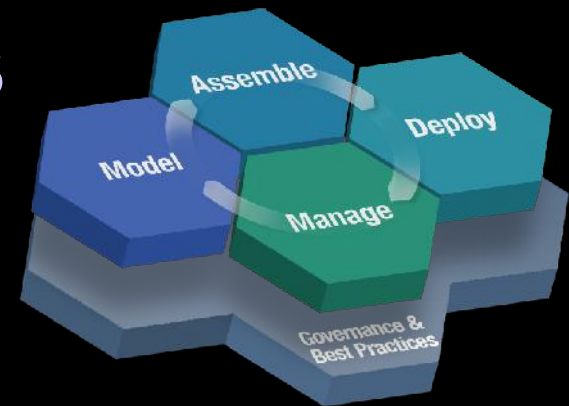





IBM SOA Executive Summit

Unlocking the Business Value of SOA



Steve Mills
Senior VP and Group Executive
IBM Software

SOA on your terms and our expertise

 **innovation**
that **matters**

June 2006

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Agenda

1. Today's Business and IT Environments
2. What is a Service Oriented Architecture (SOA)
3. Customer Experiences Deploying SOA
4. Getting Started



The Top Focus for Business

- Due to competitive and market forces, CEOs plan to radically change their companies in the next 2 years.
- > 80% of CEOs stated their organizations have not been very successful at managing change
- 78% of CEOs believe integrating business and technology is fundamental for innovation



Source: IBM Global CEO Survey, March 2006

The Goal: Strategic Flexibility Through Innovation

Innovation that Matters to CEOs

Top Innovation Priorities:

- Extend the ability to collaborate inside and outside
- Innovate business models and processes
- Leverage information for business optimization

