

# BPM, SOA, and Multi-Channel Integration in Banking

November 30<sup>th</sup>, 2006

Neal Cross

[nealc@microsoft.com](mailto:nealc@microsoft.com)

Microsoft Corporation

# Agenda

- Vision for the Future
- Foundations
  - Conceptual Frameworks, Solution Architectures, and Design References
  - Open Standards
- Applying Technology to Multi-Channel Processes
  - Customer Service
  - Sales
  - Performance Management
  - IT Operations

# Bank of the Future

# Key Technologies in Financial Services



**Next Generation Collaboration and Digital Rights Management**

**Information Integration**

**Web Service-based Value Chain Applications**

**High Performance Computing and Data Mining**

**Enterprise Identity Management**

# Mission Critical in Banking

- **London Stock Exchange** – [97,000 terminals receiving real-time Market Data](#)
- **SWIFT** - [Gold Certified](#)
- **Central Bank of Spain** - [High Value Payments](#)
- **CheckFree** – [1000 tps and 24% less TCO](#)
- **Nasdaq** – [Market Data Service](#) handles 5,000 tps at market open
- [70 percent of all new ATMs shipped are Windows-based](#)
- **Banco Azteca** - [64-bit Platform for Bank's Core Transactions](#)
- **Equifax** - [move to Windows Datacenter and .NET saved millions](#)
- **Citigroup** – [CitiVision Integrates 270 Different Sources of Information for 12,000+ Global Investment Bankers](#)
- **SAP** [Core Banking Benchmark](#) 8,279,000 postings to bank accounts per hour
- **Nationwide** (UK) - [Basel II Compliance Solution](#) with SQL 2005 consolidating 80 different systems data and storing for 7 years
- **Commonwealth Bank of Australia** – [CommSee Branch of the Future Solution](#)
- **SberBank** – largest bank in Russia – [all applications on SQL 60,000 docs per hour](#)
- **Bank of Montreal:** [18,000 users on .NET Smart Client for Branch \(.NET Framework\)](#)
- **Merrill Lynch:** [1-800-Merrill](#) is one .NET IVR platform that serves 75m transaction a day
- **Bank of America** automates customer call center – 18,000 agents using Microsoft [Customer Care Framework \(CCF\)](#)
- **DenizBank** – [Migrates Core Banking System to SQLServer 2005 \(64 Bit\) and .NET](#)
- **Interpay** (Netherlands) [25 TB Payment System](#)
- **JPMorganChase** – [equities trading platform](#)
- **Allstate** – [Producer Connectivity network](#) leverages .NET while helping enable [Policy Management](#) solution in record time.
- **Barclays** [Trade and Positioning System](#) processing 200 trades/sec up to 1000 trades/sec
- **First American Title Company** - [Title and Escrow System](#) consolidated 50 systems to one, 12,000 concurrent users, 64-bit capabilities
- **Citigroup** TreasuryVision - [Managing Corporate Cash Around the World](#)

# Banking Vision

- People Drive Business Success
  - Amplify their impact....
  - And you improve business results

