

WebSphere Live for SOA

SOA Flexibility in Action:

New Product Announcements from IBM WebSphere Software

DRAFT

SOA on your terms and our expertise

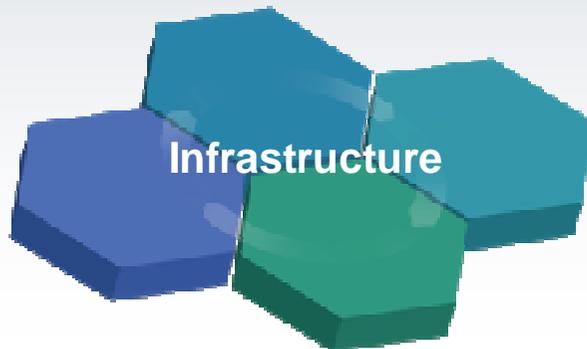
ON DEMAND BUSINESS

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Announcing new products to strengthen your SOA Foundation

New and enhanced products from IBM WebSphere software

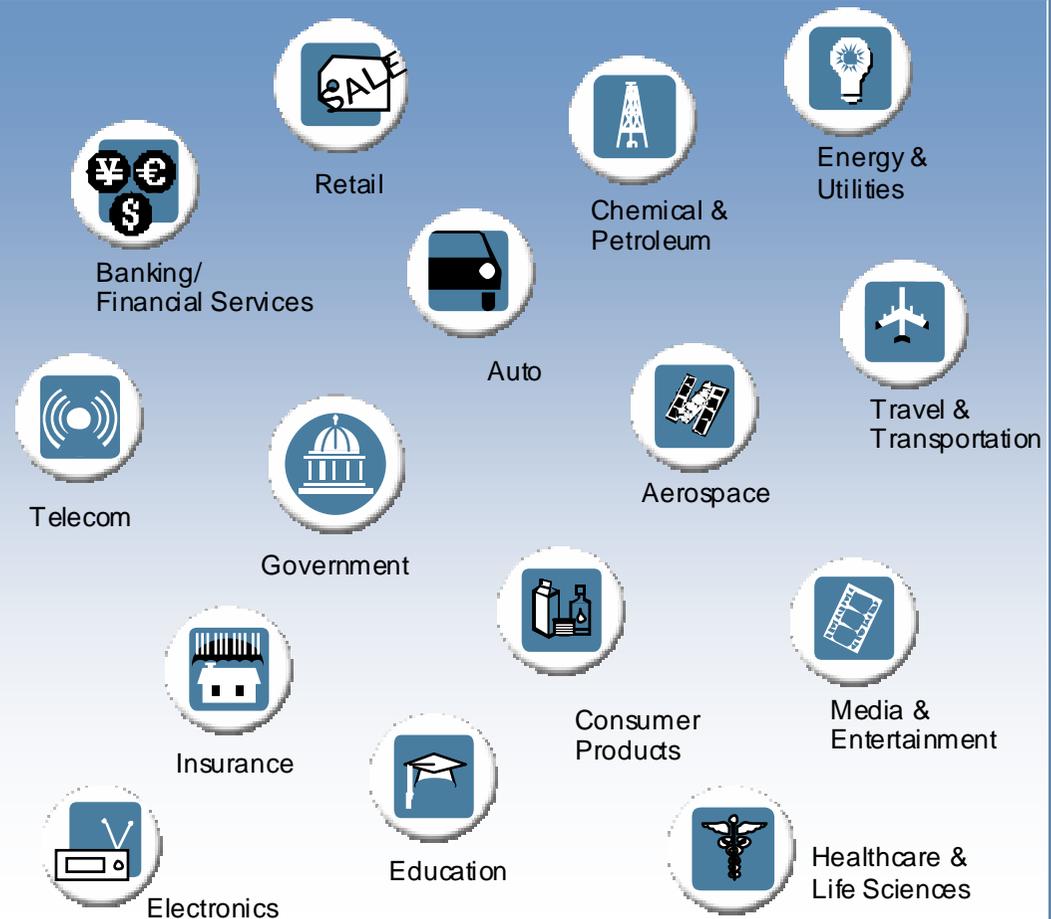
- End-to-end capabilities enabling you to model, assemble, deploy and manage business processes
- Enhanced deployment capabilities enabling you to:
 - ▶ Extend your SOA resources and processes to users anywhere, anytime, through role-based user-friendly interfaces
 - ▶ Leverage an Enterprise Service 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...

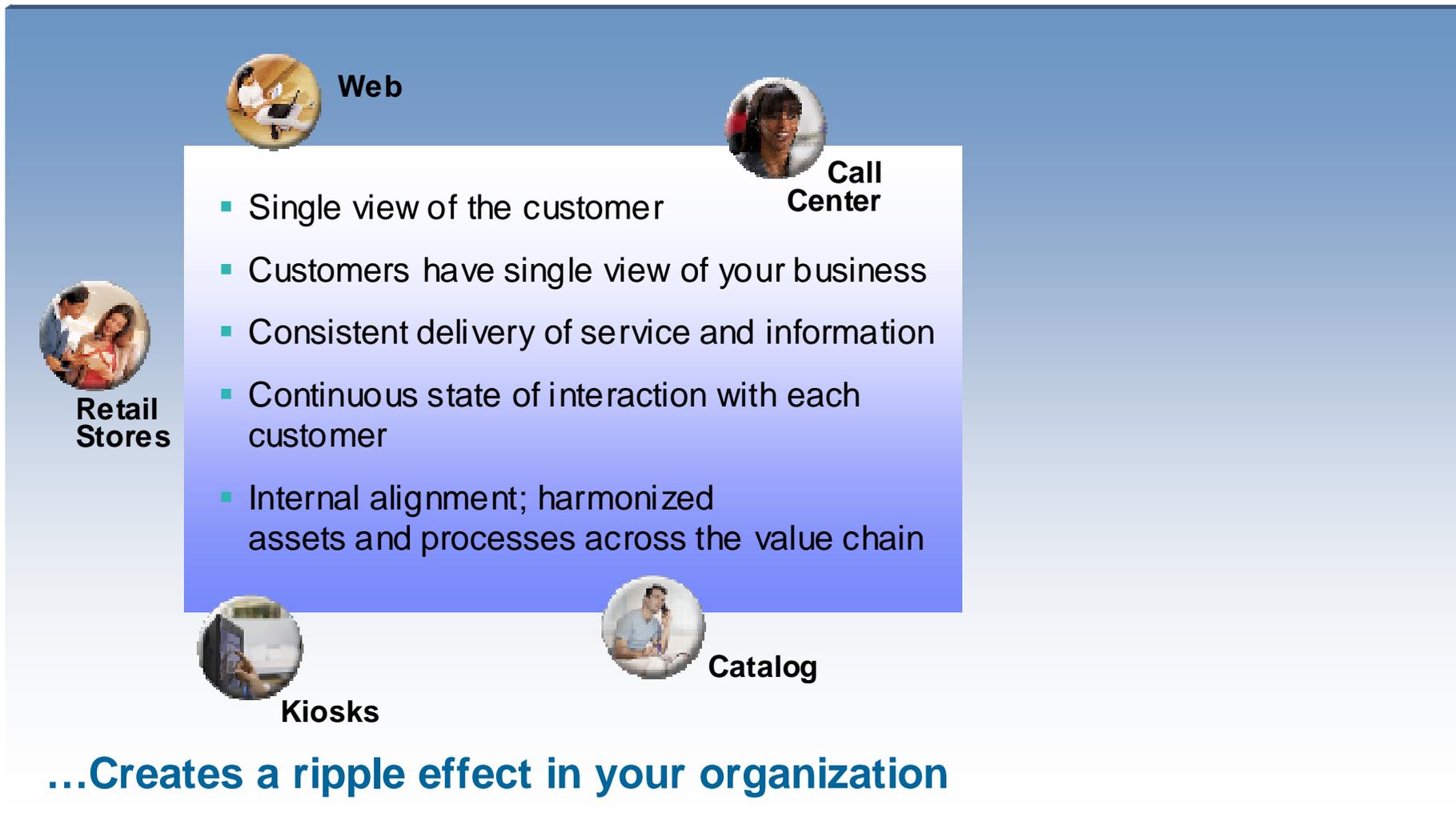
Customers demand service

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*

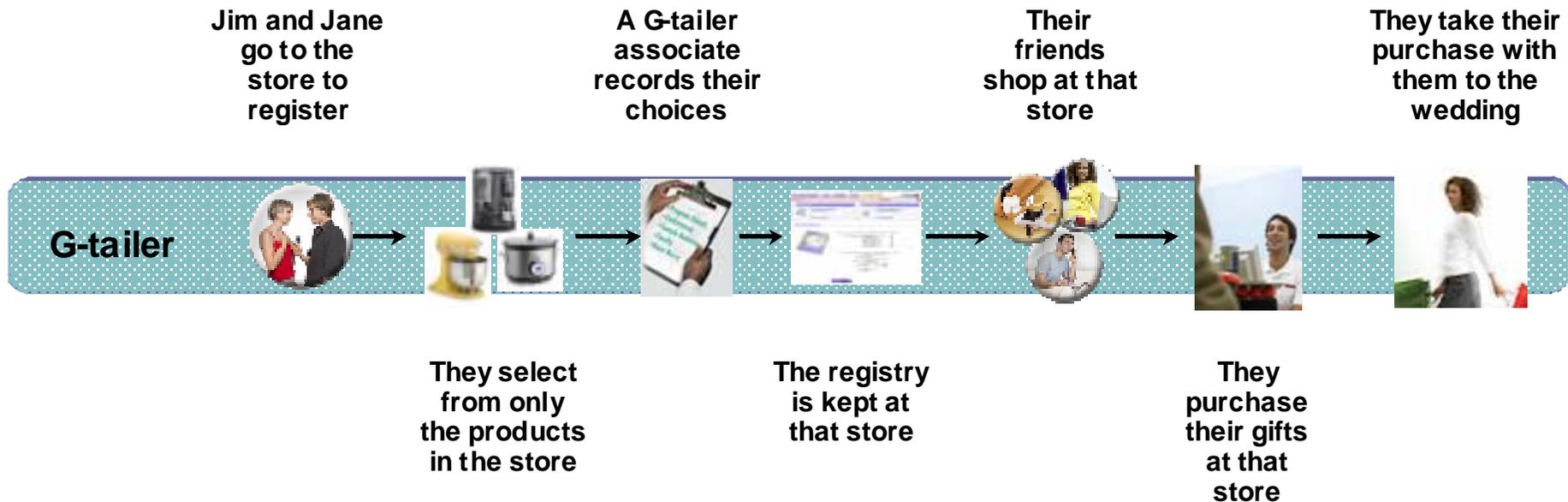


*Shipper enables G-tailer
to deliver gifts wherever
the customer wants*



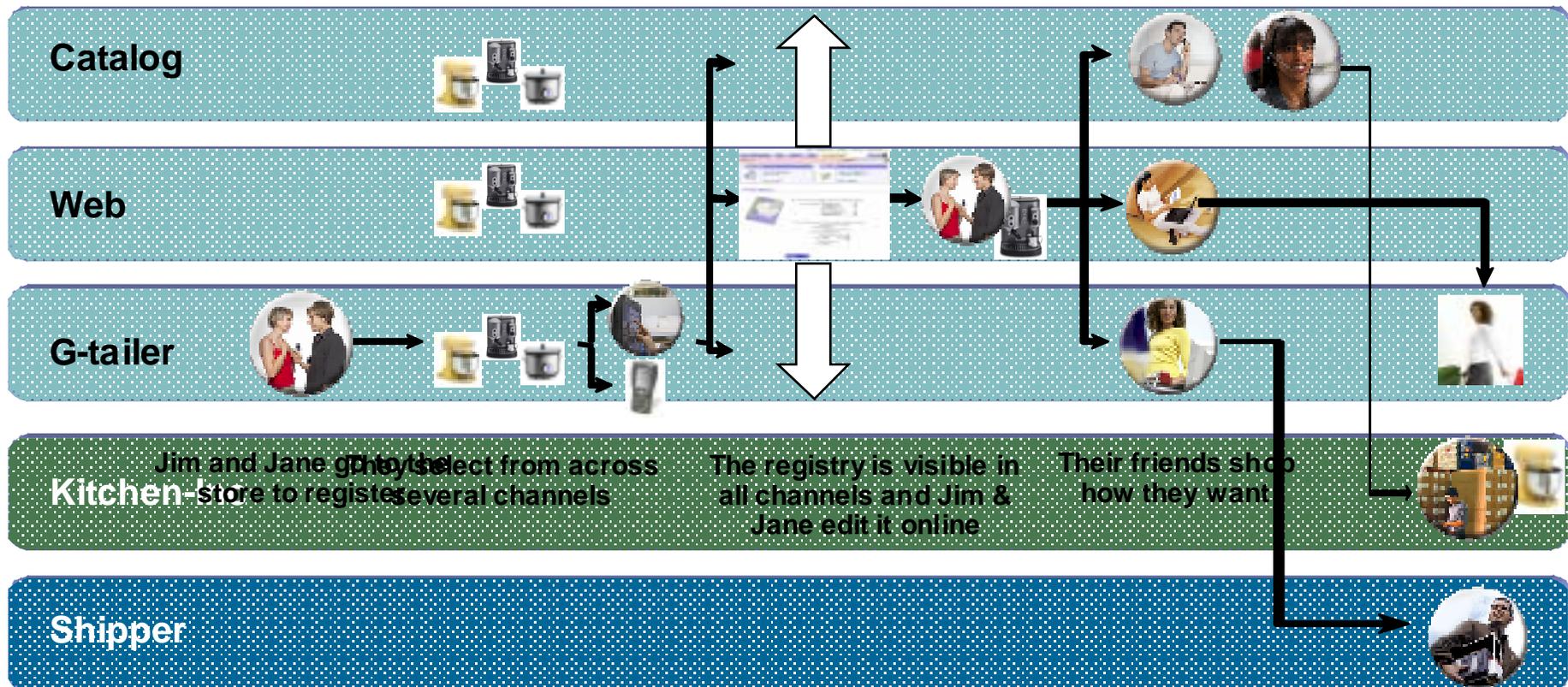
Let's take a closer look at the supporting processes

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



Their purchases are delivered their way

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...

