



mPI What's In it For You?

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Managed PI

- What is Managed PI?

Managed PI is the breakthrough technology to allow OSIsoft to keep PI Systems operating at peak performance and engage customers to grow their business value.

Don Smith - OSIsoft

Managed PI



Enhanced Customer Support

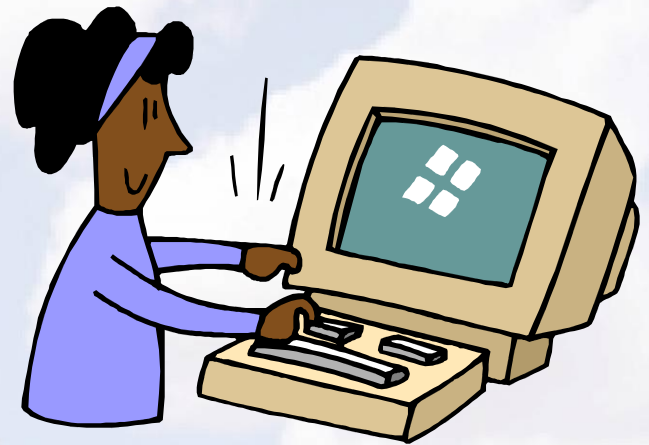


Added Services

- Company Exclusive Web Site (Extranet)
- Training and Event Vouchers
 - ▶ PI Tag Building Class
- Quarterly Reviews
- Roll-out Planning

Product Enhancements

- Managed PI Subsystem
- New Health Tags
- Software Update Service (SUS)



Enhanced Sales Support

- Enterprise Account Manager
- New Pricing Structure



- Enterprise Project Manager
 - ▶ Single Point of Contact
 - ▶ Customer Advocate in OSIsoft
 - ▶ People Who Know Your Business
 - Small Customer Base
 - Weekly Interaction
- Field Technical Support
 - ▶ Expert Installation
 - ▶ Service Package Delivery Kit (SPDK)



- Center Of Excellence
 - ▶ Project Participation and Advice
 - ▶ Proof of Technology
 - ▶ Custom Educational Services



Extranet

Home - GWF Power Systems - Windows Internet Explorer

http://extranet.osisoft.com/sites/Customers/GWF/default.aspx

Home - GWF Power Systems

Home Documents and Lists Create Site Settings Help

Up to OSI Customers

GWF Power Systems Home

Modify Shared Page

Documents
Shared Documents
Pictures
Lists
Contacts
Tasks
Discussions
General Discussion
Surveys

Announcements 8/21/2006 1:14 PM
Quarterly Review by Alton Loe (OSIsoft)
GWF Quarterly Review scheduled for August 22, 2006 in San Leandro.
Add new announcement

Events
There are currently no upcoming events. To add a new event, click "Add new event" below.
Add new event

Shared Documents

Type	Name	Modified By
	Gwf Quarterly Review Aug 06	Alton Loe (OSIsoft)

Add new document

General Discussion

Subject Posted By

There are no items to show in this view of the "General Discussion" discussion board. To create a new item, click "Add new discussion" below.
Add new discussion

Links
NOC Displays
Add new link

Change My Password
You're Logged on as: OSI\Alton
Current Password:
New Password:
Retype New Password:
Change Password

GWF Sites
GWF Power Systems
Hanford
Henrietta
Site 1
Site 2
Site 3
Site 4
Site 5
Tracy Biomass
Tracy Peaker

Additional Services

- Training and Vouchers
 - ▶ Classroom or On-Site Training
 - ▶ CBT's & Webinars
 - ▶ User Conference & Strategic Influence Group (SIG)
- Quarterly Reviews
 - ▶ Product Road Map
 - ▶ Project Reviews



