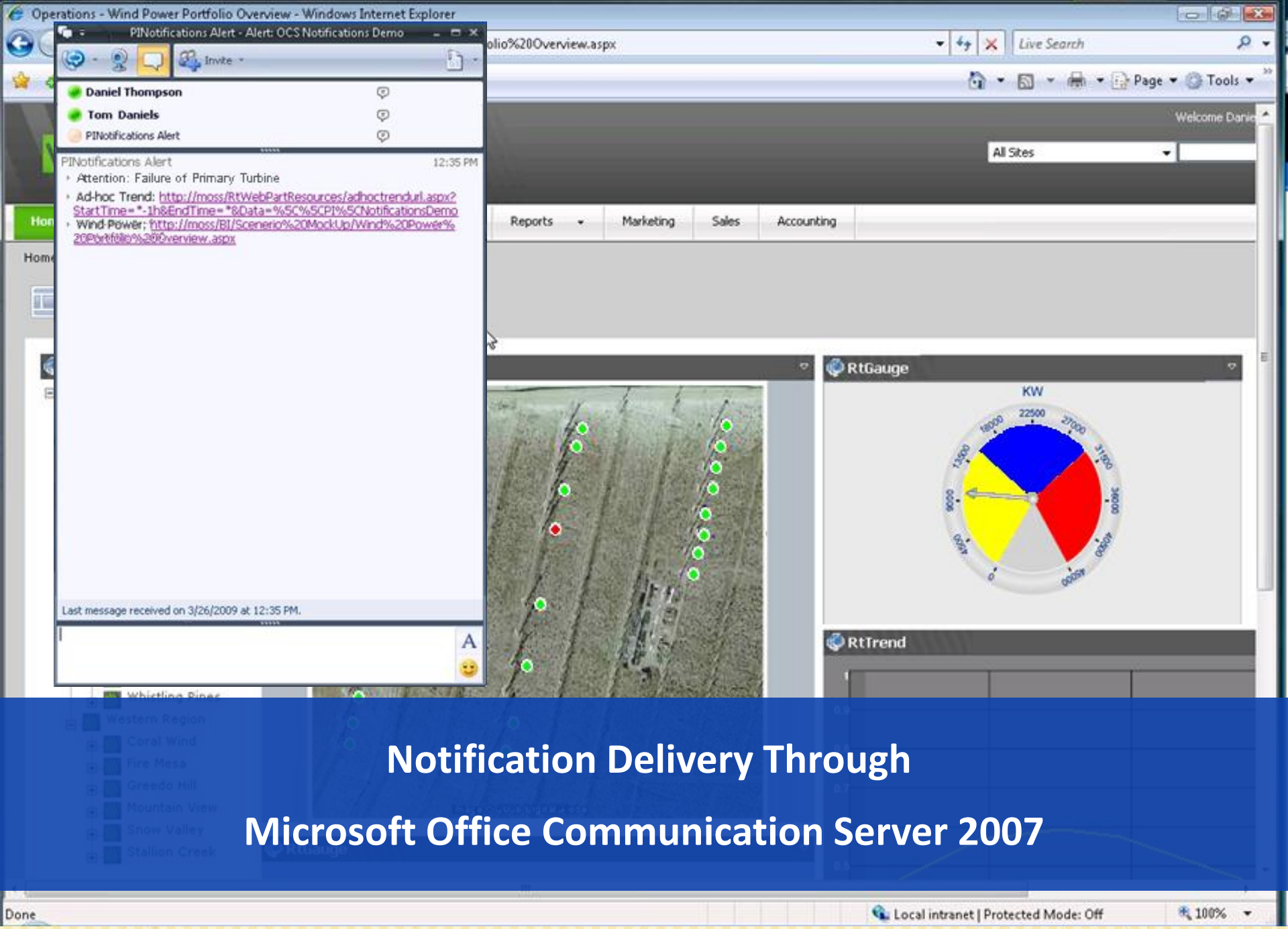

Notification Delivery Through

Microsoft Office Communication Server 2007

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Office 2010 – PowerPivot and Self Service BI

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Business Intelligence Challenges

