

OSISOFT ASIA TECHNOLOGY CONFERENCE 2007



Universal Platform, Infinite Possibilities

平台技术发展计划

马国庆

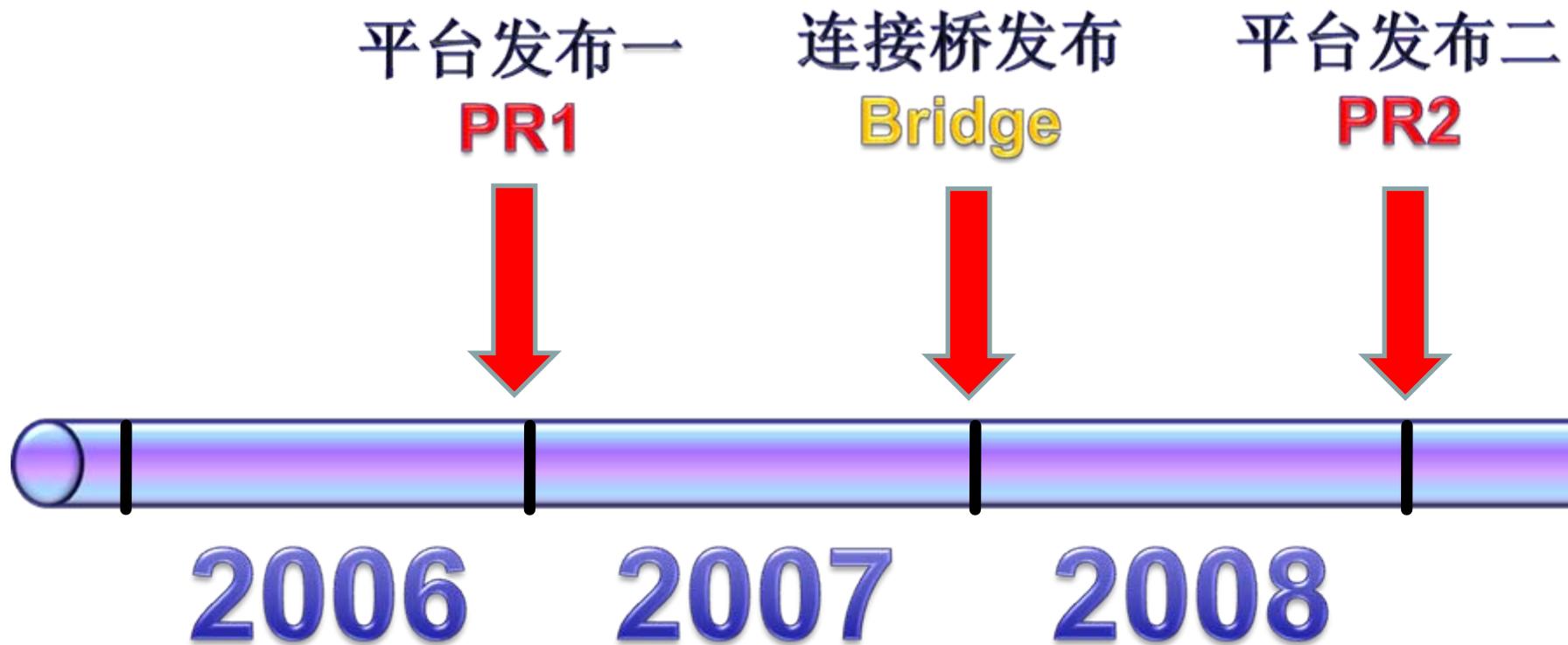
技术经理

OSI Software Asia

平台发布 “Platform Release”