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Managed PI Technology



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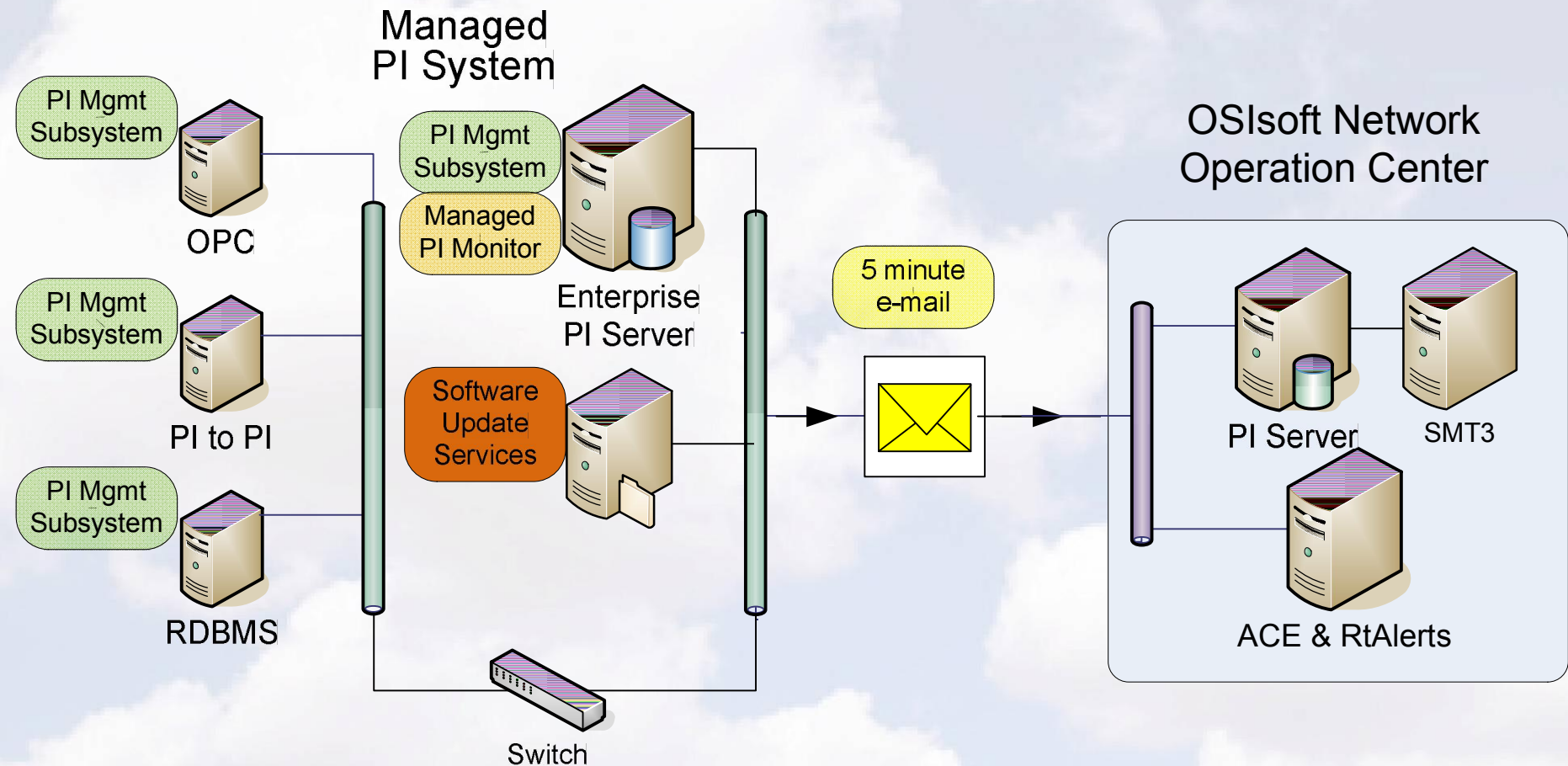
Outline

- Technical goals
- Infrastructure
- Process diagrams
 - ▶ Managed PI
 - ▶ Software update services

Technical Goals

- Robust monitoring for entire PI system
 - ▶ Secure – PI Net (5450)
 - ▶ Reliable – PI Subsystem
- Expert health analysis
- Scalable
 - ▶ Software updates