- Users have access to relevant information where they need it
- Make actionable insight readily accessible to everyone
- Optimize utilization of familiar tools

- Ensure consolidated, sound, and trusted data
- Deploy for performance and scale
- Efficiently manage enterprise-wide workloads

- Leverage existing investments in MS Office
- Break even quickly and ensure positive ROI

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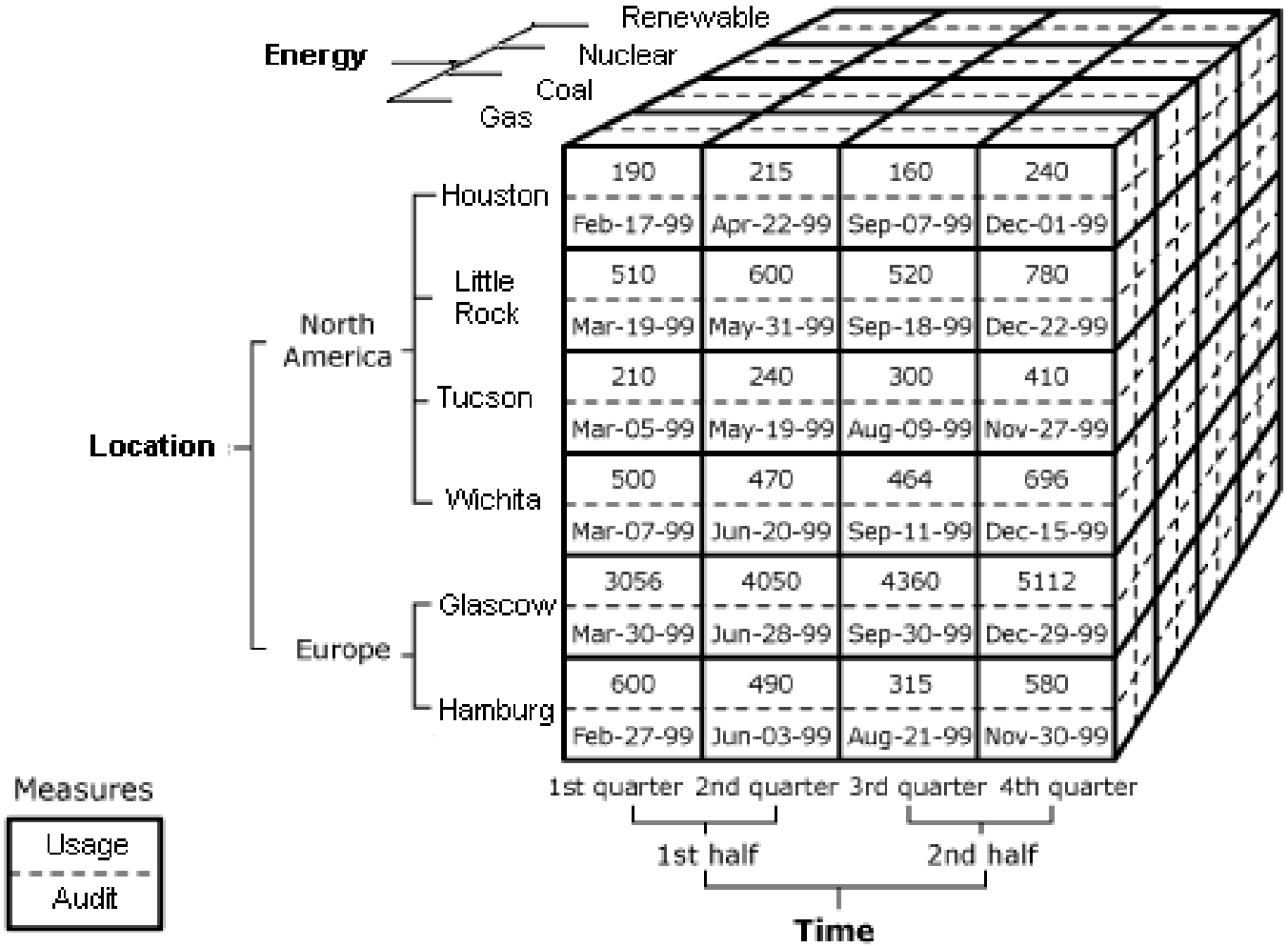
On-Line Analytical Processing (OLAP) Cube