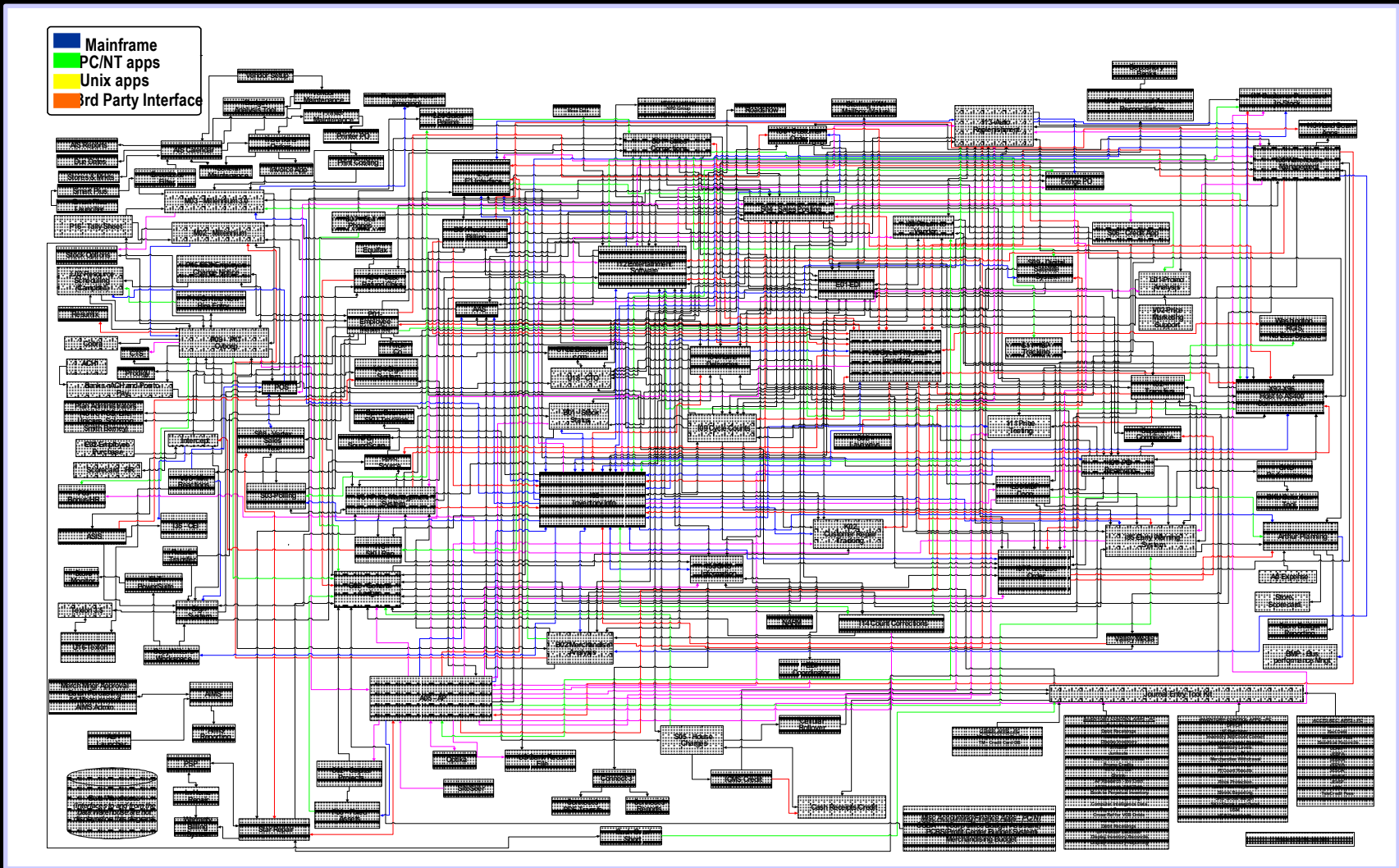


87% of CEOs believe fundamental **change** is required in next two-years to drive innovation

Source: 2006 IBM Global CEO Survey

Innovation is all about change. SOA makes it easier to change.

Complexity is Reality



Actual Application Architecture for Consumer Electronics Company

Controlled Transformation

- ***Start by deconstructing your business model*** - breaking it down into discrete business processes and functions
- These processes and functions are what we call ***service components***
- Each service component serves a unique purpose and ***interacts with other service components*** in the business model, using agreed-upon cost structures and service levels



Deconstruct & Conquer: *The Component Business Model*

1 2 3 4 First, break down your business into its components

Example: Consumer Packaged Goods

	Product Management	Customer Relationship	Manufacturing	Supply Chain & Distribution	Business Administration
Strategy	Category/Brand Strategy	Customer Relationship Strategy	Manufacturing Strategy	Supply Chain Strategy	Corporate Strategy
	Category/Brand Planning	Customer Relationship Planning	Supplier Relationship Management	Supply Chain Planning	Corporate Planning
Tactics	Brand P&L Management	Assessing Customer Satisfaction	Production and Materials Planning	Distribution Oversight	
	Matching Supply and Demand	Customer Insights	Manufacturing Oversight	Inbound Logistics	Outbound Logistics
	Marketing Development & Effectiveness	Account Management	Supplier Control		
	Product Ideation			External Market Analysis	
Execution	Concept/Product Testing	Value-Added Services	Make Products	Distribution Center Operations	Treasury and Risk Management
	Product Development	Customer Account Servicing	Assemble/Pkg. Products		Accounting and GL
	Product Management	Retail Marketing Execution	Plant Inventory Management		Indirect Procurement
	Marketing Execution	In-store Inventory Mgmt	Manufacturing Procurement	Transportation Resources	Facilities and Equipment Management
	Consumer Service	Customer Directory		En Route Inventory Management	HR Administration
	Product Directory				IT Systems and Operations