- 平台发布什么？
- 平台发布有哪些优点？

平台发布时间轴



PI 软件的功能团

PI 软件的

Visuals

提供信息，可以做出更好的决策

Analytics

把数据改变成有用的信息

Server

可以从纵多系统中采集数据
同时传送数据到纵多系统中

结构设备数据

实时数据

客户数据

IT 数据

关系数据库
数据

网络服务

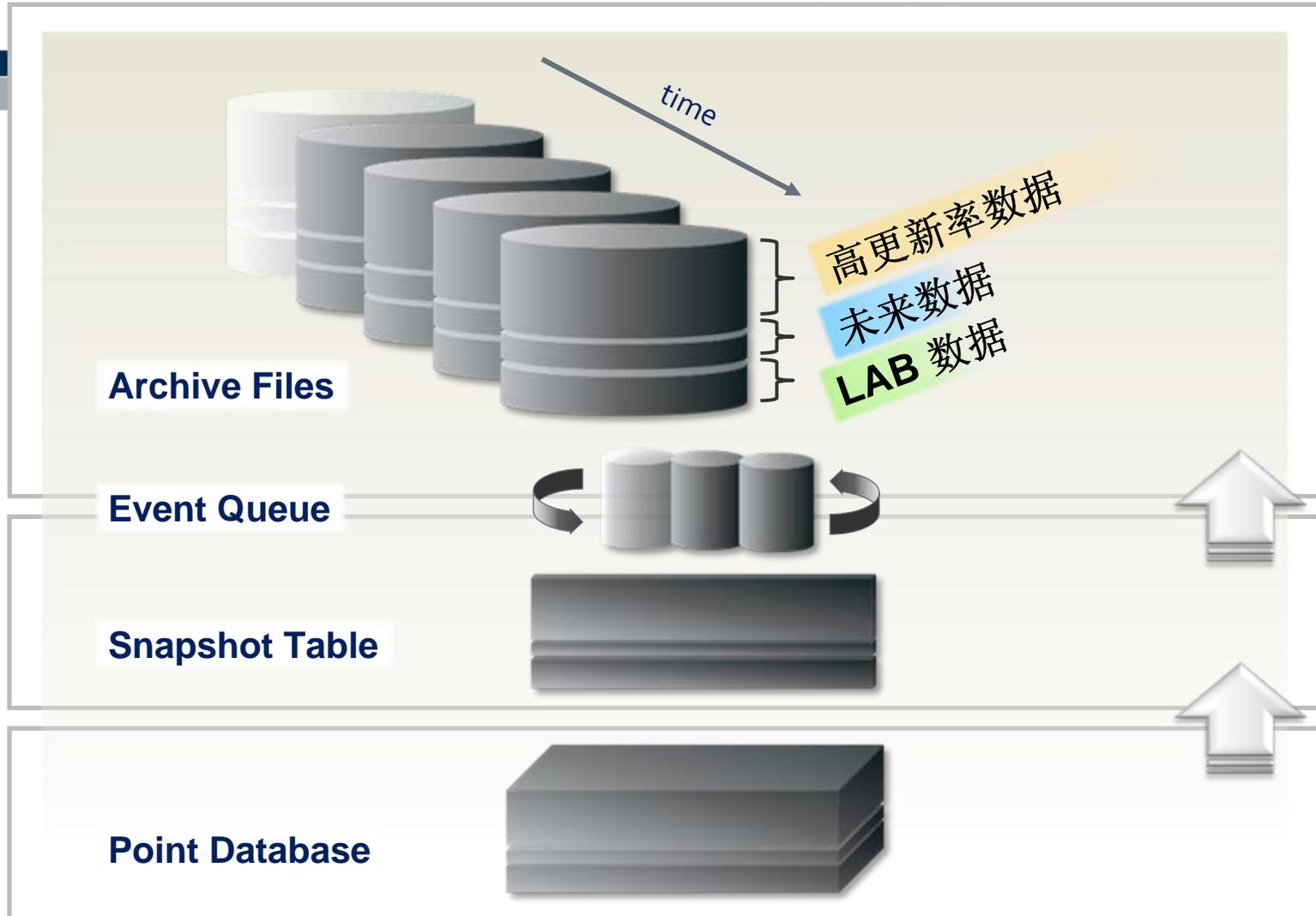