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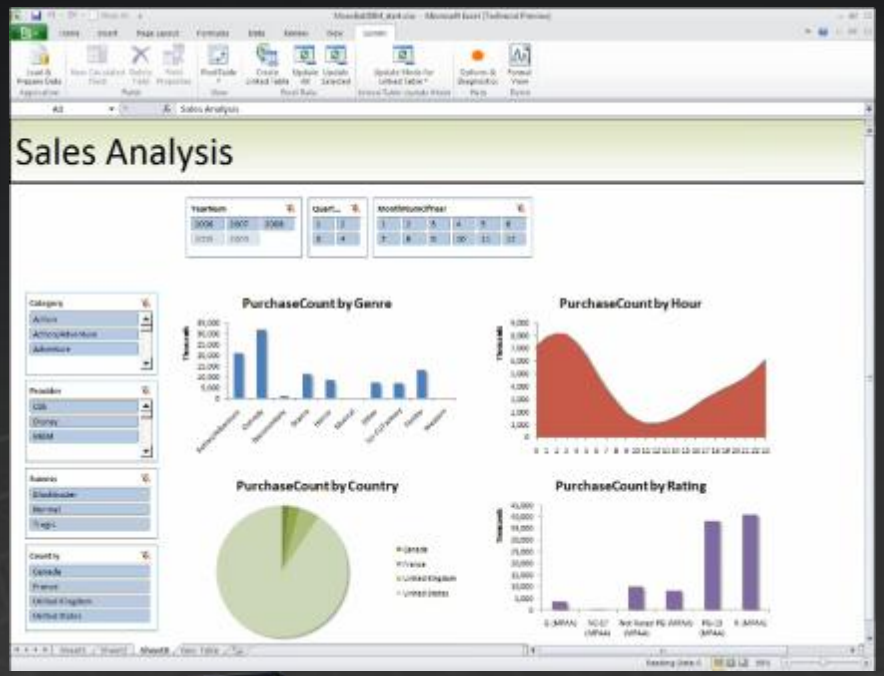
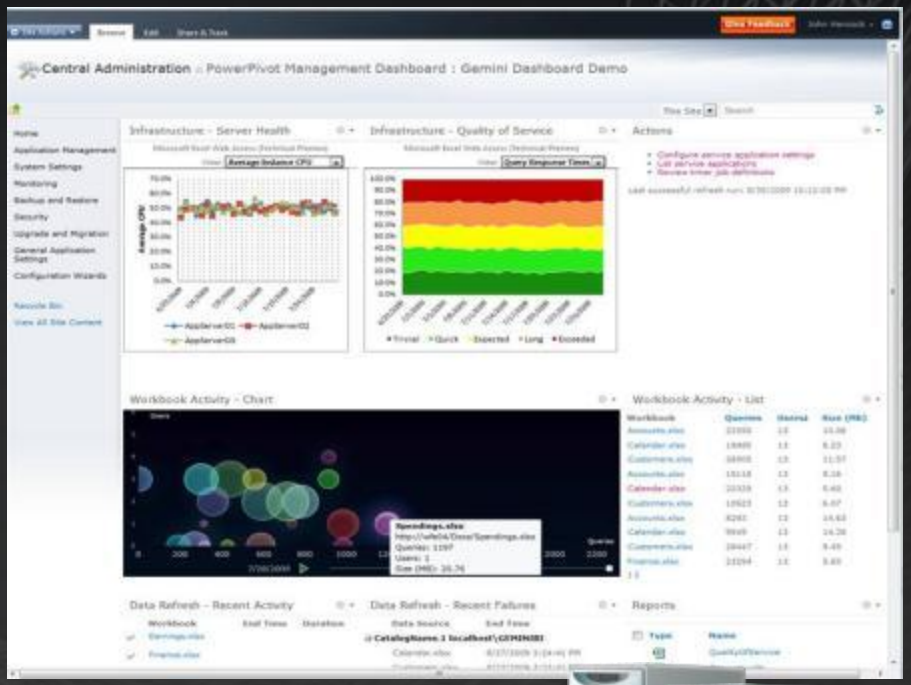
PowerPivot

