

# MS/OSIsoft enabling “people-readiness business” in your enterprise

## 微软/OSI为您打造“全员就绪”的制造企业

雷浩

Senior Account Architecture

Manufacturing Industry

制造业行业 资深客户架构师

MS (China)

微软（中国）有限公司



**Microsoft**

<http://www.microsoft.com/industry/manufacturing/default.aspx>



# Trends In Manufacturing



1 Global market demands  
全球市场需求



2 Pressure to improve operational performance  
(cost, quality and time to market)  
改进执行成效的压力（成本， 质量， 上市时间）



3 Quality driven regulatory compliance  
以品质为导向的法规和标准



4 Rapid cycles of product innovation  
快速产品创新

# Key Business Challenges

## 主要的商业挑战

- Global competition 全球化竞争
  - Cyclical markets 资源再生的市场
  - Downward pricing 价钱的下  
降
  - Regulatory compliance 法规的遵  
从
  - Complex outsourcing models 复杂的外包模式
- Pressures to REDUCE COSTS**  
降低成本的压力



- Pressures to INNOVATE**  
产品创新的压力
- Demanding customers 苛求的客户
  - Competitive differentiators 和竞争对手的差异化
  - Constant stream of new products 不断涌现的新产品
  - Complex design chains 复杂的设计链

# Top Priorities of CIOs

## 2006年CIO最关注的十大诉求

### -Top 10 business and technology priorities in 2006

#### Top 10 Business Priorities

##### 十大商业的诉求

Business process improvement 商业流程改进

Controlling enterprise operating costs 企业成本控制

Attracting and growing customer relationships  
吸引和提升客户关系

Improving competitive advantage 改进竞争优势

Improving competitiveness 提高竞争力

Using intelligence in products and services  
智能化产品和服务

Security breaches and disruptions 加强安全性

Revenue growth 业绩的成长

Faster innovation 快速的产品创新

Faster innovation and cycle times

加快创新和产品周期

#### Top 10 Technology Priorities

##### 十大技术的诉求

Business Intelligence applications 商务智能化应用

Security technologies 安全的技术

Mobile workforce enablement 无线办公的技术

Collaboration technologies 协同合作的技术

Customer sales and service 客户销售和服务

Service Oriented Architectures (SOA) 以服务为主的架构

Workflow management 工作流的管理

Networking, voice and data communications 网路, 音频数据的传输

Virtualization 虚拟化的技术

Legacy application modernization 既有应用的更新

Source: Gartner EXP (January 2006)

Microsoft



# Microsoft Manufacturing Vision

## 微软公司对制造业的愿景

To accelerate our customers' insight into their businesses and empower their innovation by delivering Microsoft and Microsoft partner solutions that will enable their people to improve their ability to achieve peak performance

