



How PI Notifications ensures that SmartSignal's Early Warning Intelligence is turned into Action

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Presentation Agenda

- Business Case for “intelligent” notification
- SmartSignal Advanced Asset Analytics
- Solution Architecture
- Solution Demo
- Q & A

What is the cost of Failure (to Act)?

- Lost Production (and profits)
- Regulatory Fines / Sanctions
- Injury / Loss of Life
- Liability Exposure
- Reduced Morale (and efficiency)

Today's Environment

Increased
Performance
Pressure

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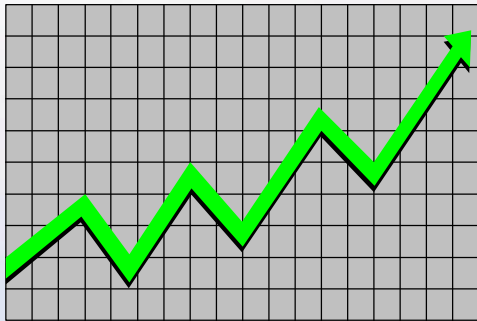
Increasing
Technology
Complexity

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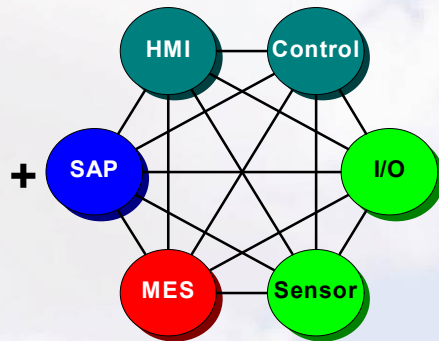
Decreased
Resources

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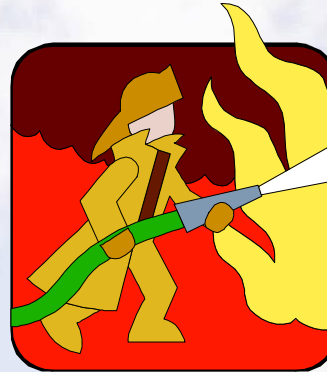
**Do More,
With less ...
Faster?!**



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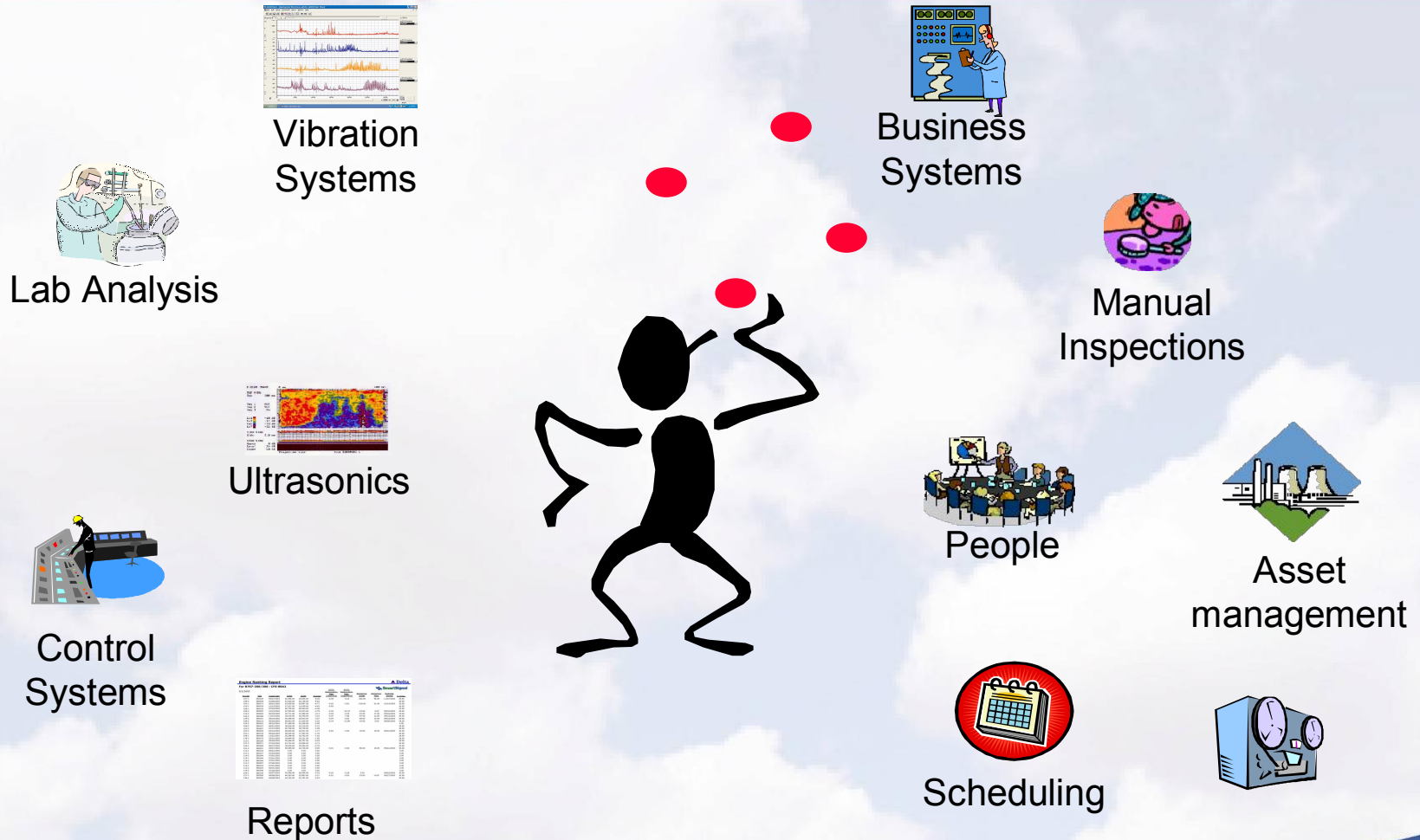
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The Result ... Information Overload