ERP /
维护

平台技术发展计划

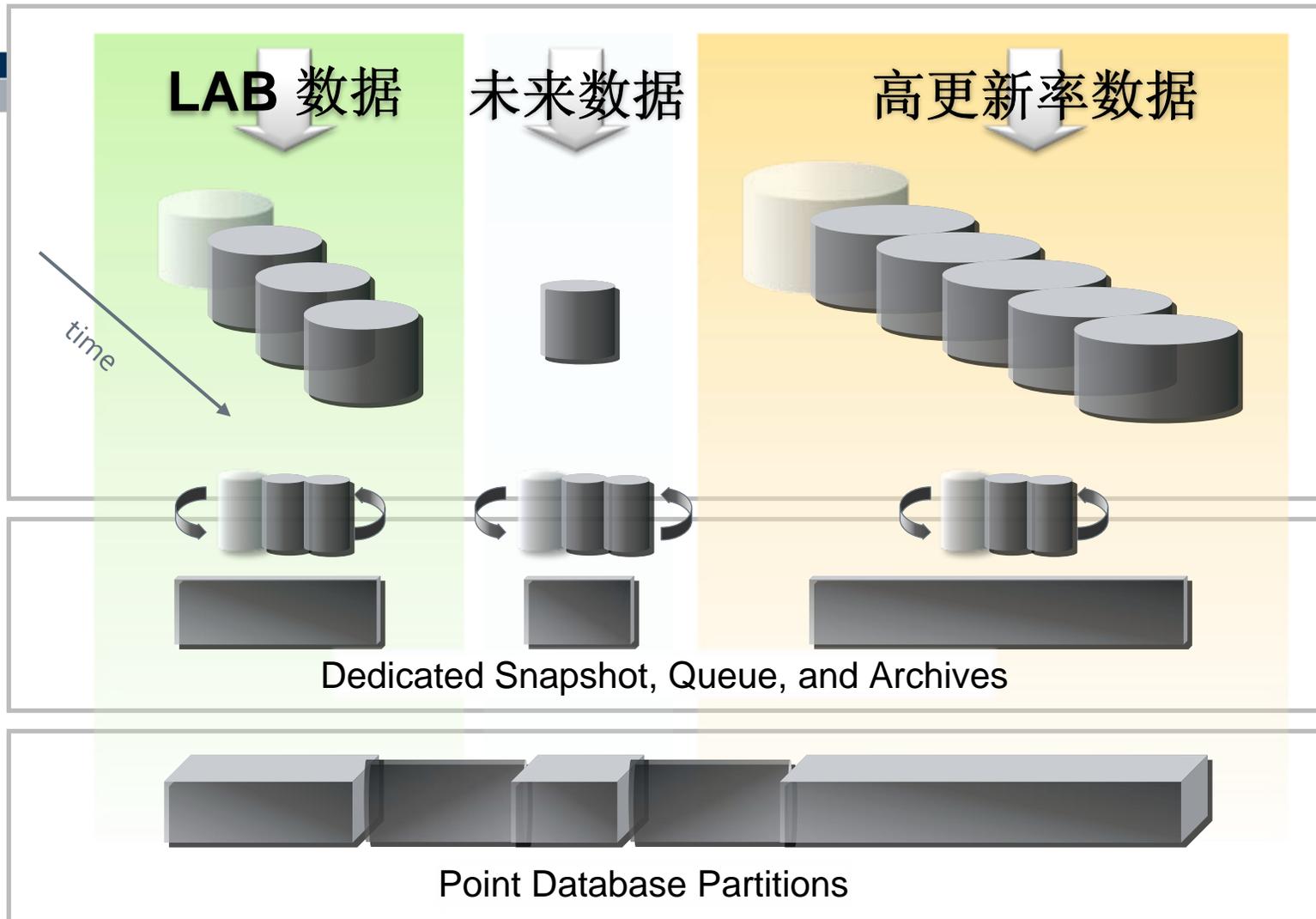
- **PR1**
 - 高可用性 **PI (HA)**
- **Bridge Release**
 - **Analysis Framework (AF 2)**
 - **Windows Security**
 - 高可用性改善
 - 未来的数据
- **PR2**
 - 划分
 - **64位 PI**