微软公司和微软的合作伙伴的解决方案共同为客户加速产品创新，以及帮助客户的员工加快他们完成他们的工作

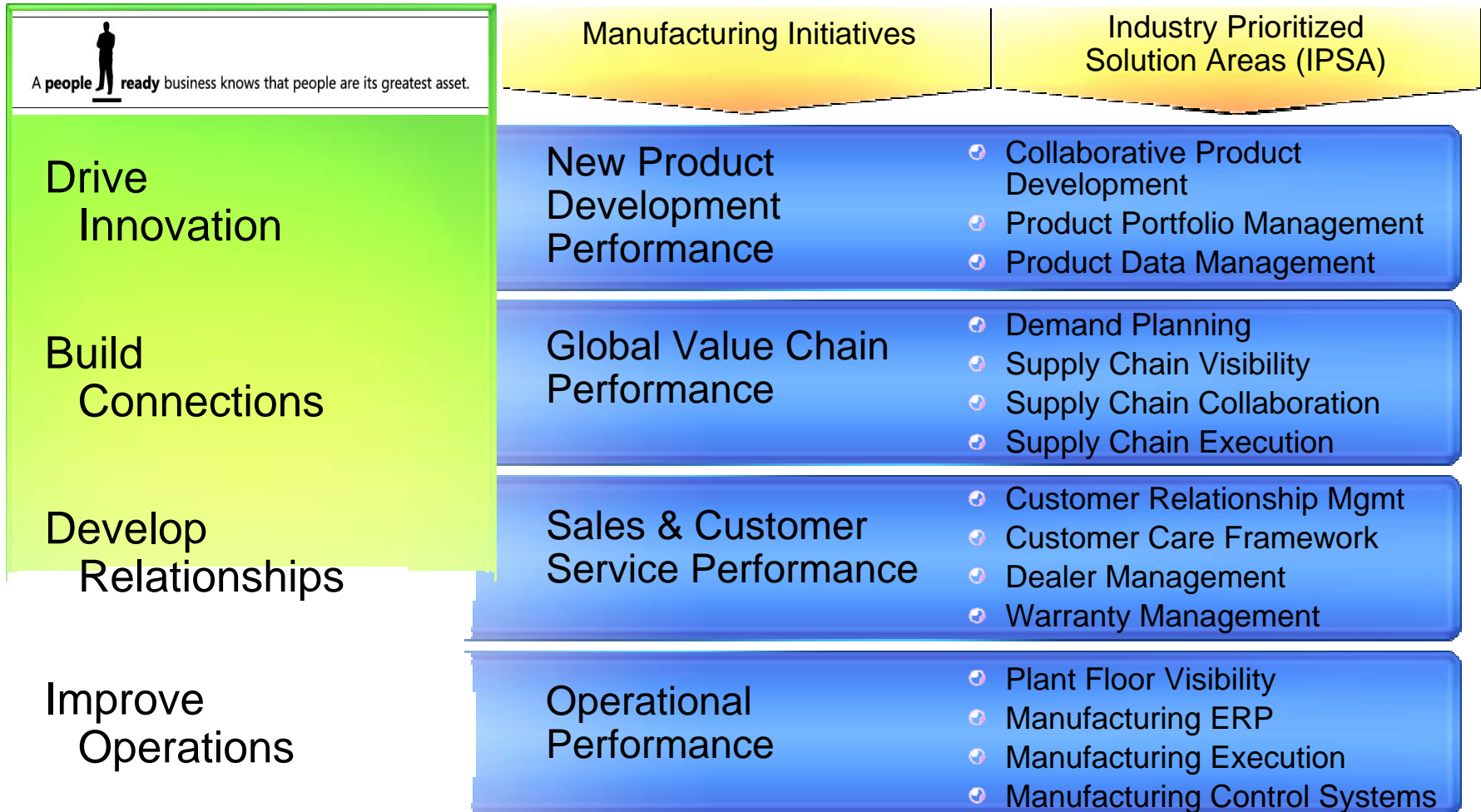
# People Drive Business

以人为本的商业营运  
Outcomes 结果



# Microsoft Manufacturing Industry Solutions

## Enabling a People-Ready Business



# Microsoft Manufacturing Industry – Focus verticals

微软公司在制造业的重点

- Automotive 汽车业
- High Tech and Electronics 高科技和电子业
- Consumer Packaged Goods (CPG)  
快速消费行业
- Oil and Gas 能源
- Pharmaceuticals 医药业
- Utilities 水电煤行业

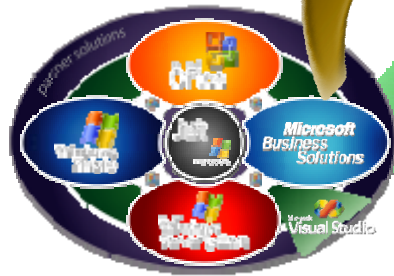


# Microsoft Manufacturing Industry Focus

## 微软公司在制造业的重点



Increased industry expertise and knowledge  
致力于行业知识和专家的培养



Working with our product teams to meet industry needs  
和我们的产品队伍满足行业的需求



Industry vision and value proposition  
体现行业的远景和价值



Consistency in our industry language  
保障行业用语的一致性

Building comprehensive industry solutions with our partners  
和微软的合作伙伴共同开发行业解决方案



# Trusted by Global Industry Leaders

## Oil and Gas



## Chemicals



## Pharmaceutical and Lifesciences



## Metals, Metallurgy and Material

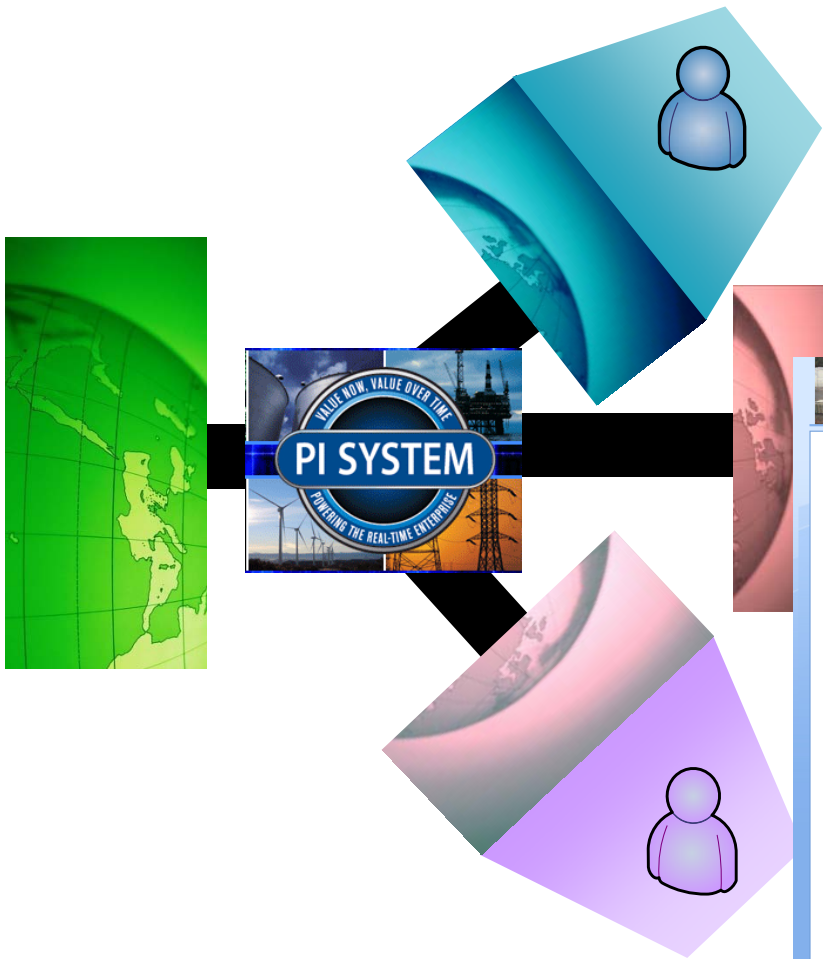


## Utilities and Power



# A User's View of the World is Role Based

## 用户的视野因角色而异



Shared Documents - RootCause - Microsoft Internet Explorer

Address: http://rtmps/SiteDirectory/UC2007/Shared%20Documents/RootCause.aspx?RTTreeView\_SelectedNodeTag=%5c%5cRTMPMP1%5cTransDistribuCo%5