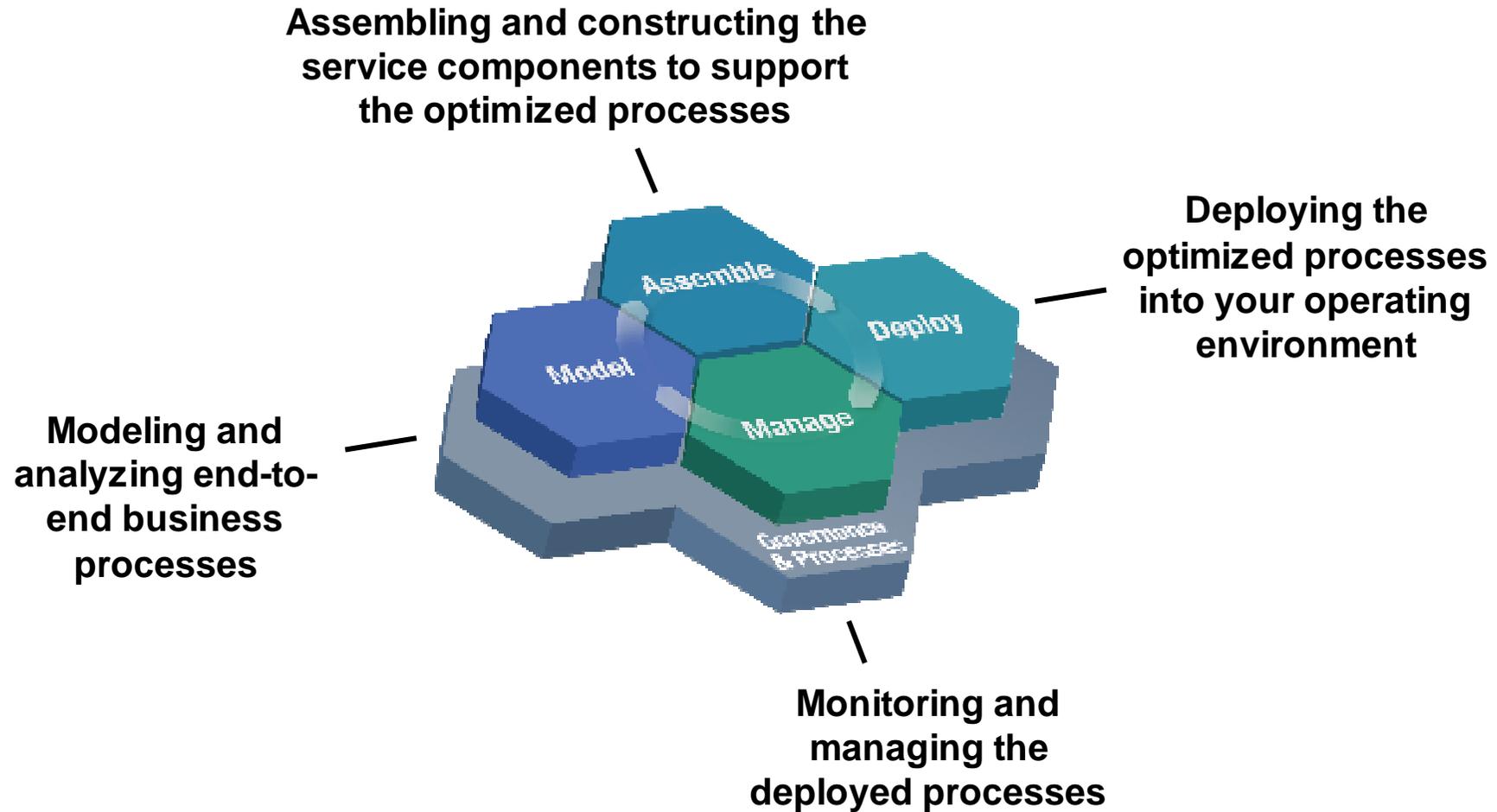
- Reconciling redundant applications and resources
- Connecting applications and systems across the organization and beyond
- Establishing an integrated infrastructure that supports new, refined and ever-changing business rules and requirements
- Delivering flexible and efficient interfaces to people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

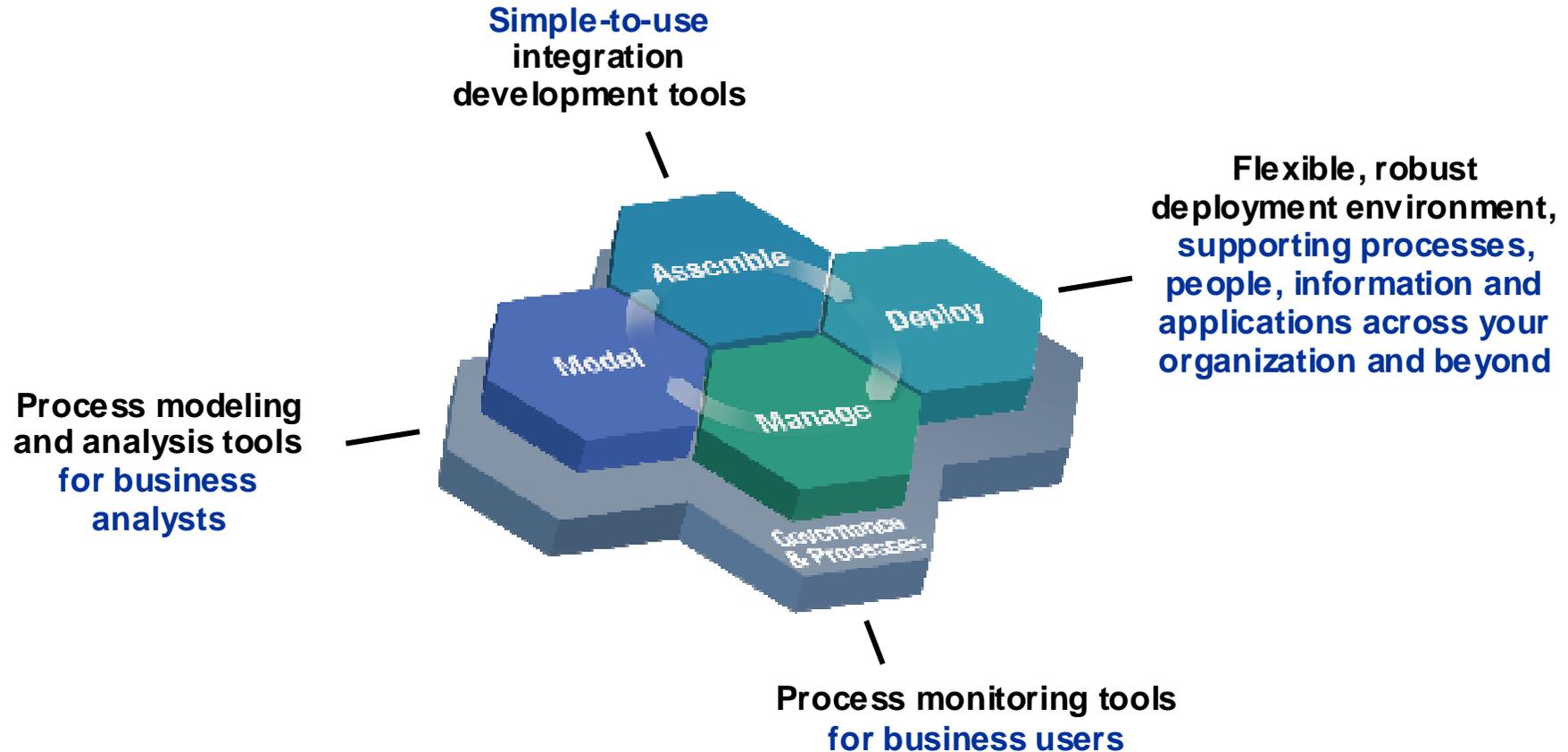
Requires the flexibility of SOA - to stay ahead of the curve while keeping costs in check

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



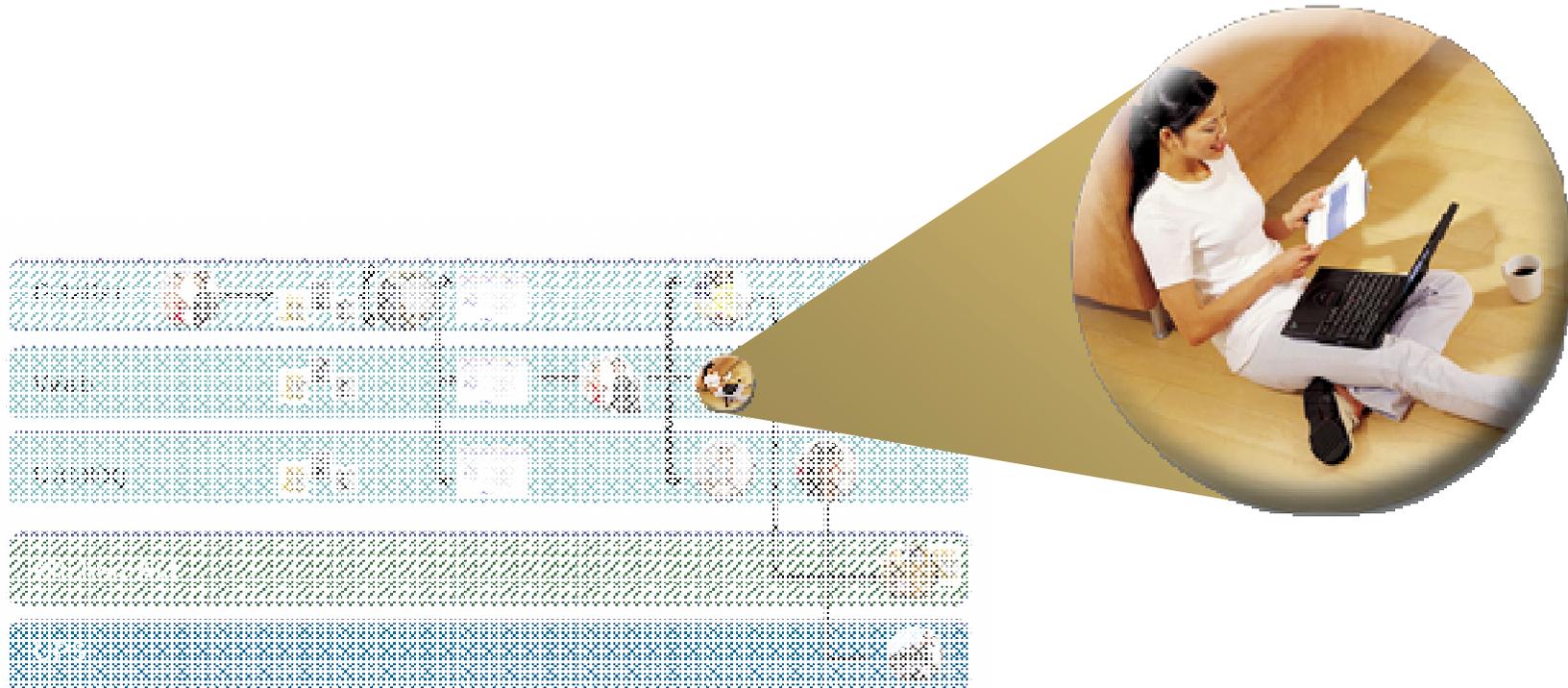
End-to-end business process capabilities