The Managed PI Process



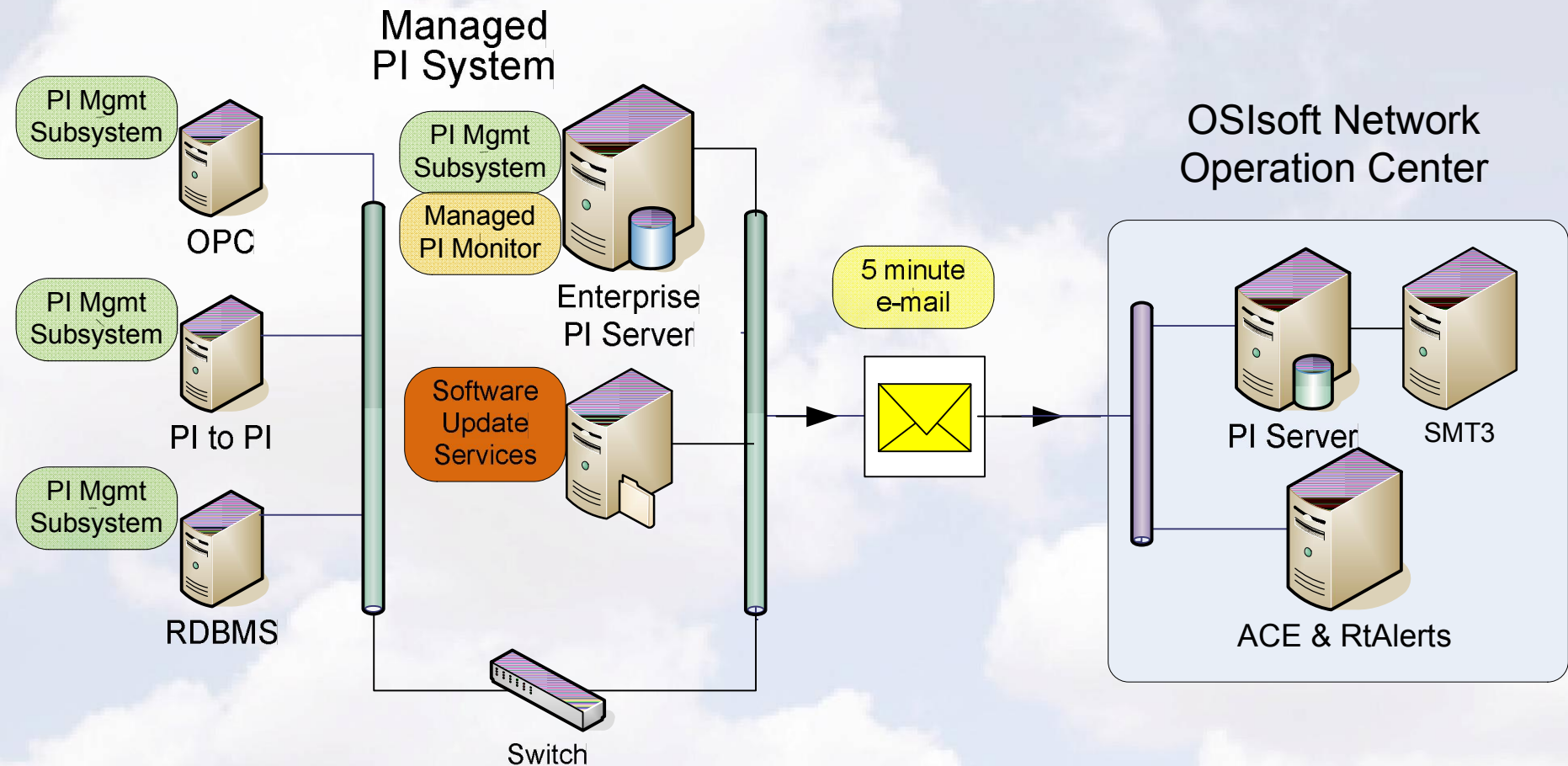
Management Subsystem

- Runs on all monitored machines
- Establishes link to PI server
- Forms basis for node discovery
- Allows secure file transfer
- Facilitates PI software updates

Managed PI Monitor

- Coordinates collection of health information
 - ▶ Runs on PI Servers
 - ▶ Maintains managed network topology
 - ▶ Builds performance points
 - ▶ Sends e-mail every 5 minutes