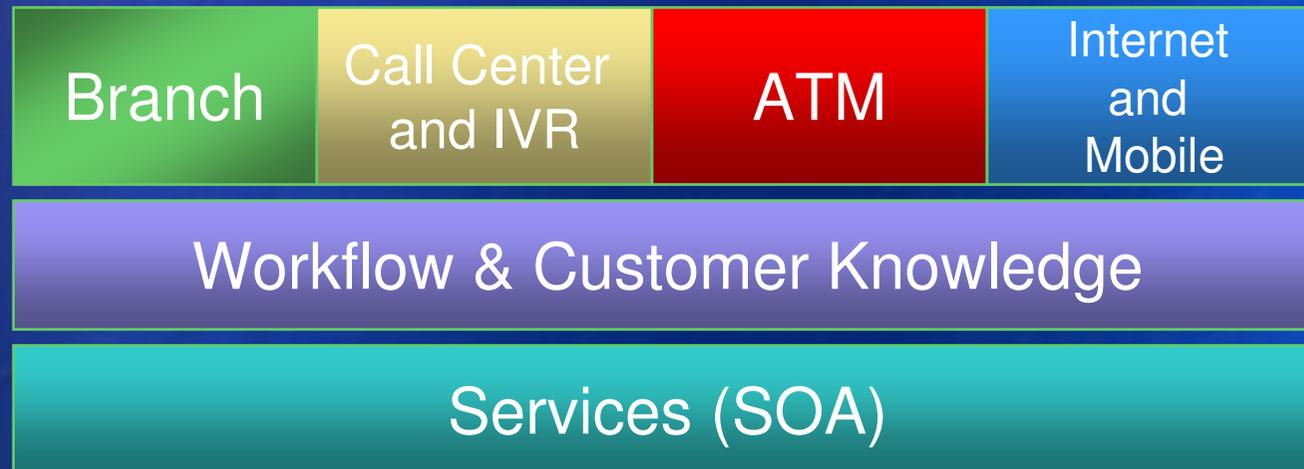
Develop Relationships	Drive Innovation	Improve Operations	Build Connections
-Attract and retain customers	-Integrated best-of-breed solutions	-Manage risk more effectively	-Cross-channel consistency
-Delight the customer thru service	-Faster time-to-market for new products	-Reduce infrastructure cost and complexity	-Quickly introduce new channels
-Increase the value of customers	-Effective collaboration across teams and across enterprises	-Speed the execution of business processes	-Smart Sourcing across the value chain

Familiar Microsoft Applications & Tools



# Channel Renewal Vision

- Make your investment in renewing one channel a potential investment in all channels
  - Reusable business components across channels
  - Improved customer experience



# Context

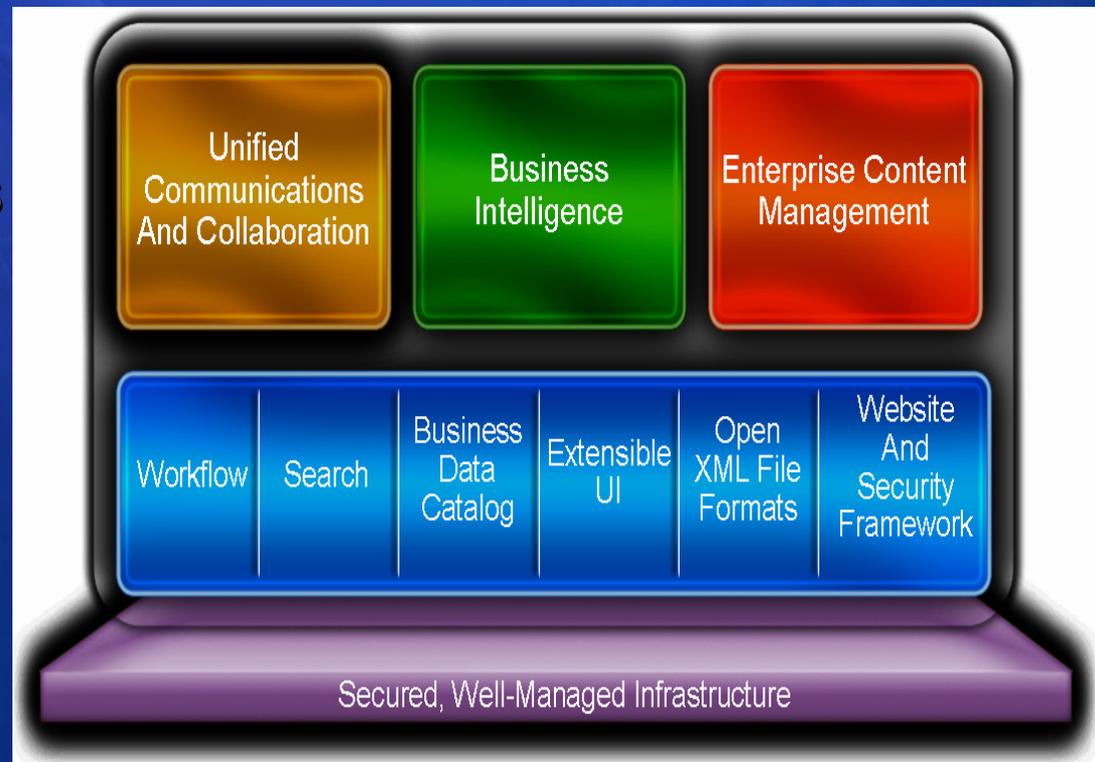
- The road to service-oriented architecture
  - Dream of faster, cheaper, easier integration
  - WS-\* makes service orientation practical
  - Industry interoperability
- Microsoft role
  - Industry catalyst
  - Broad products and tools support
  - Developer ecosystem and skills
- Results
  - Faster, easier, cheaper integration
  - Agility, Time-to-value
  - Successful customers “snowball”

