



| WebSphere Live for SOA

## SOA Flexibility in Action:

New Product Announcements from IBM WebSphere Software

**DRAFT**

| *SOA on your terms and our expertise*

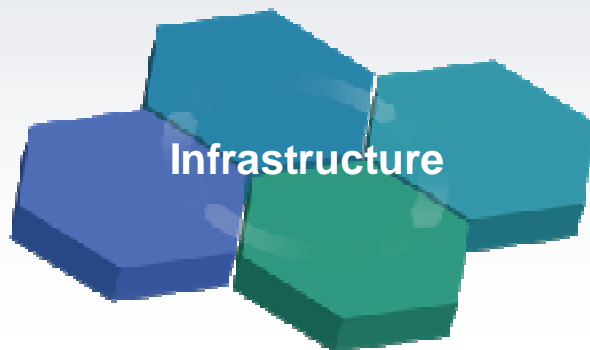


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# Announcing new products to strengthen your SOA Foundation

## ***New and enhanced products from IBM WebSphere software***

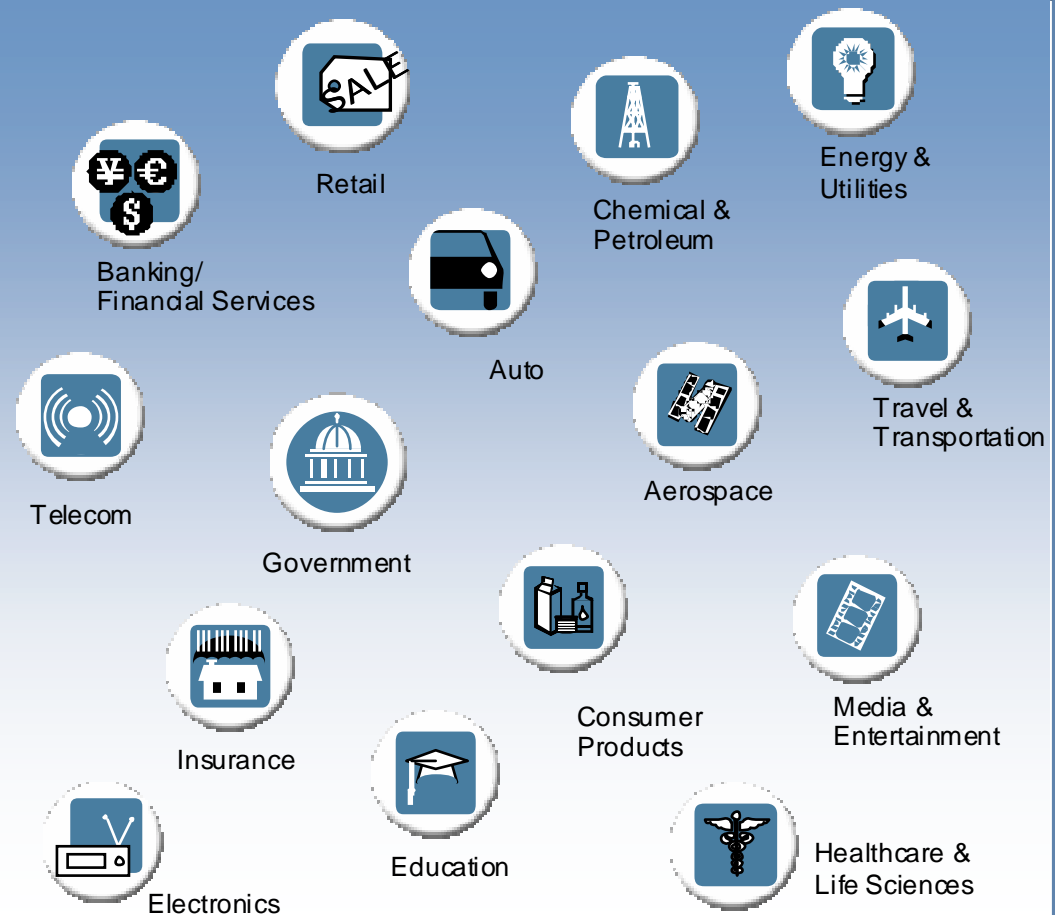
- End-to-end capabilities enabling you to model, assemble, deploy and manage business processes
- Enhanced deployment capabilities enabling you to:
  - ▶ Extend your SOA resources and processes to users anywhere, anytime, through role-based user-friendly interfaces
  - ▶ Leverage an Enterprise Service Bus (ESB) to integrate applications and services across your organization and beyond with ease
  - ▶ Extend high-performance, proven application environment assets to your SOA



# SOA flexibility in action

*Think of a specific business challenge across your value chain*

- Multi-channel access
- Unified view of customer
- New product or service delivery
- Supply chain optimization
- etc...



***Today's illustration: Multi-channel access in a retail environment...***

## Customers demand service

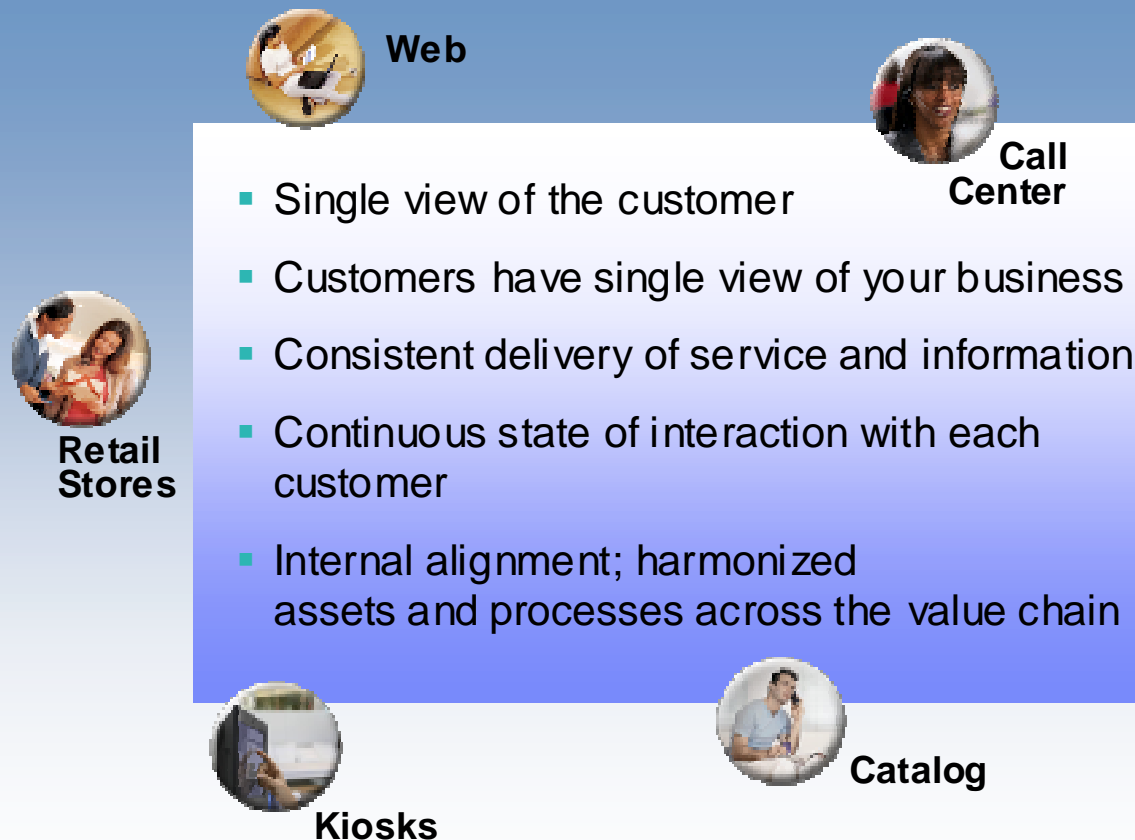
*When they want, where they want, and how they want...*





# Need to provide a seamless customer experience...

*Businesses need tightly integrated channels and touch points*



**...Creates a ripple effect in your organization**

## Let's look at a specific example – gift registry



## Their friends shop for gifts when and how they want

*Their friend Sue is shopping in the store on Monday AM...*



*Their friend Bob is calling the catalog from work during lunch...*



*And their friend Lil is shopping on-line at 3 AM...*



**...And Sue, Bob and Lil don't buy Jim & Jane the same gift**

## Key suppliers and partners support G-tailer

***Kitchen-Inc keeps  
G-tailer supplied with the  
must-have yellow mixer***

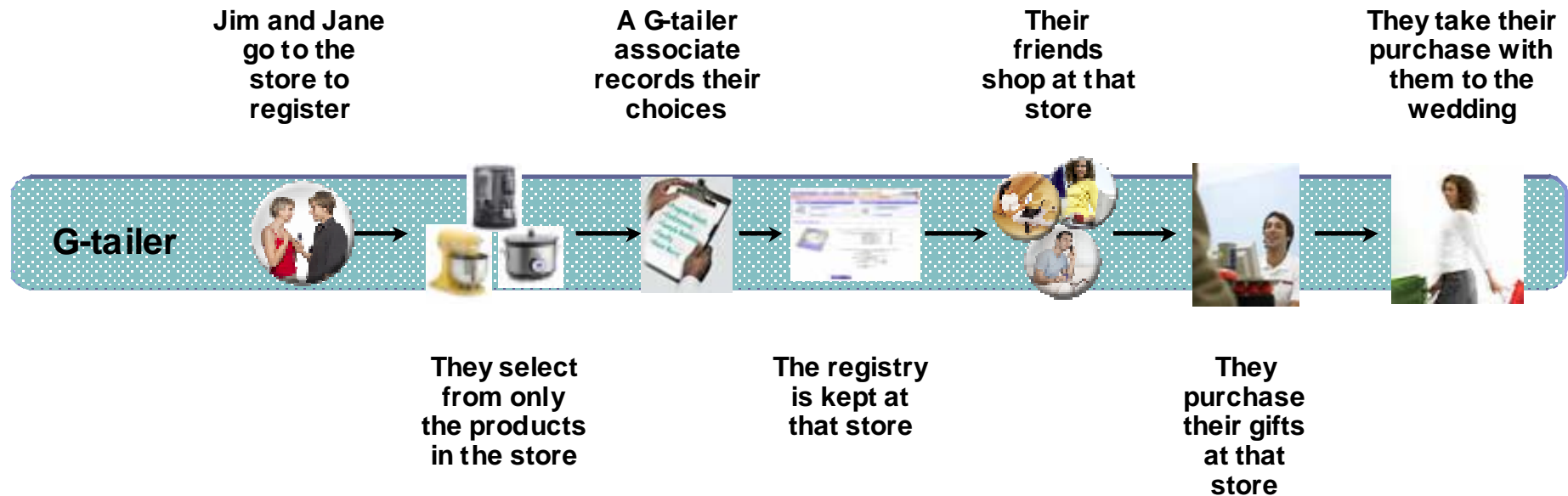


***Shipper enables G-tailer  
to deliver gifts wherever  
the customer wants***



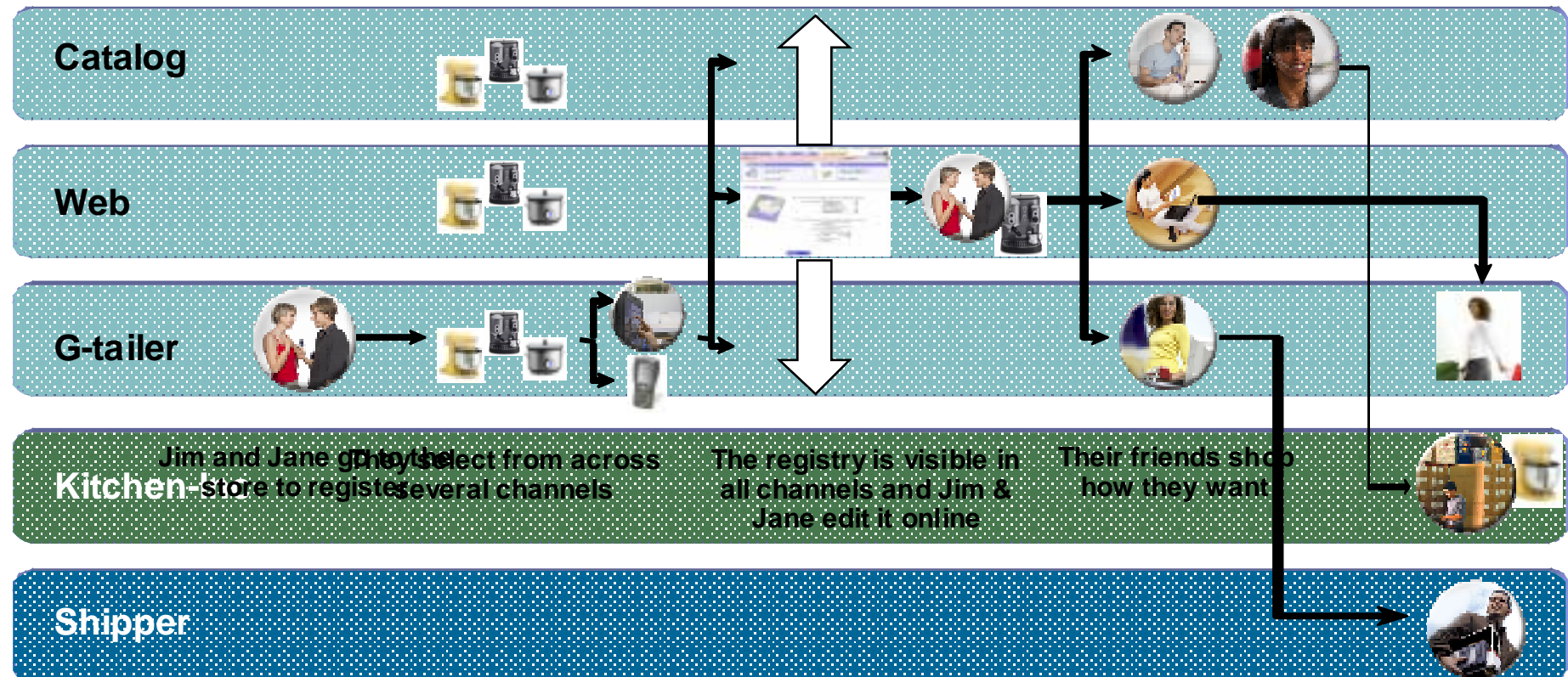
# Let's take a closer look at the supporting processes

*Gift registry and shopping used to only happen at the store*



# But now it has gotten a lot more complex...

*Adjust business processes to share functions in new ways*



## Business challenges to creating multi-channel access

### *Breaking through organizational silos...*

- Identifying disconnected and redundant tasks in different channels
- Matching business processes and rules across channels
- Synchronizing product information, images and promotions across channels
- Synchronizing customer information across channels
- Seamlessly integrating cross-channel operations

## IT challenges to creating multi-channel access

### *Breaking through IT silos...*

- Reconciling redundant applications and resources
- Connecting applications and systems across the organization and beyond
- Establishing an integrated infrastructure that supports new, refined and ever-changing business rules and requirements
- Delivering flexible and efficient interfaces to people throughout the organization and beyond
- Synchronizing information across the organization and business partners