Deconstruct & Conquer: *The Component Business Model*

1 **2** 3 4 Next, decide what's differentiating and what is simply operating

Example: Consumer Packaged Goods

- Strategic differentiation**
- Competitive parity**
- Basic**

	Product Management	Customer Relationship	Manufacturing	Supply Chain & Distribution	Business Administration
Strategy	Category/Brand Strategy	Customer Relationship Strategy	Manufacturing Strategy	Supply Chain Strategy	Corporate Strategy
	Category/Brand Planning	Customer Relationship Planning	Supplier Relationship Management	Supply Chain Planning	Corporate Planning
Tactics	Brand P&L Management	Assessing Customer Satisfaction	Production and Materials Planning	Distribution Oversight	
	Matching Supply and Demand	Customer Insights	Manufacturing Oversight	Inbound Logistics	Outbound Logistics
	Marketing Development & Effectiveness	Account Management	Supplier Control		
	Product Ideation	Value-Added Services	Make Products	Distribution Center Operations	
Execution	Concept/Product Testing	Customer Account Servicing	Assemble/Pkg. Products	Transportation Resources	Treasury and Risk Management
	Product Development	Retail Marketing Execution	Plant Inventory Management	En Route Inventory Management	Accounting and GL
	Product Management	In-store Inventory Mgmt	Manufacturing Procurement		Indirect Procurement
	Marketing Execution	Customer Directory			Facilities and Equipment Management
	Consumer Service				HR Administration
	Product Directory				IT Systems and Operations

Deconstruct & Conquer: *The Component Business Model*

1 2 **3** 4 Then, analyze costs

Example: Consumer Packaged Goods

High capital area

High cost area

High cost & capital area

	Product Management	Customer Relationship	Manufacturing	Supply Chain & Distribution	Business Administration
Strategy	Category/Brand Strategy	Customer Relationship Strategy	Manufacturing Strategy	Supply Chain Strategy	Corporate Strategy
	Category/Brand Planning	Customer Relationship Planning	Supplier Relationship Management	Supply Chain Planning	Corporate Planning
Tactics	Brand P&L Management	Assessing Customer Satisfaction	Production and Materials Planning	Distribution Oversight	Business Performance Management
	Matching Supply and Demand	Customer Insights	Manufacturing Oversight		Inbound Logistics Outbound Logistics
	Marketing Development & Effectiveness	Account Management	Supplier Control	Distribution Center Operations	
	Product Ideation	Value-Added Services	Make Products		Transportation Resources
Execution	Concept/Product Testing	Customer Account Servicing	Assemble/Pkg. Products	En Route Inventory Management	
	Product Development	Retail Marketing Execution	Plant Inventory Management		HR Administration
	Product Management	In-store Inventory Mgmt	Manufacturing Procurement	IT Systems and Operations	
	Marketing Execution	Customer Directory			Facilities and Equipment Management
	Consumer Service				
	Product Directory				