今天的 PI 软件



PI 服务器划分



最大点数提升

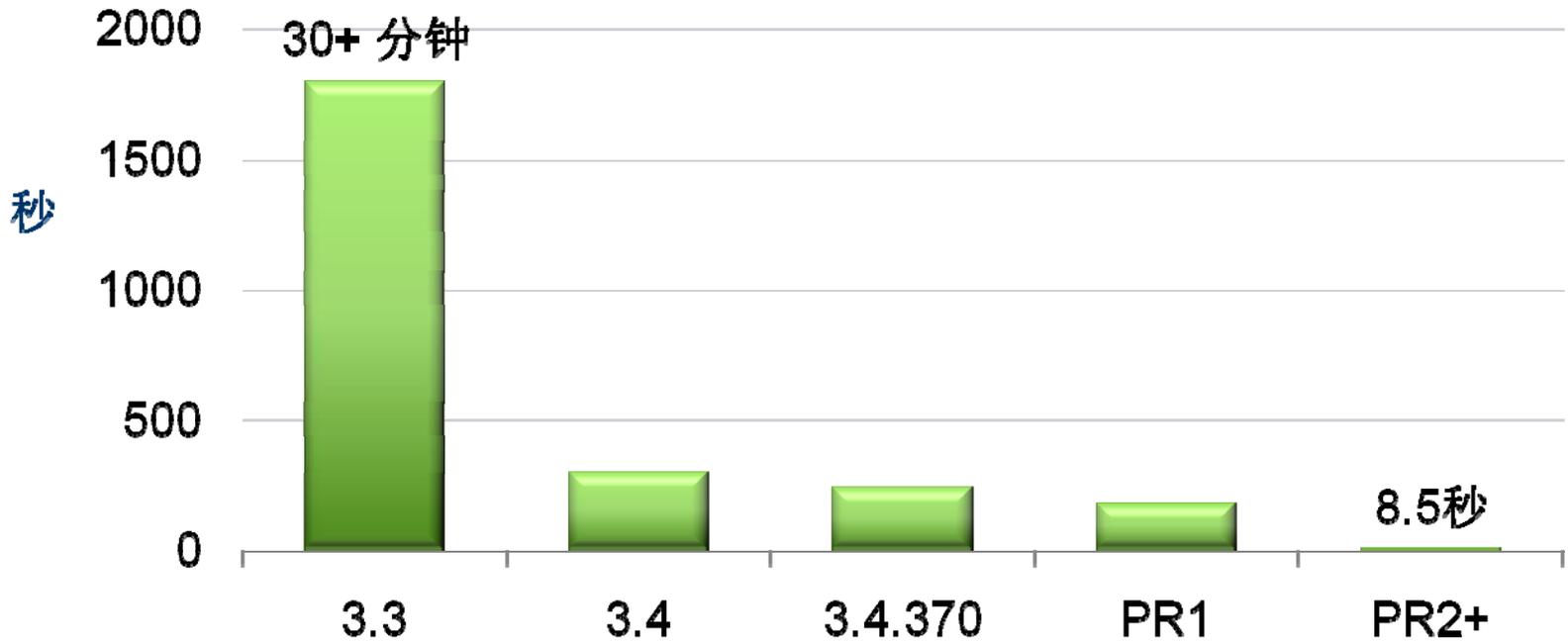
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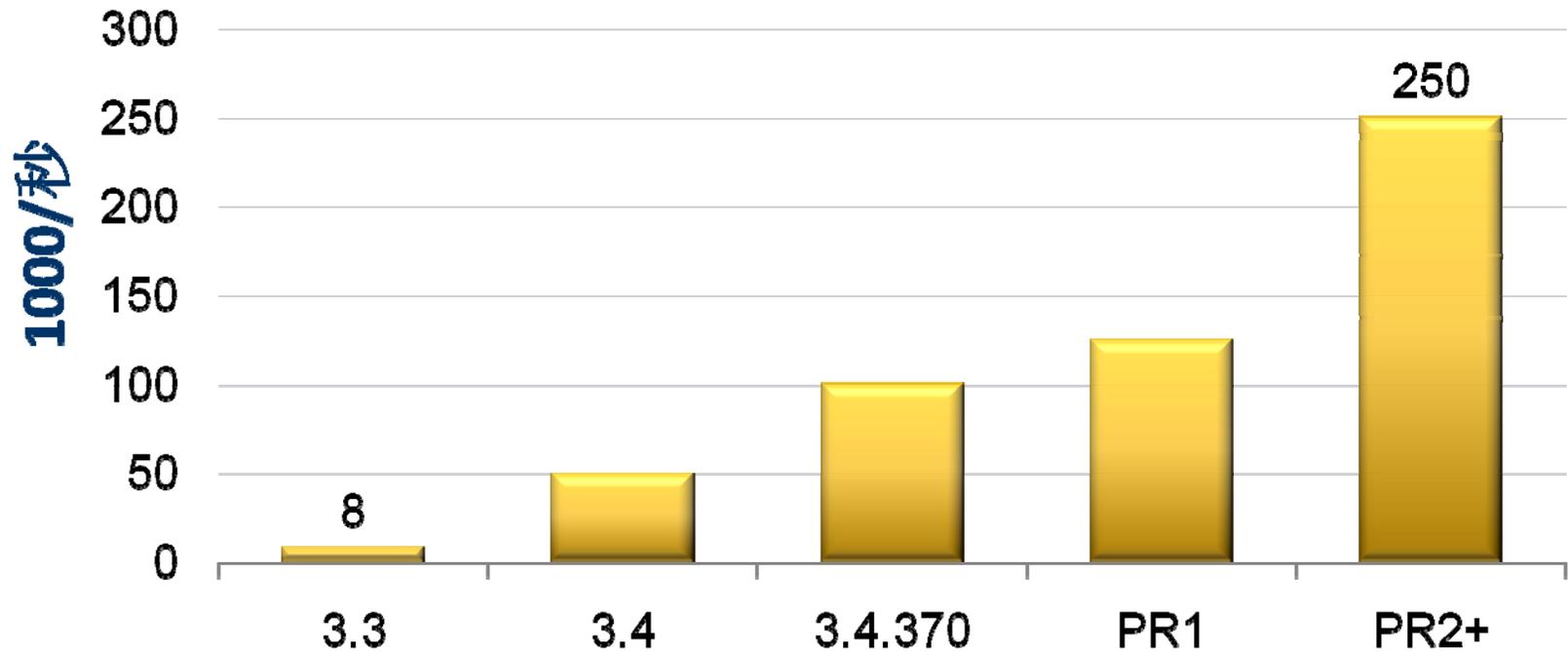
服务器启动时间