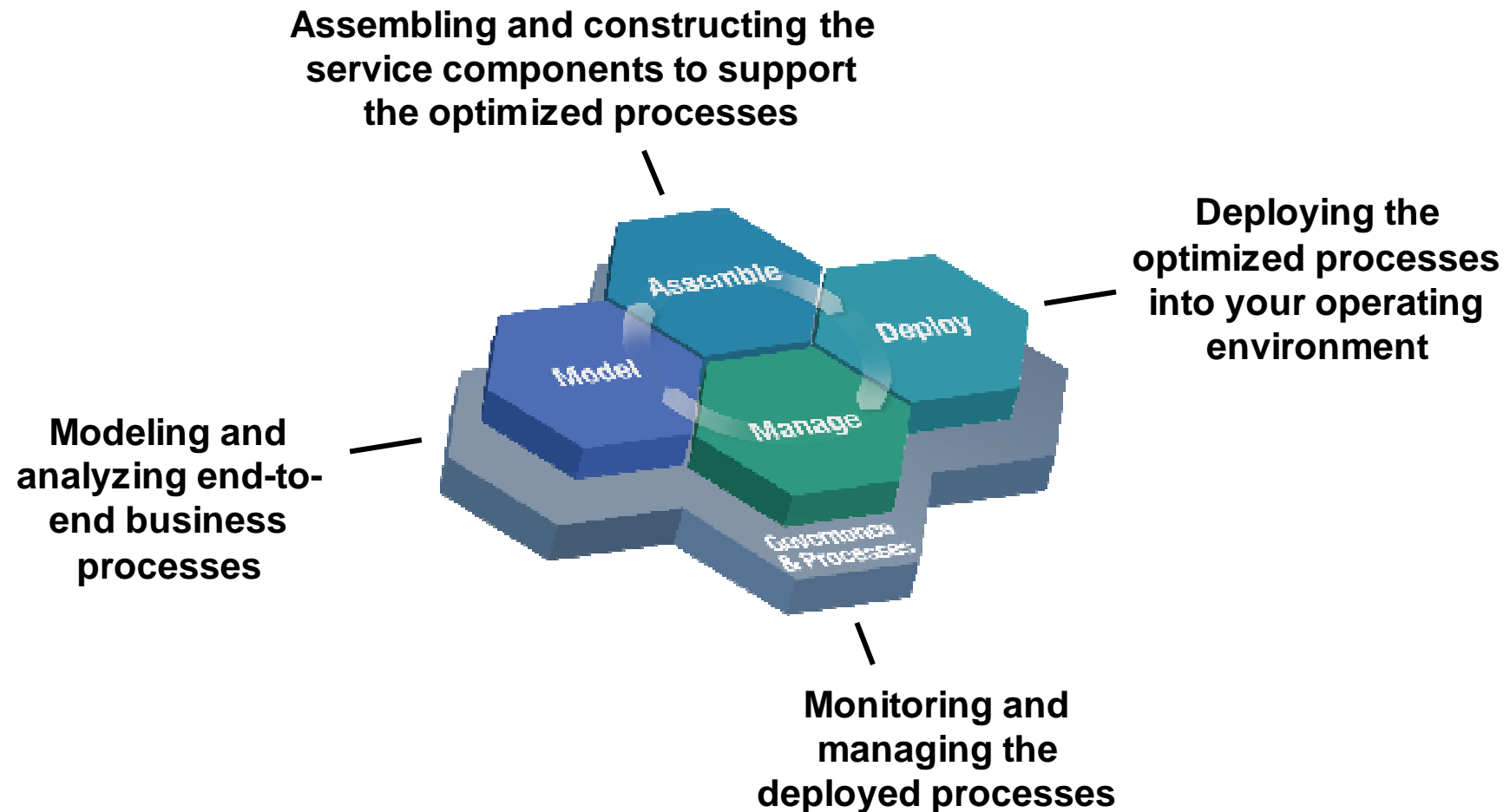


## All while facing the demands of an on demand business

- Need to respond quickly to evolving competitive pressures and customer demands
- Ever-changing global supplier and distribution networks
- Demand for 24X7, rapid service
- Need to deliver new functionality without break in current service
- Significant investments in existing, proven IT applications and systems depended on to run the core business

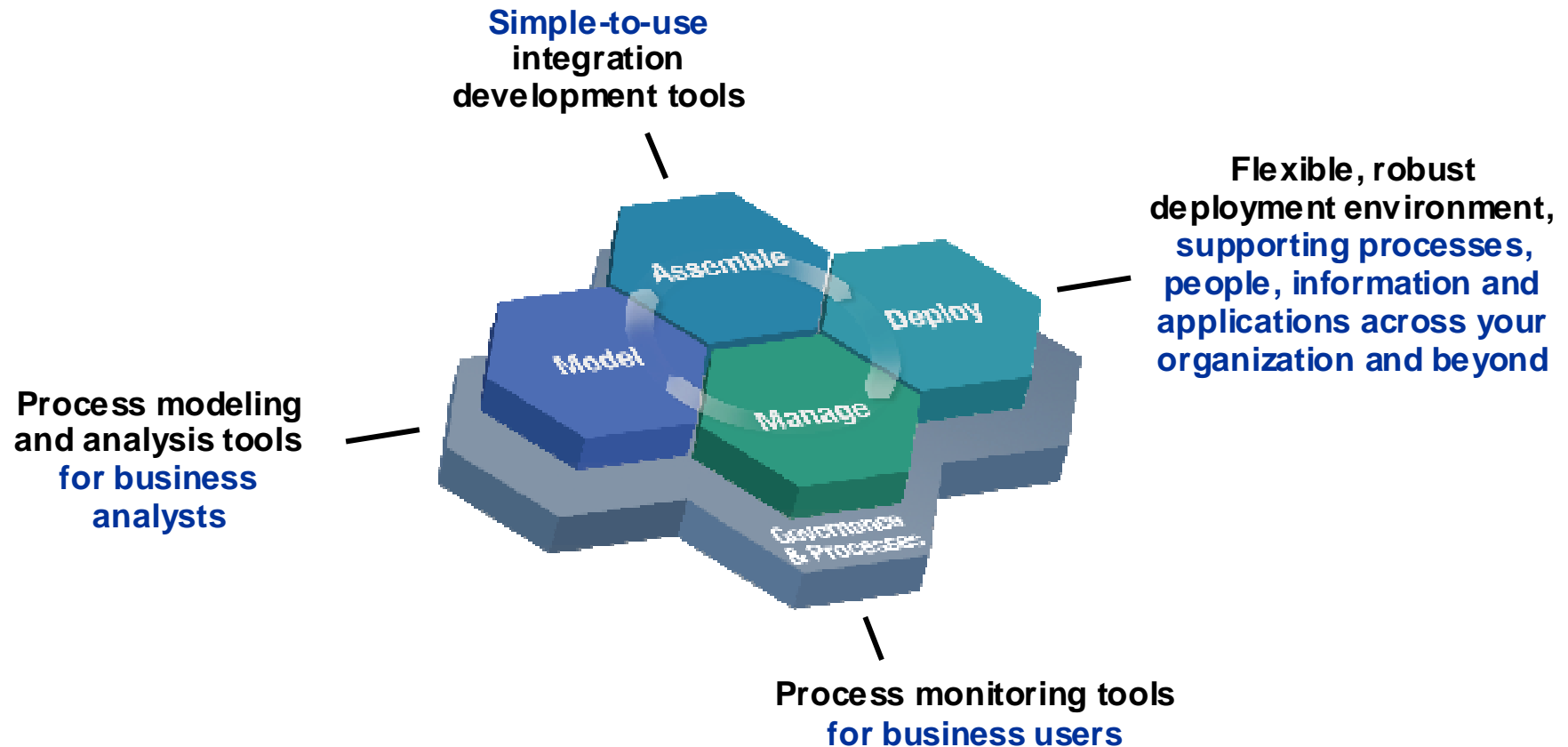
**Requires the flexibility of SOA - to stay ahead of the curve while keeping costs in check**

# SOA Foundation strategy starts with business processes management



# IBM WebSphere Software and SOA

*Helping you address today's challenges and improve your flexibility for tomorrow*



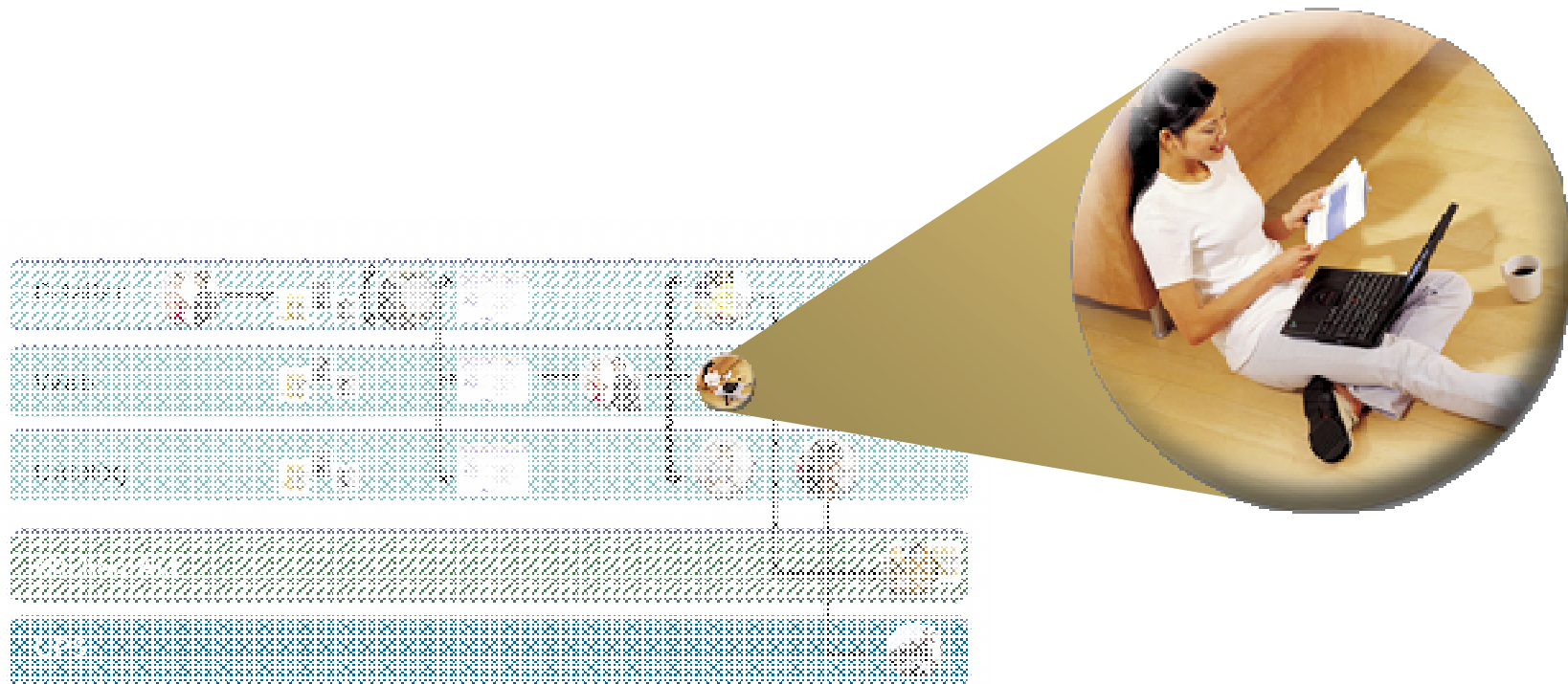
***End-to-end business process capabilities***

***Breadth of SOA deployment capabilities***

**WebSphere** software

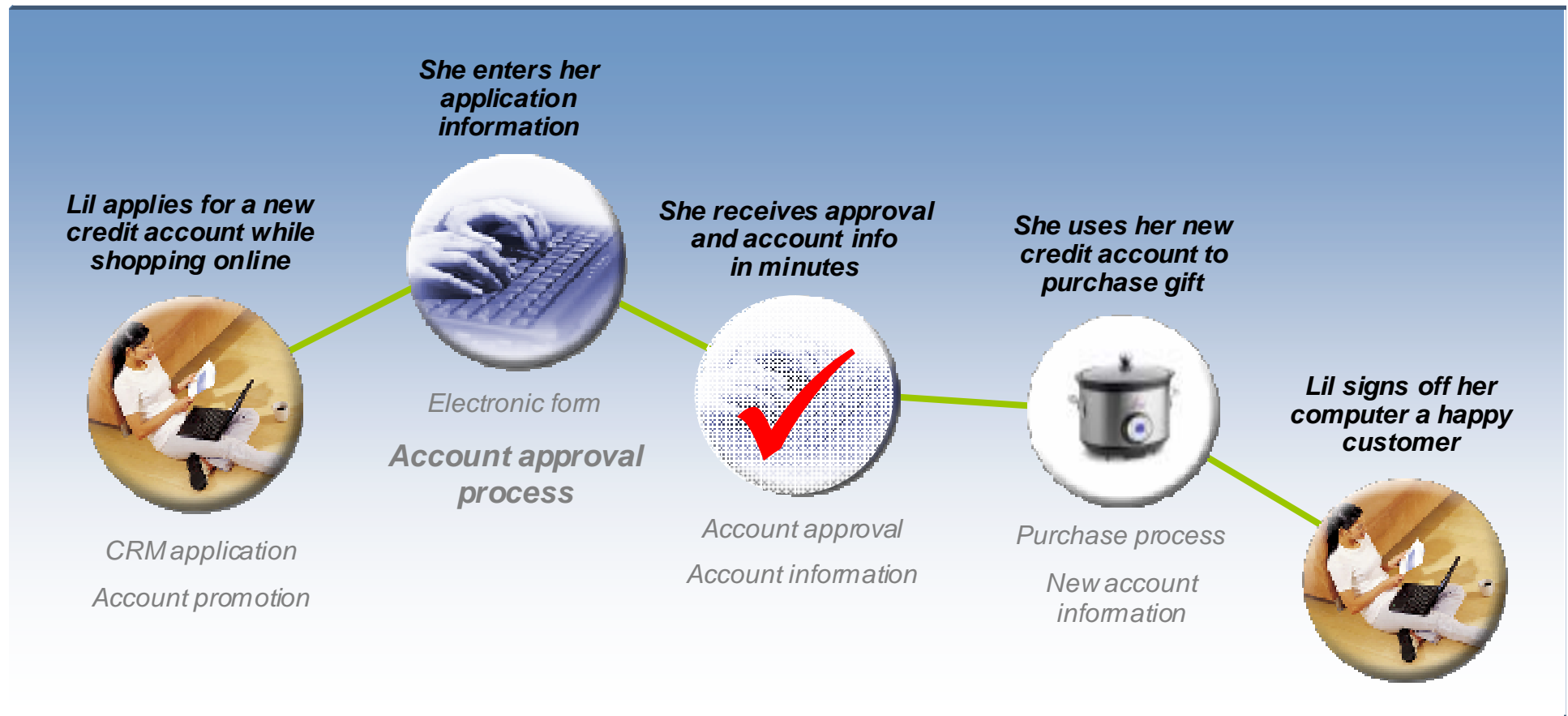
# WebSphere and SOA help address G-tailer's needs