Deconstruct & Conquer: *The Component Business Model*

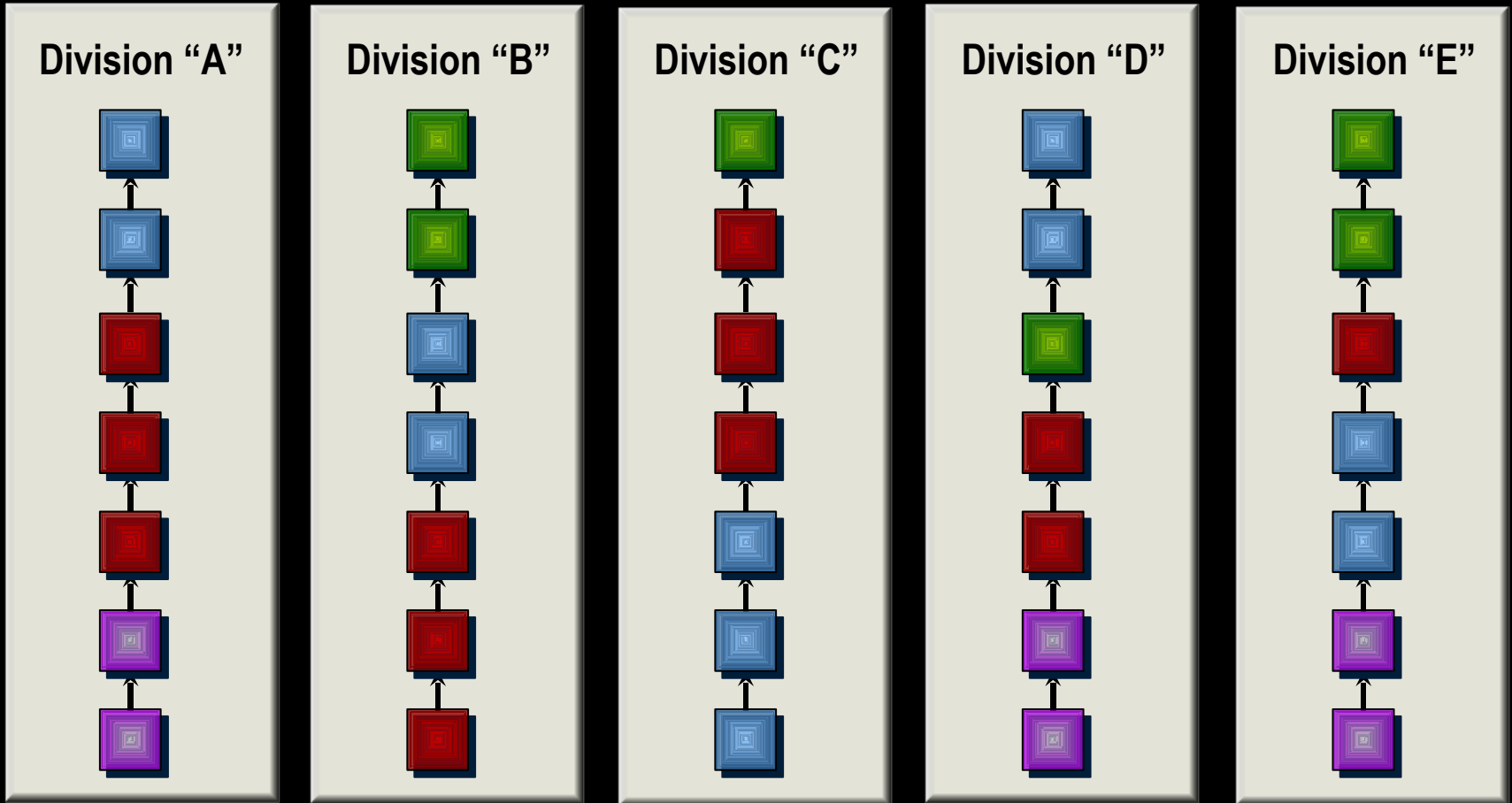
1 2 3 **4** Finally, prioritize your transformation initiatives