# SOA, BPM and Multi-Channel Integration shift the way we think

Traditional Applications	Service-Oriented Architecture
Designed to last	Designed to change
Tightly coupled	Loosely coupled, agile and adaptive
Integrated silos	Composed of services
Code-oriented	Process-oriented
Long development cycle	Interactive and iterative development
Cost centered	Business centered
Favors homogeneous technology	Favors heterogeneous technology

# Each solution must begin with the end in mind

- Architected for Mobility
- Architected for Events and Search
- Architected for Interoperability and Extensibility
- Architected for Commoditization
- Architected for Technology Change



# Why Does Process Matter?

How do I improve customer retention?

How do I shorten my order fulfillment process lifecycle?

How do I comply with regulatory mandates?

How do I reduce costs thru effective outsourcing?

How do I create new automated processes from my existing legacy applications?



How do I reduce the time required for processing a loan?

# The Next Era of Process Automation

- ✓ *Both human and system centric processes*
- ✓ *Broad reach - tools everyone already uses*
- ✓ *High ease of use & productivity*
- ✓ *Lowest TCO*

**“People-Ready  
Processes”**

**“System-centric  
Processes”**

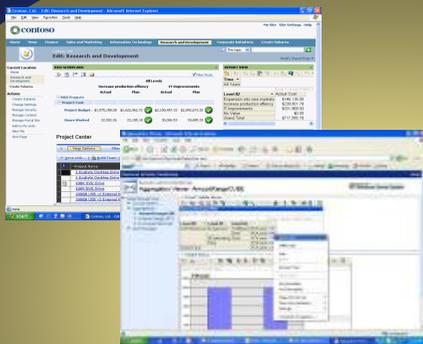
**“Document-centric  
Processes”**

- ✓ *System & application processes*
- ✓ *High throughput and scalability*
- ✓ *Specialized development tools*
- ✓ *High complexity*