*Let's start by taking a look at Lil shopping on the Web*



# Lil applies for a credit account with G-tailer

## *New Account Process*



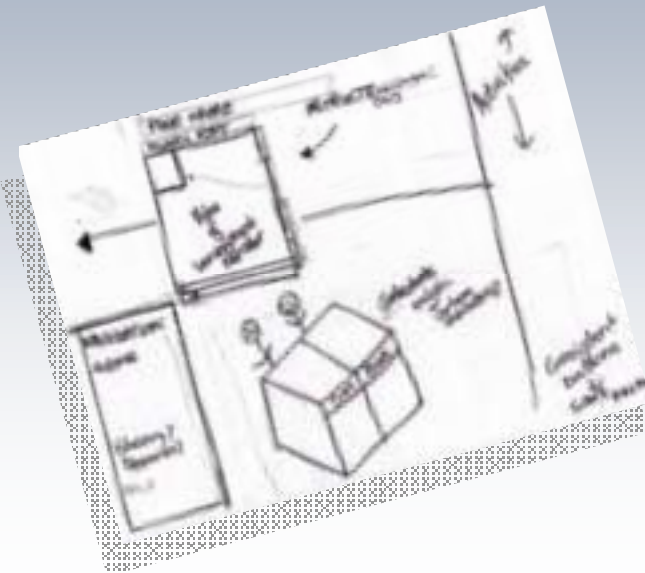
*G-tailer takes a look at streamlining the account approval process...*

## G-tailer models the account approval process



*Creating a view of what they're doing today and planning refined processes*

**One way...**



**An easier way...**

**IBM WebSphere  
Business Modeler**

*Simple-to-use business modeling  
tool for the business analyst*

# G-tailer benefits from a service-oriented approach

*With process monitoring tools for business users*

- Real-time visibility into process execution
- Ability to intervene real-time and respond with specific actions
- Ability to analyze real-time performance data to support process improvements



# Monitoring business performance across your SOA

**New!** *WebSphere Business Monitor V6*



## Real-time process execution visibility

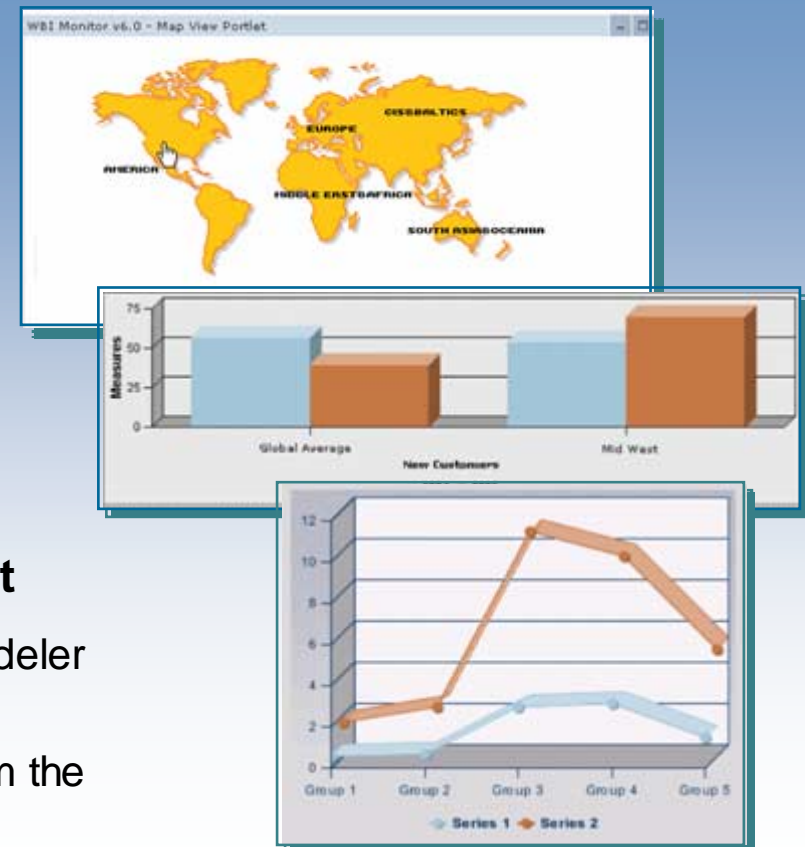
- Management dashboards and reporting capabilities, including trending information
- Tools to define or customize your dashboards

## Ability to intervene in deployed processes

- Action Manager – supporting real-time response and action as performance data is received

## Supporting continuous process improvement

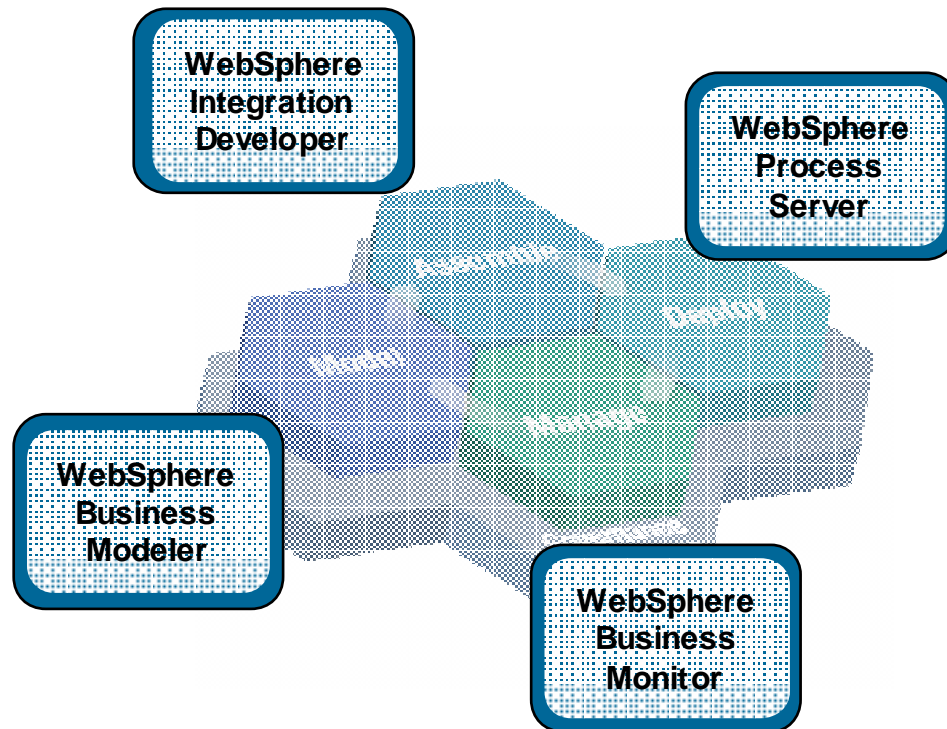
- Ability to export data to WebSphere Business Modeler for analysis and process improvement
- Run modeling simulations based on real data from the Business Monitor





# Real results from an SOA approach to processes

*End-to-end process capabilities from IBM WebSphere software...*



*...in one integrated environment*

***Leveraging the world's #1 Web Application Server and leading Portal software***

***ONLY process integration server built on an open standards based Enterprise Service Bus (ESB)***

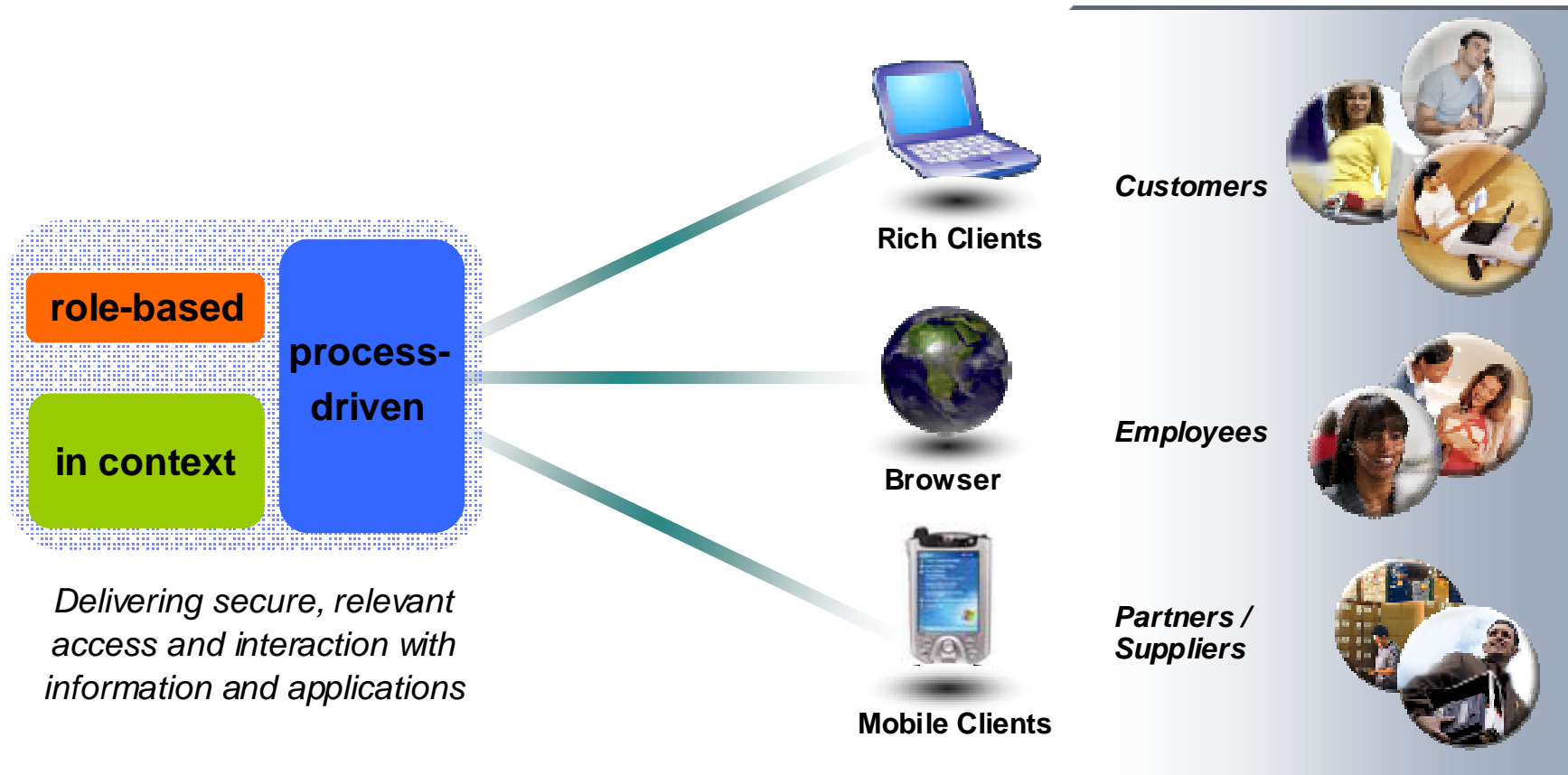
***Broadest reaching integration - over 2,800 integration end points***

## ***Large Latin American Bank:***

- Reduced time to generate customized customer offers from 1-2 business days down to minutes
- Increased customer satisfaction
- Improved employee productivity

# What about the people involved in these processes?

*How an SOA can integrate people into the process*



*How do you make their interaction with your business as seamless as possible?*

# Extending applications to remote users

*Example – delivering registry and product info to multiple in-store sites*

## Scenario:

Sue accesses and prints Jim's and Jane's registry in the store— selects a mixer to purchase



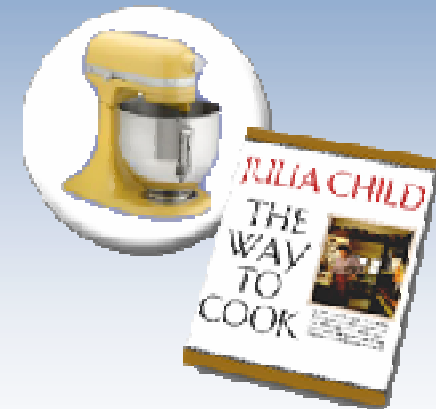
*In-store Kiosk*

Sales associate uses hand-held to pull up complementary products



*Handheld Personal Assistant*

Jim and Jane get a cookbook to go with their mixer



*Happy customers and more sales*

***Enabling customers to shop when and how they want requires access to applications and data in many places through multiple means***



# Extending your SOA to the Edge

**New!** *WebSphere Everyplace Deployment*

## Securely extending WebSphere across devices, networks and deployment topologies

- Providing advanced user interfaces “beyond the browser” to desktops, laptops, mobile and embedded devices
- Enabling business process workflows across the value chain

## Improving employee productivity

- Increased process availability via disconnected operations
- Improved information velocity with access anywhere, anytime
- Delivering information to the right user, with the right interface

## Helping maximize the reuse of existing applications

- Ability to leverage applications without re-programming them for specific interfaces
- Same programming model as the rest of the WebSphere SOA family



# Real results from extending SOA to the edge

*With Everyplace solutions from IBM WebSphere software*

## **The Challenge**

Agents would transcribe information obtained on a customer call at the office, incurring extra time and transcription errors

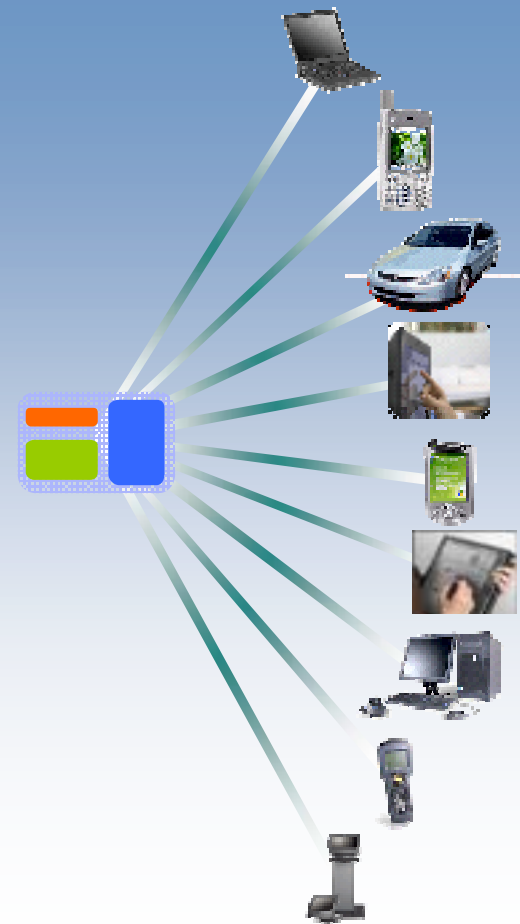


## **How they changed**

- Extended and mobilized existing application to a semi-connected mode for Field Agents
- Policy forms are posted at the end of the day

## **Real Results**

- Mobilized 70,000 insurance agents
- Eliminated time needed to transcribe forms
- Fewer errors - Improved customer experience



# Information when and how your customers need it

*Example – call center*

Will had ordered the gift through the catalog  
and had it shipped directly to Jim & Jane, but  
wanted to double-check delivery date



Calls customer service....

anytime, from any phone

speaks commands to find order  
and check delivery status



# Extending your SOA to the contact center

*Delivering automated voice interaction without adding extra resources*



**Will interacts with G-tailer's  
Automated Speech  
Recognition system**

When's the  
delivery date?