Example: Consumer Packaged Goods

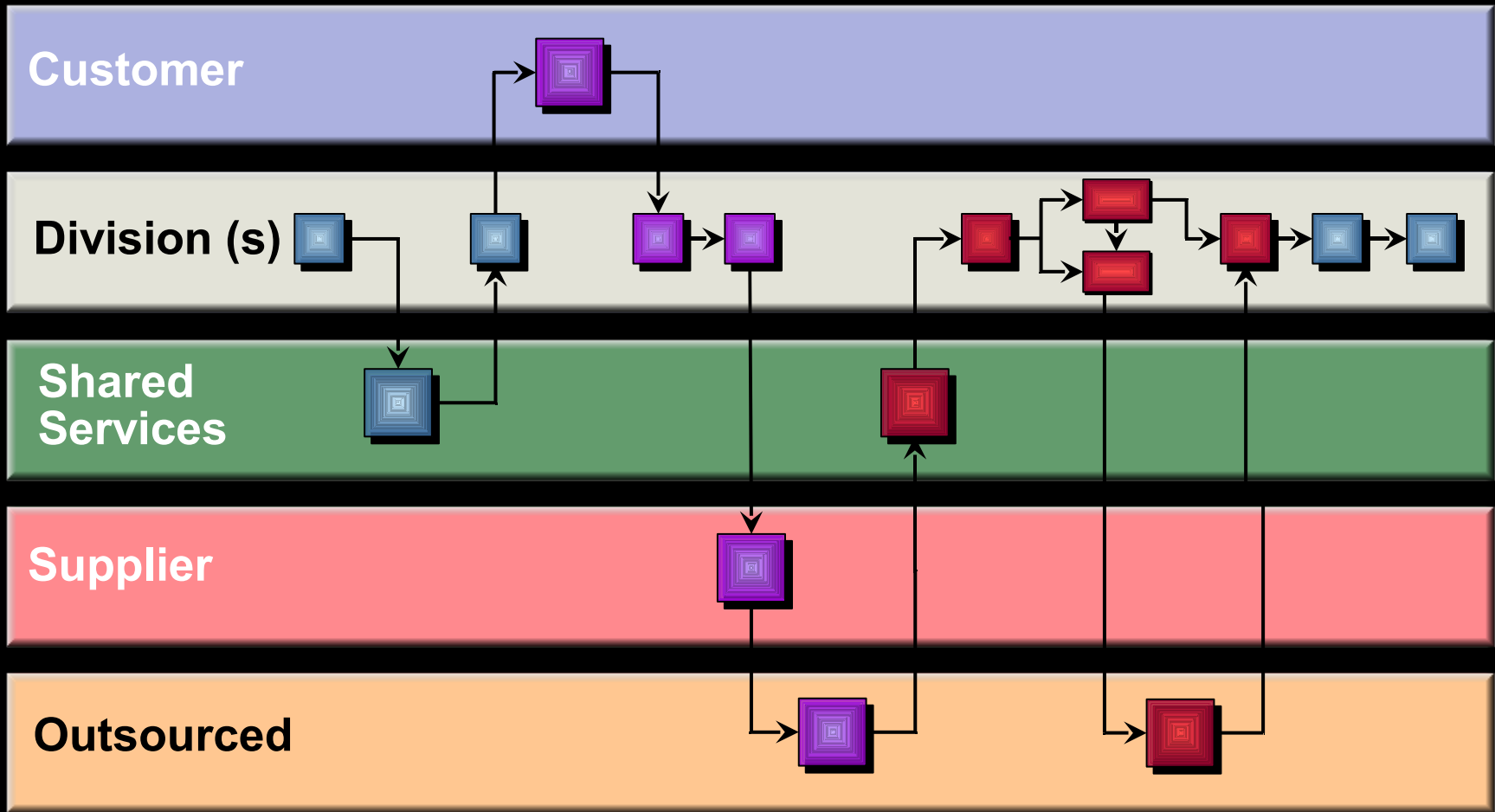
- Seek external provider / external utility**
- Consolidate and/or create internal utility**
- Integrate and redesign**
- No action**

	Product Management	Customer Relationship	Manufacturing	Supply Chain & Distribution	Business Administration
Strategy	Category/Brand Strategy	Customer Relationship Strategy	Manufacturing Strategy	Supply Chain Strategy	Corporate Strategy
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	Consumer Service				
	Product Directory				