UC2007

Home > Sites > UC2007 > Shared Documents > RootCause

### RootCause

RTTreeView

- Transformer
  - TR0842
  - TR2003**
  - TR3045
  - TR5620
  - TR9124

RtTimeRange

Start Time: 8/4/2007 11:25:42 PM  
End Time: 8/5/2007 11:25:42 PM

RtMessenger

- Sr. Operator**
  - David Hasselhoff
- Maintenance**
  - Jay Lakumb
- Jr. Operator**

Transforme TR2003					
Timestamp	Top Oil Temp	Bottom Oil Temp	Cooling Fan Status	Load	PI Server: rtpmpi
04-Aug-07 23:25:42	81.295	54.824	STAGE 1	21.33	
05-Aug-07 00:25:42	81.590	54.074	STAGE 2	22.07	
05-Aug-07 01:25:42	83.478	54.333	STAGE 1	21.02	
05-Aug-07 02:25:42	80.519	54.314	STAGE 1	21.10	
05-Aug-07 03:25:42	83.110	56.948	STAGE 1	22.03	
05-Aug-07 04:25:42	80.934	56.885	STAGE 1	22.01	
05-Aug-07 05:25:42	83.382	54.924	STAGE 2	22.78	
05-Aug-07 06:25:42	82.858	56.084	STAGE 1	21.95	
05-Aug-07 07:25:42	81.793	53.301	STAGE 1	21.52	
05-Aug-07 08:25:42	82.720	53.759	STAGE 2	22.35	
05-Aug-07 09:25:42	82.144	53.156	STAGE 1	22.44	
05-Aug-07 10:25:42	80.517	54.243	STAGE 2	21.98	
05-Aug-07 11:25:42	81.895	56.163	OFF	21.15	
05-Aug-07 12:25:42	81.124	57.002	STAGE 1	20.02	

Disolved Gas Analysis

Date	Hydrogen	Methane	Ethane	Ethylene	Acetelyene	Carbon Dioxide
09/26/90	193	115	137	38	<1	3004
08/01/94	279	185	164	51	<1	4213
03/06/95	489	399	320	109	<1	1652
03/28/96	1258	1980	590	369	<1	6524
03/21/98	1390	2568	790	561	<1	5952

# Role-based Mashups MOSS 2007 and RtWebParts, Datalink

根据角色混合MOSS 2007 与 RtWebParts, Datalink

The screenshot shows a Microsoft Internet Explorer browser window displaying the Tiddelyme.aspx page. The browser's address bar shows the URL https://canosi/Pages/Tiddelyme.aspx. The page content is organized into several sections:

- Navigation:** Home, Document Center, News, Reports, Search, Sites, Tiddelyme, Site Actions.
- Left Sidebar:** View All Site Content, Document Center, News (Sample News Article, News Archive), Reports (Sample), Search, Sites (IT), Foothills BU, Recycle Bin.
- Main Content Area:**
  - RtTimeRange:** Start Time \*-2h, End Time \*, Apply, Refresh, Previous, Next buttons.
  - Assets:** A tree view showing Grand Prairie (Well 1, 2, 3) and Foothills BU (Well 1, 2, 3, 4, 5).
  - Map:** A map of Alberta, Canada, showing various locations and wells marked with black dots.
  - UWI's:** A list of Gas Wells with dates: 04-11-039-24W4, 04-14-039-24W4, 05-14-039-24W4, 06-23-039-24W4, 08-15-039-24W4, 12-11-039-24W4, 12-14-039-24W4, 14-23-039-24W4.
  - Specialists:** A list of roles and names: Asset Manager (Ann Bishes, Mike Sims), Rotating Equipment Expert (Petey Macallan, Carol Reston), Process Engineer (Patrick Franklin, Lisa Carl).
  - RtTrend:** A line chart showing data for three wells over a 30-day period from 10/5/2006 6:36:05 AM to 11/5/2006 6:36:05 AM. The Y-axis ranges from 0 to 60. The legend indicates: 9.90 Well 1 (yellow), 0.00 Well 2 (green), 11.25 Well 4 (cyan).

The Windows taskbar at the bottom shows the Start button, several open applications (Powerpoint for Micro..., Windows Live Messe..., Inbox - Microsoft Out..., Tiddelyme.aspx - Mi...), and the system clock showing 12:06 AM on 10/5/2006.

Compressors

Jansen

- Compressor1
- Compressor2

Work Flows

Work Order Type

- Change Motor
- Align Shaft
- Take Field Readings
- Check Bearing Temps
- Switch Compressors

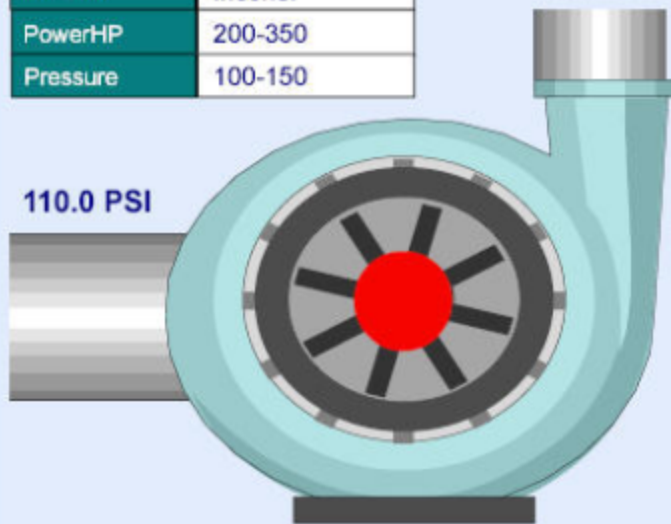
Current Operation

C-102

Manufacturer	Ingersoll Rand
Material	Inconel
PowerHP	200-350
Pressure	100-150

2609.3 BBL  
208.3 PSI

110.0 PSI



Flow (MSCFH)