I want to  
make a  
change...

## **Enhanced! WebSphere Voice Server V5.1.3**

- Improved speech recognition accuracy and multiple language support
- Leverages WebSphere Application Server for industrial-strength reliability, scalability, manageability.



- Significant cost savings
- Average call time reduced from 3 min. to 2.5 min.
- Boost in employee morale due to focus on value-add tasks

**Save up to 90% with voice solutions  
versus live agent\***

\* Based on IBM customer experience



# Extending SOA to the user interface

*Example – customer service department*



**Decides he'd rather pick it up in the store and take it to the wedding with him**

*Relevant information and applications are accessed real-time, in a user-friendly format by the customer service agent*



**Customer and order information**

**Product inventory alert**

**Real-time collaboration with inventory personnel**

The screenshot shows a web application for 'G-tailer Inc.' with a Microsoft Internet Explorer browser window. The interface includes several panels:

- Orders for Henderson:** A table with columns for Order ID, Customer ID, Status, and Tracking ID. It lists three orders with statuses like 'DELAYED' and 'ON TIME'.
- Order Details:** A panel showing details for a specific order, including Order ID, Customer ID, Name, Address, and Contact information.
- Product Inventory Alert:** A panel with a red header and text indicating a low stock alert for 'Baby Changing Station'.
- Customer Account Information:** A panel showing details for a customer, including Order ID, Total Order, and Shipping Address.
- Shipment Tracking and Scheduling:** A panel with a 'Tracking Details' section and a 'Submit' button.
- Real-time Collaboration with Inventory Personnel:** A panel with a 'People' list and a 'Submit' button.

**Customer account information**

**Shipment tracking and scheduling application**



# Delivering composite applications 'on the glass'

*Extending your SOA assets in user-friendly, role-based interfaces*



*While you're there,  
you might want to  
check out this great  
item the store has  
to go with your gift*



**#1 in Portal market share**

(Gartner and IDC sources)

## Enhanced! IBM WebSphere Portal

### Ease of use

- Process-driven portal capabilities with support of WebSphere Process Server V6

### Ease of management

- Virtual portals and policy-driven administration

### Ease of development and deployment

- Leveraging WebSphere and Workplace software
- Standards-based composite application view

### Reduced total cost of ownership

- Choice of platforms and clients/devices: now supporting zSeries and iSeries
- Reuse of SOA components across customer, employee, and partner/supplier environments

# Real results from IBM WebSphere software

*Extending SOA to the user interface at Volkswagen*

**Drivers wanted:**



## ***The Challenge***

Improve the productivity of procurement department

## ***The Solution***

- On Demand Workplace including enterprise wide portal for employees and suppliers
- Sensing, analytic and workflow capabilities
- Streamlined the way employees access and act on information

## ***Real Results***

- 20% increase in staff productivity
- Significant decrease in supplier and inventory costs
- Expect 100% payback within a year
- Reuse of portal platform for every kind of portal (B2X)

## G-tailer links with its supplier

*Ensuring that popular yellow mixer is in stock when and where needed*

***The yellow mixer is flying off the shelf***



***Kitchen-Inc can see into G-tailer's inventory system and notes the low stock levels***



***Near real time inventory system displays the low stock levels***



***Kitchen-Inc responds by shipping G-tailer more yellow mixers***



How can G-tailer seamlessly connect with its partner and track items in real-time?

# Extending your SOA beyond the enterprise

*Flexibly connecting with partners across your value chain*



## **Enhanced! WebSphere Partner Gateway V6**

### **Faster and easier integration with partners**

- Native Electronic Data Interchange (EDI) support
- Enhanced transformations - transform data between ROD, XML and EDI formats
- FTP Scripting support

### **Enhanced ease of use in viewing partner information**

- Enhanced console features for EDI documents
- Enhanced document handling, including document reprocessing and document splitting

### **Improved robustness and integration flexibility**

- Built to run on the leading WebSphere Application Server V6

# Extending your SOA to Sensors and Actuators

*Solutions from IBM including WebSphere Premises Server*

- **Improve profits** by better forecasting and handling accuracy
- **Reduce inventories** through inventory control and storage error reduction
- **Improve supply chain** efficiencies through real-time tracking
- **Cut costs** by preventing shrinkage and product irregularities



## Challenge:

- Lack of flexibility from manual tracking prohibited increased throughput and capped profits

## Solution:

- WebSphere platform identifies and integrates parcel information across the supply chain via RFID tags

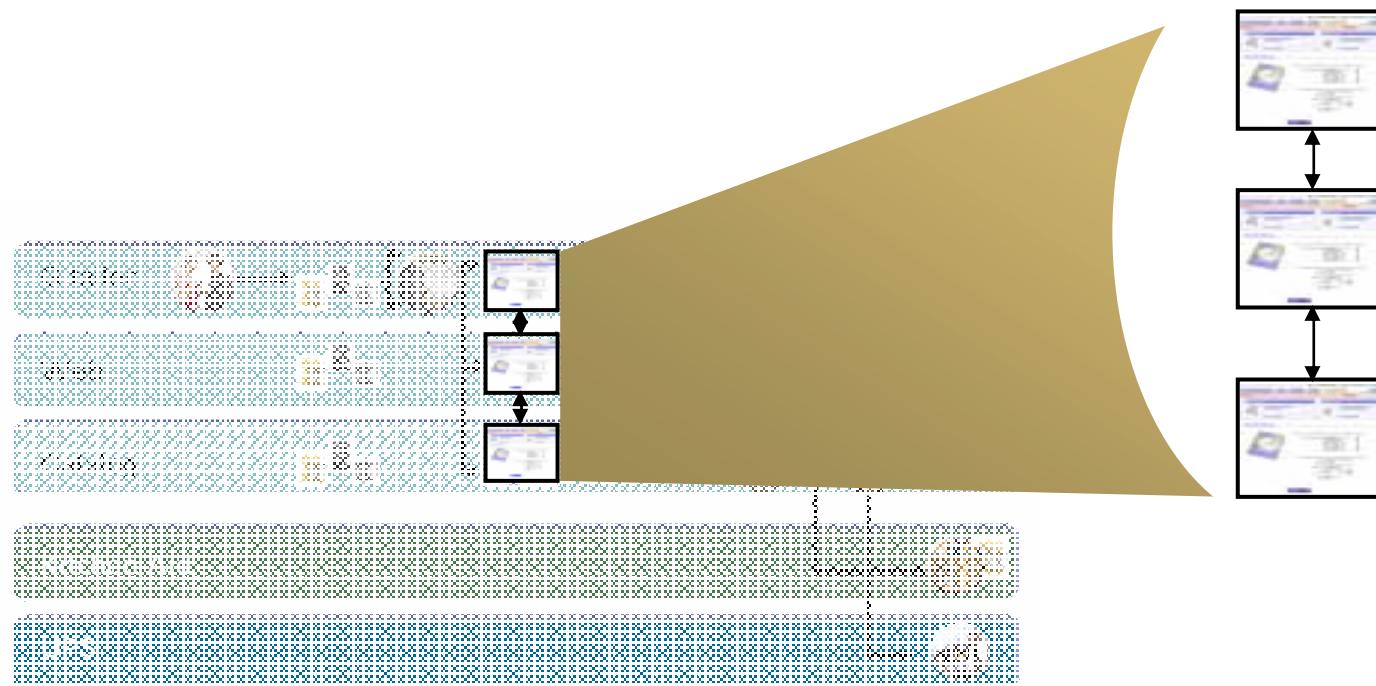
## Benefits:

- Optimized the supply chain and reduced handling costs for misdirected parcels by 30%
- Improved tracking accuracy reduced dispute resolution costs by 20%
- Increased customer satisfaction and loyalty

*...enabling back-room supply chain and in-store operations to*  
**sense and respond** *dynamically to changing consumer demand*

# Accelerating multi-channel commerce solutions

*G-tailer needs to integrate gift registry functions across channels*



# Accelerating multi-channel integration with IBM WebSphere

## *Multi-channel integration of gift registries at G-tailer*

***Sue, a loyal G-tailer customer, is looking at the registry on-line and is served a specific promotion for a juicer based on her profile***



*The web page displays the juicer perfectly for marketing purposes*



***She calls to get more information and the customer service rep (CSR) brings up the same text, picture and promotion on her portal***

***She buys herself the juicer at the promotional price when she goes to the store to buy Jim's and Jane's gift***

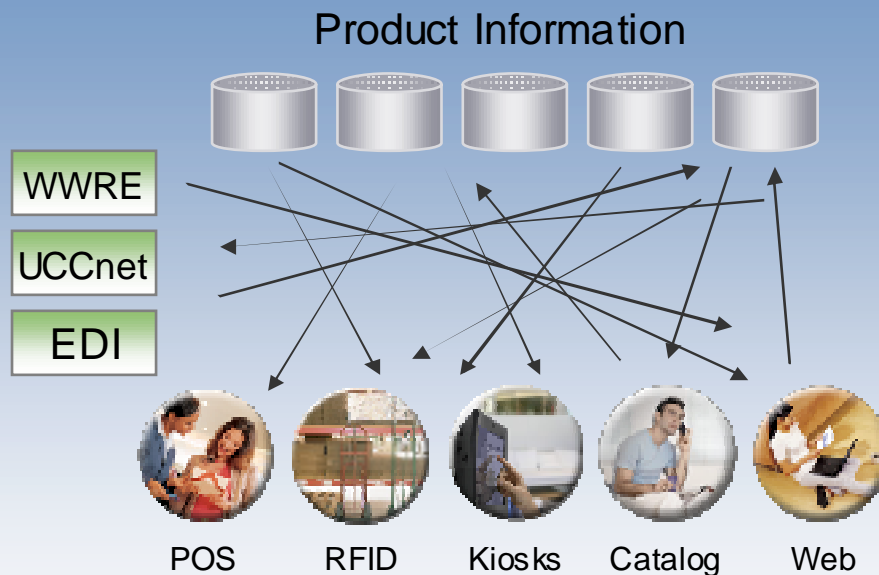


**How did each channel carry the same promotion and product information?**

# G-tailer integrates gift registries across channels

*A single platform for gift registry functionality*

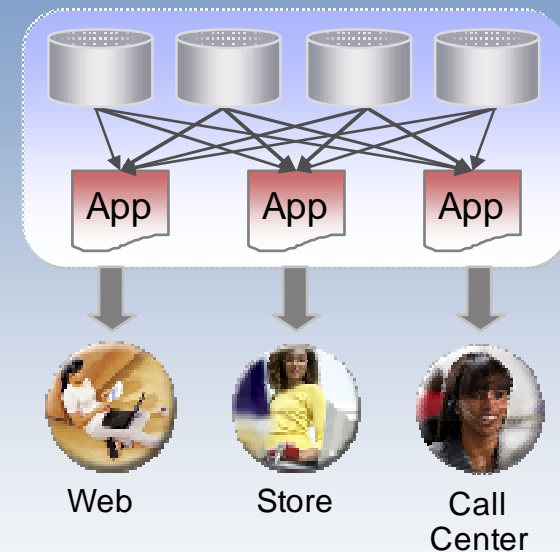
**One way...**



**An easier way...**

**IBM WebSphere Product Center**

**One way...**



**An easier way...**

**IBM WebSphere Commerce**



# Enabling integrated multi-channel retailing

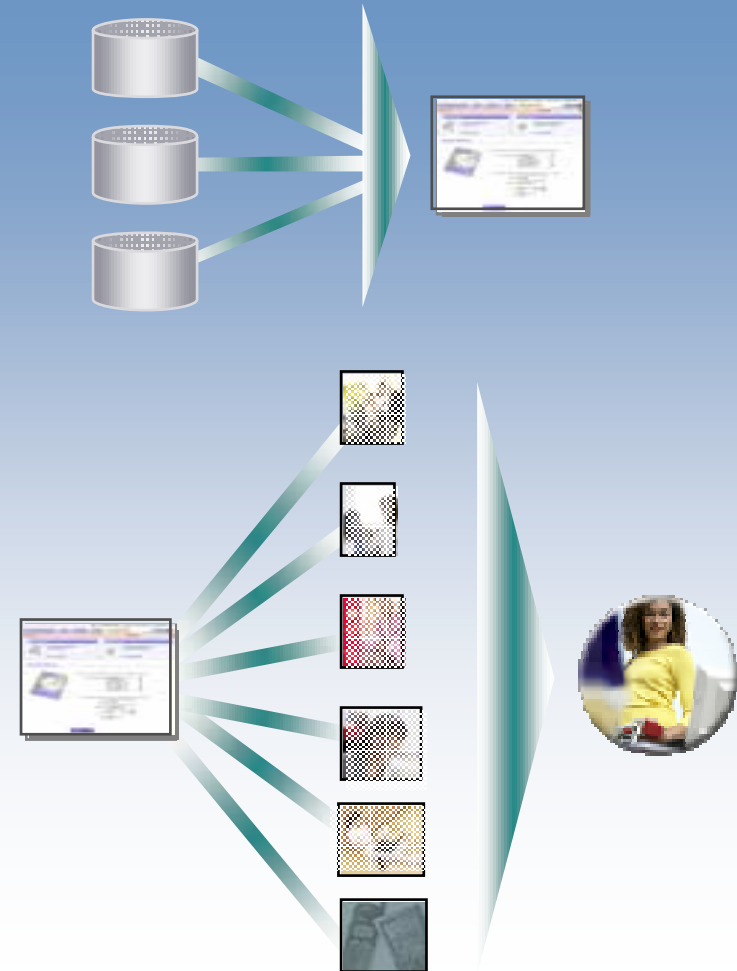
*Comprehensive solution for managing customers, products and channels*

## WebSphere Product Center

- Single source to prepare and publish product information to gift registry solution
- Control the full create-through-publish cycle
- Tools and services tailored to unique roles streamline manual processes

## Enhanced! WebSphere Commerce V5.6.1

- **New** Gift Center capability to attract new customers and increase share of wallet
- Single robust platform that powers registry for web, in-store kiosks and wireless devices
- Built on IBM's leading service oriented platform



# Real results from IBM WebSphere software

*Integrating gift registry across channels at REI*

## ***The Challenge***

Need to provide customers with a consistent gift registry experience across multiple channels and touch points

## ***How They Changed***

- WebSphere Commerce provided a single gift registry solution accessible across multiple channels and touch points
- Utilized the same catalog and transaction platform as the single “system of record” across channels
- Customers received the most up-to-date information no matter which channel they were shopping

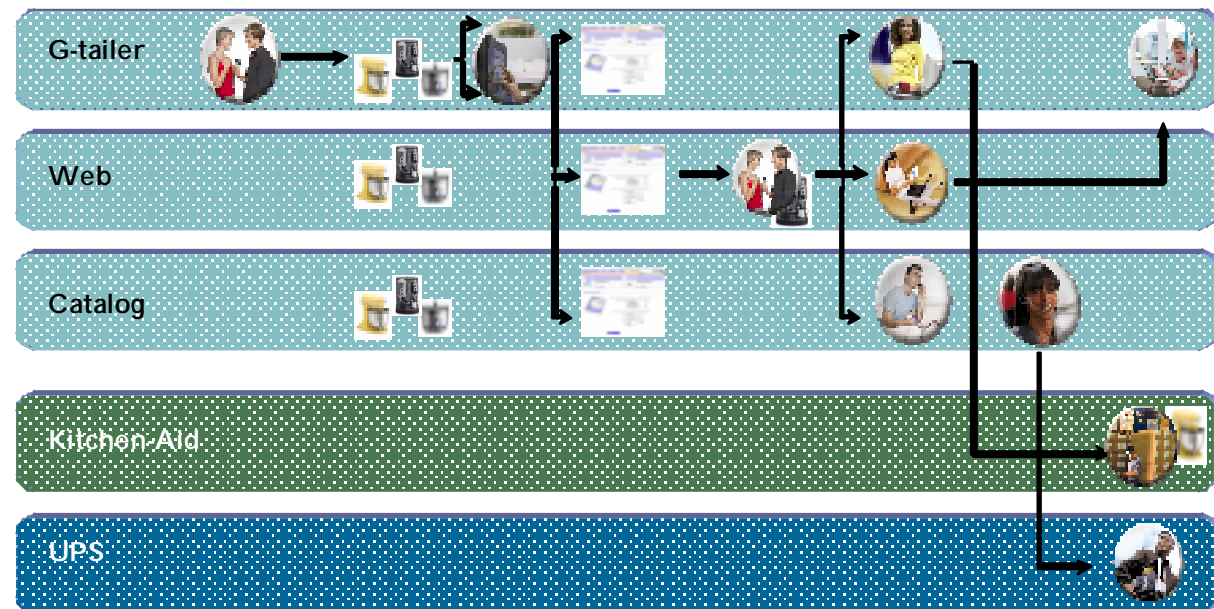
## ***Real Results***

- In first 8 weeks, 6,000 gift lists and thousands of new customers
- Accessed via web, phone, in-store kiosks
- Gift registry exceeded every projection

Now let's take a look under the hood...