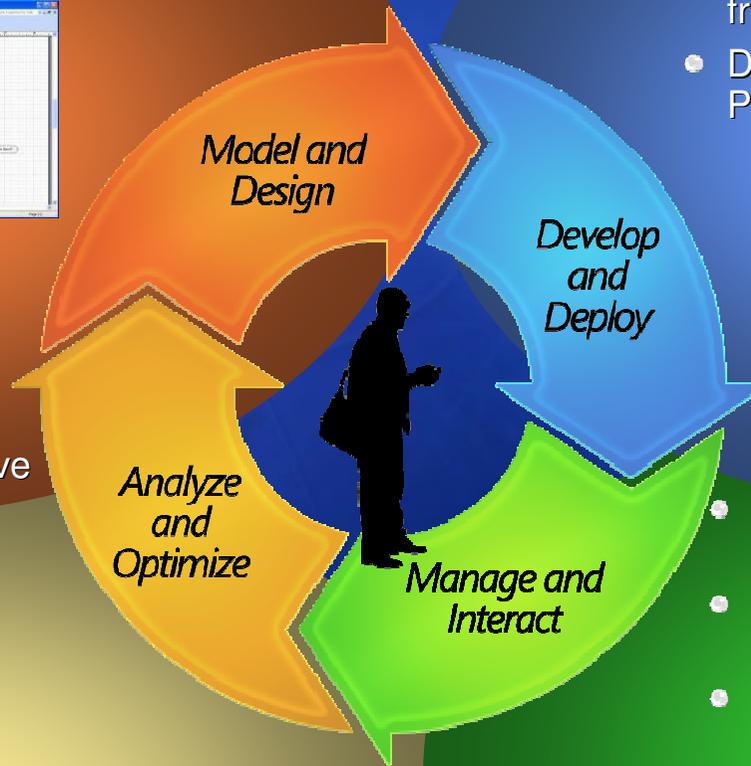
- ✓ *Scanning of paper forms*
- ✓ *Document and content management*
- ✓ *Specialized portal and task/workflow*
- ✓ *High complexity*

# People-Ready Processes

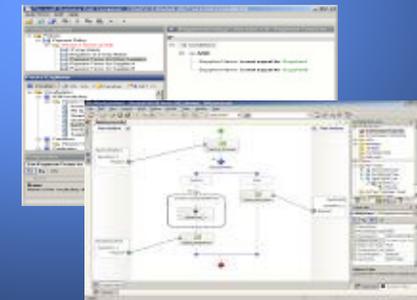
- Business Process Modeling and Documentation
- Visual Design of Electronic Forms
- Visual Design of Collaborative Applications



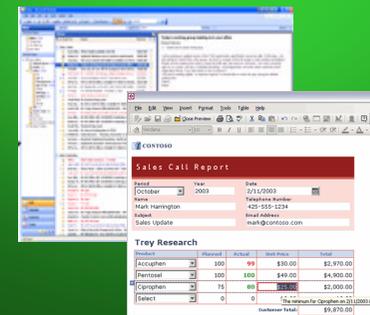
- Real-time Tracking of End-to-end Business Process Performance
- Management Visibility into Business Process Performance
- Real-time Process Optimization