Pressure (psig)



Messenger Contacts

Engineers

- Curt Hertler
- Tom Brophy

Houston Offshore

- Albert Simth
- Bob Crawford

Ingersoll Rand

- Nancy Bowersox
- Jack Roberts

Average Production

	A	B
1	Hour	BPD
2	2:00 AM	5808
3	1:00 AM	6329
4	12:00 AM	6233
5	11:00 PM	6334
6	10:00 PM	5959
7	9:00 PM	6301
8	8:00 PM	6359
9	7:00 PM	5929
10	6:00 PM	6094
11	5:00 PM	5998
12	4:00 PM	5676
13	3:00 PM	6281
14	2:00 PM	6145
15	1:00 PM	6264
16	12:00 PM	6107
17	11:00 AM	5720
18	10:00 AM	5893
19	9:00 AM	5961
20	8:00 AM	5989
21	7:00 AM	5740
22	6:00 AM	5864

Lance Position



Steam Pressure



Vibration

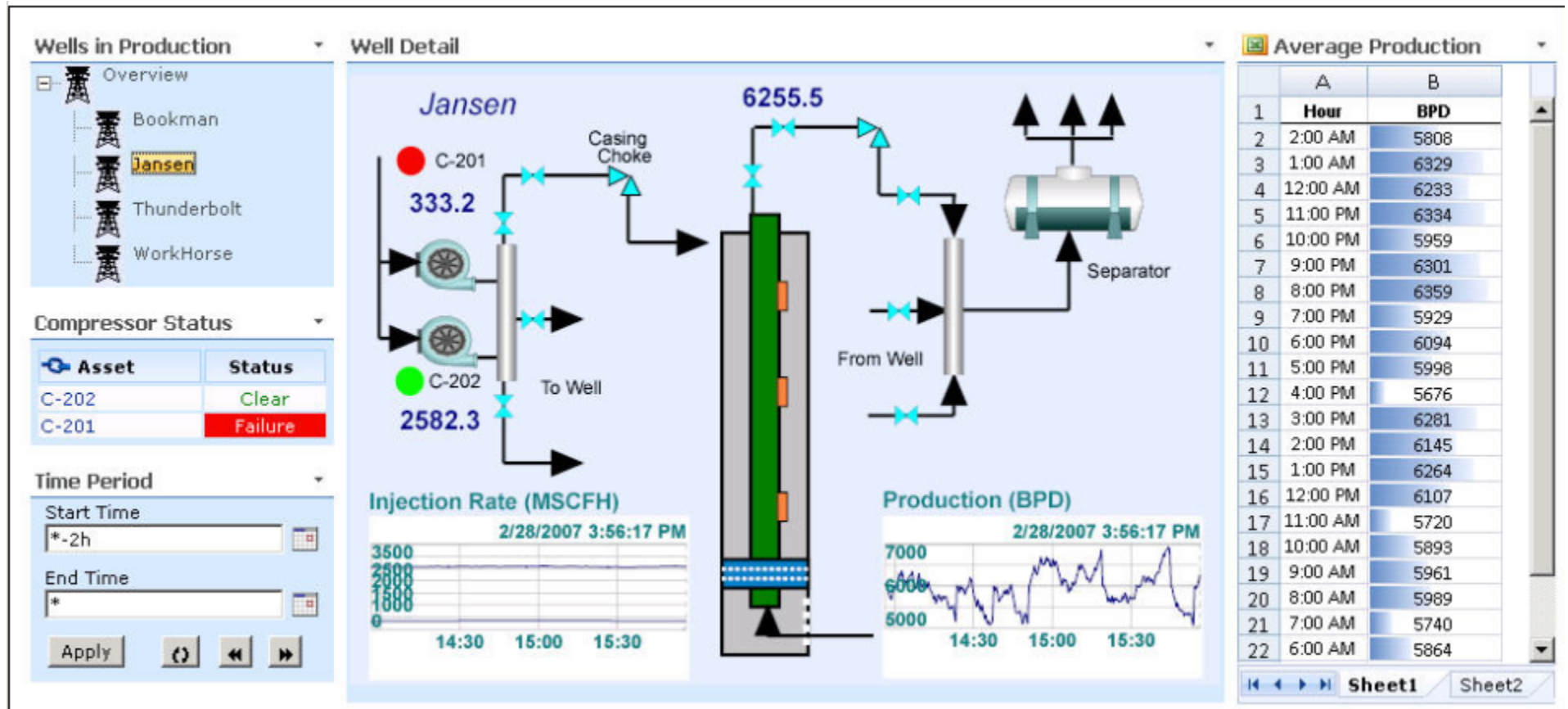


Recent Work Orders

Date	Unit	Order No	Task	TaskType	Comments
9/20/2006	C-201	2004-5629	DGA OIL SAMPLE	Preventive Mainten	
9/20/2006	C-201	2005-3999	TCG TEST - MAIN TANK	Preventive Mainten	
9/20/2006	C-201	2005-3957	DGA OIL SAMPLE	New Installation	
9/20/2006	C-201	2002-1234	N2 SYSTEM REPAIR	Other Maintenance	Installed animal protection
9/12/2006	C-201	2003-1034	TCG TEST - MAIN TANK	Other Maintenance	