PowerPivot add-in for Excel



PowerPivot add-in for SharePoint



Microsoft® Excel® 2010

Microsoft® SharePoint® 2010

Microsoft® SQL Server® 2008 R2

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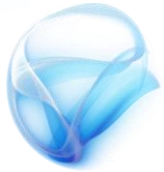
BI / PowerPivot Demo

Greg Leizerowicz - OSIsoft

Silverlight 4

In Beta NOW : Silverlight 4



Microsoft® Silverlight™

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Silverlight Momentum

26 months since launch

500m+ downloads

500,000+ Developers & Designers

350+ partners in **30** countries

350+ Microsoft Products & Websites

Thousands of Apps across the world

www.silverlight.net/showcase

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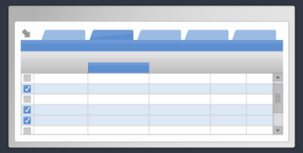
Silverlight 4 – New Capabilities

- Media
- Rich Experiences
- **Business Applications**
- Beyond the Browser
- Developer Tools

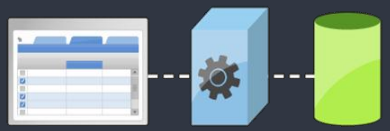
Business Applications

Printing

Forms Controls



WCF RIA Services



Enhanced Data binding

Internationalization

Managed Extensibility Framework

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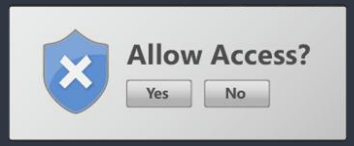
Silverlight 4 – New Capabilities

- Media
- Rich Experiences
- Business Applications
- **Beyond the Browser**
- Developer Tools

Beyond the Browser

Trusted Applications



Render HTML within Silverlight

Notifications

Local File System Access

Applications and Devices

Cross Domain Access

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Silverlight 4 – New Capabilities

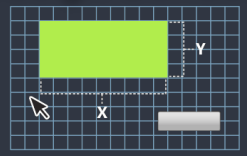
- Media
- Rich Experiences
- Business Applications
- Beyond the Browser
- **Developer Tools**

World Class tooling for development and design

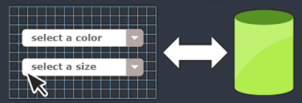
Silverlight Support

Microsoft® Visual Studio®

Design Surface



Drag and Drop Data Binding



XAML Intellisense

<canvas

MouseEnter
MouseLeave
MouseLeftButtonDown
MouseWheel

Import Blend Resources

Microsoft® Expression Blend™ 3

⬇

Microsoft® Visual Studio®

Sketchflow

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Software + Services Unit the Web