1,000,000 点 PI 服务器的启动时间



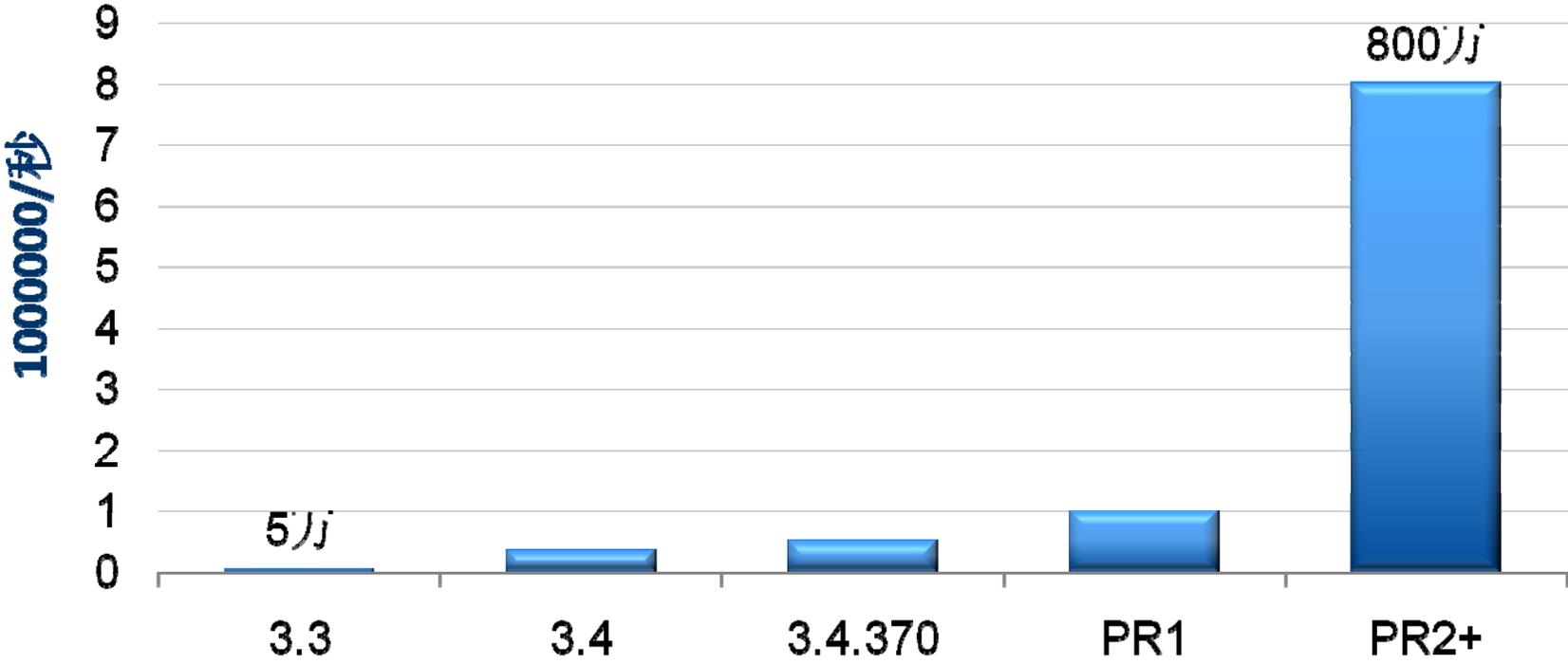
数据归档速度

储存入硬碟的数据量



查询数据量

服务器可提供的数据量



PI HA (高可用性)

为何使用高可用性？

- 网络故障
- 硬件故障
- 人为过失
- 系统更新与升级
 - 硬件
 - 操作系统
 - 应用软件

The Business Case for HA

Inconvenient to Unacceptable

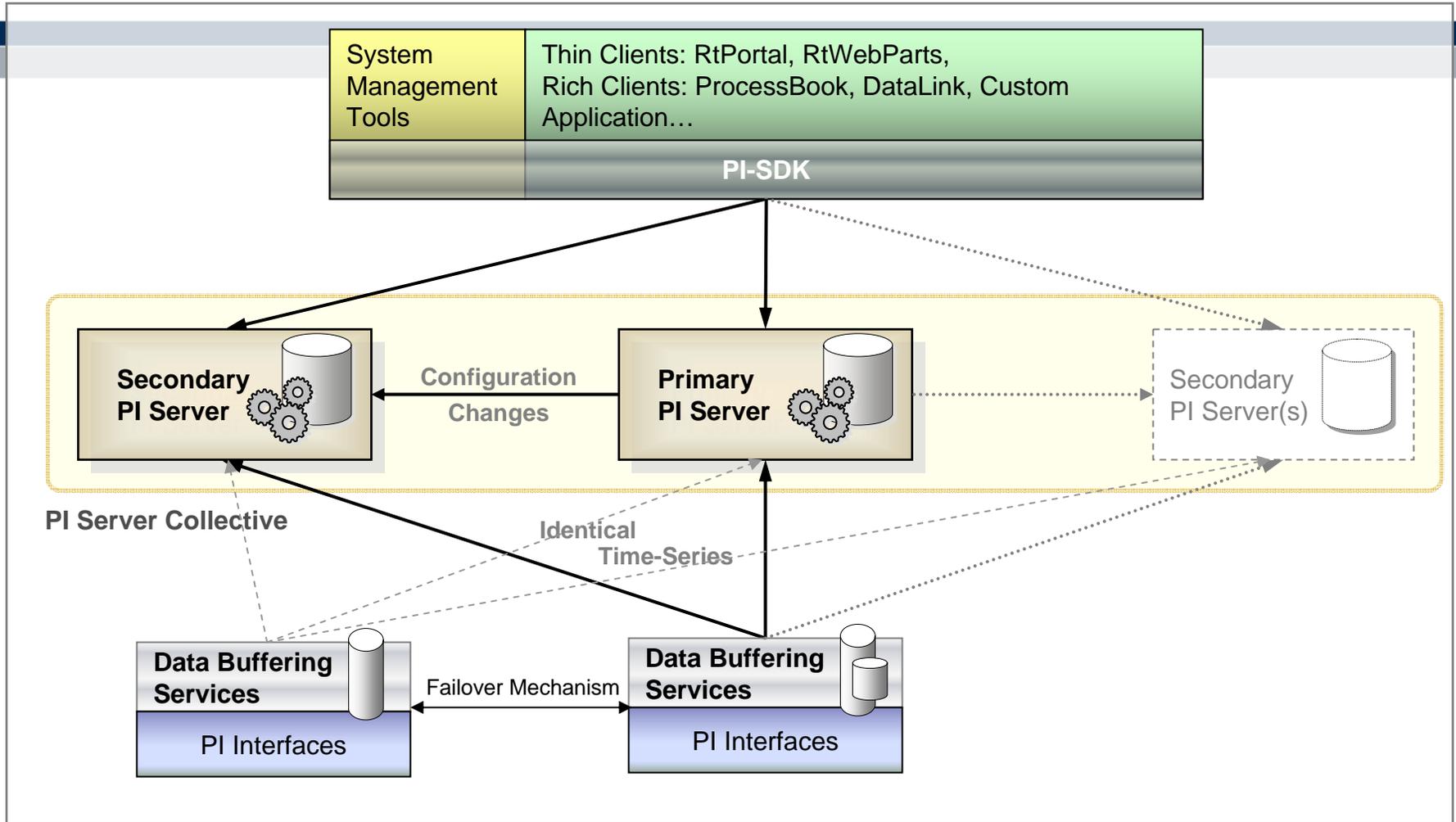
- Performance Report
 - Can not be updated because network down
- Production Report
 - Inaccurate because data acquisition stopped due to software crash
- Regulatory Data
 - Emissions data lost due to hardware failure
- Condition-based Maintenance
 - Work orders not generated due to misconfigured IP address
- Power Outage
 - Transformer overheat goes unnoticed during system upgrade