The Managed PI Process



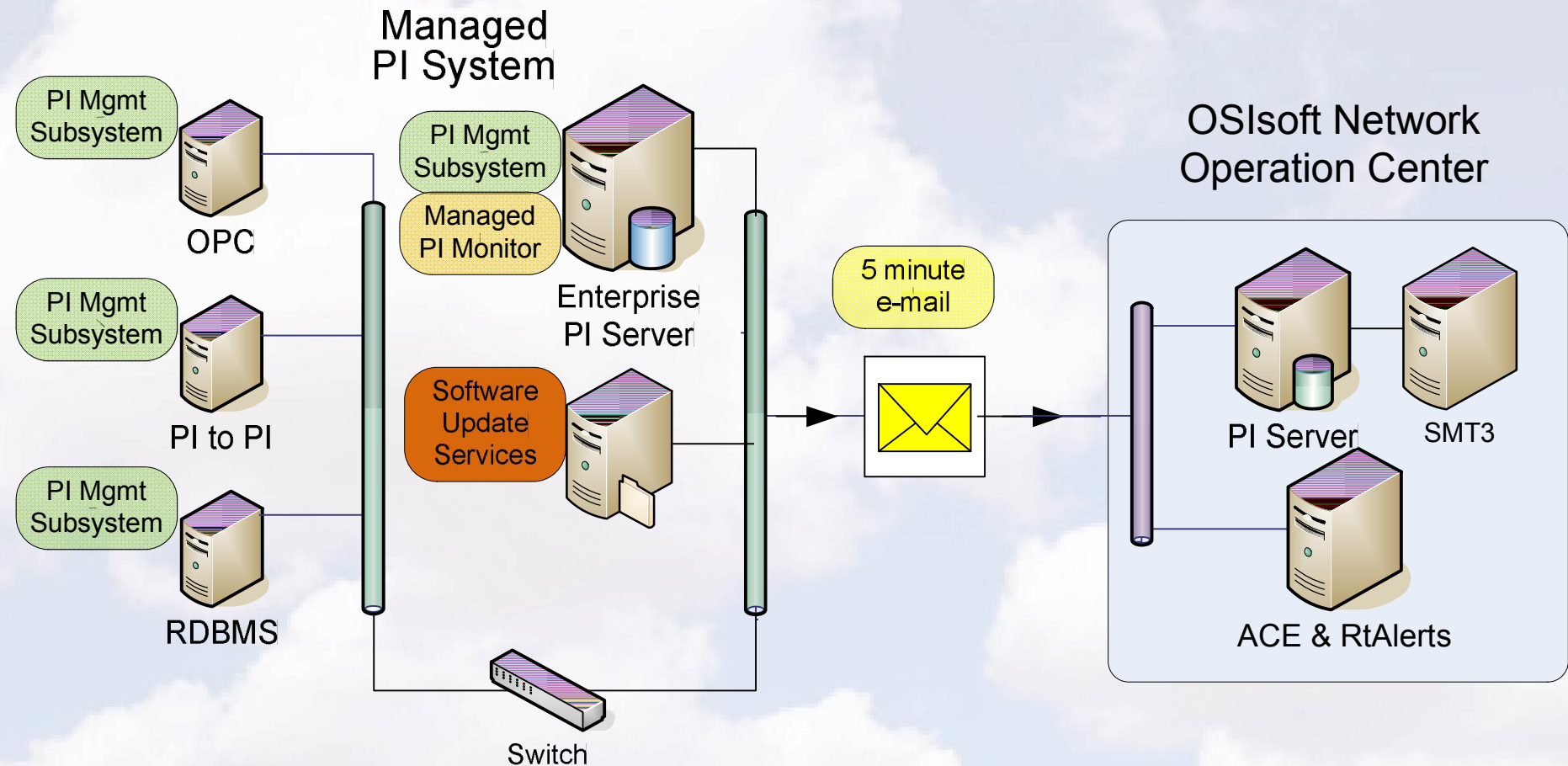
Health Analysis

- ACE calculations
 - ▶ Elapsed time
 - ▶ Memory usage
 - ▶ Processor usage
- Interface health
 - ▶ Data source visibility
 - ▶ Scan frequency analysis
 - ▶ Detection of poorly configured points

E-mail Notifications

- Based upon ACE calculations
- Moving to PI Notifications
 - ▶ Richer content
 - ▶ Acknowledgements
 - ▶ Hierarchical structure

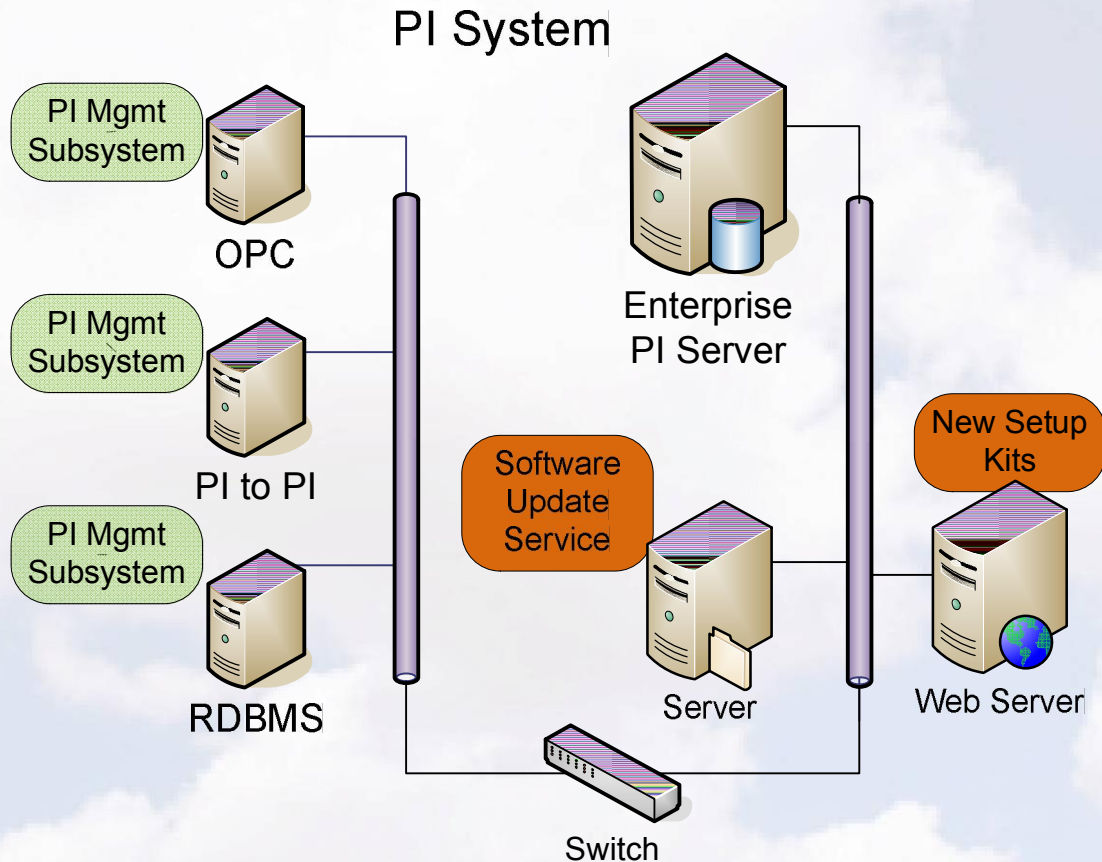
The Managed PI Process



Software Update Services

- Supports enterprise-scale updates
- Controlled by SMT3 plug-in
- Scheduled or interactive updates
- Rollback capability