Breadth of SOA deployment capabilities

WebSphere software

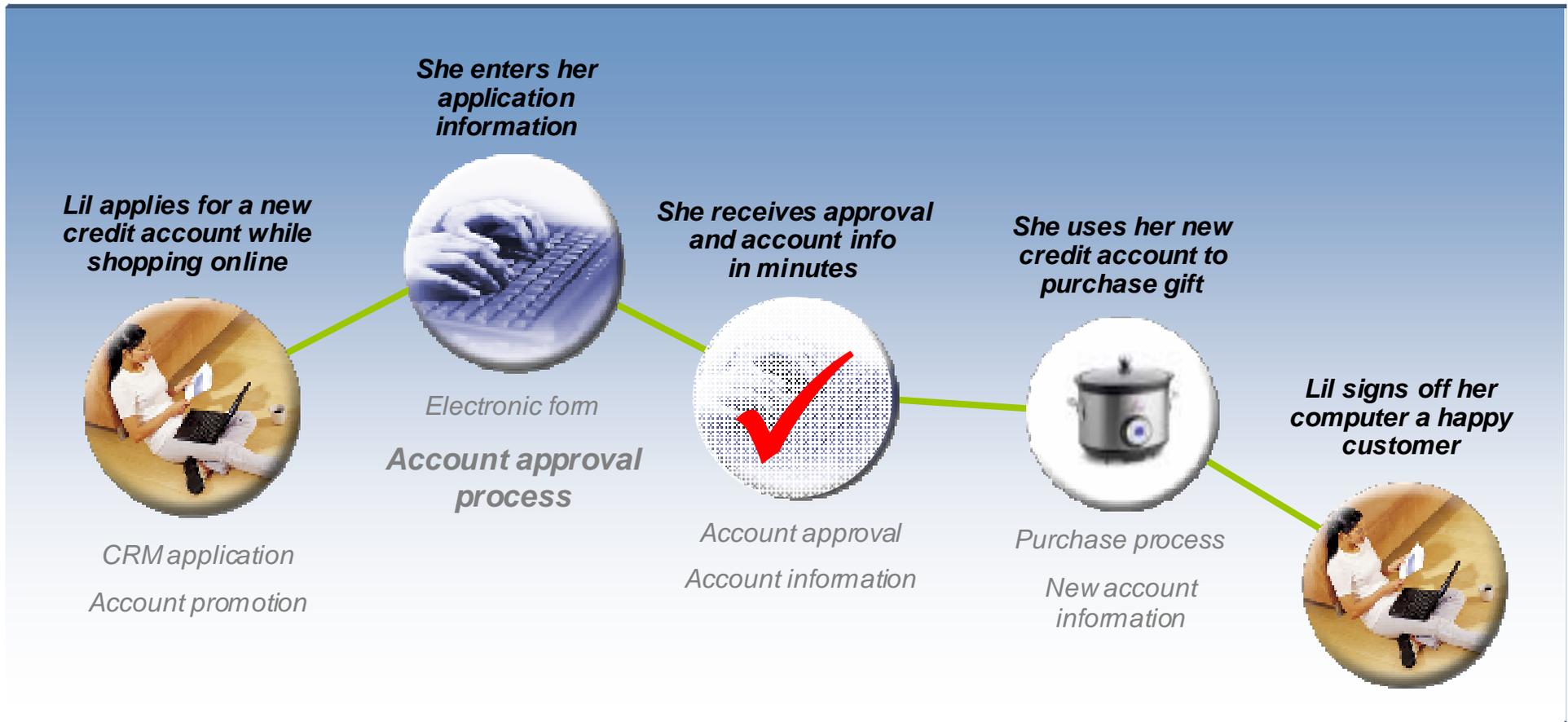
WebSphere and SOA help address G-tailer's needs

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



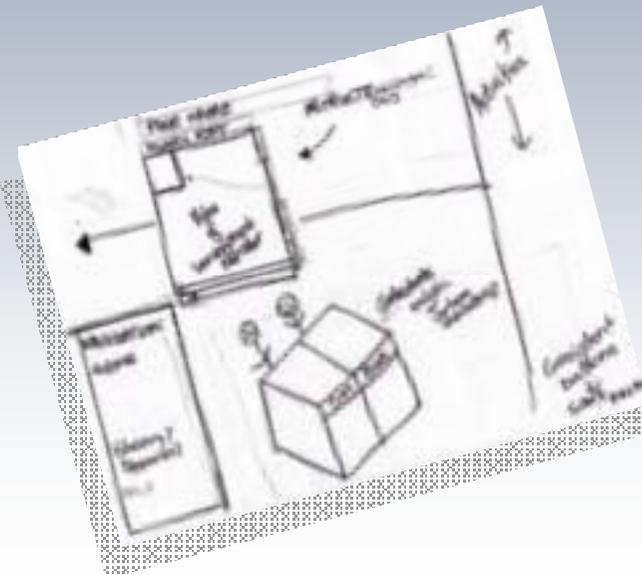
G-tailer takes a look at streamlining the account approval process...

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

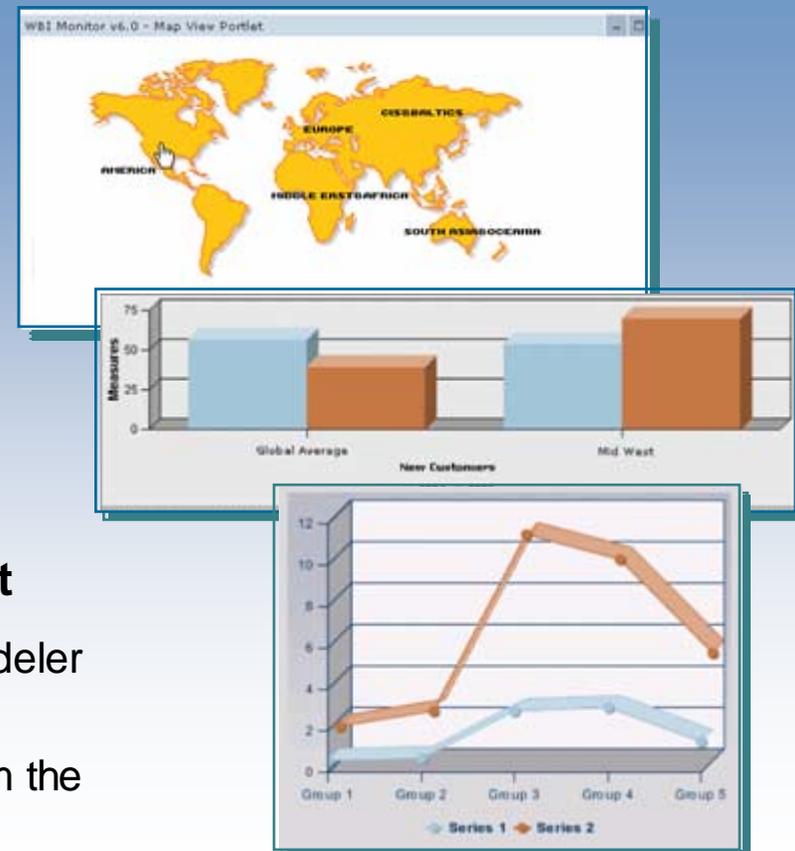
- Management dashboards and reporting capabilities, including trending information
- Tools to define or customize your dashboards

Ability to intervene in deployed processes

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

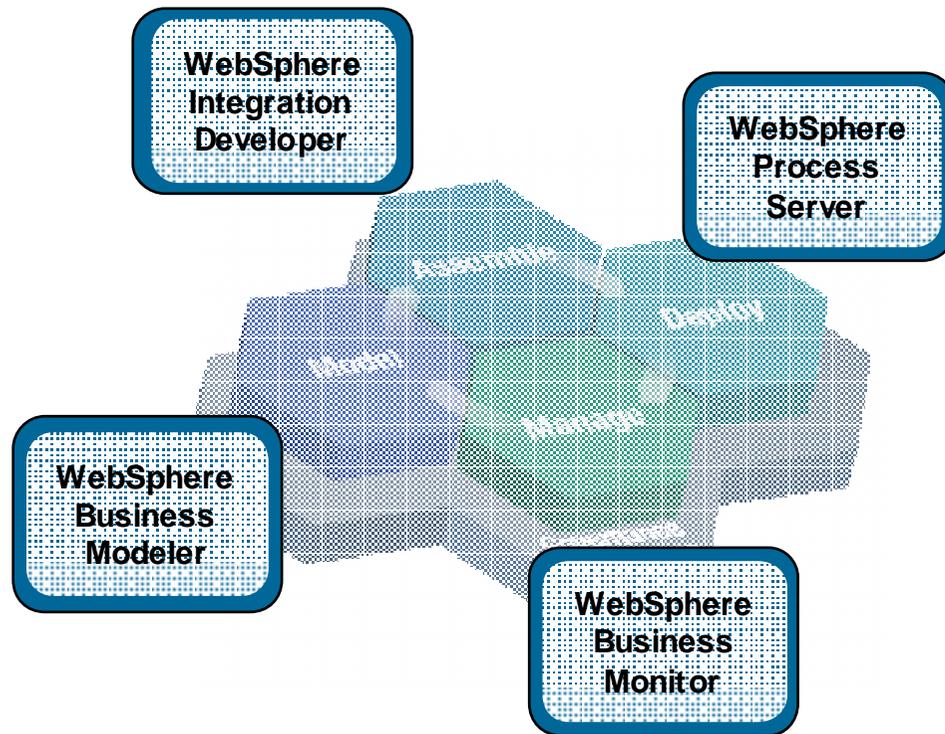
Supporting continuous process improvement

- 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)

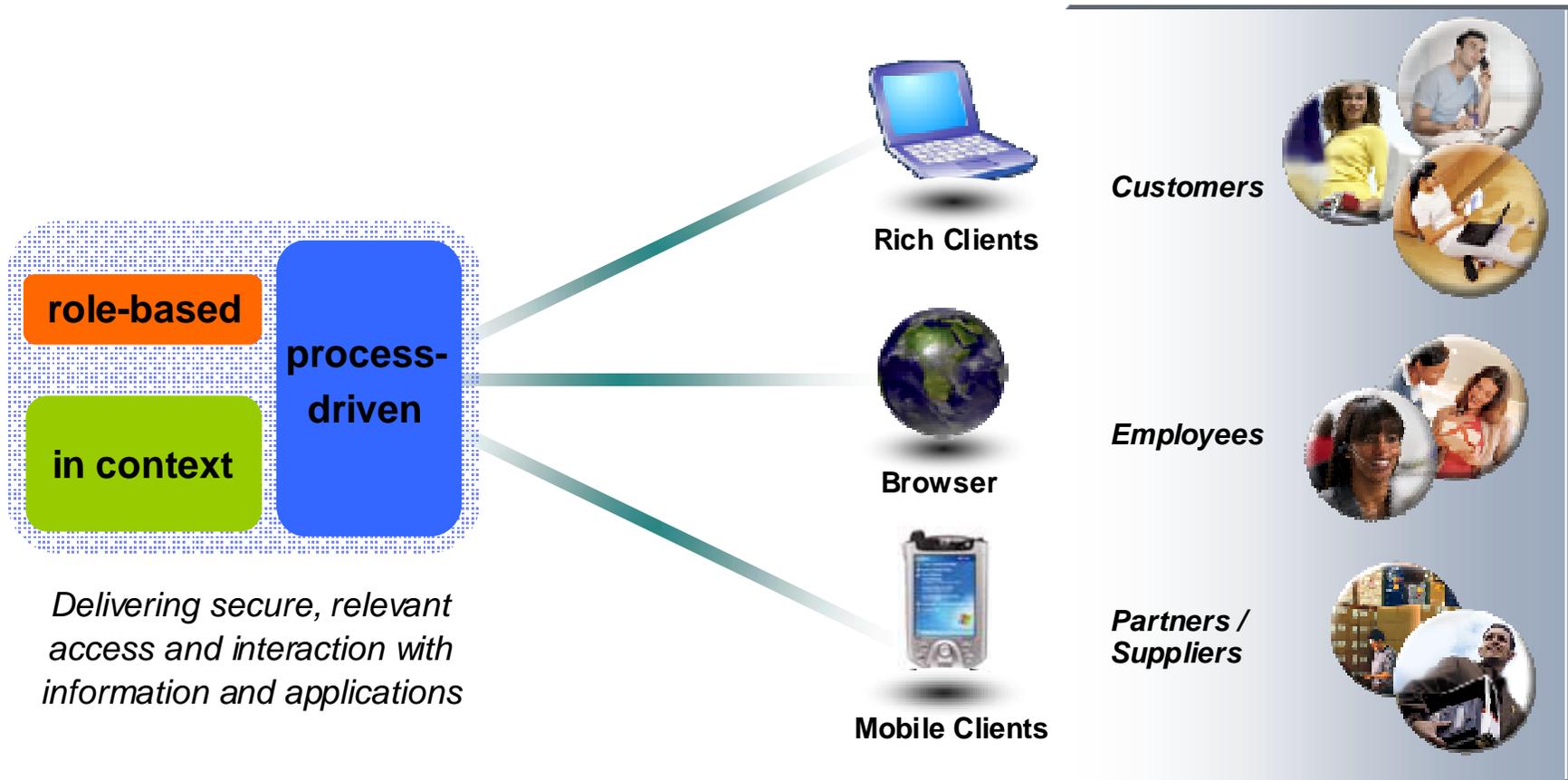
Broadest reaching integration - over 2,800 integration end points