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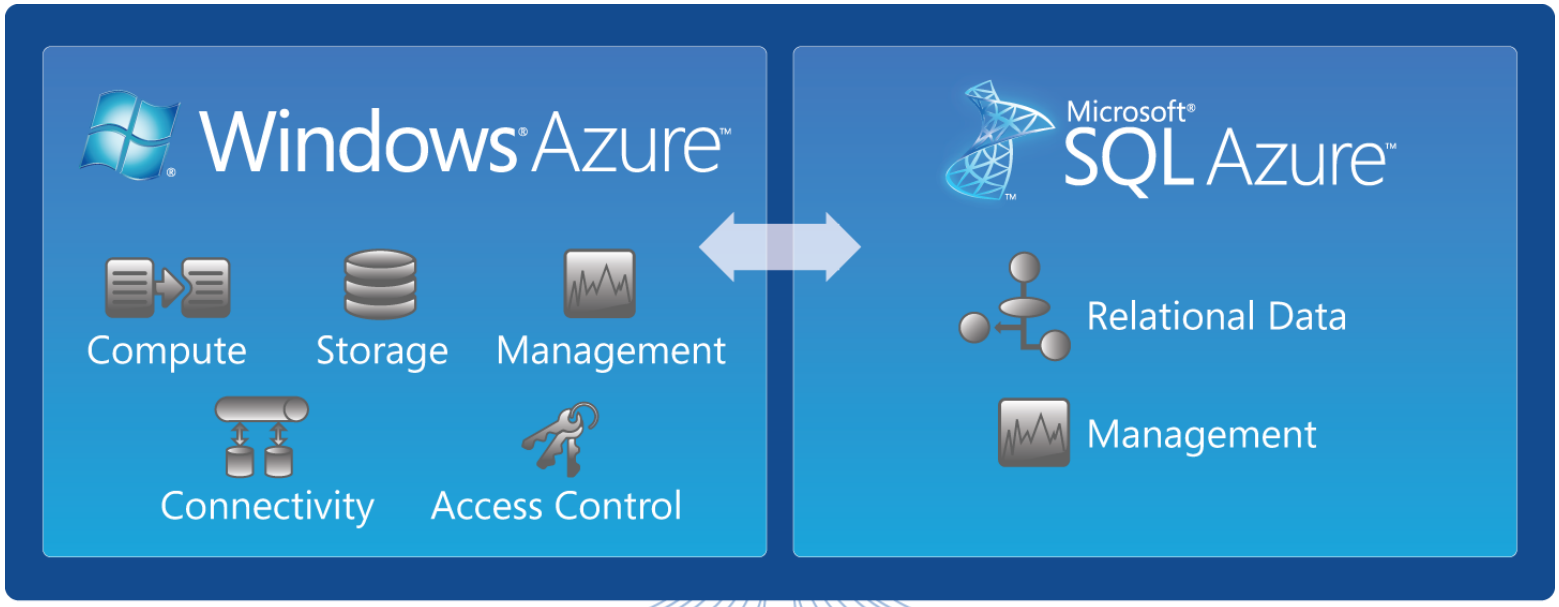
Windows Azure

Windows Azure is an internet-scale cloud services platform hosted in Microsoft data centers around the world, proving a simple, reliable and powerful platform for the creation of web applications and services.



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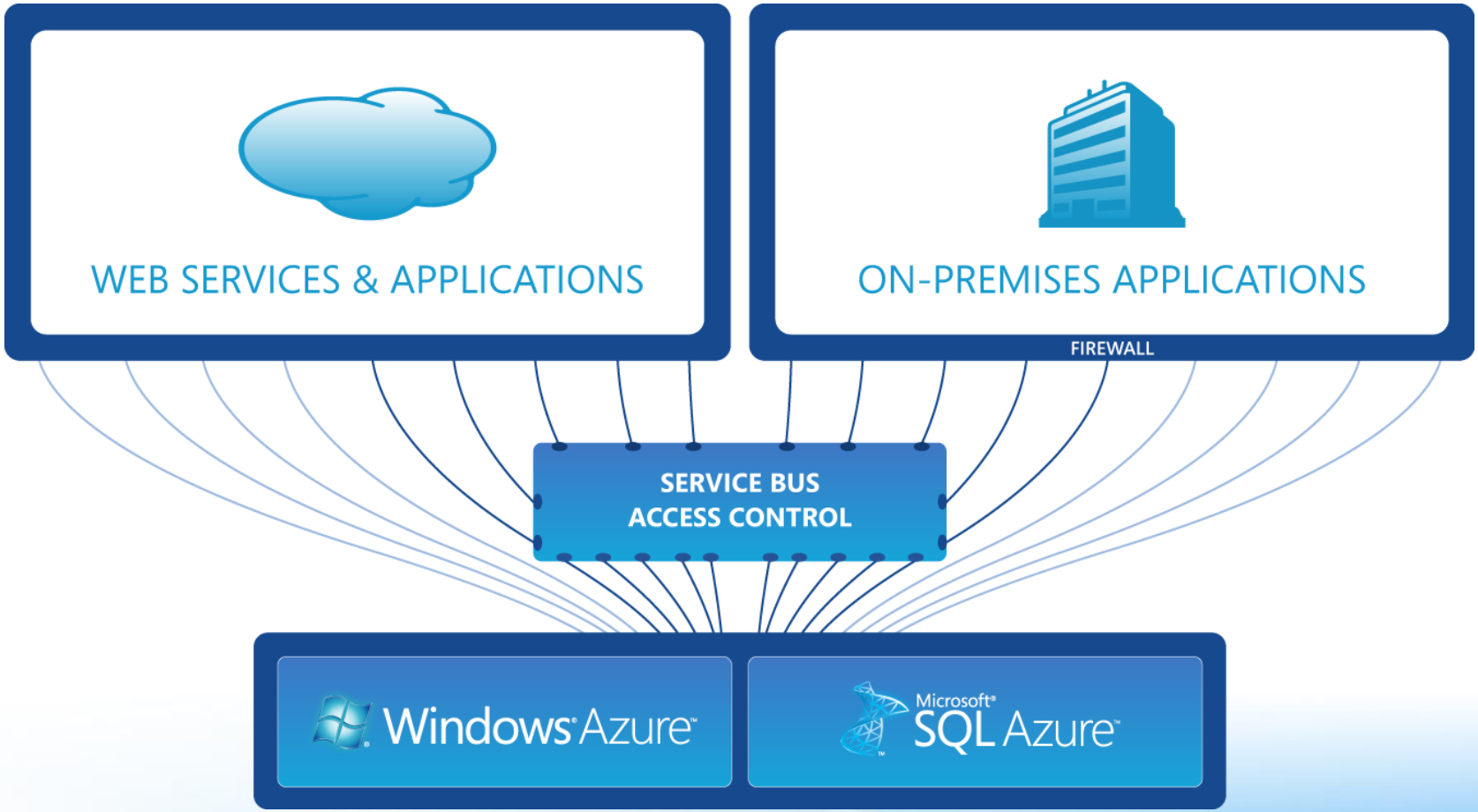
Windows Azure