The Software Update Process



1. Discovery
2. Inventory
3. Web Query
4. Web download
5. PI Mgmt file transfer
6. Run setup.exe
7. Restart interface

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Managed PI Support

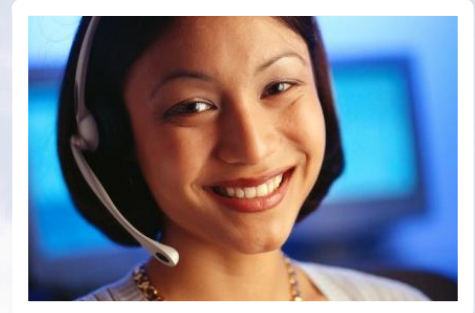
OSISOFT

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OSIsoft's Support Commitment

- Dedicated Support Staff
- 24/7 Real-Time Monitoring
- Quick Turnaround Time
- Developer-level Support



Tech Support's Role

- Simplifying the PI Admin's Tasks

- ▶ Resolve existing issues
- ▶ Immediately respond to unexpected failures
- ▶ Identify potential threats

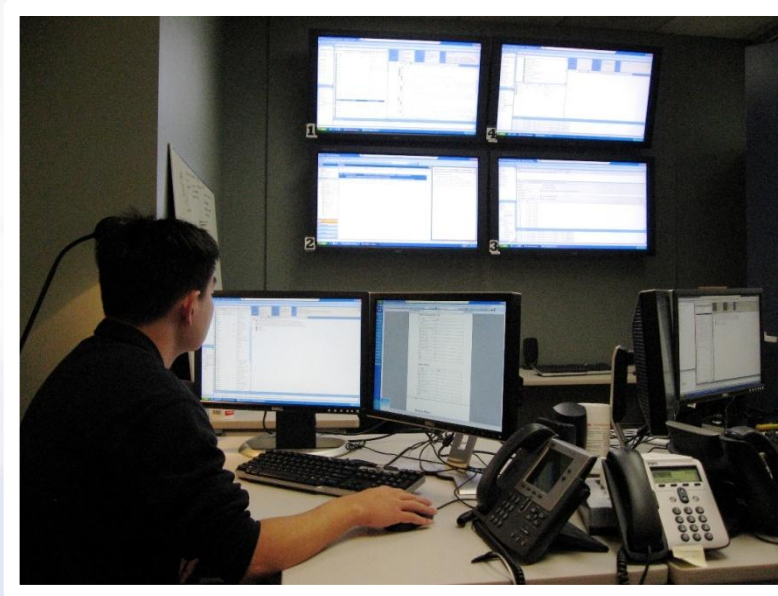


- What We Leave to You

- ▶ Building PB displays, calculation tags, AF models, etc

Monitoring Your PI Servers

- Network Operation Center (NOC)
 - ▶ What We Monitor
 - ▶ Support Console
 - ▶ Email Alerts



NOC – What We Monitor

- Each System
 - ▶ Hard disk space, Available memory, CPU time, System up-time
- PI Server
 - ▶ Subsystems (Archive, Backup, Network, Snapshot, etc)
- Interface
 - ▶ Performance Counter & Interface Status tags
- Layered Products
 - ▶ ACE Scheduler, AF Server, Buffer Server, OPC DA/HDA Server ...
- **We DO NOT collect process data!**

NOC – Support Console

The screenshot displays the NOC Support Console interface. At the top, there is a header section with fields for Server ID (2500934), PI User (pidemo), Phone, Enterprise, Local TZ (Pacific Daylight Time), Email, Organization, Customer TZ (E. South America Stand), Notes (Managed PI Contact #: [redacted], Please include the name of the computer in problem description.), Site, Error Duration (1h 6m 44s), and Assigned To.

Below the header is a navigation bar with tabs: Calculations, Machines, LogBook, Log Files, Message Board, Point Data, and Shift Log.