*To your  
customers, you're  
now streamlined,  
but how does your  
IT environment  
look?*

*How much time  
and expense did it  
take to make it  
work?*



# Making this work at an application level

*How do you make it easier?*

- Enabling applications to effectively communicate with each other
- Adding, removing and changing applications without disrupting the entire business
- Overcoming connectivity challenges:

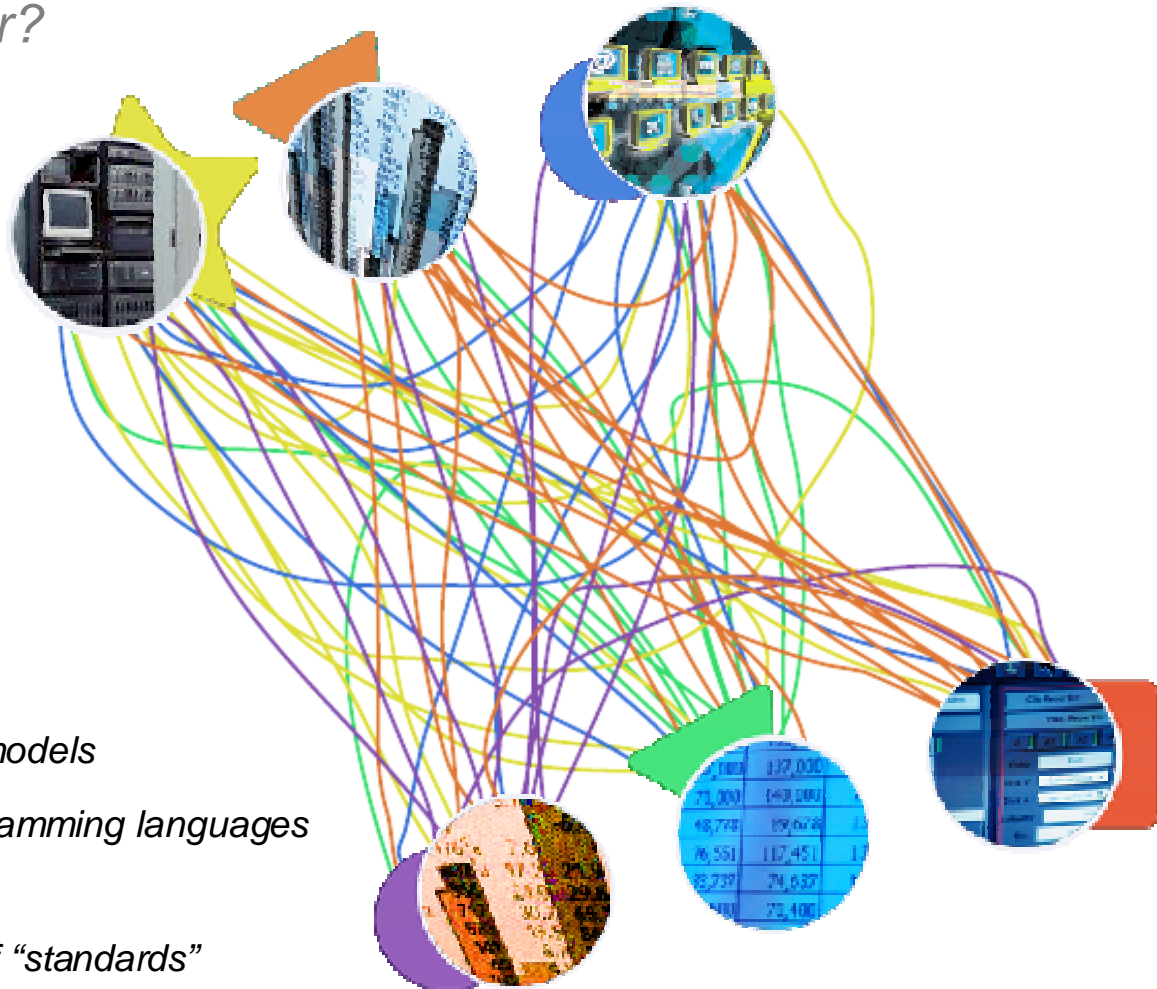
*multiple programming models*

*multiple platforms*

*multiple programming languages*

*multiple message formats*

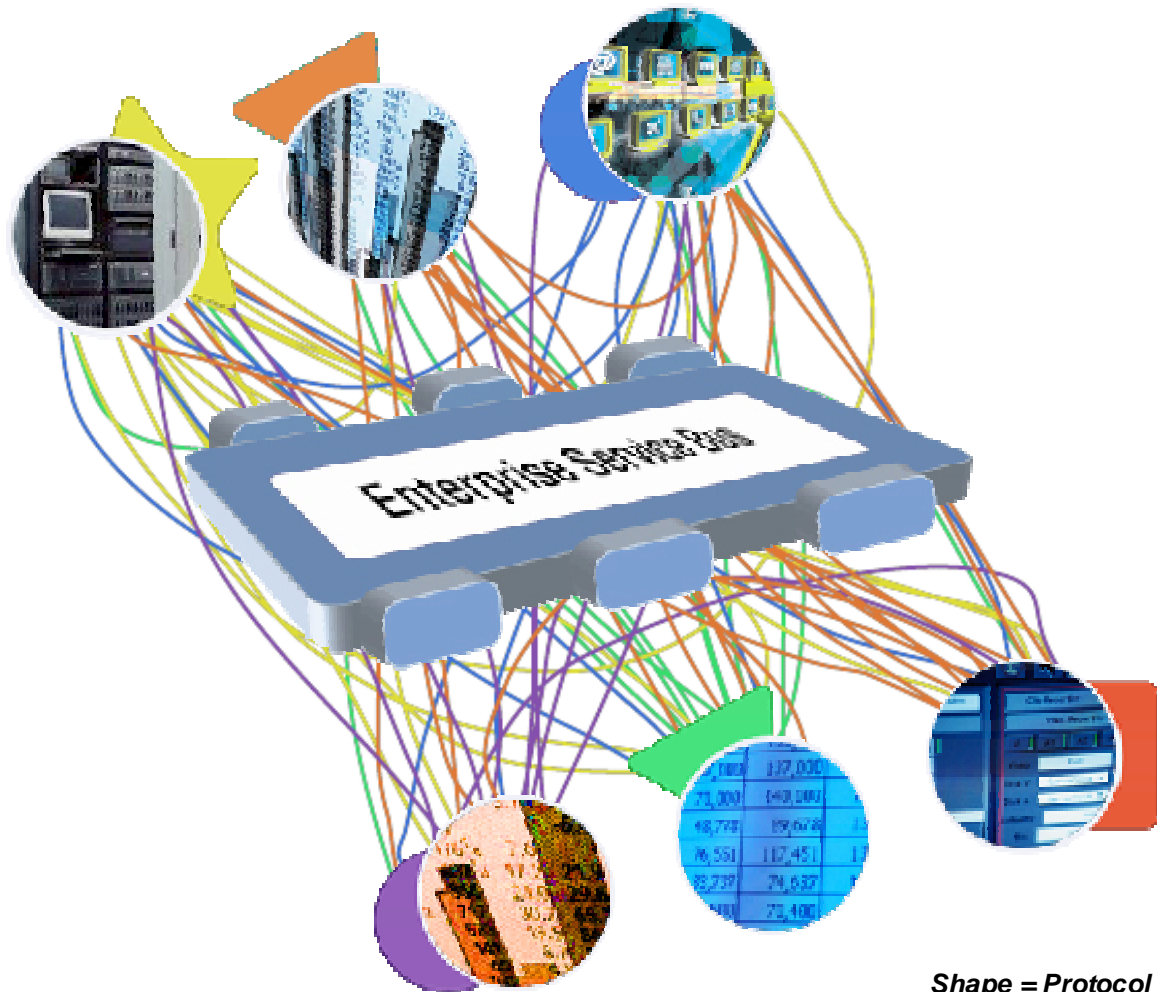
*varieties of “standards”*



**Addressing application connectivity challenges: Enterprise Service Bus**

# Enterprise Service Bus (ESB)

**Flexible connectivity  
infrastructure for integrating  
applications and services to  
power your SOA**



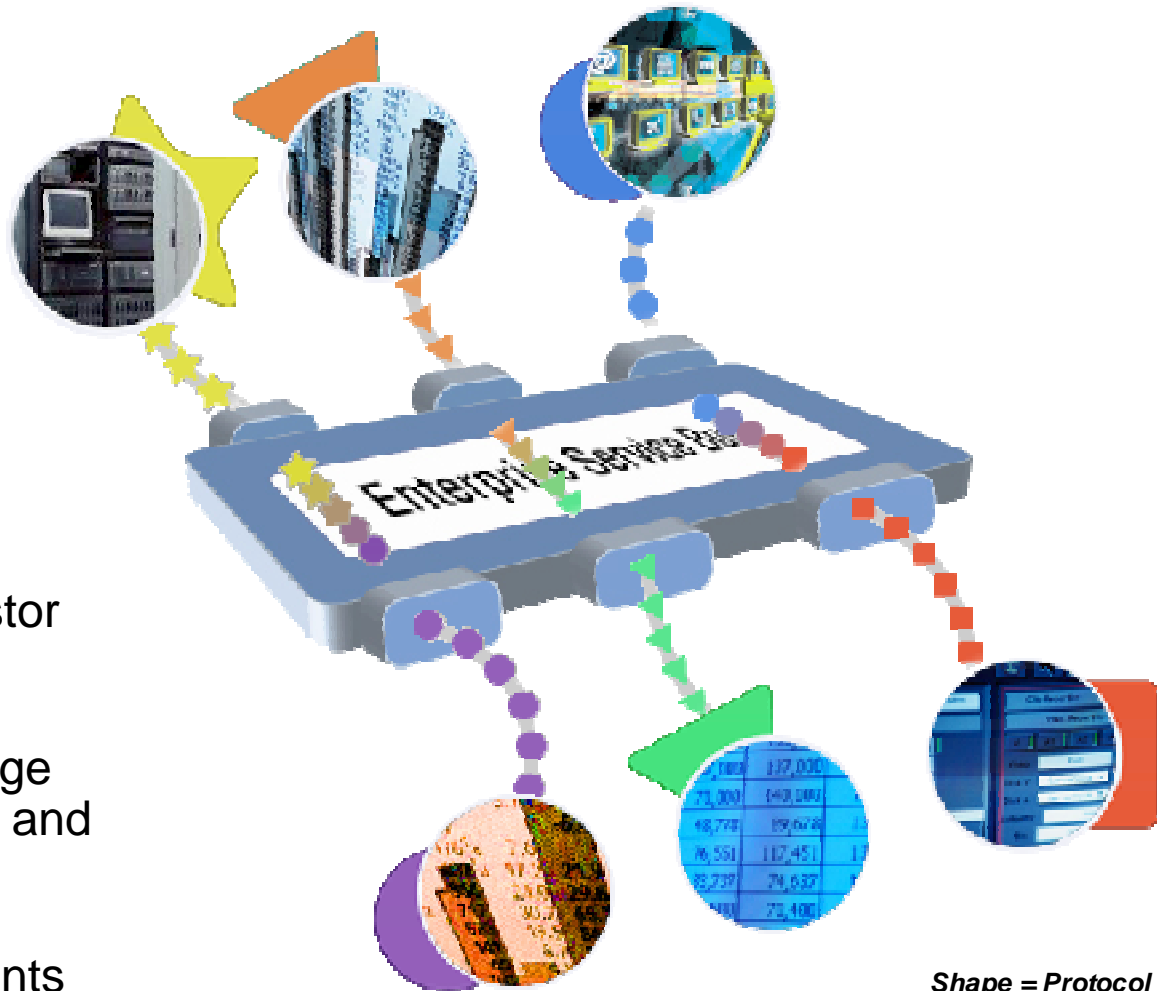
*Shape = Protocol*

*Color = Data type*

# Enterprise Service Bus (ESB)

**Flexible connectivity  
infrastructure for integrating  
applications and services to  
power your SOA**

- ▶ **ROUTING** messages between services
- ▶ **CONVERTING** transport protocols between requestor and service
- ▶ **TRANSFORMING** message format between requestor and service
- ▶ **HANDLING** business events from disparate sources



*Shape = Protocol*

*Color = Data type*

# Integrating applications using standards



**New!** *WebSphere ESB: An Enterprise Service Bus to power your SOA*

## Web Services connectivity, JMS messaging and service oriented integration

- Improve flexibility through the adoption of service oriented interfaces

## Easy to use

- Tools: minimal programming skills required
- Simple to install, configure, build and manage

## Improved time to value

- Cost effective solution for services integration
- Support for over hundreds of ISV solutions

## Seamless integration with the WebSphere platform

- Leverages WebSphere qualities of service: clustering, fail-over, systems management, security





100%

The diagram illustrates the WebSphere Message Broker as a central hub for universal connectivity and data transformation. It features a central 3D block labeled "WebSphere Message Broker" with multiple ports. Numerous colorful, stylized icons representing various systems, platforms, devices, and APIs are connected to the broker via dashed lines, demonstrating its ability to integrate diverse environments. The icons include representations of databases, web services, and other enterprise applications.