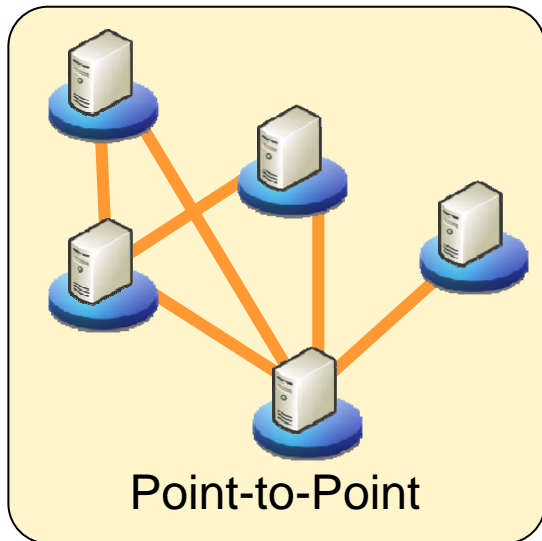
# OSIsoft Datalink Server and Excel Services

## OSI软件Datalink与Excel Services的结合



# Evolution of Architectures

## 结构进化

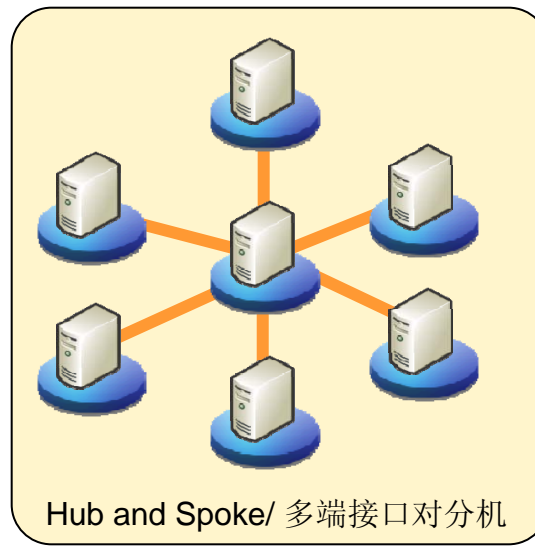


unmanaged 无处理/  
decentralized 分权的,

Suitable for small  
environments

适用于小规模环境

$n^2$  lines of connectivity



Managed处理的 / centralized集中的

Supports loose coupling of systems

支持宽松连接的系统

Message Broker信息经纪人

n lines of connectivity

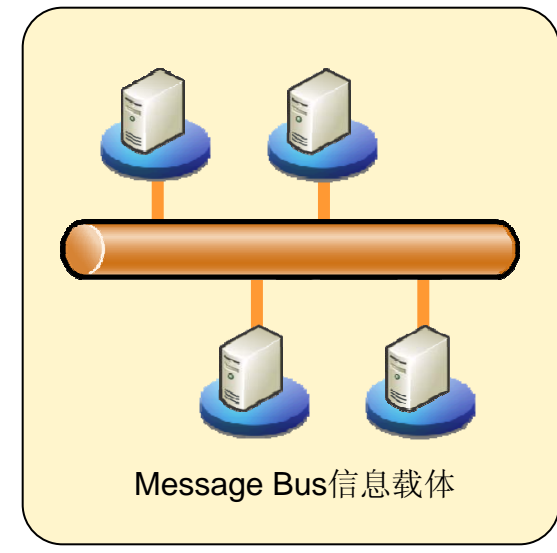