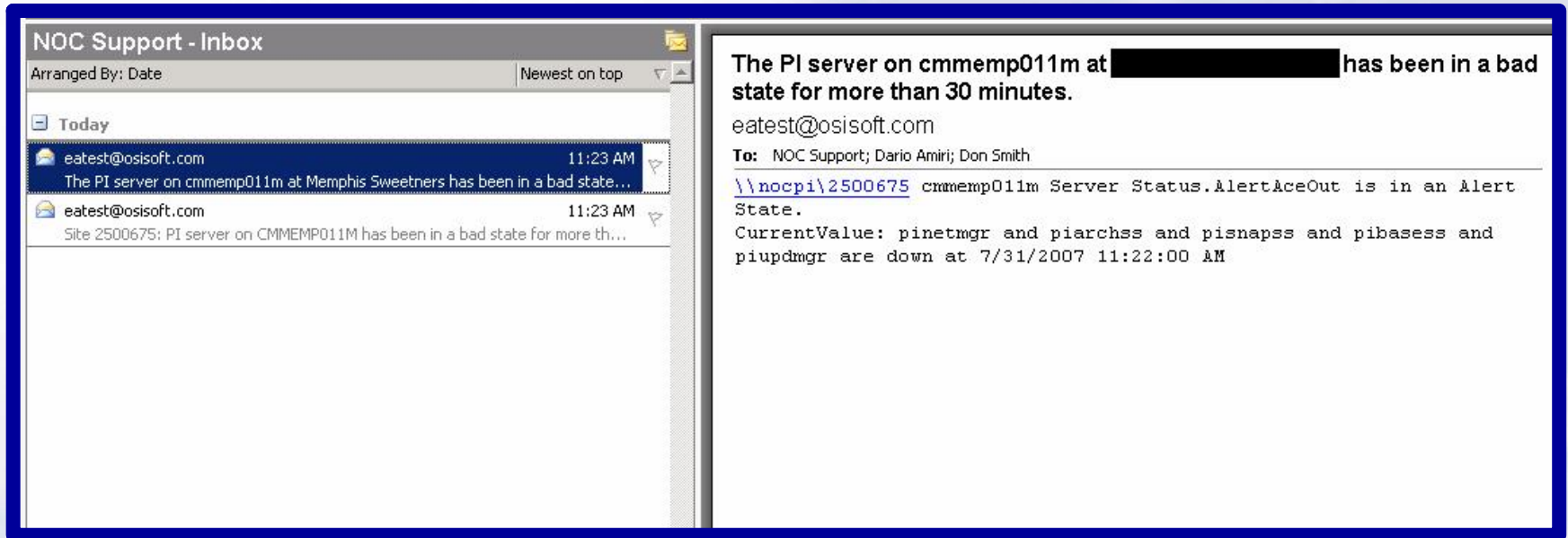
The main content area shows a hierarchical tree of system components. The tree is expanded to show the following structure:

- 2500934 [1] [3/24/2007 1:16:34 PM] [2500934 Rollup]
 - Receiving Data Files Status
 - Receiving Current Data Status
 - BRMAIR007M
 - BRMAIR2249w [2] [3/24/2007 1:16:34 PM] [2500934 Rollup_BRMAIR2249w]
 - BuIserv
 - Interfaces [1] [3/24/2007 1:16:34 PM] [2500934 Rollup_BRMAIR2249w_Interfaces]
 - opcint1 [1] [3/24/2007 1:16:34 PM] [2500934 Rollup_BRMAIR2249w_Interfaces_opcint1]
 - % Processor Time
 - Elapsed Time
 - Private Bytes
 - InterfaceStatus
 - Status [ProblemNow] [3/24/2007 1:12:20 PM] [2500934_PIEntMon_BRMAIR2249w_opcint1_InterfaceStatus Status]
 - [Not Receiving Data] [3/24/2007 1:09:29 PM] [2500934_sy.is.opcint1]
 - Root Cause [ISUPoint = Not Receiving Data] [3/24/2007 1:12:20 PM] [2500934_PIEntMon_BRMAIR2249w_opcint1_InterfaceStatus_RootCause]
 - PIPerfmonPIEntMon
 - PITCPRespPIEntMon
 - PINS
 - Management
 - Message
 - Network
 - System

A dashed blue box highlights the **InterfaceStatus** component and its sub-items. A detailed view of this component is shown in a separate window on the right, titled **InterfaceStatus**. This view displays the following information:

- Status [ProblemNow] [3/24/2007 1:12:20 PM] [2500934_PIEntMon_BRMAIR2249w_opcint1_InterfaceStatus Status]
- [Not Receiving Data] [3/24/2007 1:09:29 PM] [2500934_sy.is.opcint1]
- Root Cause [ISUPoint = Not Receiving Data] [3/24/2007 1:12:20 PM] [2500934_PIEntMon_BRMAIR2249w_opcint1_InterfaceStatus_RootCause]