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Technical Roadmap Alignment

- **Office 2010 Integration (Launch Partner)**
  - PI data and events within Office 2010
  - BI – PowerPivot, Excel 2010, SharePoint 2010
  - Office Communication Server CS R2
- **SQL Reporting Services Integration**
  - Visualization, On-Demand Reports, Printing, and Workflow
- **StreamInsight (Launch Partner)**
  - Advanced Analytics and Edge Processing for PI
- **Azure – "PI to the Cloud"**
  - SQL Azure services – Extend customers storage to the cloud
  - True PI Server to the cloud
  - Business to Business interchange
- **Silverlight Visualization**
  - For PI Web Parts and Rich Internet Visualization
- **Search**
  - End to end Search support for PI System

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OSIsoft / Microsoft Innovation Program

Common Areas of Interest

- **Real-Time Performance Management using role-based visibility**
- **Energy Management from the datacenter to manufacturing operations**
- **Continuous Emissions Monitoring and verifying environmental compliance**
- **Microsoft and OSIsoft in the SAP "Perfect Plant" integrating your ERP systems**
- **Continuous Improvement driven through collaboration and real-time information**
- **Condition Based Maintenance, moving from reactive to proactive**
- **Sustainable IT manage resources for a greener and more profitable future**

Executive Eye Opener	Strategy Briefing	Architecture Design Sessions
• Business Oriented • At Your Location of Choice • Next: Strategy Briefing OR Architecture Design Session	• Business Oriented • At Local Microsoft Technology Center • Next: Architecture Design Session	• IT Oriented • At Local Microsoft Technology Center • Next: Proof of Concept or Pilot

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Call to Action

- Engage OSIsoft / Microsoft Business Development on specific opportunities (Prabal Acharyya, David Doll, Christian Roller)
- Use vCampus and MSDN for development support and discussion on OSIsoft and MS technologies
- Try StreamInsight Community Technology Preview (CTP) on vCampus (coming soon)
- You can download VMs and Labs from Microsoft Channel9 – http://channel9.msdn.com
- Engage with OSIsoft Product Managers to bring feedback on PI future directions on vCampus or ProductManagers@osisoft.com

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