Centralized management集中管理

Limited scalability

扩展性有限

Single point of failure

单一的故障点



Managed处理的 / decentralized分散的

Common communication infrastructure

共同的沟通基础结构

Common command infrastructure


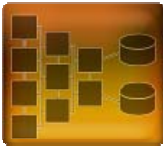

共同的指令基础结构

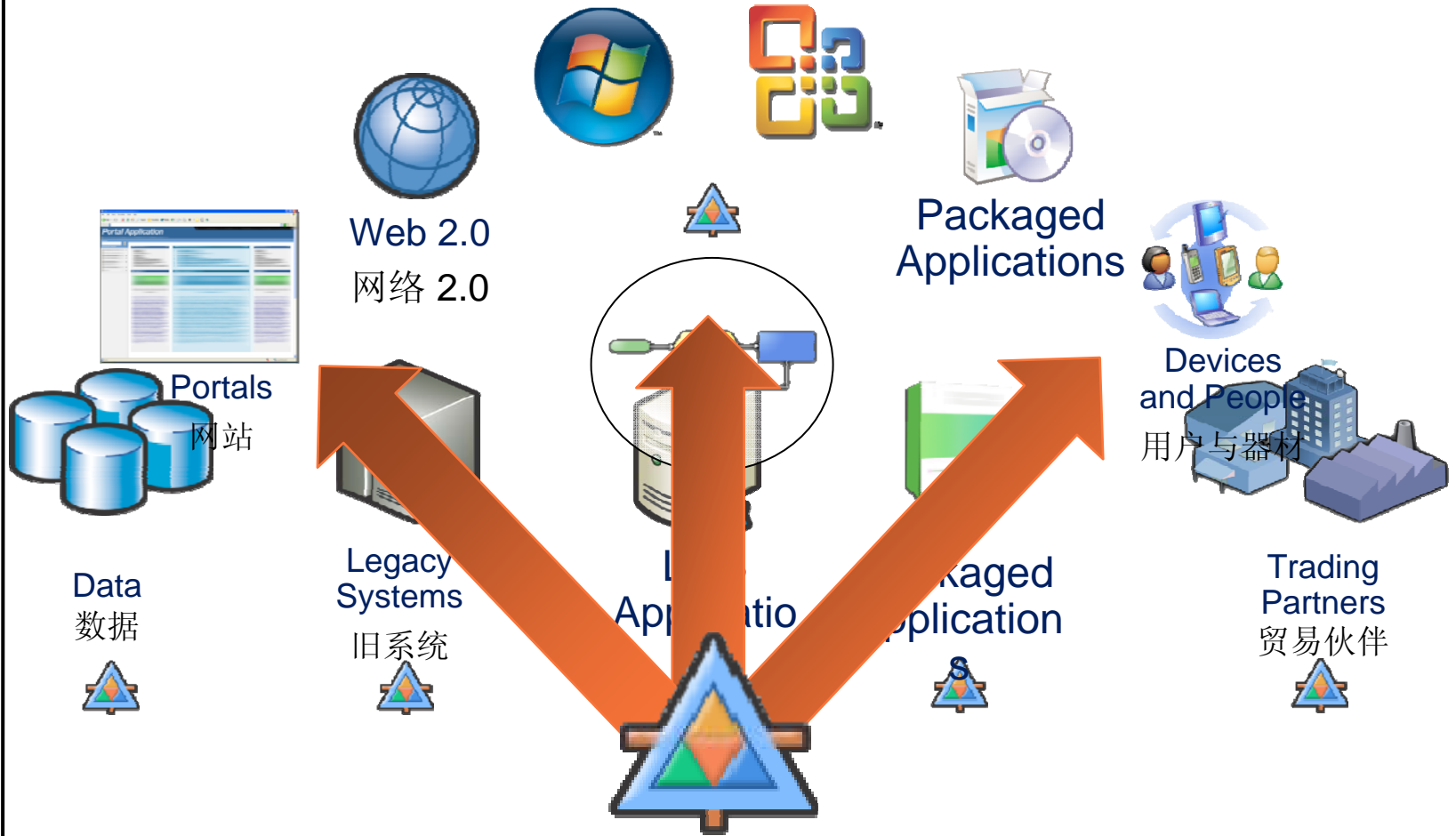
n lines of connectivity

Proprietary communication protocols专有的沟通协议

Complex management复杂的管理

# The SOA Promise

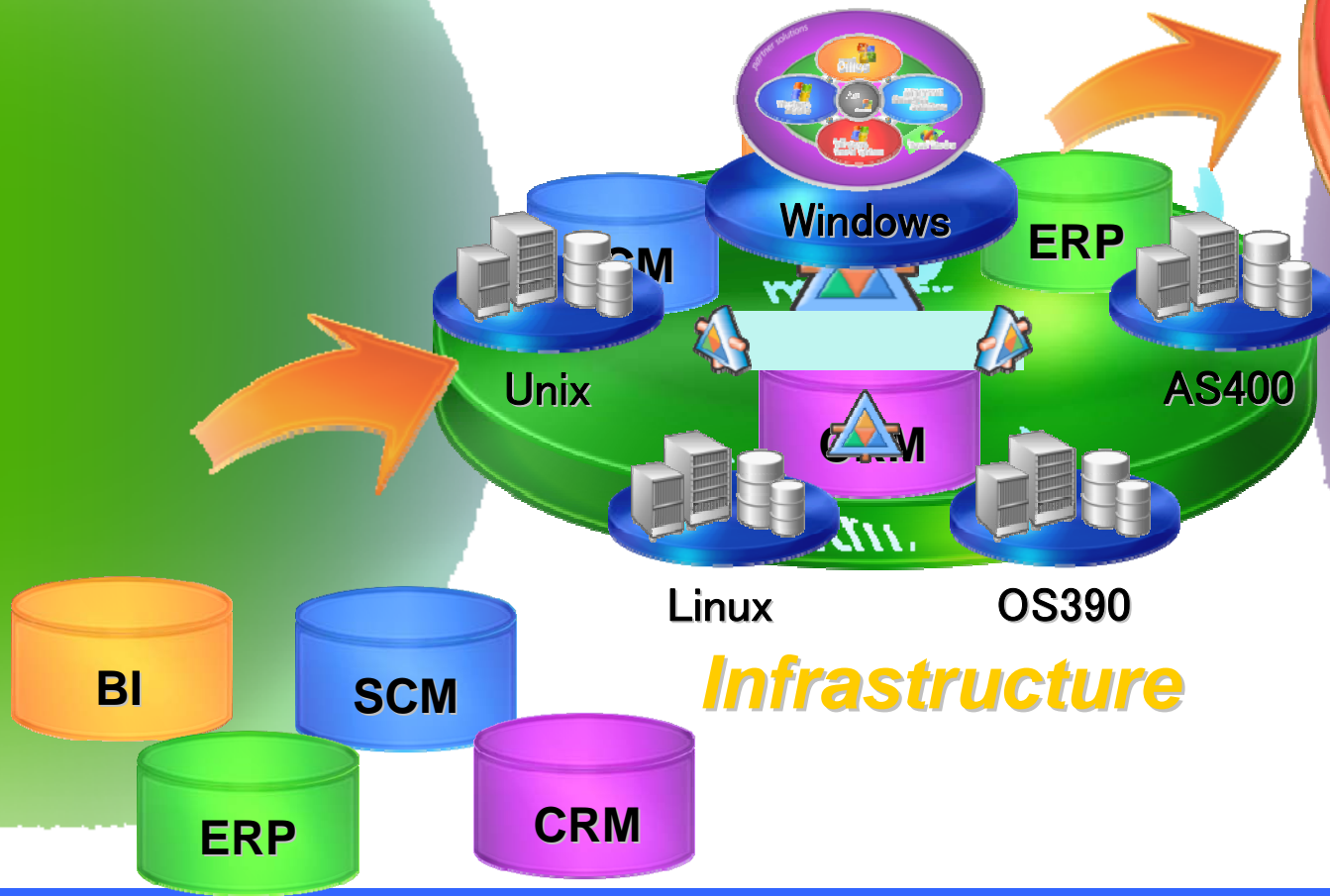
-  Security  
安全
-  Management  
管理
-  Tooling  
工具