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



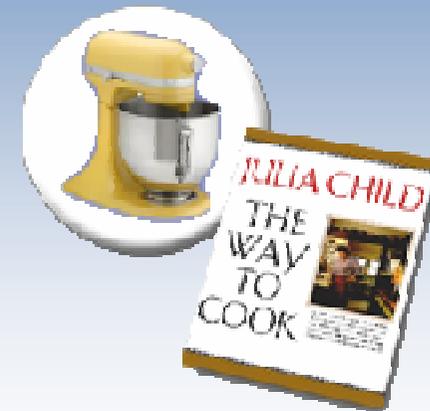
In-store Kiosk

Sales associate uses handheld 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

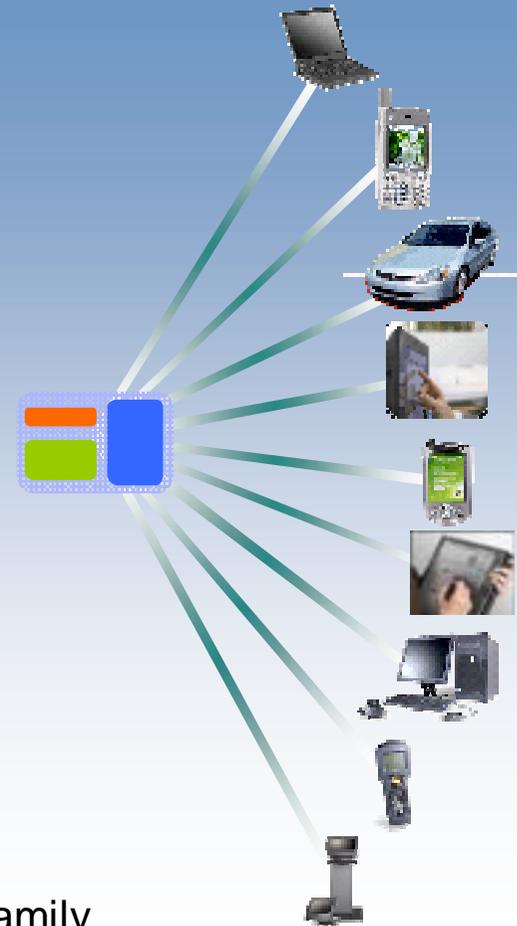
- Providing advanced user interfaces “beyond the browser” to desktops, laptops, mobile and embedded devices
- Enabling business process workflows across the value chain

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

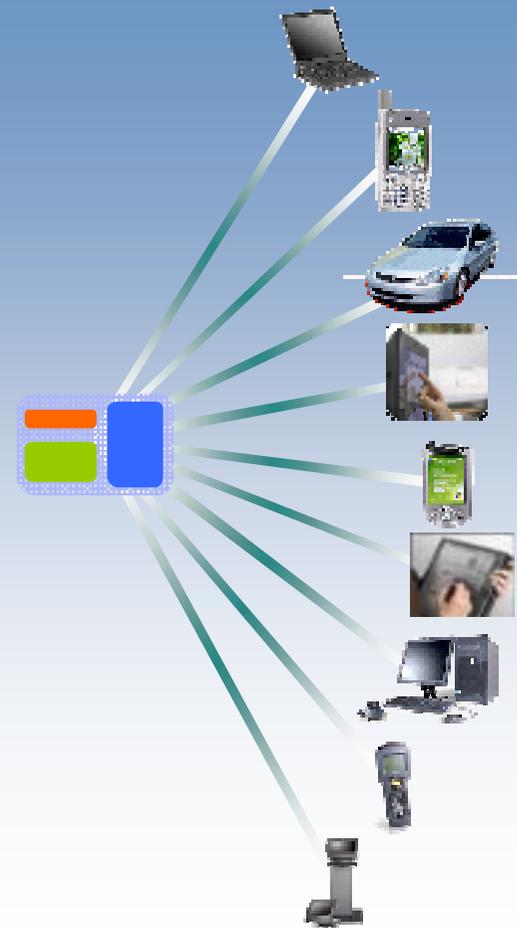


How they changed

- 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 interact 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

Customer account information

Shipment tracking and scheduling application

Delivering composite applications 'on the glass'

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



Enhanced! IBM WebSphere Portal



*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)

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

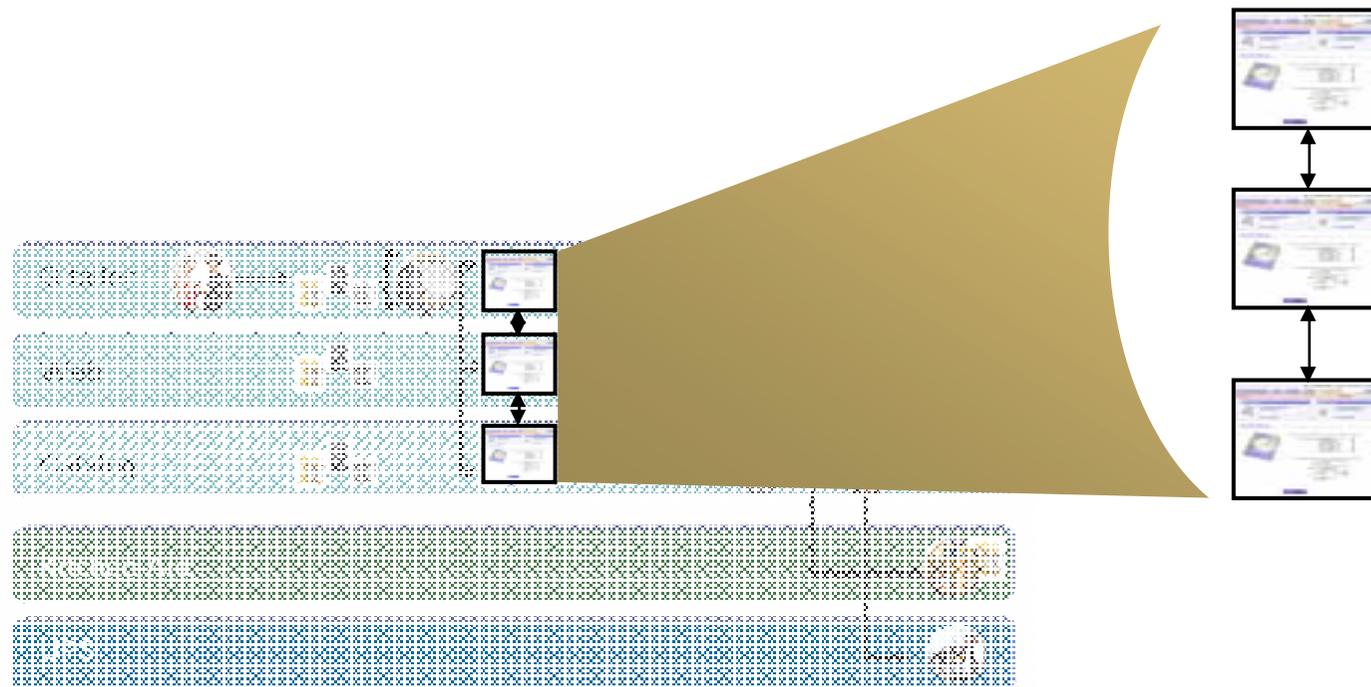
Benefits:

- 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

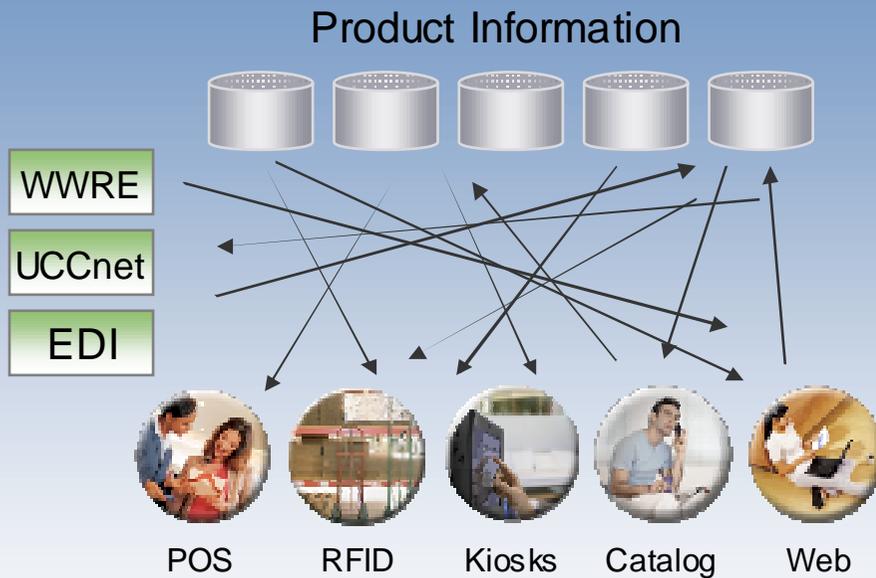


How did each channel carry the same promotion and product information?

G-tailer integrates gift registries across channels

A single platform for gift registry functionality

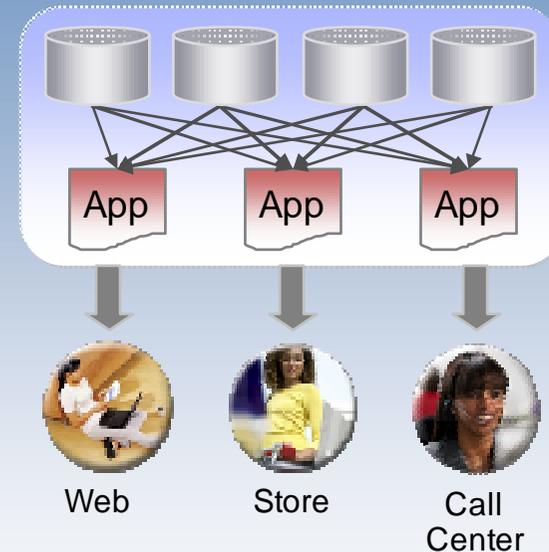
One way...



An easier way...

IBM WebSphere Product Center

One way...



An easier way...