The Problem in a Nutshell

“If a plant is under-resourced ... maintenance may be deferred, inspections and tooling may fall behind, old and obsolete equipment may not be replaced, and process risks will inevitably increase”

Findings of Baker Report, Chemical Safety Board, 2007

What's Needed?

(to cut through the Noise and insure Action)

- Prioritized, exception-based early warning
- Diagnostic intelligence
- Context-based notification
- Escalation (to insure action)
- Historization of events (for compliance)

SmartSignal + PI Notifications

SmartSignal Advanced Asset Analytics

SmartSignal **SHIELD**

- Turnkey Delivery of Asset Fault Detection
- Automatic Asset Fault Email Notifications
- Thin Client Watchlist with Asset Fault Histories
- Continuous Advancement of Asset Fault Models

SmartSignal **ESSENTIALS**

- Early Warning on Equipment/Process Failures
- Standard Asset Model/Rule Designs
- Thin Client Watchlist for Troubleshooting
- Monitoring, Notification & Maintenance Services



- Patented Early Warning Analytics Engine
- 24/7 Continuous Equipment Monitoring
- Complete Fleet-wide Modeling Environment
- Full interface support for OSI PI

Advanced Asset Analytic Applications

Fossil Steam	Combined Cycle	O&G Refineries	Gas Pipeline	O&G Production
SmartSignal SHIELD	SmartSignal SHIELD	SmartSignal SHIELD	SmartSignal SHIELD	SmartSignal SHIELD
SmartSignal Essentials	SmartSignal Essentials	SmartSignal Essentials	SmartSignal Essentials	SmartSignal Essentials