# Services Oriented Architecture/ 服务的导向结构

- Infrastructure is Key To Enabling SOA
- 基础结构是建立SOA的关键



**People Ready Business**

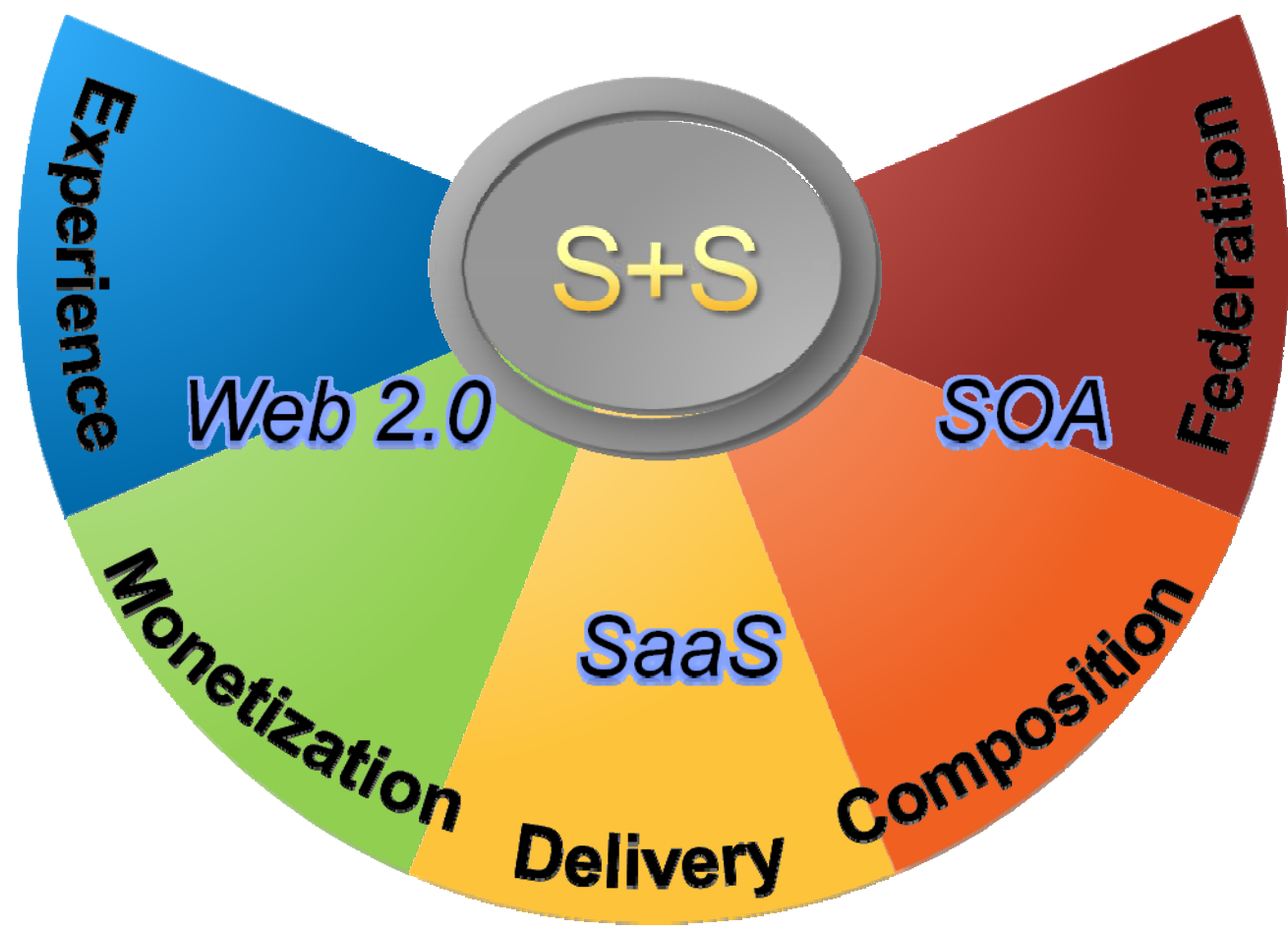
**Solution Silos**

# Software + Services



- Experience/经验: Consistent across multiple clients/多种客户的一致性
- Deployment/部署: On-premise & hosted/在主机的前提下
- Development/发展: Extending tools/推动的工具 & platform to cloud/平台的覆盖量
- Business Models/商务模型: Expanded monetization opps/货币膨胀