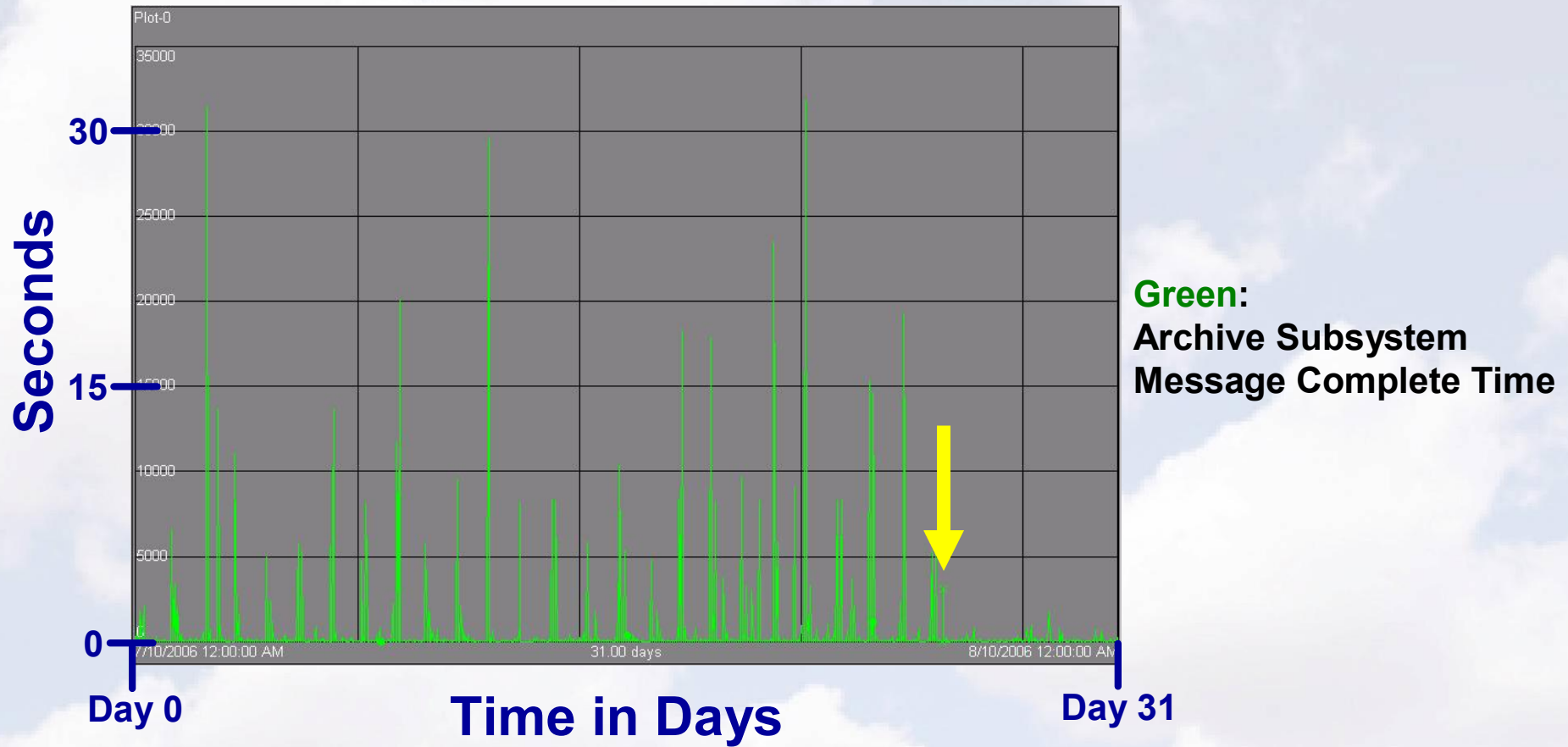
NOC – Email Alerts



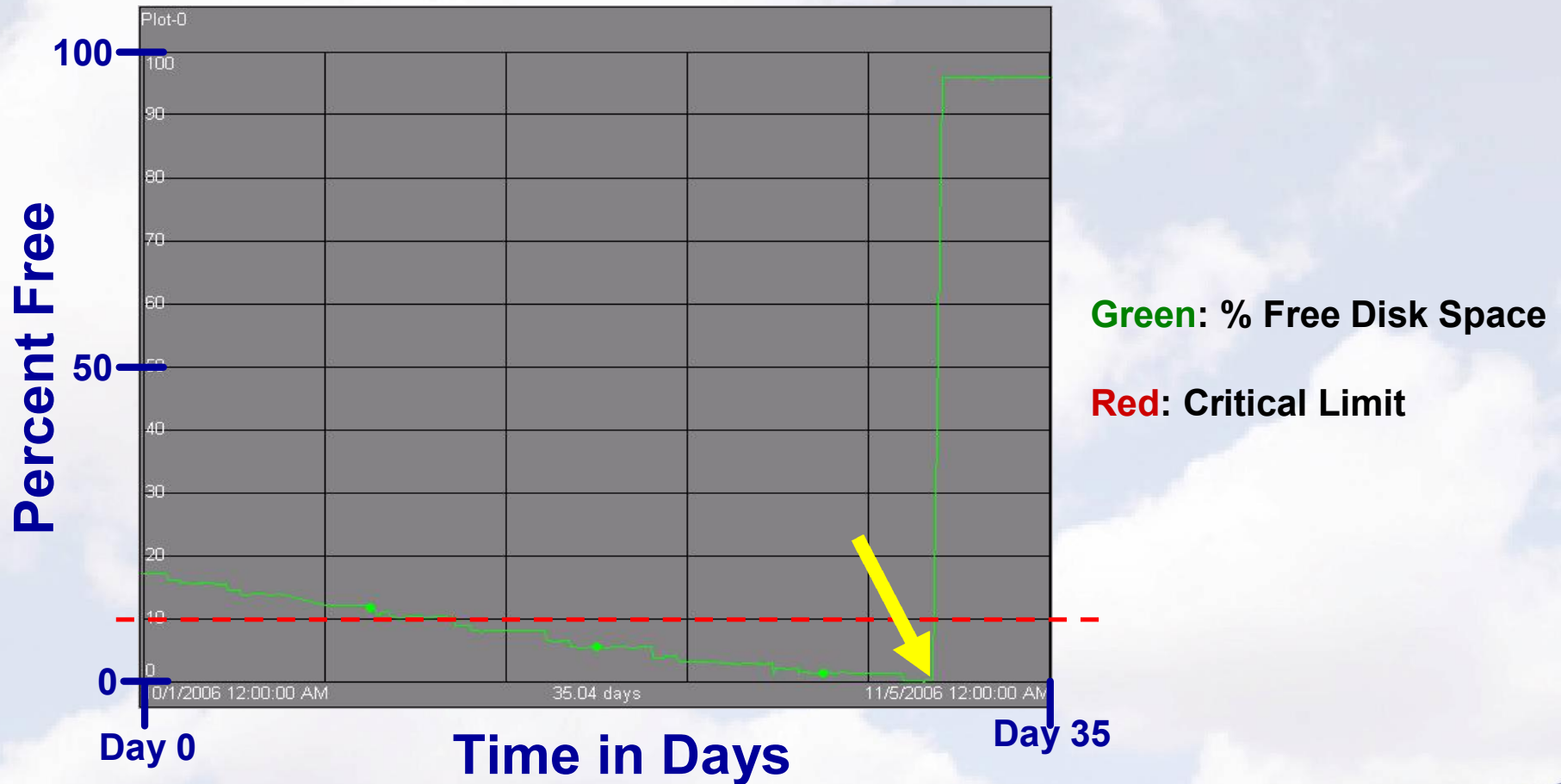
NOC – How we respond

- Prioritize issues
 - ▶ High CPU usage or archive corruption?
- Analysis
 - ▶ Collect logs, historical data, previous issues
 - ▶ Research issue
 - ▶ Work with developers
- Resolution
 - ▶ Remote login or customer instruction
 - ▶ Contact customer as needed
 - ▶ Log issue and resolution

Archive Subsystem



Hard Disk Space



mPI Support: Where We're Headed

- Improved tools for mPI Support Console
- Integrate PI Notifications for alerts
- Continual development of best practices

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Summary