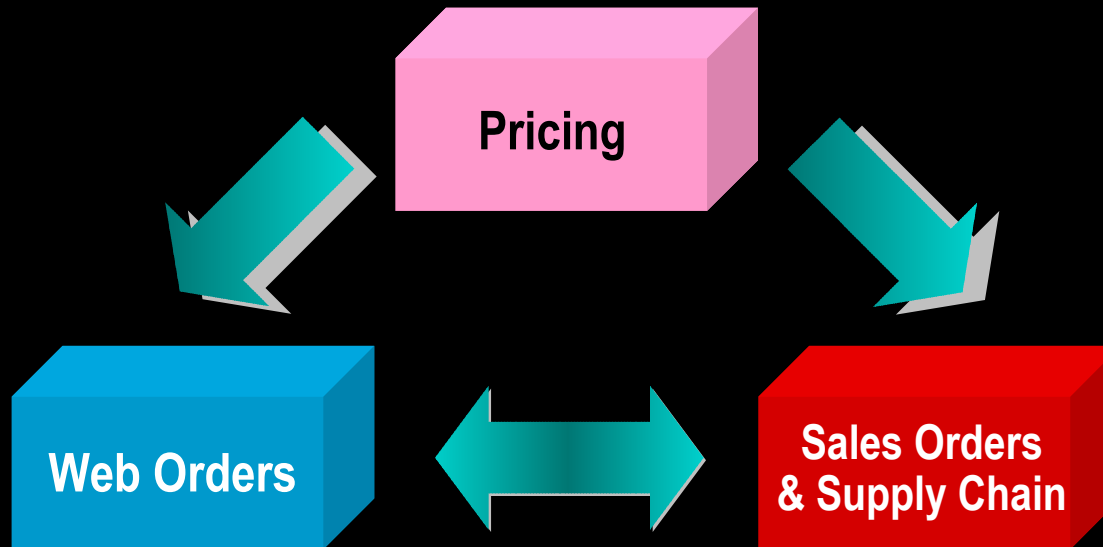
The Vertical Silo Problem



Where Are We Heading – *Service Oriented Architecture*



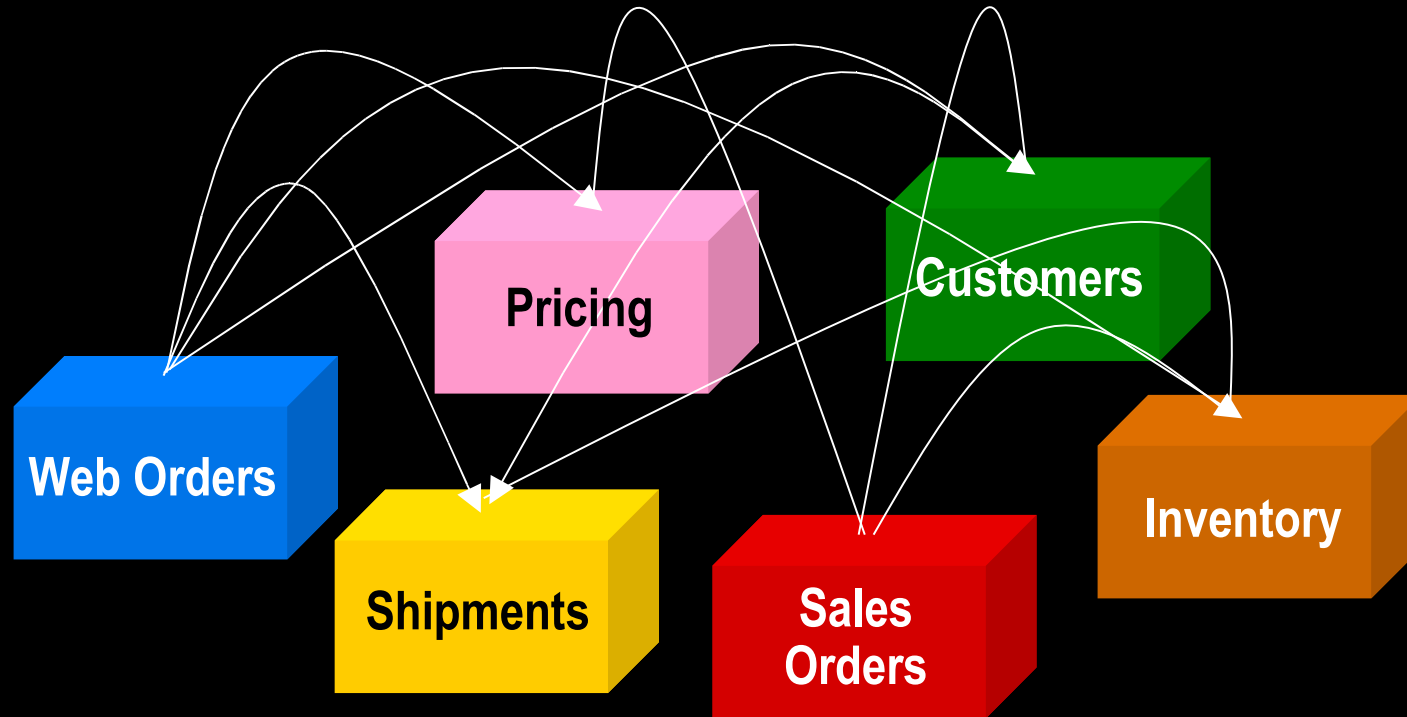
Need for a Services Oriented Architecture



Monolithic Business Applications – built historically

- Must periodically synchronize on inventory information
- Pricing information into each inserted differently based on application structure
- No common customer database, inventory or flexibility in business processes