# Evolution To S+S/ 演变到 S+S



# OSIsoft Managed PI Software + Services



Connected User Experiences  
在线用户体验



Data Sources  
数据资源



Data Store 数据存储

Line-of-Business Applications  
上层开发



- Identity & Access
- Connectivity
- Svc Mgt & Bus Process
- Storage
- Virtualization
- Development & Tooling
- User Experience

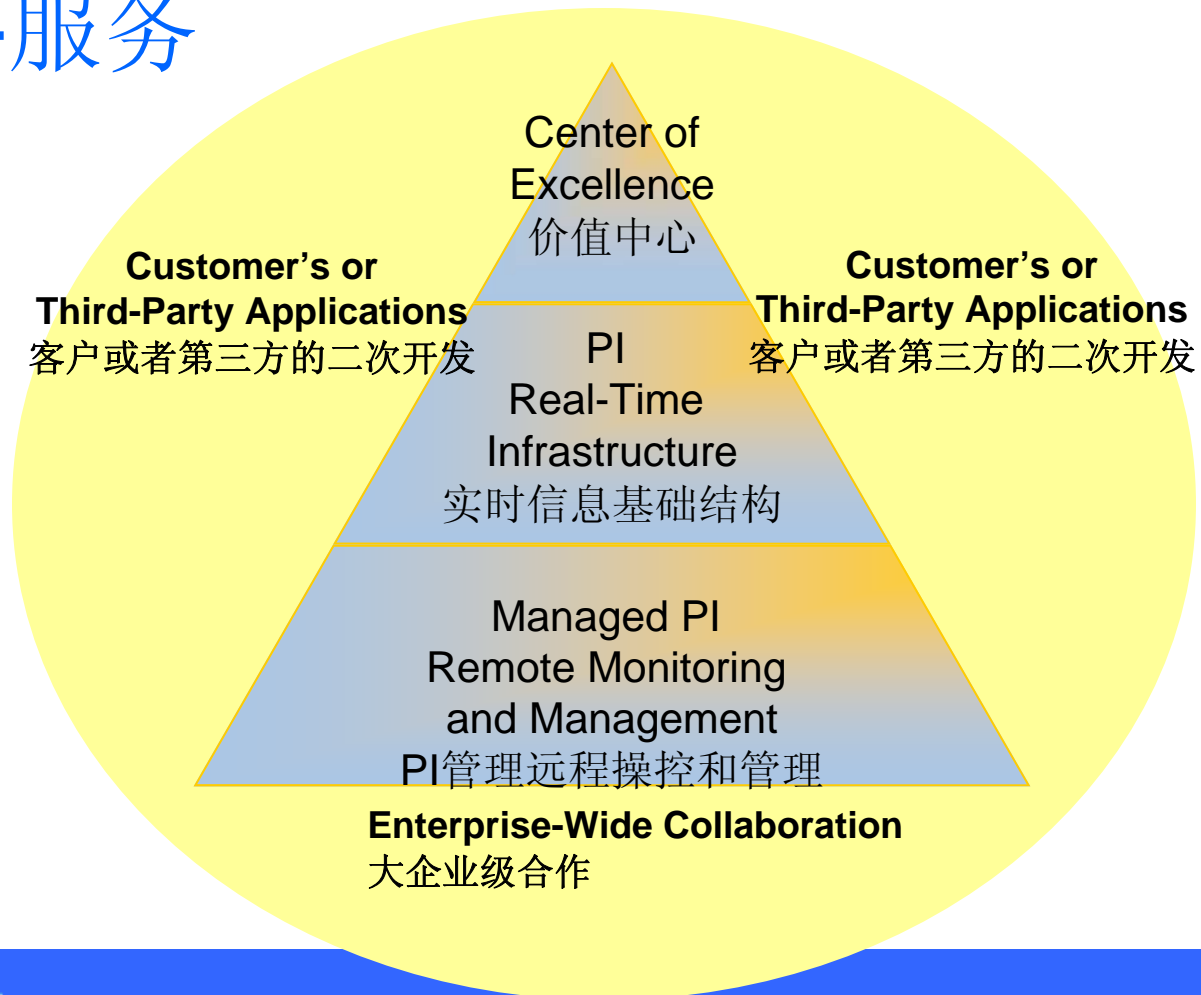
Application Platform **Enabled for Services** 应用平台驱使服务

# OSIsoft Enterprise Agreement

大企业协议

Software + Services

软件+服务



# What Next?

Services Blogs Mashups ESB  
Search Web 2.0 OSS  
Social Networks AJAX  
Consumerisation XML  
User-generated Contextual  
WSAdvertising  
RS S RIA -\*  
BPEL Dynamic Languages SCA SO REST  
Tags SaaS Idm ROR Wik A Json  
is

Microsoft

Composite  
Apps

Monetization



# Questions?

**Michael Chang**

Director, Manufacturing Industry  
EPG Industry Sales

Michael.Chang@microsoft.com

Mobile: +86 139-0169-3539

Office: +86 10 5896-8438

Fax: +86 10 5925-8588

*Thank You!*

**Microsoft**

Microsoft (China) Corporation Ltd.  
19F Hyundai Motor Tower  
38 Xiaoyun Road, Chaoyang District  
Beijing 100 027, PR China

**Microsoft**

<http://www.microsoft.com/industry/manufacturing/default.aspx>



**OSIsoft**



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