IBM WebSphere Commerce

Enabling integrated multi-channel retailing

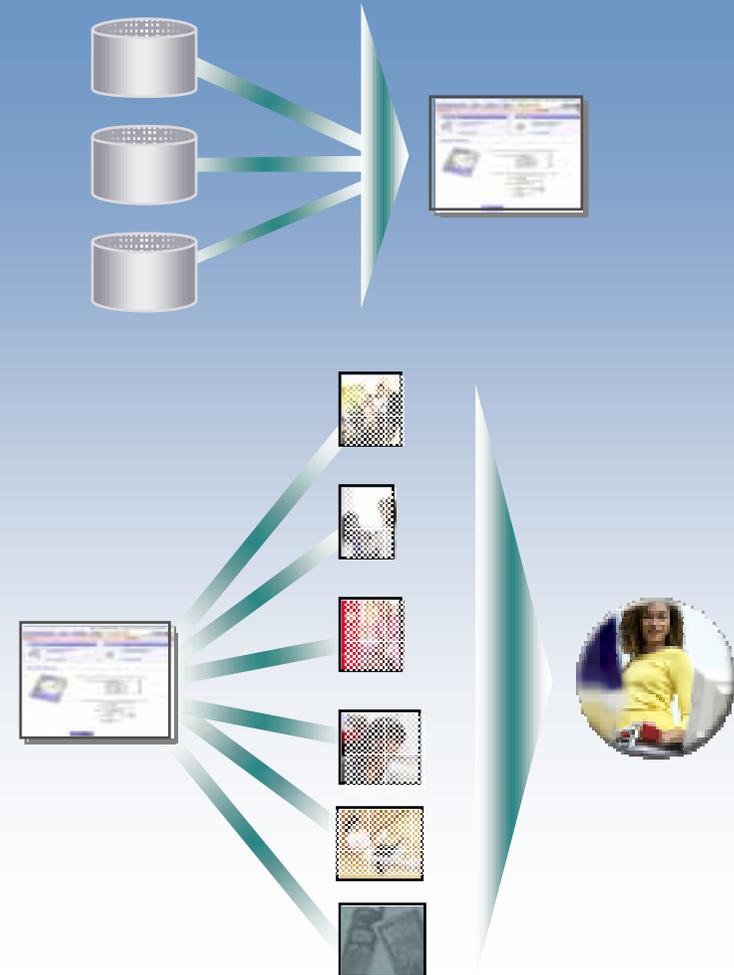
Comprehensive solution for managing customers, products and channels

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

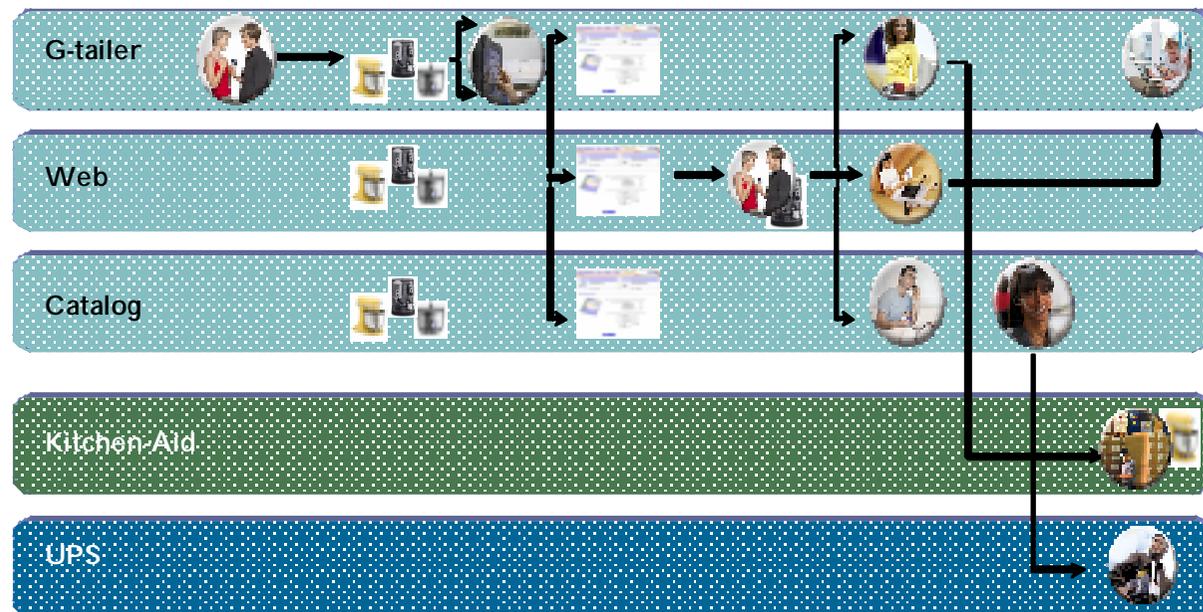
Real Results

- 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:

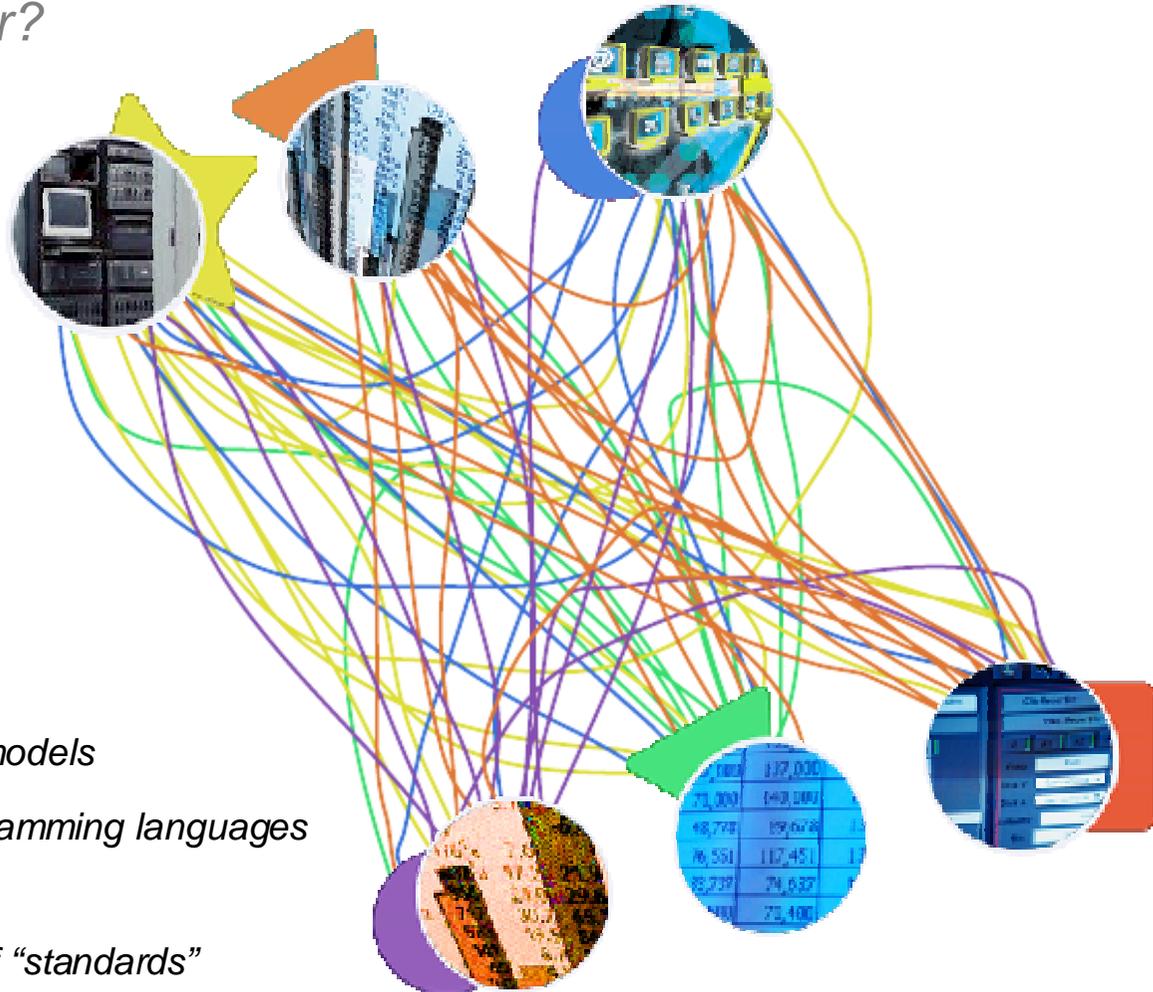
multiple programming models

multiple platforms

multiple programming languages

multiple message formats

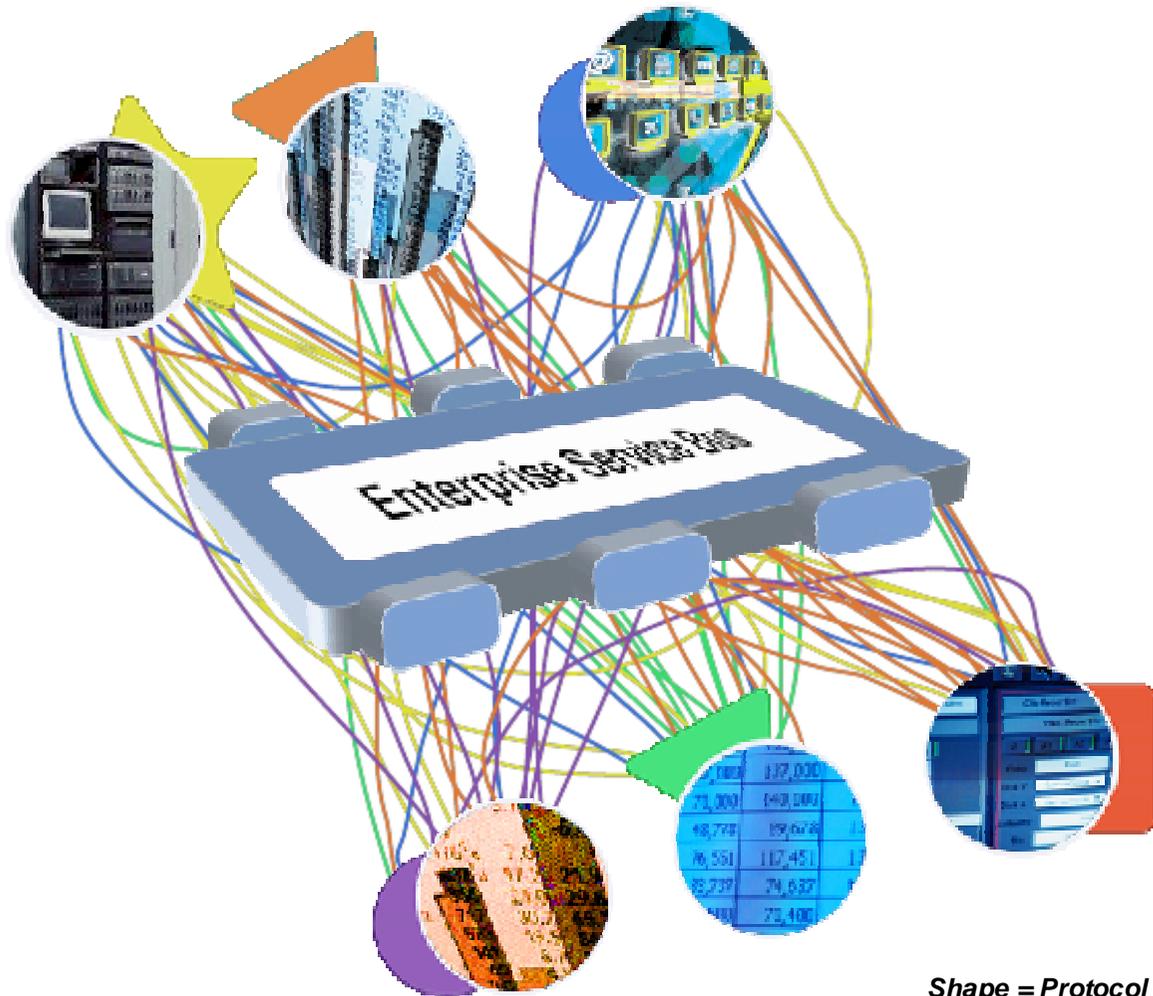
varieties of "standards"



Addressing application connectivity challenges: Enterprise Service Bus

Enterprise Service Bus (ESB)

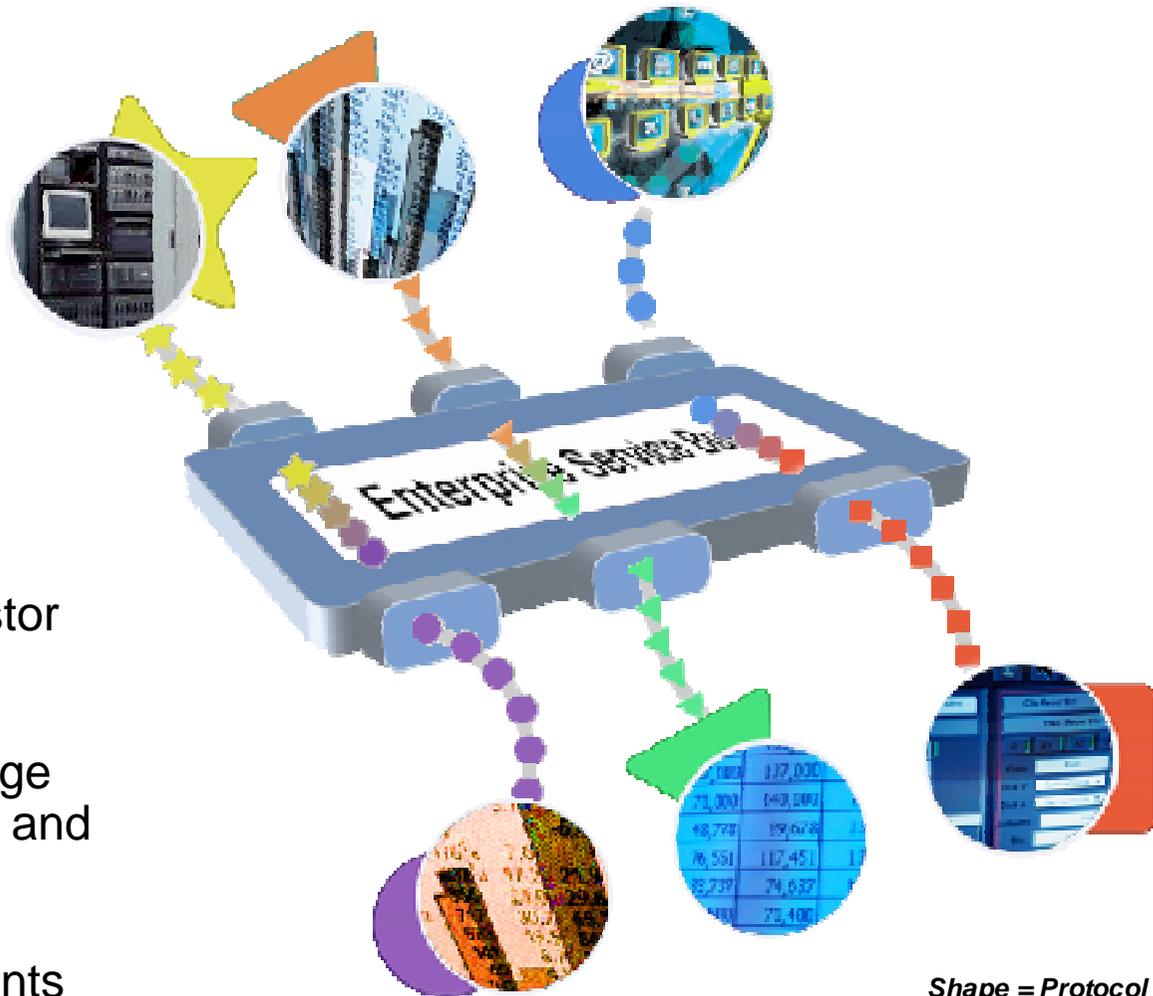
**Flexible connectivity
infrastructure for integrating
applications and services to
power your SOA**