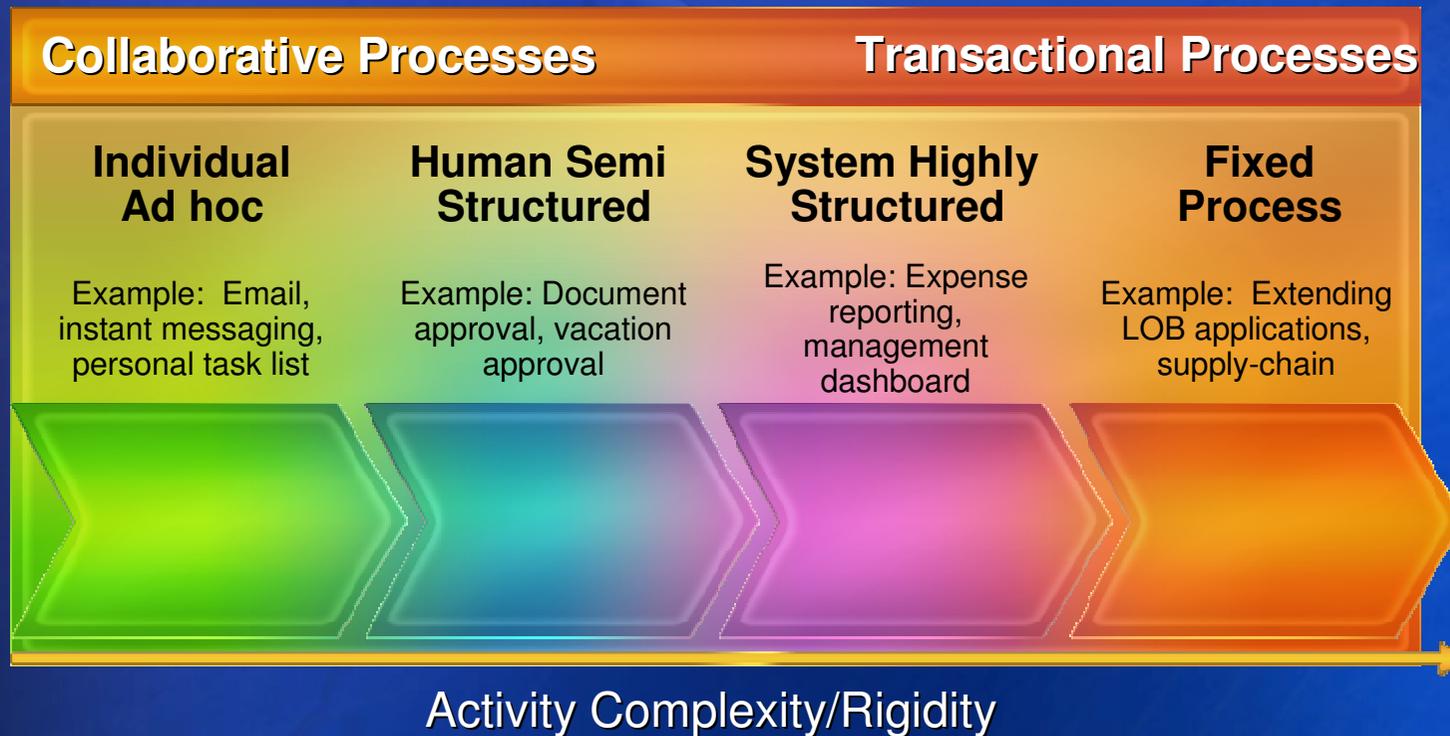
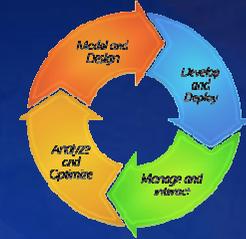
- Development of Business Processes
- Develop new composite processes from reuse of existing systems
- Deployment of Highly Distributed Processes



- Intuitive end-user task interaction thru Office
- Interaction with Collaborative Processes
- Effective Management and Control of Distributed Processes