Inconvenient



Unacceptable

PI Replication Architecture



高可用性的价值

- 系统可承受应用软件和硬件的故障
- 个别的服务器
- 用户界面可自动切换服务器
- 提高系统扩展性，提供负载平衡
- 对于 **IT 管理**
 - 易于配置与管理
 - 容易修复系统

AF 2.0

转移系统中心

时间序列为中心

数据

设备信息为中心

时间序列
数据

设备信息

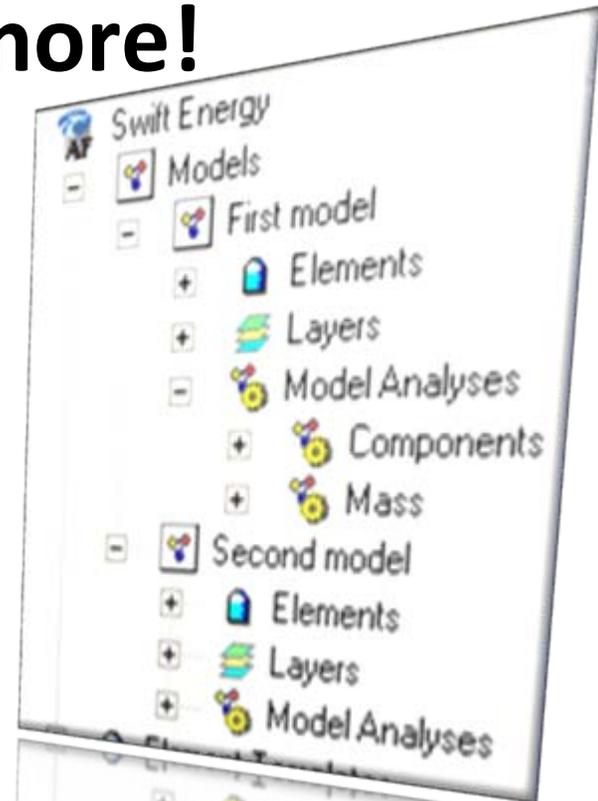
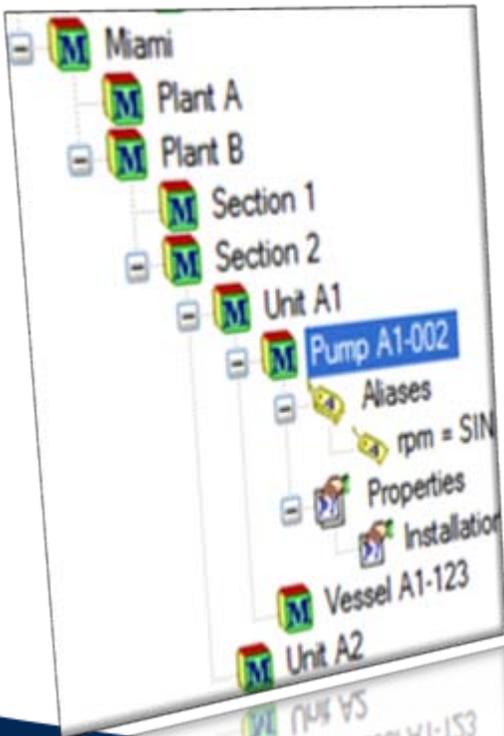
数据
选取

连接性

Analytics

What is AF 2.0?

The best of PI MDB and PI AF 1.x combined
... and a lot more!