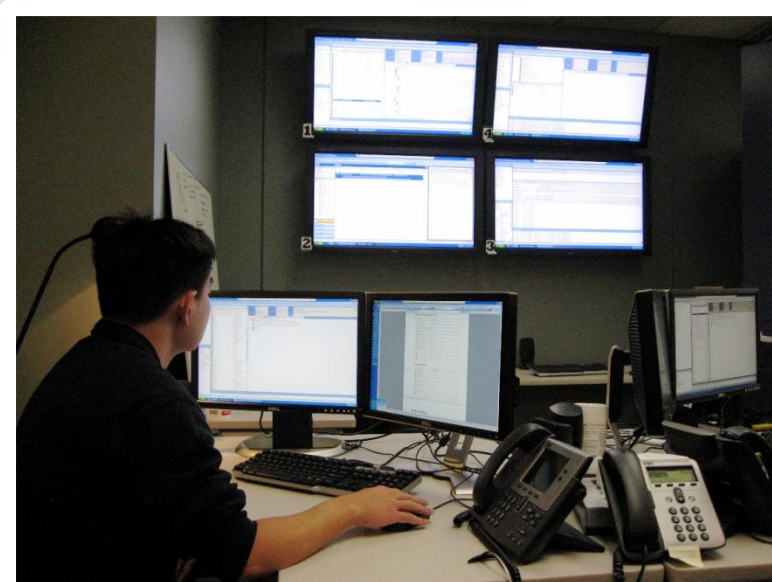
mPI What's In It for You?

- Optimum Performance
- Environment Consistency
- Product Enhancements
 - ▶ Finding, Fixing and Enhancing
- More Time for Process Improvement Activities

Who's Using Managed PI

- 15 Managed PI Customers
 - ▶ From 1 to 100+ sites
- Industries
 - ✓ Pulp and Paper
 - ✓ Power Generation
 - ✓ Oil and Gas
 - ✓ Food and Beverages
 - ✓ Information Technologies
 - ✓ Mining, Metallurgy and Materials
 - ✓ Pharmaceutical and Life sciences

Summary



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***Thank
You***

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