# Breadth of Processes



## Slide 14

---

### PJW2

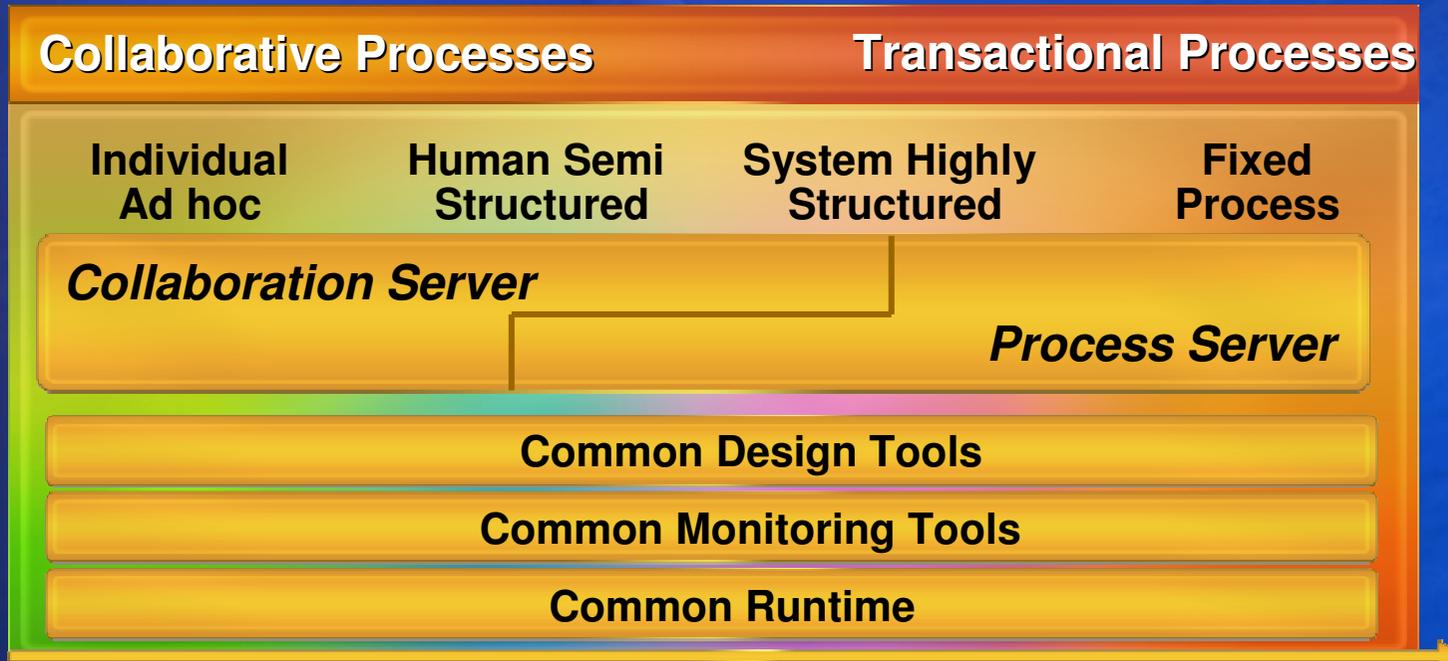
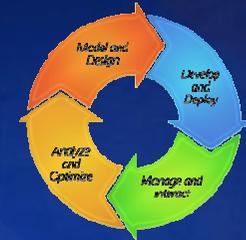
Reuse the yellow arrow from slide 5 to show this is the same section, then transition it in to the 4 color arrow at the bottom. You're showing it's the same thing, but you're drilling down now.

Each of the boxes needs to be connected in to one big rectangle. there should be no lines between them. The green, blue, magenta, yellow need to all blend in to each other instead of being distinct from each other.

Animate the yellow arrow from the beginning, transition in to he arrow that is in 4 pieces, then the 4 pieces fly in to their respective boxes.

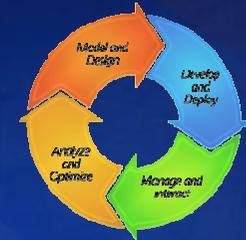
Paula White, 8/03/2006

# Breadth of Processes



User Capability

# Business Process Management System (BPMS)



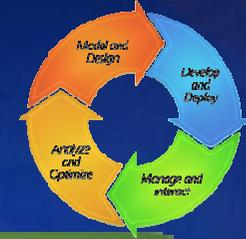
Microsoft Office  
Fixed Process

Individual Ad hoc    Human Semi Structured    System Highly Structured    Fixed Process

SQL SERVER 2005

Microsoft Windows Server  
Windows SharePoint Services    Microsoft .NET Framework  
Windows Workflow Foundation

# Partners Deliver Full Customer Solutions



Partner Offering

Partner Offering

Partner Offering

Partner Offering

Partner Offering

End-to-End Customer Solution

Development Capability

Microsoft Office InfoPath 2007  
Microsoft Office SharePoint Designer 2007  
Microsoft Office Visio 2007  
Microsoft Visual Studio

User Capability

Individual Ad hoc	Human Semi Structured	System Highly Structured	Fixed Process
-------------------	-----------------------	--------------------------	---------------

SOA & Process Capability

Microsoft Office SharePoint Server 2007  
Microsoft BizTalk Server 2006

Data & BI Capability

Microsoft SQL Server™ 2005

Microsoft Windows Server™  
Windows SharePoint Services  
Microsoft .NET Framework  
Windows Workflow Foundation

# Multi-Channel Integration

# Microsoft BPM Roadmap

- Radical gains in productivity thru advances in model-driven development and management
- Rich business process modeling and simulation for the business analyst
- Further advance and integrate the use of Windows Workflow Foundation
- Continued commoditization of low-level integration