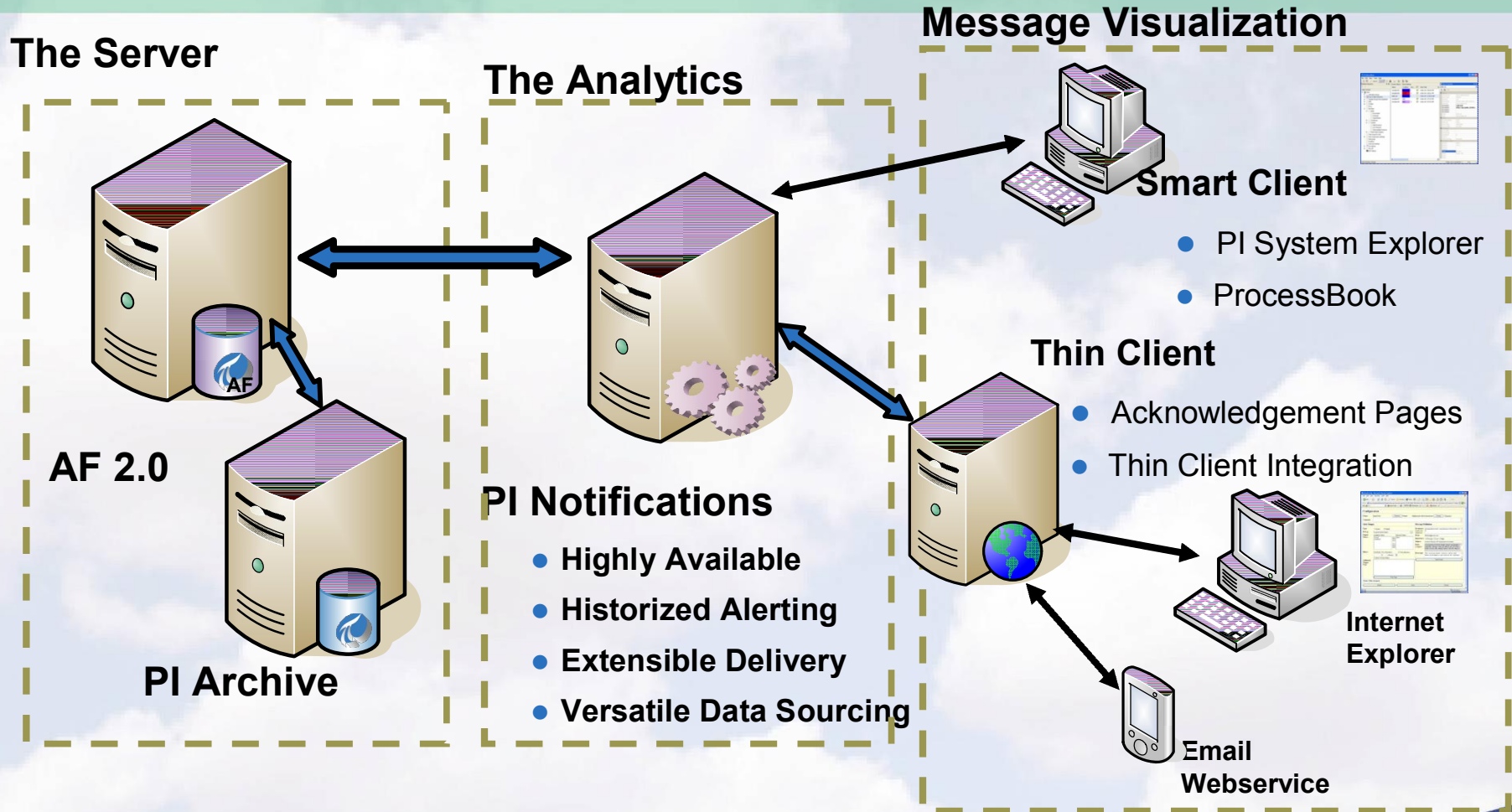


The SmartSignal Technology Platform

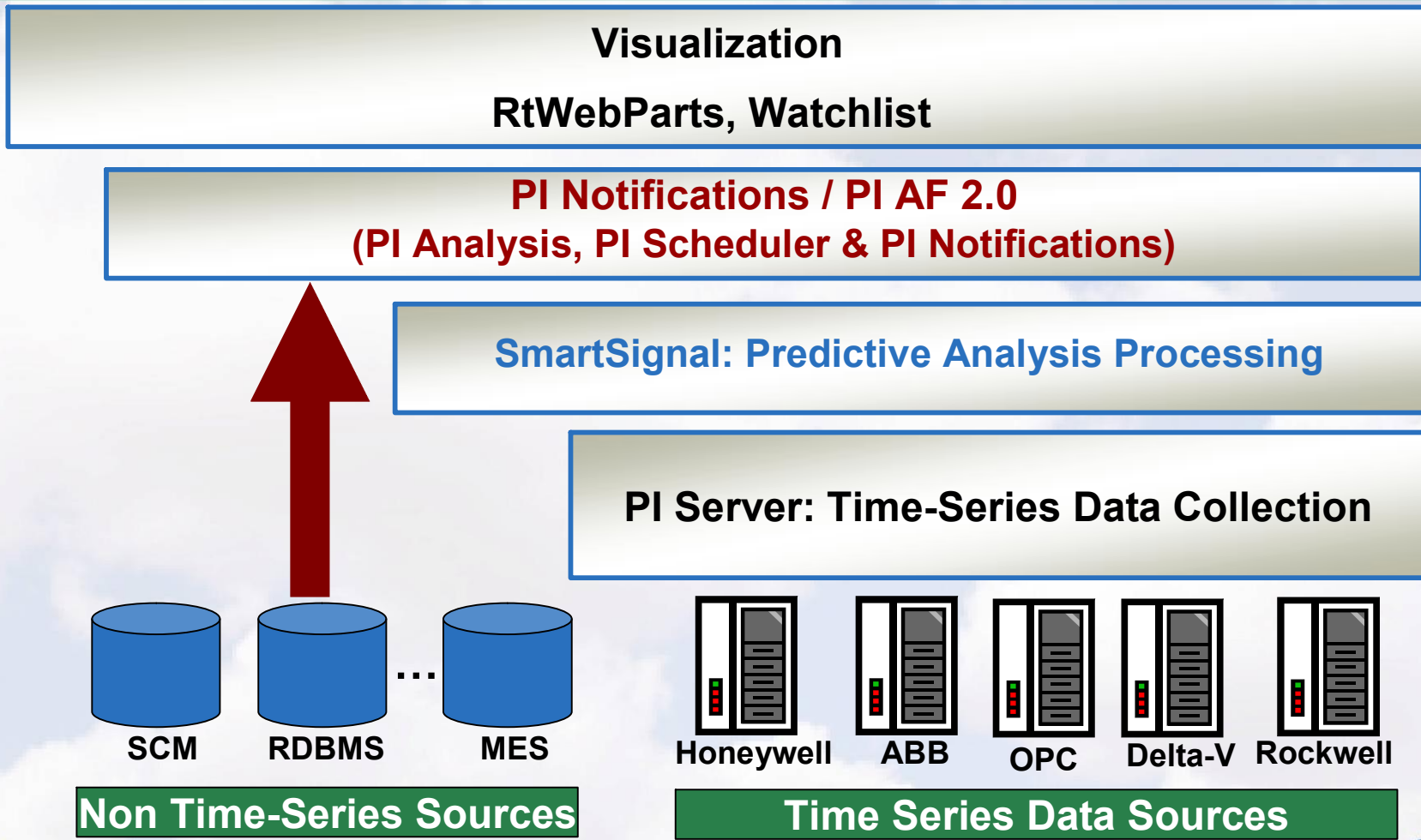
PI Notifications

- A new alerting paradigm from OSIsoft
 - Historized alerting
 - Highly available scheduling
 - Escalation
 - Extensible delivery
 - Integration with OSI client tools

PI Notifications Architecture



SS - PI Notification Architecture



Demo: What You'll See

- Automatic setup of the PI System from **SHIELD**.
- SmartSignal **SHIELD** early warning alerts, prioritized with advanced diagnostics.
- Notification, escalation and historization via **PI Notifications**.
- Unified presentation (SharePoint '07) and context links to facilitate diagnosis, planning and resolution.

Solution Demo

SmartSignal SHIELD + PI Notifications

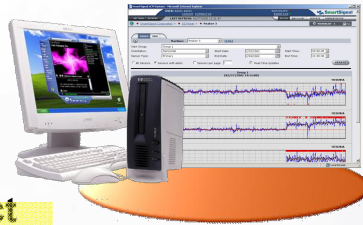
Demo Recap:

Predicting Failure ... Insuring Resolution

Diagnose

Facilitate Collaboration
between analyst, subject
matter experts & field
personnel

SHIELD