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



Integrating applications with universal connectivity

Enhanced! WebSphere Message Broker: an advanced ESB



Universal connectivity

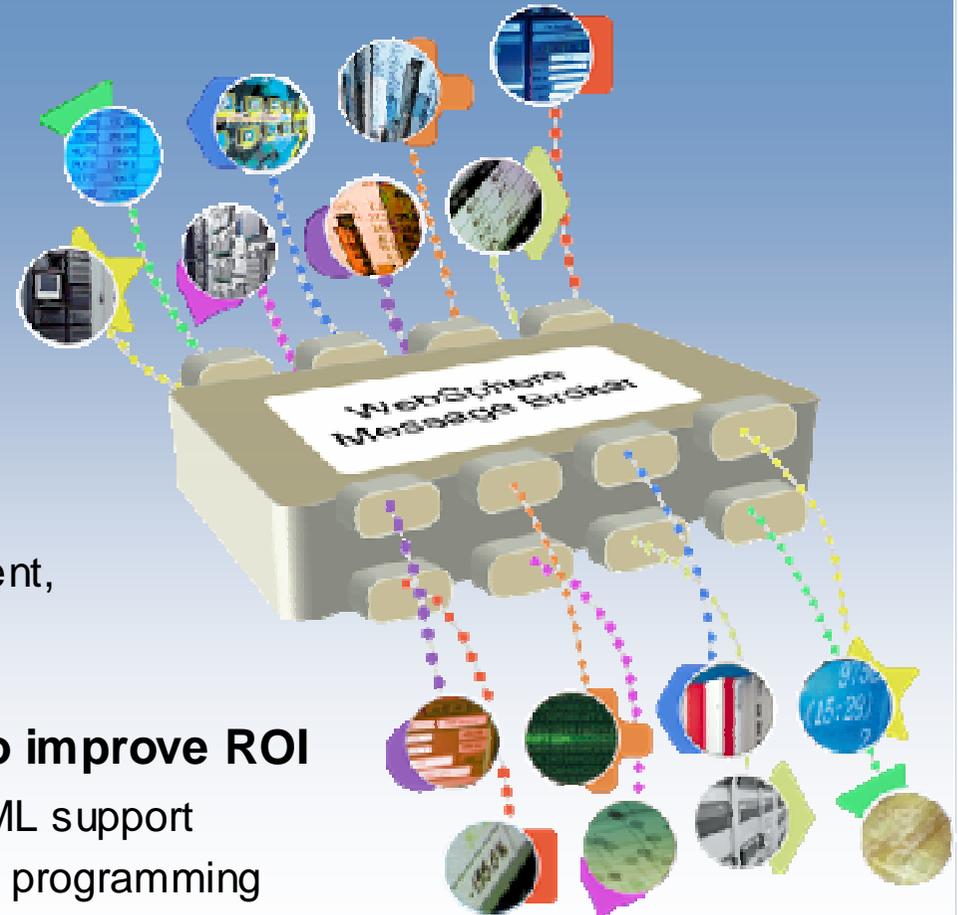
- Unmatched ability in integrating many systems, platforms, devices, and APIs
- Connect virtually your entire enterprise – whether standards based or not!

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

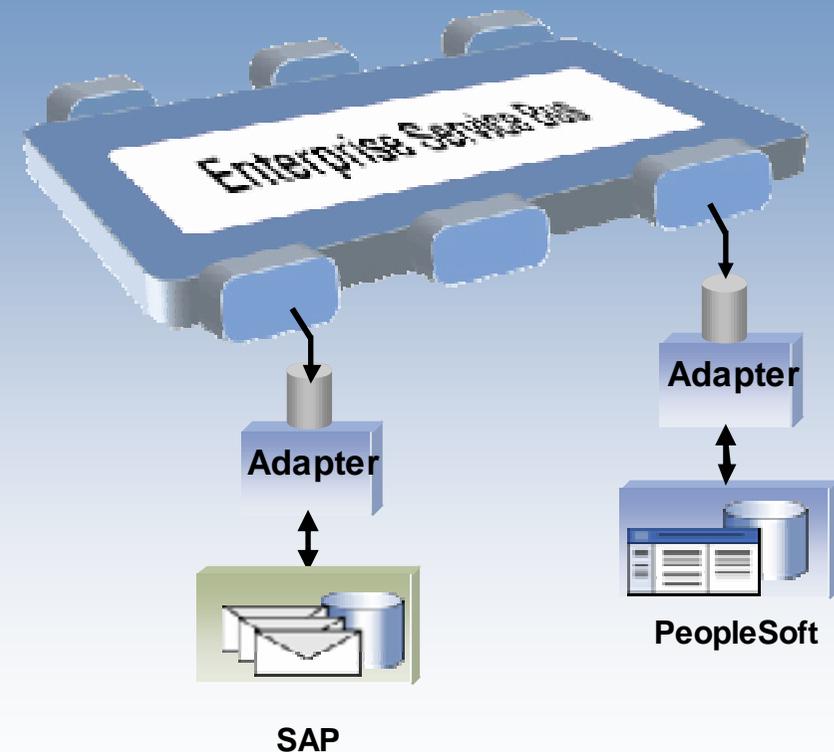
- Part of IBM's Access Services portfolio, which delivers reach to hundreds of integration endpoints

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

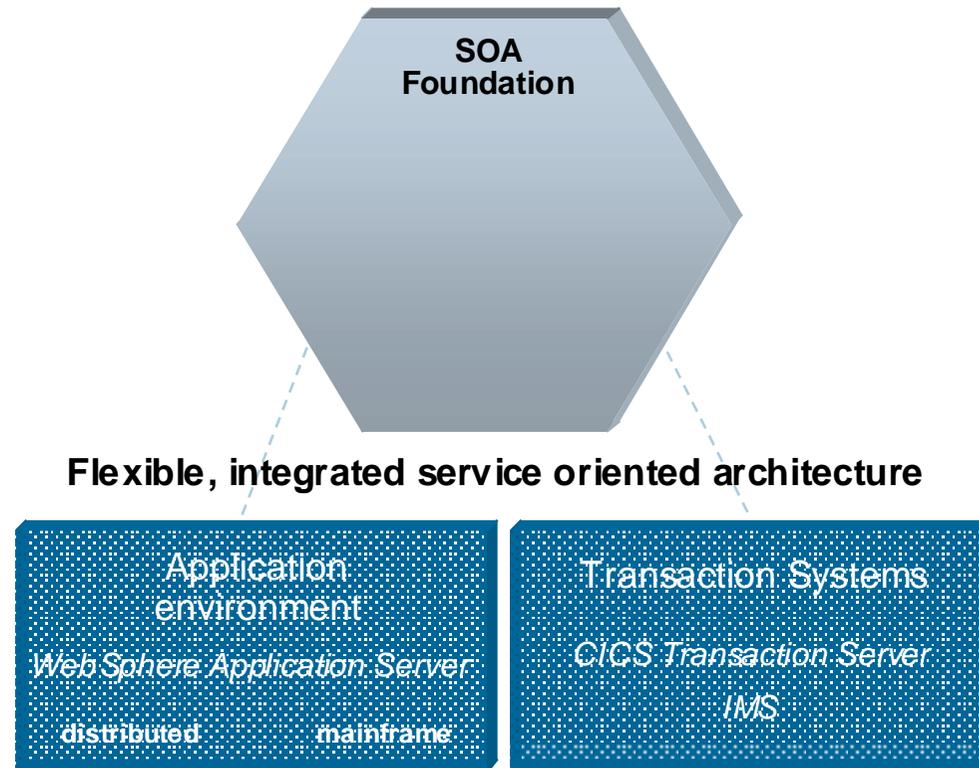
- Enable IT to be more responsive and flexible to the changing demands of the business
- Easily add, remove, and change applications as required
- Save time and money and reduce the risk with a single interface for each application
- Reliably integrate your production applications, whether packaged,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

Need a robust, secure SOA deployment environment

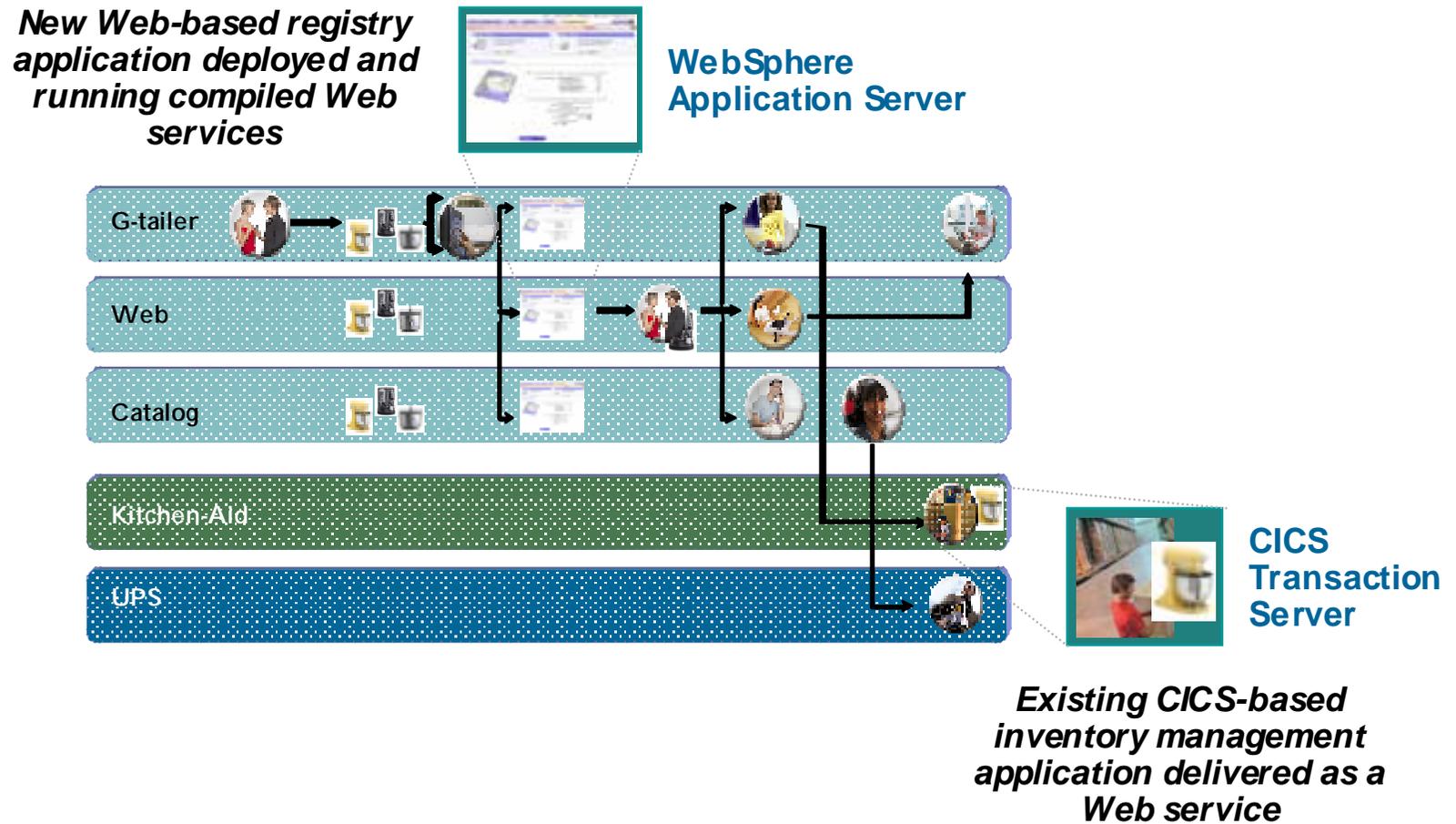
To ensure you can offer service to your customers when and how they want it