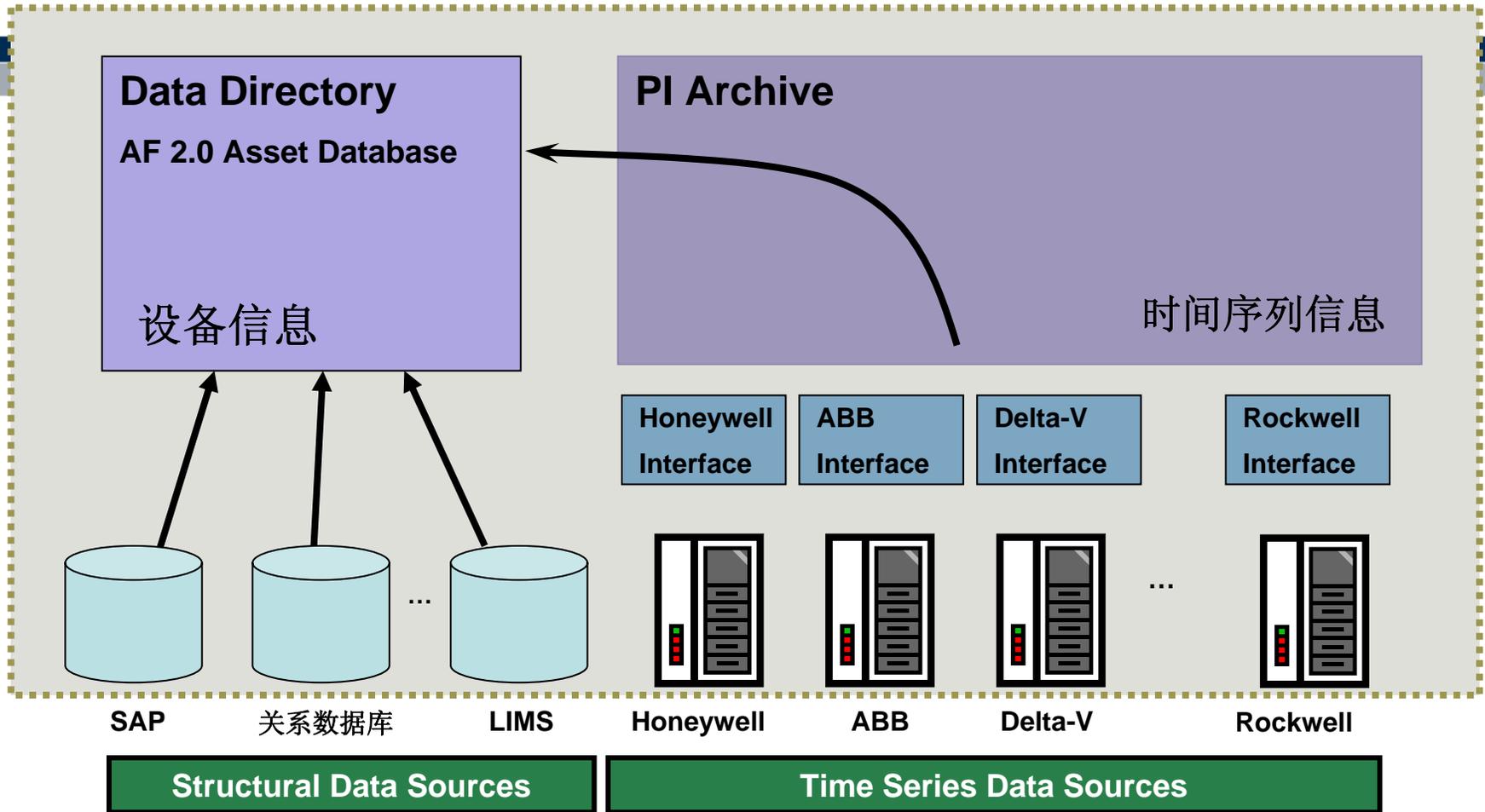
Data Directory with Windows Security

The screenshot shows the PI System Explorer interface with a directory tree on the left and a 'Permissions for Tank 001' dialog box open in the foreground. The directory tree shows a hierarchy of elements, including '中心子站' (Center Station) and its sub-elements like '上海' (Shanghai) and '北京' (Beijing). The 'Permissions for Tank 001' dialog box is set to 'Private' and shows a list of users: 'Administrators (VDDM1\Administrators)', 'Bob Wilson (bwilson@VDDM1.ORG)', and 'Everyone'. The 'Bob Wilson' user is selected, and the permissions table below shows the following settings:

Permissions for Bob Wilson	Allow	Deny
All	<input type="checkbox"/>	<input type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Write	<input type="checkbox"/>	<input type="checkbox"/>
Read/Write	<input type="checkbox"/>	<input type="checkbox"/>
Read Data	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Write Data	<input checked="" type="checkbox"/>	<input type="checkbox"/>

At the bottom of the dialog, there is an 'Advanced' button and a note: 'For special permissions or for advanced settings, click Advanced.' The dialog also has 'Add...' and 'Remove' buttons above the permissions table, and 'OK', 'Cancel', and 'Apply' buttons at the bottom.

AF 2.0: 不仅限于 PI 数据



PI Notifications

The PI System

The Server

Windows Server 2003
SQL Server 2005

PI Archive

AF Context Database

Real-Time Interfaces

RLINK

Data Access

MCN HealthMonitor

The Analytics

Windows Server 2003
Visual Studio.NET

PI Alarm

RtAlerts

Performance Eq.