PI / AF
SharePoint



Notify

Use preferred channels
to notify and insure
receipt of information

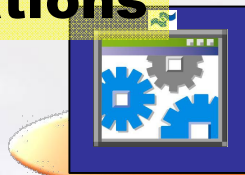
PI Notifications



Detect

Provide early warning of
degradation with priority
assessment and fault
indication

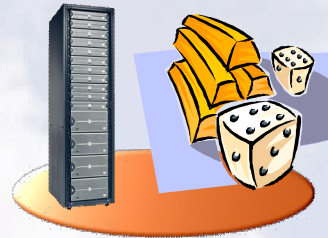
SmartSignal SHIELD



Plan

Assess risk / options
& decide on course
of action

SHIELD
PI / AF
SharePoint



Act

Collaborate to secure
resources & execute
work

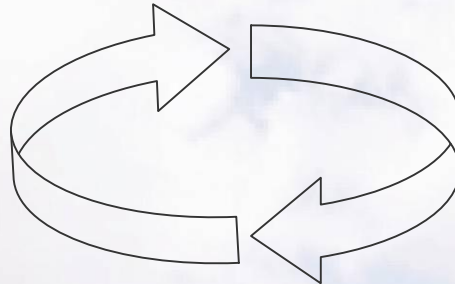
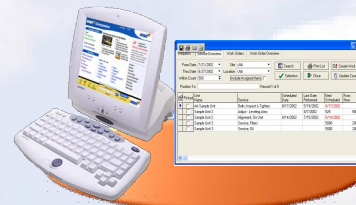
PI / AF
SharePoint



Validate

Validate performance,
document failures, retrain
model if warranted

SHIELD
PI / AF
SharePoint



Want More?

- See us in the Exhibit Hall
(Tues / Wed afternoons)
- Come to SmartSignal's Hospitality Suite
(Wed at 7pm, Marriott, Salon 207)
- Attend OSI's Learning Lab
(each afternoon)
- Attend the PI Notifications Focus Group
(Thurs at 3pm, Marriott, San Carlos room)

Questions?





***Thank
You***