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



Enabling a robust, flexible SOA runtime environment

While maximizing the value of existing assets

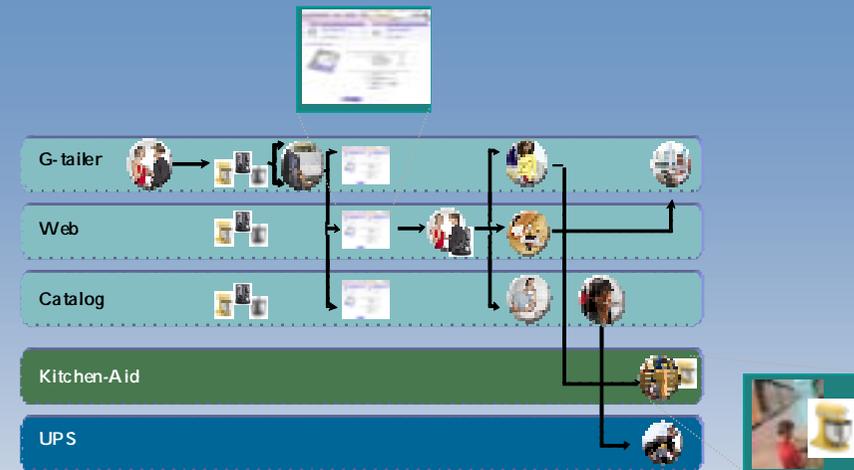
Fully SOA capable!

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**

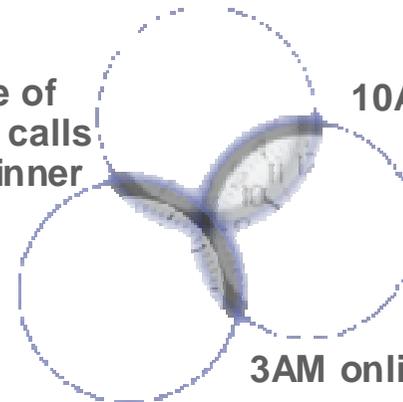
High qualities of service in a distributed environment

G-tailer confidently meets business demands while maximizing existing investments



Surge of
catalog calls
after dinner

10AM in the
store



3AM online

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**

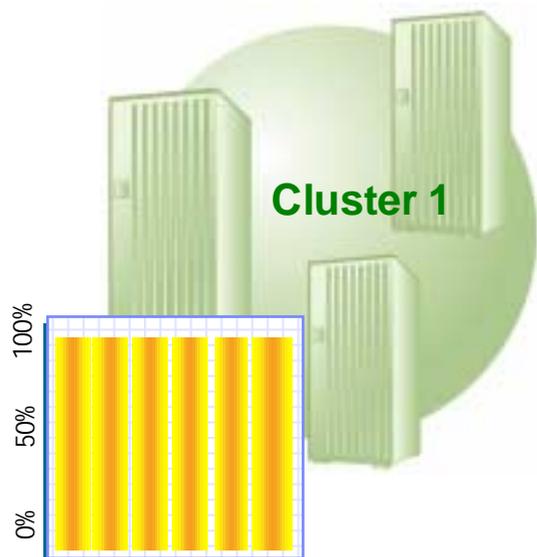
More efficient use of resources and better accommodation of mixed workloads

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

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

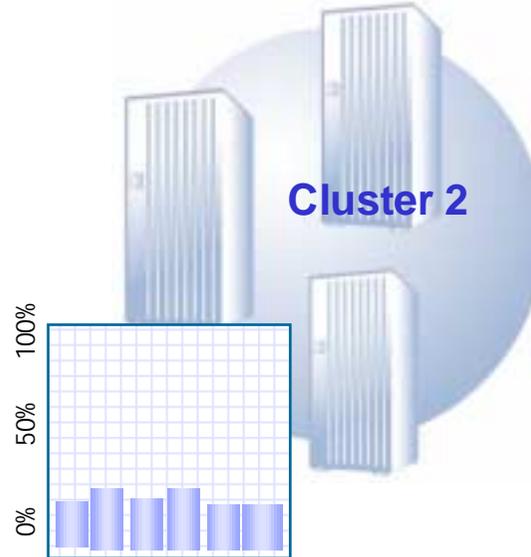
Static clustered environment leads to application “silos”

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



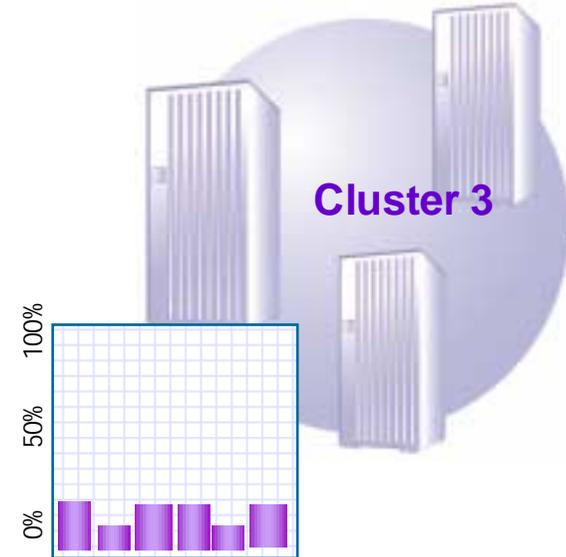
**June Wedding Season:
100% Utilized Servers**