*Beyond*



- Human centric workflow delivered in SharePoint and accessible across Office System
- Common workflow solutions and activities out of the box; customizable through SharePoint Designer



- .NET Framework 3.0 includes new Windows Workflow Foundation framework & tools
- Support for Windows Vista, Windows XP and Windows Server 2003



- Native interoperability with WinFX applications
- Integration with Microsoft Office SharePoint Server
- Federated processes across trading partners and devices

*2007*

*2006*



- Office integration thru SharePoint Adapter
- Adapters expose processes contained within LOB applications
- Visibility to end-to-end processes through Business Activity Monitoring

# Multi-Channel Integrations Connected Systems

- Microsoft has a strong point-of-view for the future of the multi-channel financial experience
  - Connected Systems
    - Re-usable services as the architectural core of the enterprise
    - Standards based (WS-\*) and interoperable (WS-I)
    - Securely leveraged across channels and devices
  - Operational Excellence in Core Infrastructure
    - Distributed deployment, centralized management
    - “Design for Operations”
    - Drive down total cost of ownership (TCO) thru integrated infrastructure

# Multi-Channel Integrations Connected Systems

## Connected Systems

Integrated tools and modeling



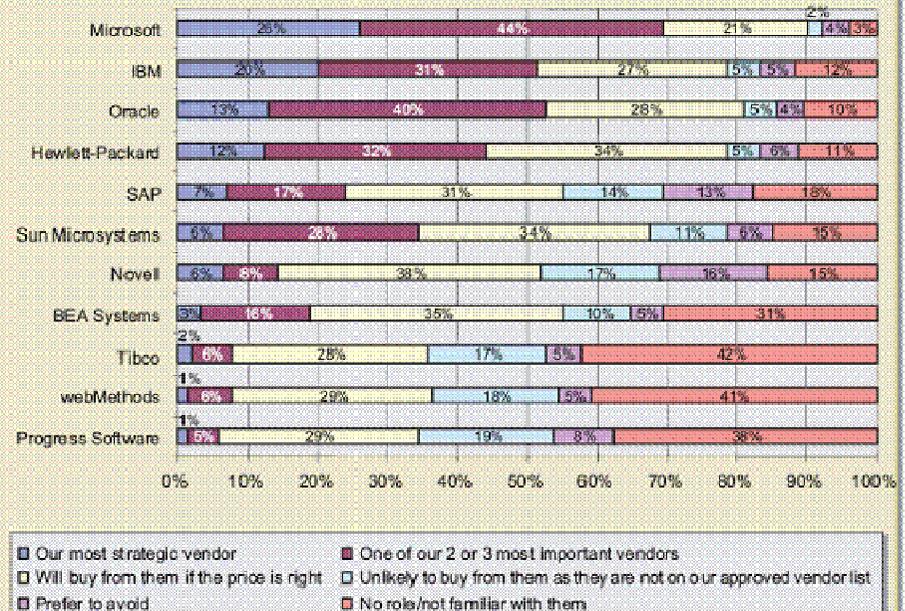
Integrated management and governance

# Multi-Channel Integrations Connected Systems

- Among infrastructure software vendors, the Microsoft Platform is considered the most strategic choice for implementing SOA, BPM, and Multi-Channel Integration.

Despite its many strengths, IBM faces plenty of competition from Microsoft, Oracle, Hewlett-Packard, SAP and others to win its share of the growing SOA and Web services market.

What role will the following infrastructure software vendors play in helping your organization implement its Web services and SOA strategy over the next 1-3 years? (Please select ONE response in EACH ROW.)