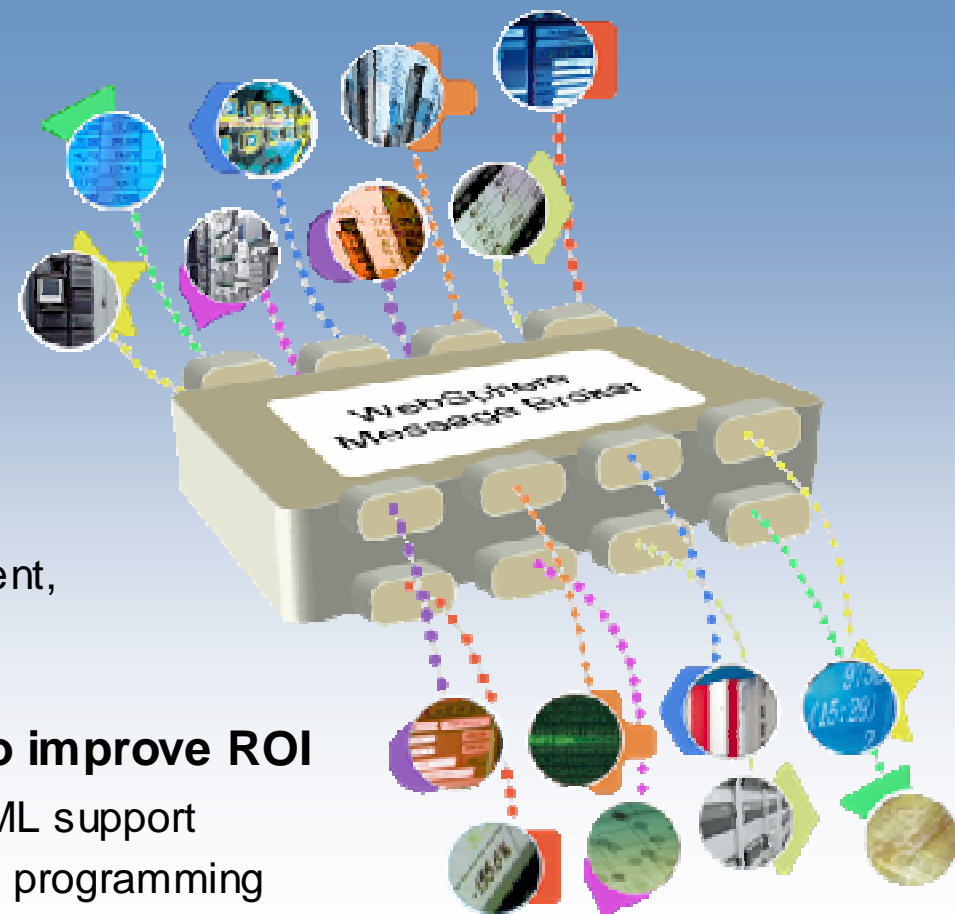
- Unmatched ability in integrating many systems, platforms, devices, and APIs
- Connect virtually your entire enterprise – whether standards based or not!

**Universal data transformation**

- Support for industry standard data formats
- Option to use WebSphere DataStage TX
- Advanced message transformation, enrichment, and routing

**New & improved pre-built capabilities to improve ROI**

- Leverage existing skills with rich Java and XML support
- Implement complex event processing with no programming
- Offers simple and easy to use tools with advanced capabilities







# Service-enabling your applications

*New and Enhanced!* WebSphere Adapters

## ***Enterprise-ready connections based on industry best practices***

### **Broadest reach in the marketplace**

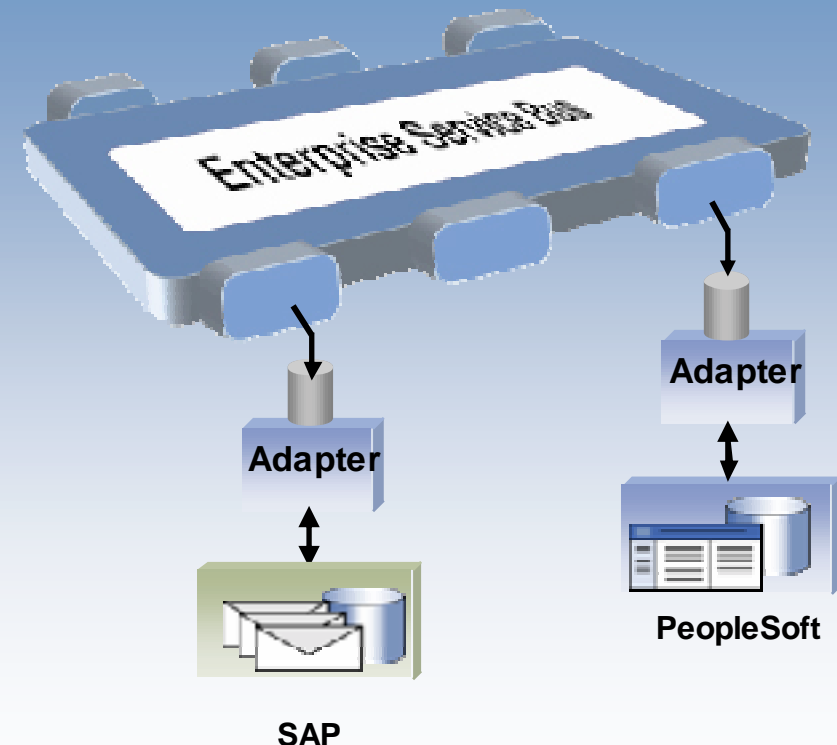
- Part of IBM's Access Services portfolio, which delivers reach to hundreds of integration endpoints

### **New JCA Adapters**

- SAP Software
- Siebel Business Applications
- PeopleSoft Enterprise
- Flat Files
- JDBC

### **Best Practices**

- First-class support for top ISVs
- Established relationships with top-tier ISVs
- Based on first-hand experience gained from integration services



# Application integration from IBM WebSphere software

*Proven software with unmatched breadth of integration abilities*

- Enable IT to be more responsive and flexible to the changing demands of the business
- Easily add, remove, and change applications as required
- Save time and money and reduce the risk with a single interface for each application
- Reliably integrate your production applications, whether packaged, in-house, or newly developed

- ✓ **12,000+ WebSphere application integration clients strong with tens of billions of messages sent everyday**
- ✓ **10+ years investment in integration product innovation**
- ✓ **80+ supported platform configurations**
- ✓ **Adapters helping enable over 2,800 integration end points**
- ✓ **Up to 3 times cost savings with application integration from IBM WebSphere\***
- ✓ **#1 in Market Share for Integration Suites (Gartner)**

\*Source: Software Strategies Whitepaper, "Enterprise Integration Challenge," April 2005

## G-tailer's business is intense

*It's more demanding than the illustration we've walked through here*

***Always available***

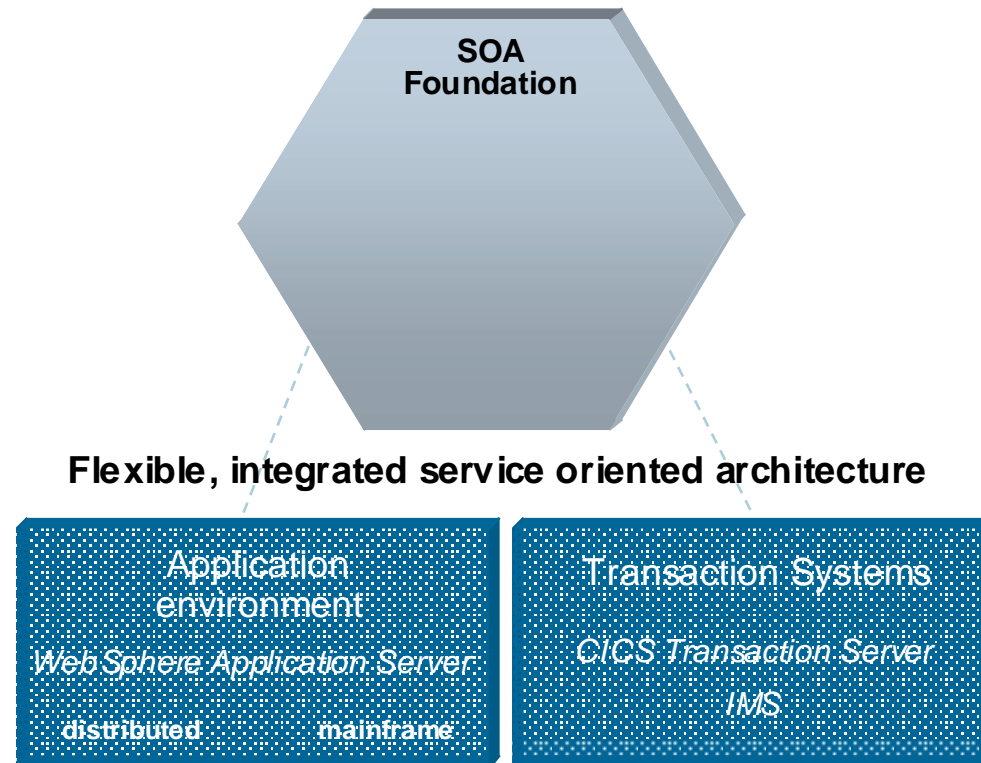
# Fast

# Easy

## Low cost

# Need a robust, secure SOA deployment environment

*To ensure you can offer service to your customers when and how they want it*



***Allowing you to expose existing resources as Web services with ease***

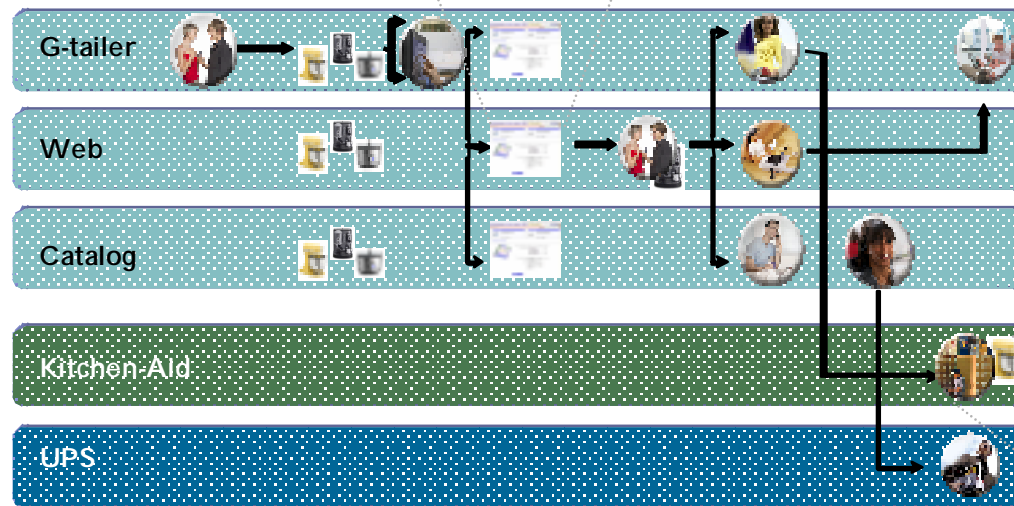
# A look at how G-tailer leverages proven resources

*For a robust SOA foundation including both new and existing applications*

**New Web-based registry  
application deployed and  
running compiled Web  
services**



**WebSphere  
Application Server**



**CICS  
Transaction  
Server**

**Existing CICS-based  
inventory management  
application delivered as a  
Web service**

# Enabling a robust, flexible SOA runtime environment

*While maximizing the value of existing assets*

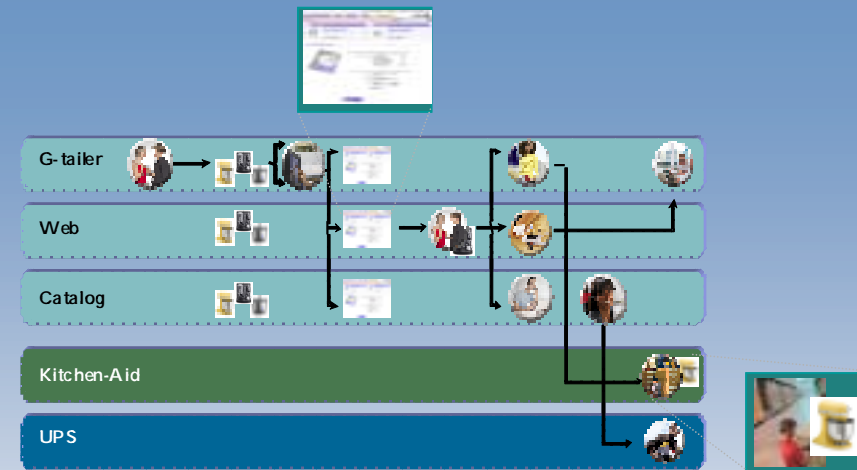
## Fully SOA capable!

### WebSphere Application Server V6

- Extend existing Java assets with support for Web Services standards and standards-based messaging
- Help ensure 24x7 availability of business-critical applications with clustering and high availability
- Build and deploy Web Services quickly and easily with rapid development and deployment features

### CICS Transaction Server V3.1

- Exploit provider/requestor Web service support for CICS assets, based on full Web service standards
- Extend the value of CICS transactions in a mixed language environment
- Build Web services from CICS transactions with no change to existing applications.