Gift Registry Activity



15% Utilized Servers

Account Management



10% Utilized Servers

Shipping & Delivery

Resource virtualization maximizes utilization and improves responsiveness



Gift Registry Activity

Account Management

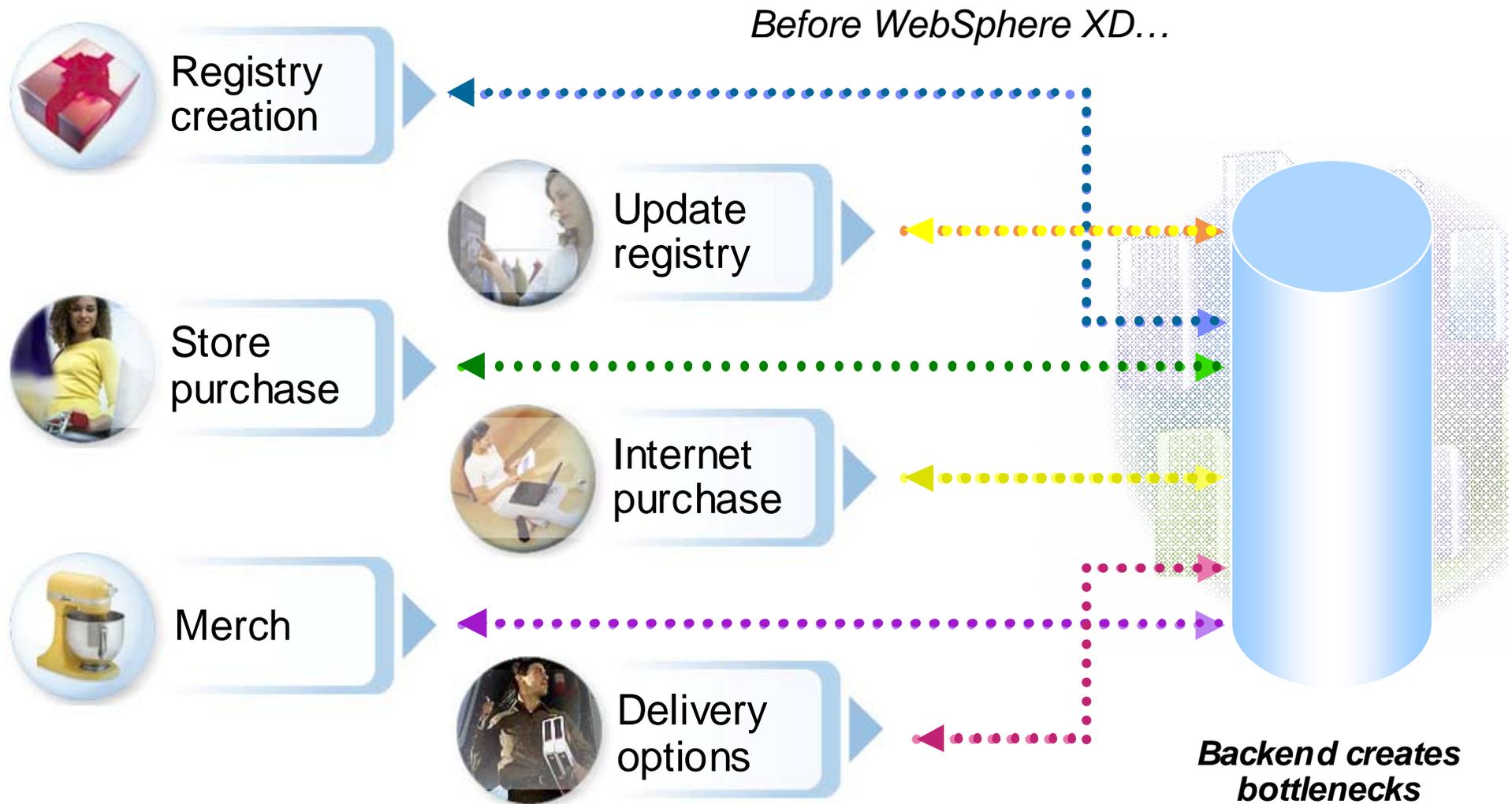
Shipping & Delivery

Customer Support

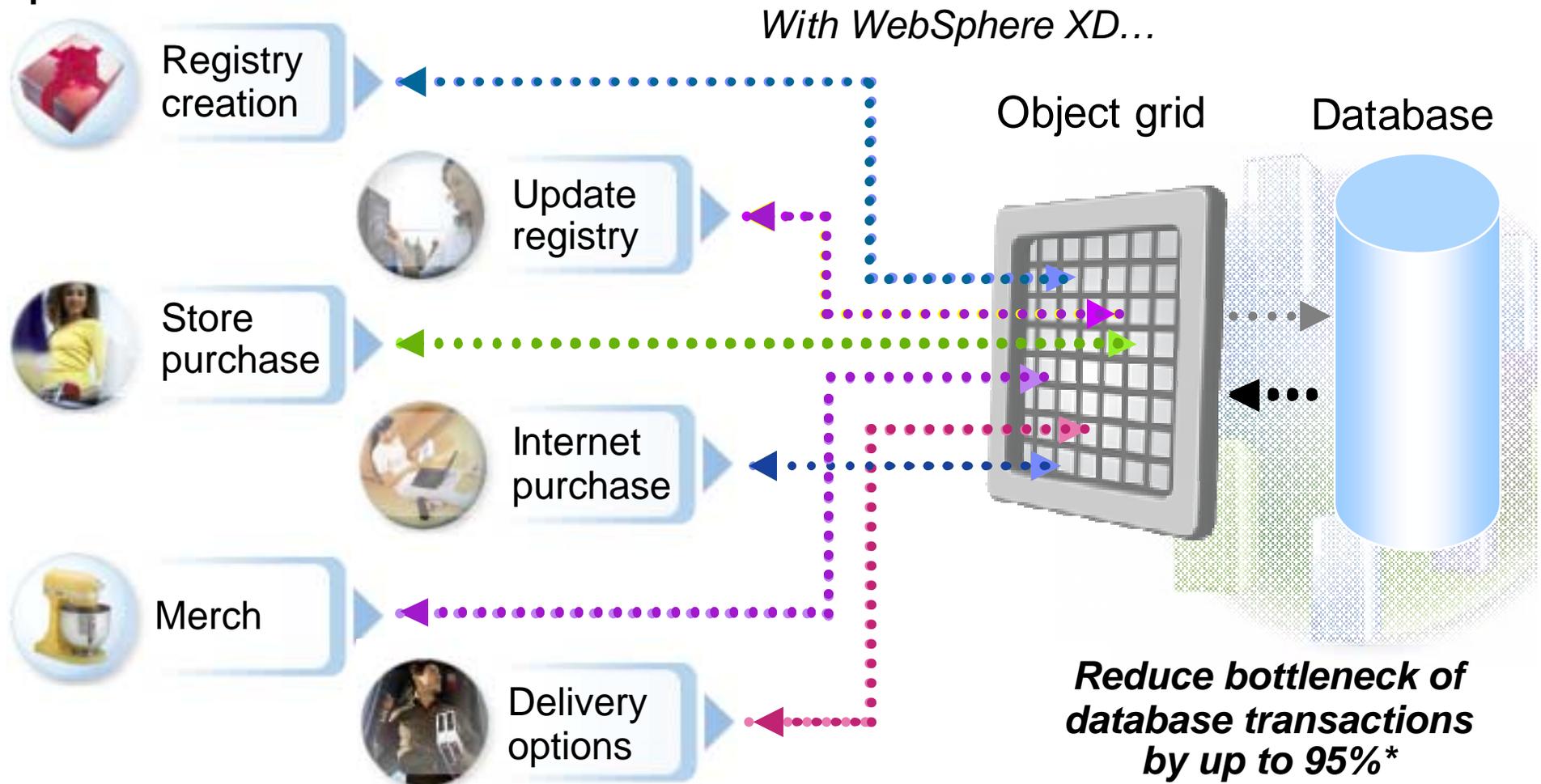
Merchandise

* 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

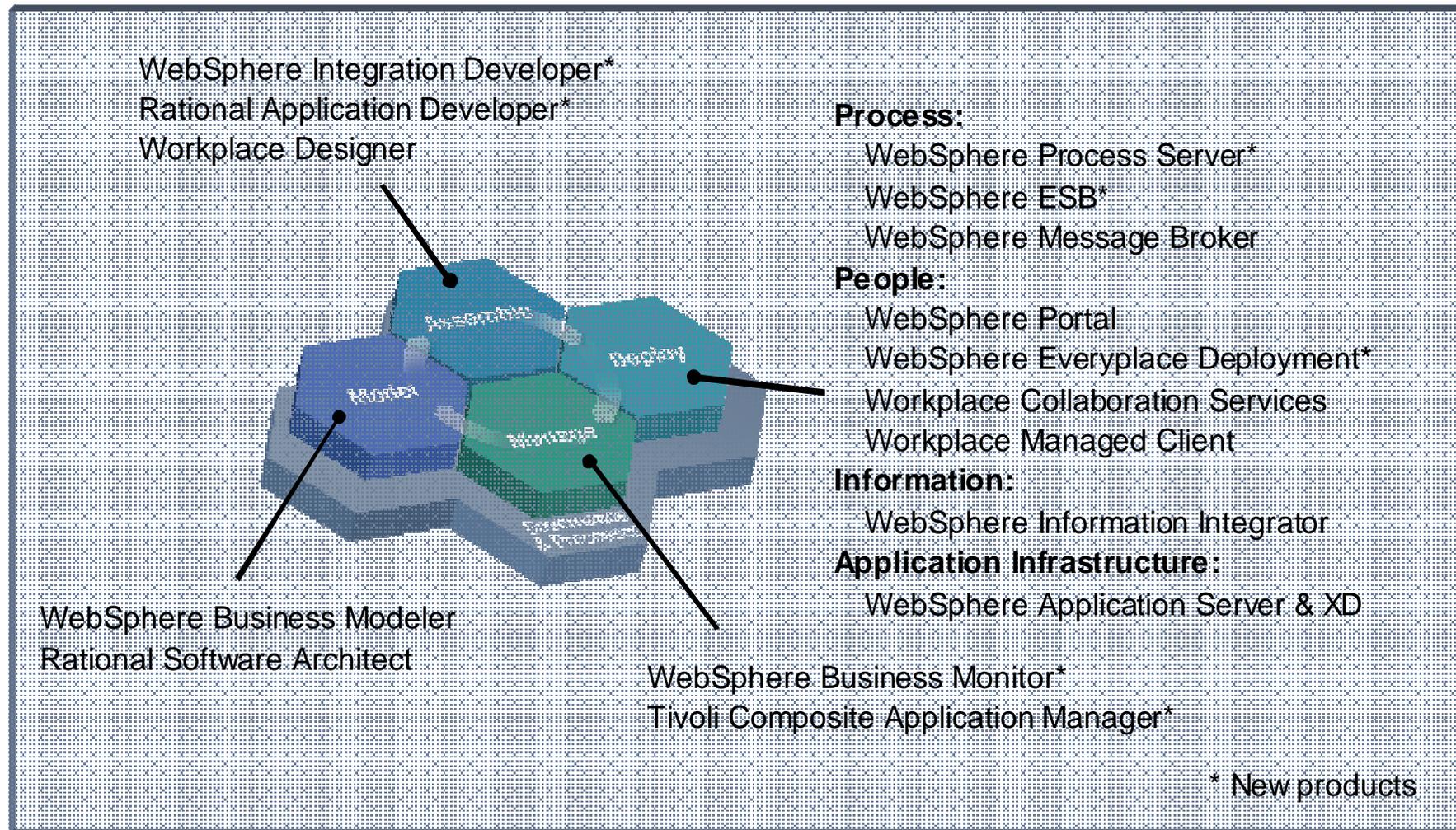
- ObjectGrid, a caching fabric which enables object data to be shared among multiple clients
- Partitioning facility enables the development of highly scalable, high performance J2EE applications

Enhanced manageability

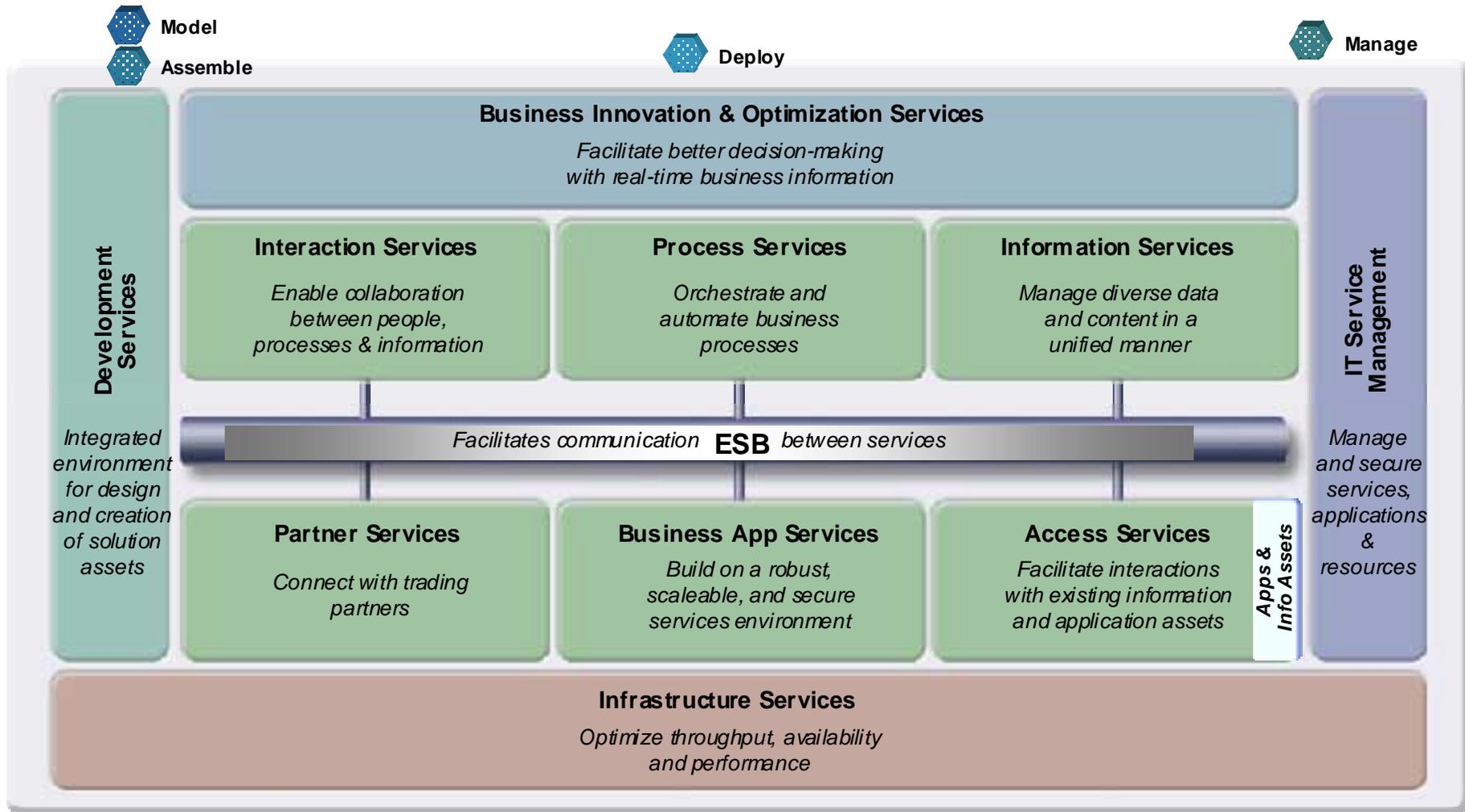
- At-a-glance assessments of system vitality and improved application manageability
- Interruption-free application updates to manage the deployment of multiple application versions



All come together to strengthen the IBM SOA Foundation

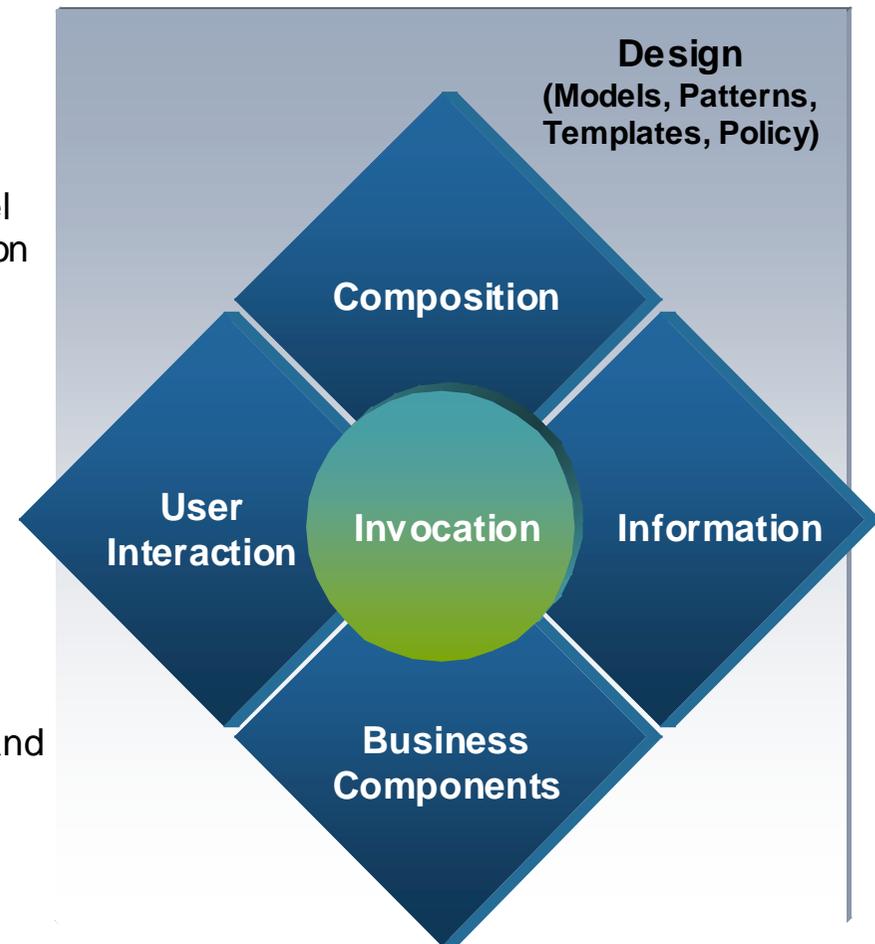


SOA Reference Architecture



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

Model	Assemble	Deploy	Manage
<p>IBM Modeling Essentials</p> <ul style="list-style-type: none"> ▪ UML ▪ Eclipse 	<p>IBM Development Essentials</p> <ul style="list-style-type: none"> ▪ SDO ▪ BPEL ▪ J2EE ▪ Eclipse 	<p>IBM SOA Runtime Essentials</p> <ul style="list-style-type: none"> ▪ WS BPEL ▪ WS-I Basic Profile 1.1 ▪ WS-I Simple Soap Binding Profile 1.0 ▪ WS-I Basic Security Profile 1.0 ▪ WS-Addressing ▪ WS-Reliable Messaging ▪ WS-Secure Conversations ▪ Other WS standards* ▪ J2EE 	<p>IBM SOA Management Essentials</p> <ul style="list-style-type: none"> ▪ WSDM ▪ Common Base Events

* includes a wide range of enterprise characteristics: security, transactions, reliable messaging



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)