PI Totalizer

PI ACE

Real Time SQC

RtReports

Sigmafine

The Visuals

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The Server

Windows Server 2003
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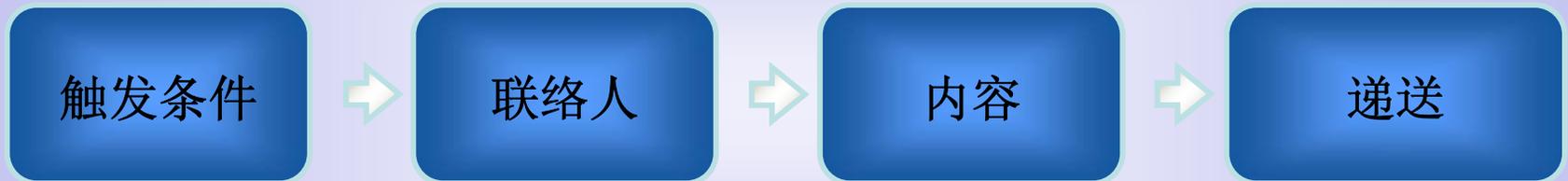
PI Notifications

OSI 所提供的新通知系统

- 容易使用
- 高扩展性
- 高可用性 (HA)
- 通知升级
- 多种通知方式
- 与现有的 **OSI** 客户端工具结合

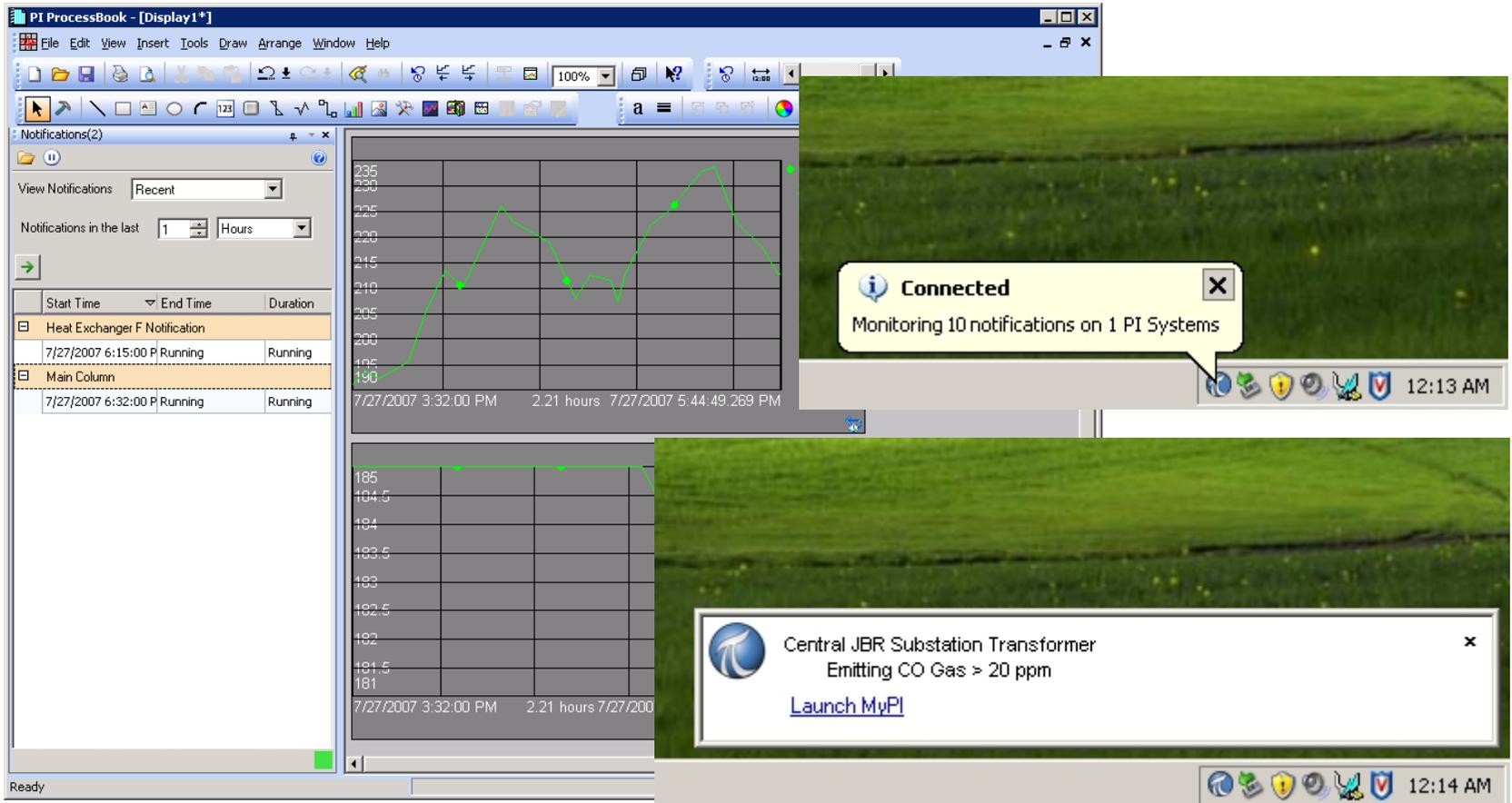
PI Notification

通知过程



回应 / 通知升级

Visualization for PI Notifications



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发问时间

谢谢大家!