**#1 in market share for  
Application Server software**

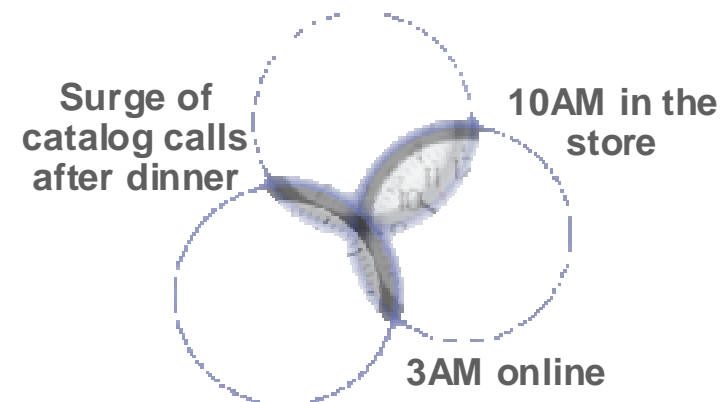


**IBM WebSphere  
Application Server  
comes out on top**

**35+ years of maturity and innovation  
in transaction and data systems**

# High qualities of service in a distributed environment

*G-tailer confidently meets business demands while maximizing existing investments*



Shopping is **available 24X7**

End to end transactions happen with **speed**

You **maximize the value** of your existing IT investments



# Extending high qualities of service to your distributed SOA

*With WebSphere Extended Deployment (XD)*

***An extension to the world-leading WebSphere Application Server further enabling business demands to dictate IT performance***

- **Accommodate peaks in demand by better utilizing existing resources**

*Self managing autonomic response - virtualized resources enable a dynamic allocation of workload across resources*

- **Accommodate mixed environments more efficiently**

*More efficient use of resources and better accommodation of mixed workloads*

- **Improve the performance and throughput of your transactions**

*Near linear scalability for **high-end transaction processing** and enhanced data access for accelerating throughput*



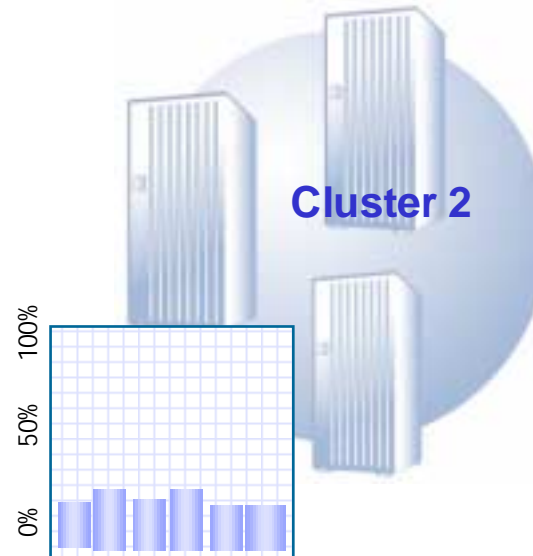
# Static clustered environment leads to application “silos”

*G-tailer sees a surge in demand for its Registry application in June*



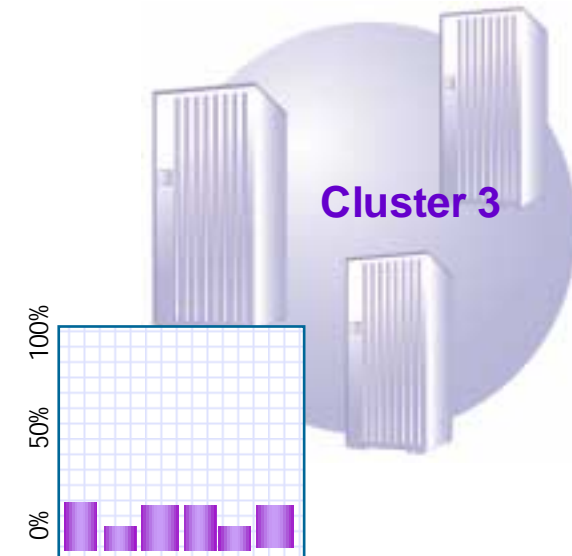
**June Wedding Season:  
100% Utilized Servers**

**Gift Registry Activity**



**15% Utilized Servers**

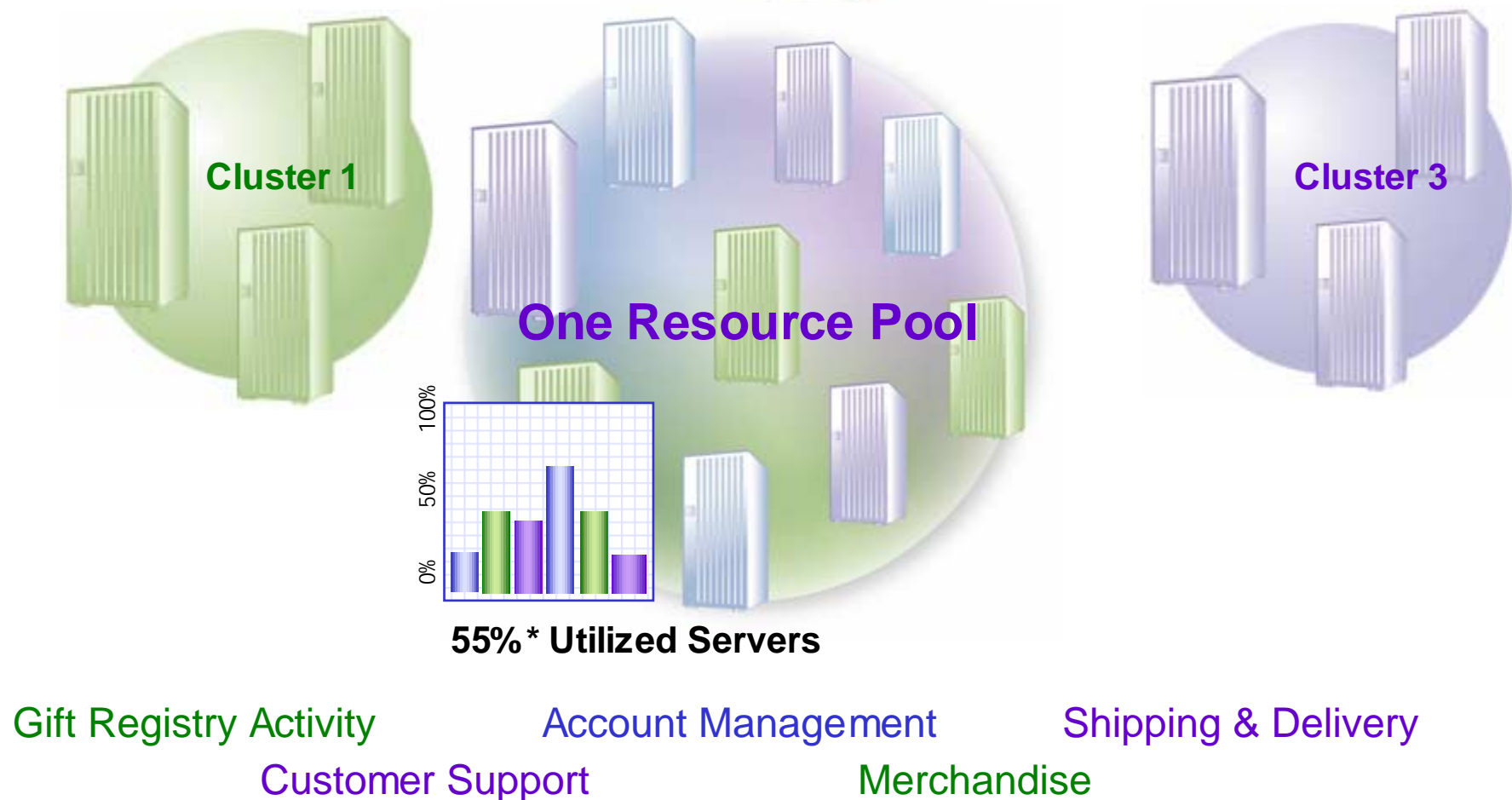
**Account Management**



**10% Utilized Servers**

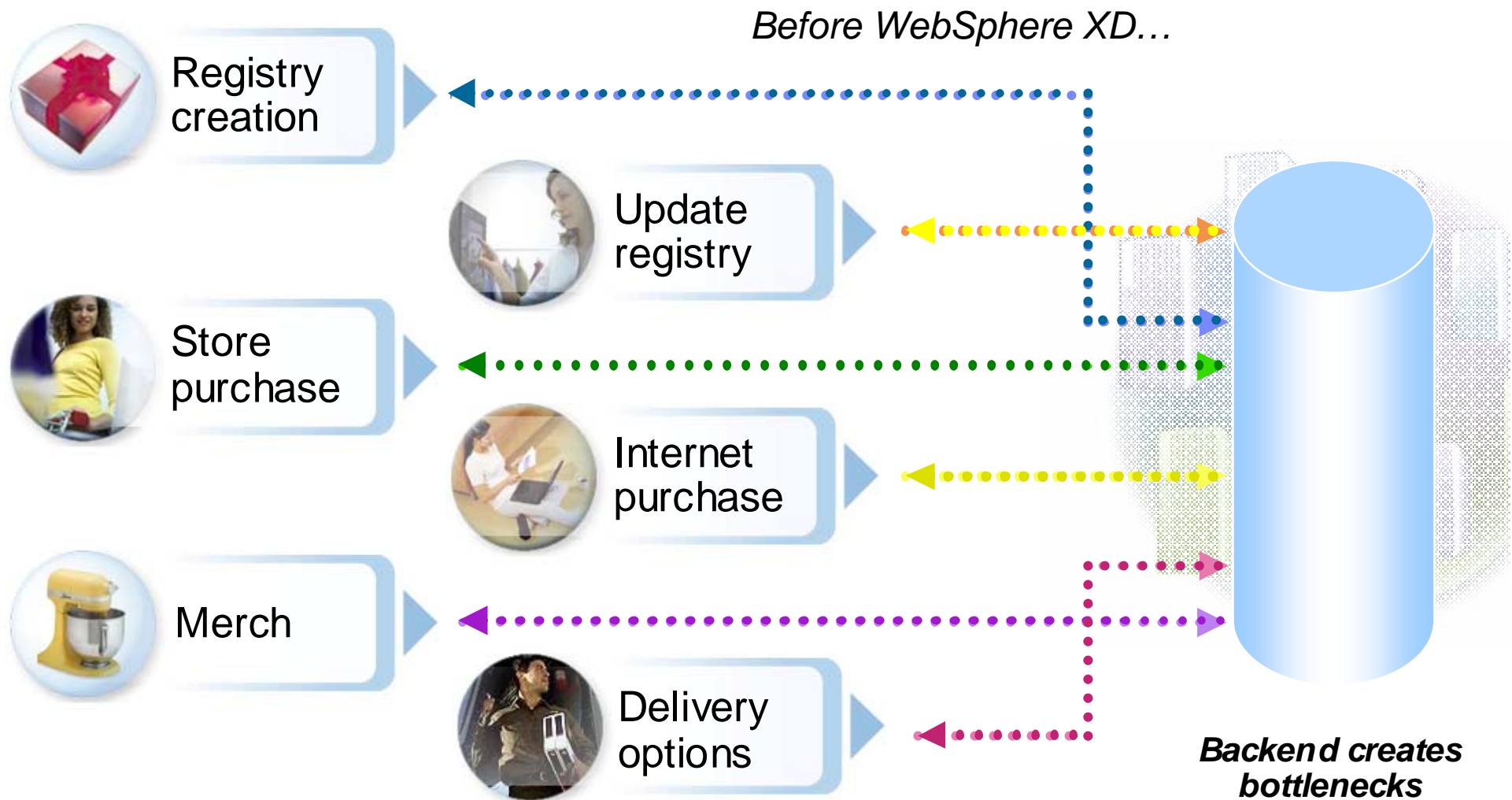
**Shipping & Delivery**

# Resource virtualization maximizes utilization and improves responsiveness

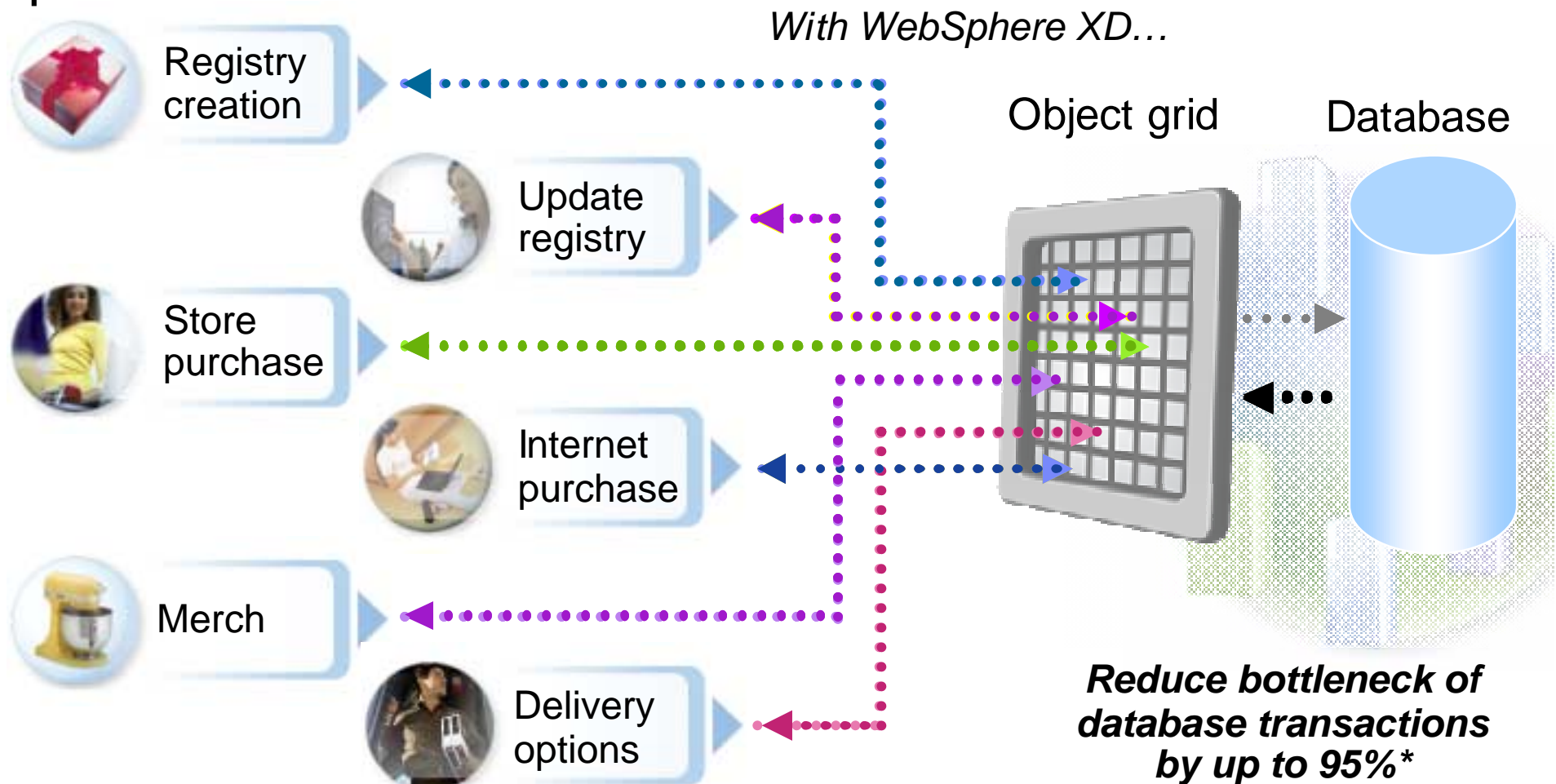


\* Hypothetical, for illustrative purposes only

## Same data is accessed by multiple applications in G-tailer's environment



# Maximizing transaction throughput, reliability, and performance



\* Based upon IBM customer experience

# Delivering high qualities of service to a distributed SOA



**Enhanced!** WebSphere XD V6

## Flexibility for your heterogeneous environment

- Efficiently support mixed workloads
- Effectively enable quality of service management for a mixed application servers and data sources