All enterprise N=154

Source: Ovum Summit, [www.summitstrat.com](http://www.summitstrat.com)

# Multi-Channel Integration

identify where you are

identify where you want to be

## Basic

- Bank IT staff taxed by operational challenges
- Users come up with their own IT solutions

- IT processes undefined
- High complexity due to localized processes, & minimal central control
- ATM, IVR, Branch channels not integrated

- Patch status of desktops and ATMs is unknown
- No unified directory for access management
- Branch bandwidth usage not optimized

## Standardized

- IT Staff trained in best practices
- Users expect basic services from IT

- Central Admin & config of security
- Standard desktop and ATM images defined, not adopted company-wide

- Multiple directories for authentication
- Limited automated s/w distribution
- Compression and caching used for some branches

## Rationalized

- IT Staff manages an efficient, controlled environment
- Users have tools they need, high availability, & access to information

- SLA's are linked to business objectives
- Clearly defined and enforced images, security, best practices
- Cross-channel integration

- Automate identity and access management
- Automated system management
- Optimal branch connectivity

## Dynamic

- IT is a strategic asset for the bank
- Users look to IT as a valued partner to enable new business initiatives

- Self assessing & continuous improvement
- Information easily & securely accessed from anywhere on Internet

- Self provisioning and quarantine capable systems ensure compliance & high availability

people

process

technology

# Multi-Channel Integrations Office Business Applications

## Front-end business applications with familiar UI

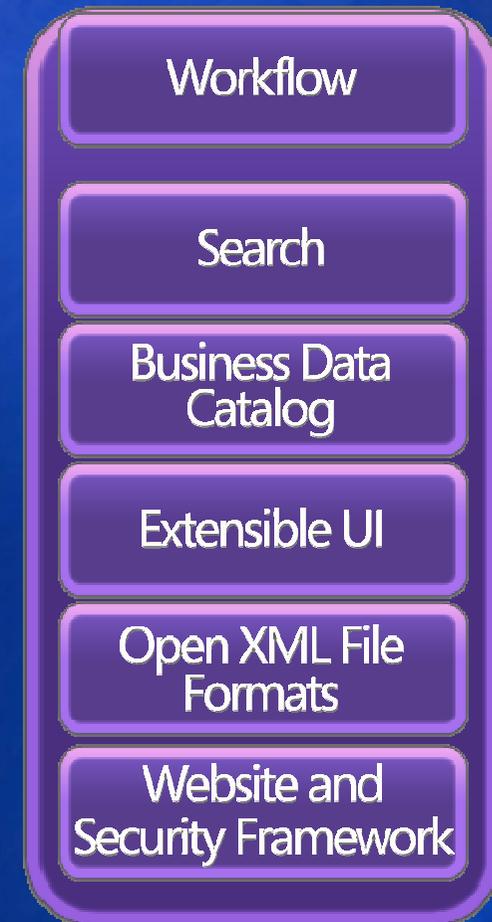
- Custom Ribbon and task panes
- Open XML file formats for file manipulation

## Connect users to processes and data

- Extensible workflow based on Workflow Foundation
- Business Data Catalog for data integration
- Extensible search across content types and repositories

## Speed solution development

- Reusable client & server components
- Single framework for all types of web sites
- Bring together Microsoft, partner, and custom applications and services to create Office-based composite applications



# Conclusion

## ● Microsoft

- Has a clear technology vision to enable SOA, BPM and multi-channel integration
- Has the right set of technology, solutions, and tools to help you bring this vision to life
- Has a rich partner ecosystem with deep financial expertise to provide products that add value on top of our platform

Are your **people**  **ready?**

# **Microsoft®**

*Your potential. Our passion.™*

© 2006 Microsoft Corporation. All rights reserved. Microsoft, Windows, Windows Vista and other product names are or may be registered trademarks and/or trademarks in the U.S. and/or other countries.

The information herein is for informational purposes only and represents the current view of Microsoft Corporation as of the date of this presentation. Because Microsoft must respond to changing market conditions, it should not be interpreted to be a commitment on the part of Microsoft, and Microsoft cannot guarantee the accuracy of any information provided after the date of this presentation. MICROSOFT MAKES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE INFORMATION IN THIS PRESENTATION.