## Optimizing the performance and throughput of your transactions

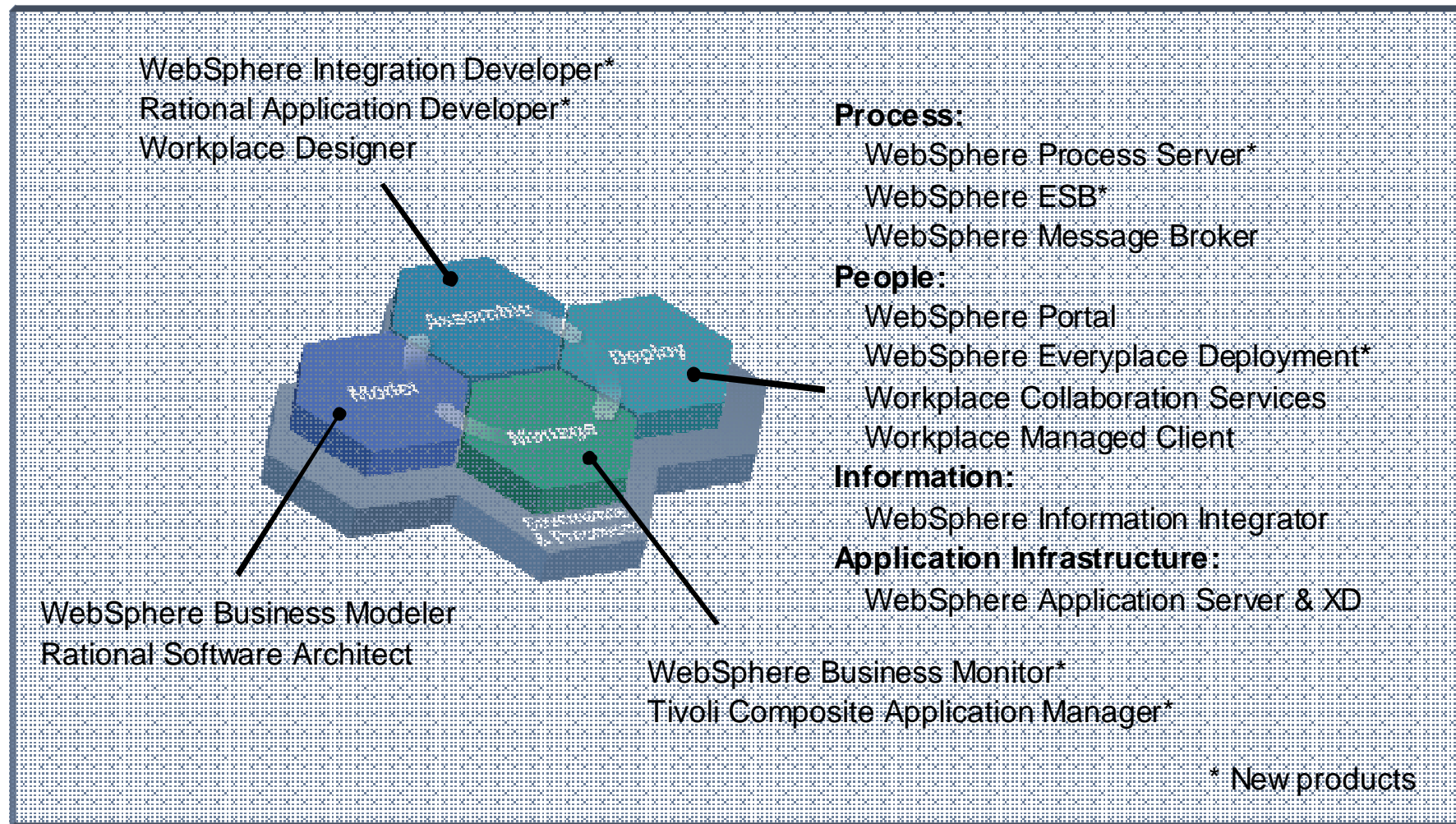
- ObjectGrid, a caching fabric which enables object data to be shared among multiple clients
- Partitioning facility enables the development of highly scalable, high performance J2EE applications

## Enhanced manageability

- At-a-glance assessments of system vitality and improved application manageability
- Interruption-free application updates to manage the deployment of multiple application versions

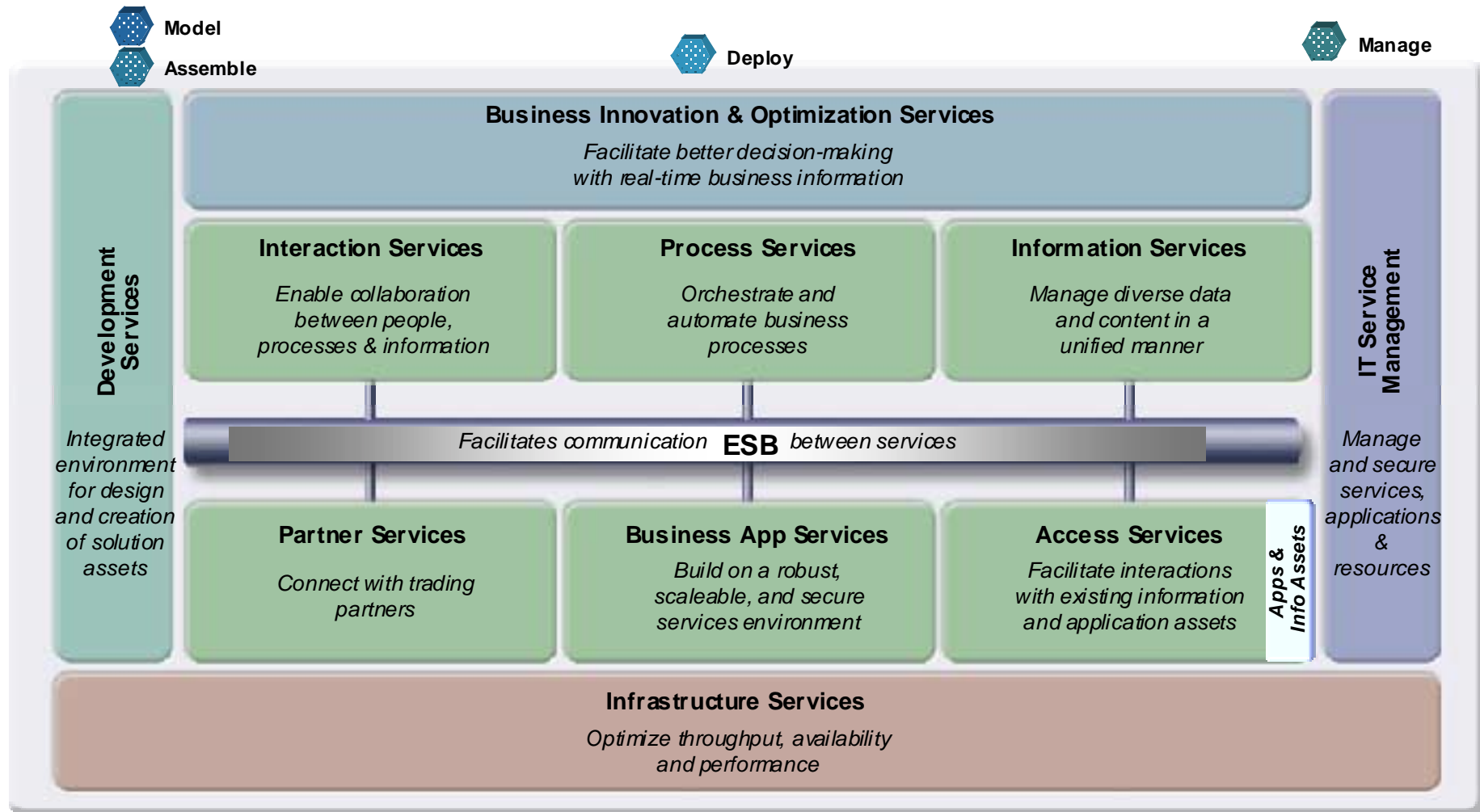


# All come together to strengthen the IBM SOA Foundation



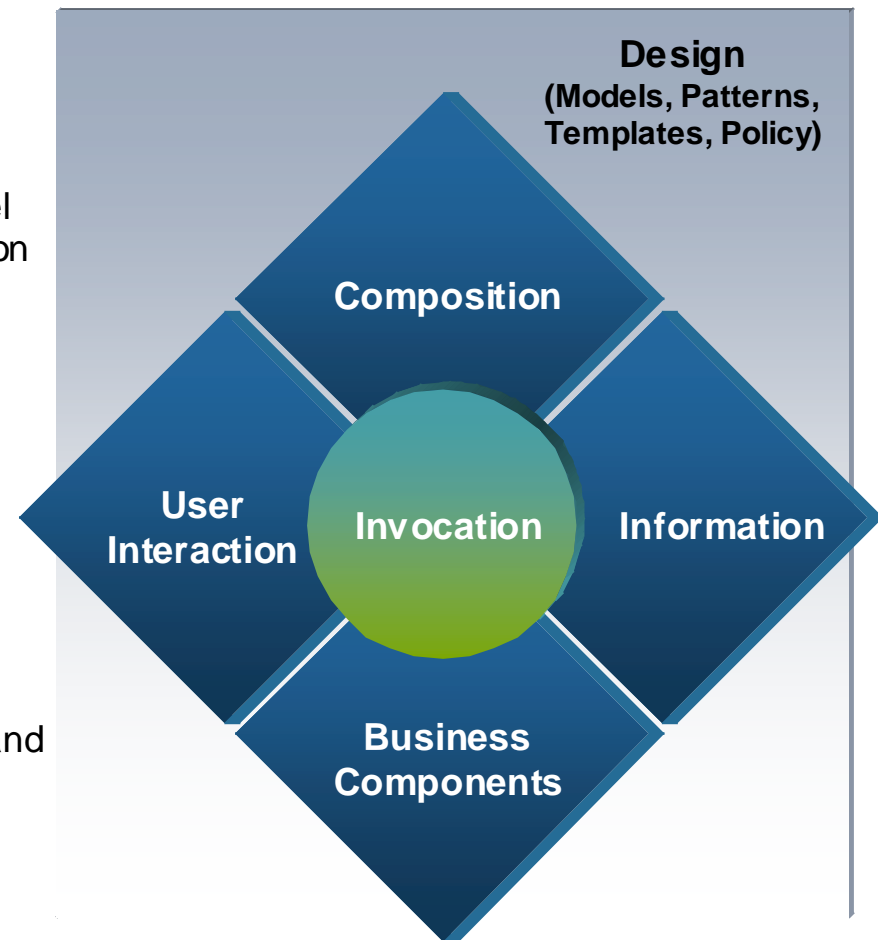


# SOA Reference Architecture



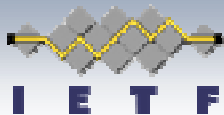
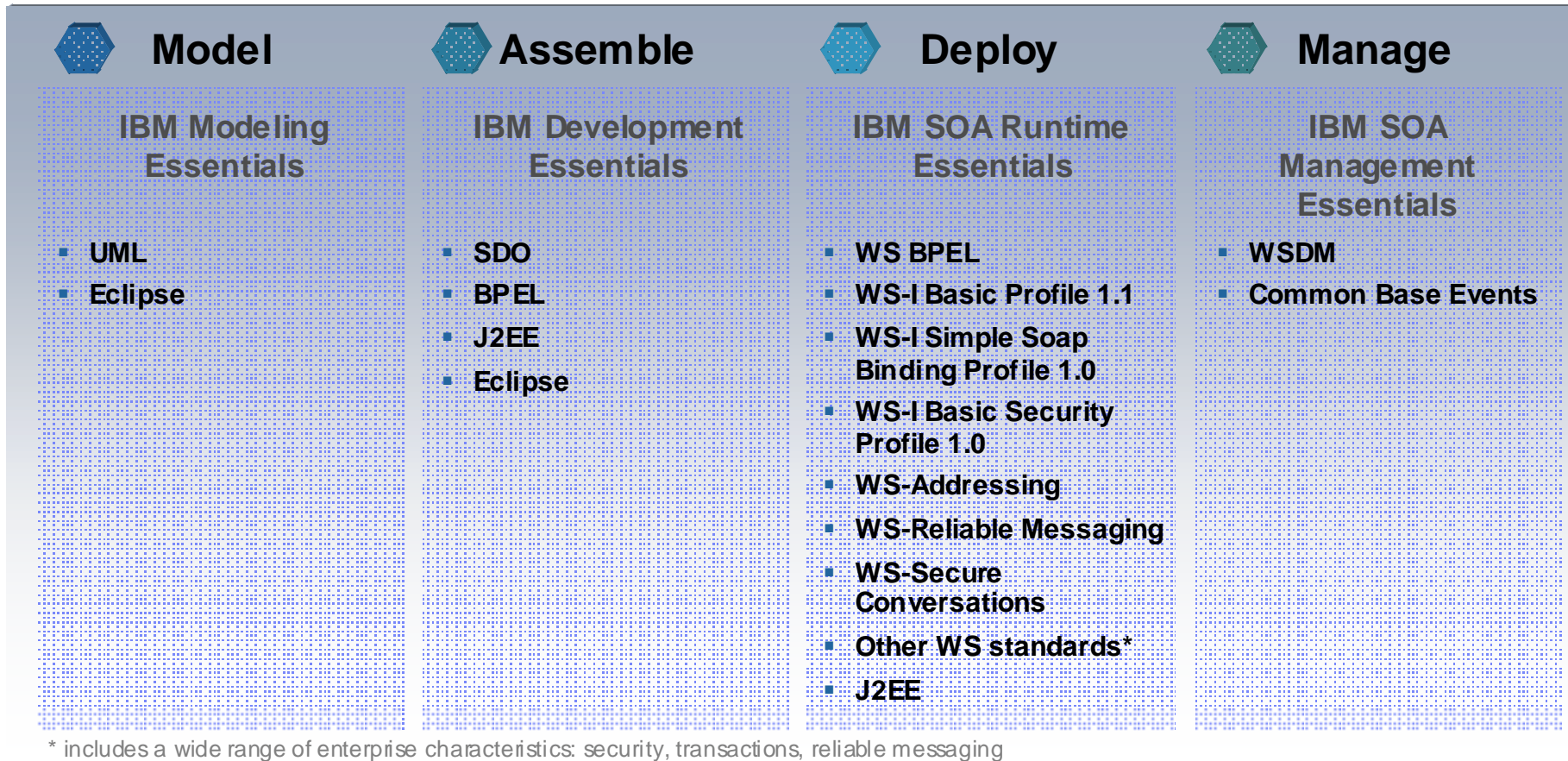
## Supported by a common SOA Programming Model

- **Focus on business design modeling, simplification, and role-based collaboration**
- **Composition of Business-level Applications**
  - ▶ Wired assembly of services to form business-level applications, workflows, and business orchestration
- **User Interaction**
  - ▶ Dynamic support for people integration into the business design
- **Business Components**
  - ▶ Composable and reusable services
- **Information**
  - ▶ Built-in access to service state, disconnected service-data exchange, information composition and transformation
- **Invocation**
  - ▶ Loosely-coupled call-style and event-driven interconnection of services





# Standards and open source support enhancing flexibility



W3C



Java  
Community  
Process



## Why IBM WebSphere software for SOA?

### Nobody has the same breadth and depth

- Broad portfolio relied on by over 87,000 customers
- #1 across application integration middleware
- Extensive ecosystem – more than 4,000 partners and 3,150 active ISV solutions

### Nobody invests more

- IBM investing over \$1B a year around SOA and Web services
- Over 6,700 IBM developers
- Over 10,750 IGS technical practitioners trained on WebSphere

### Award winning SOA products



**IBM tops elite vendor list**

*-Intelligent Enterprise Editors' Choice Awards (April 2005)*



**IBM Overall Winner in Application Integration Middleware**

*-CRN Channel Champions Award (March 2005)*



**WebSphere: "impressive management options, support for Web services and general ease of use..."**

*– Network Computing (February 2005)*