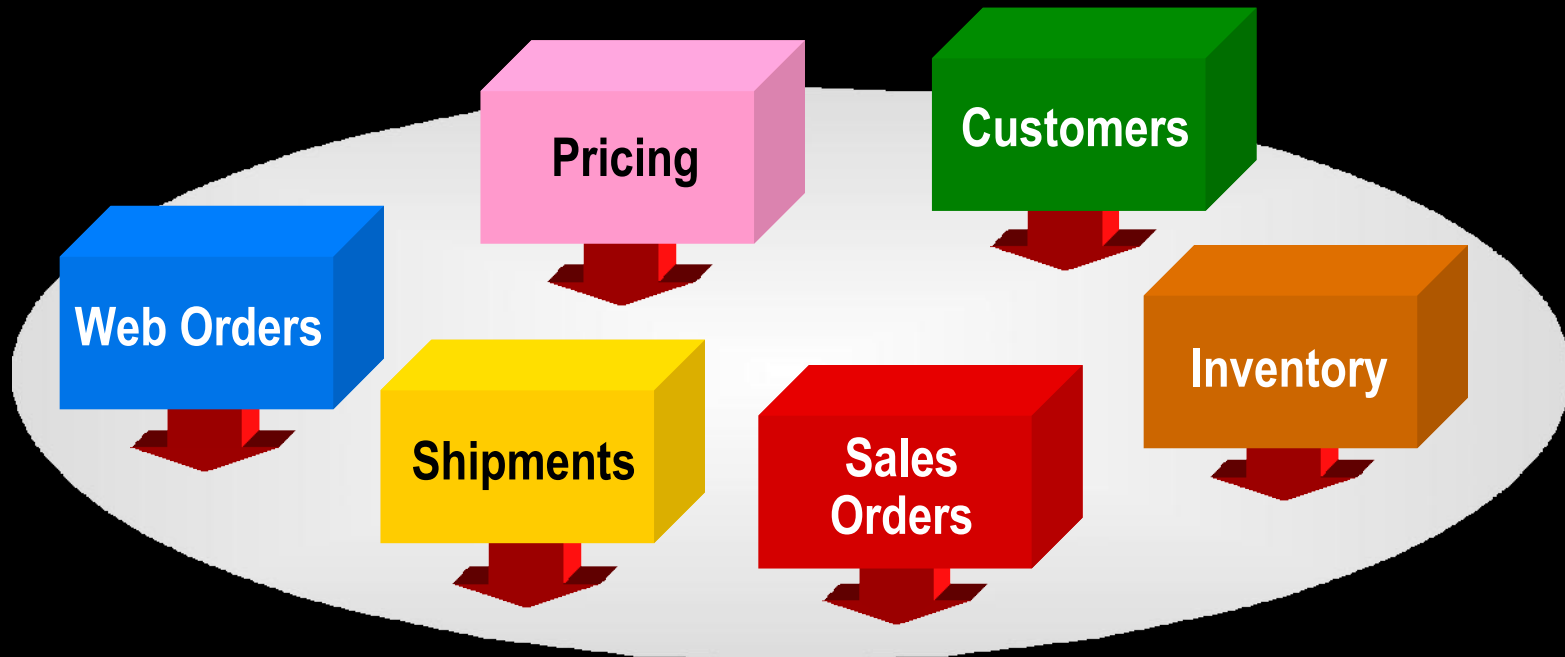
Component-based Architecture is Not Enough



Services defined as units of business logic, but

- Flow of control – bound into service logic
- Transformation of data formats bound into service logic
- Tight coupling between services makes them fragile

Move IT Logic Out of Services



Services defined as units of business logic separated from

- Flow of control and routing
- Data transformation and protocol transformation

Service Oriented Architecture (SOA)

... a service

A **repeatable business task** – e.g., check customer credit; open new account



... service oriented architecture (SOA)

An IT **architectural style** that supports integrating your business as linked services

*“SOA is the **heart of the next wave of innovation**. The leaders that do this well are able to **rapidly change** ...”*

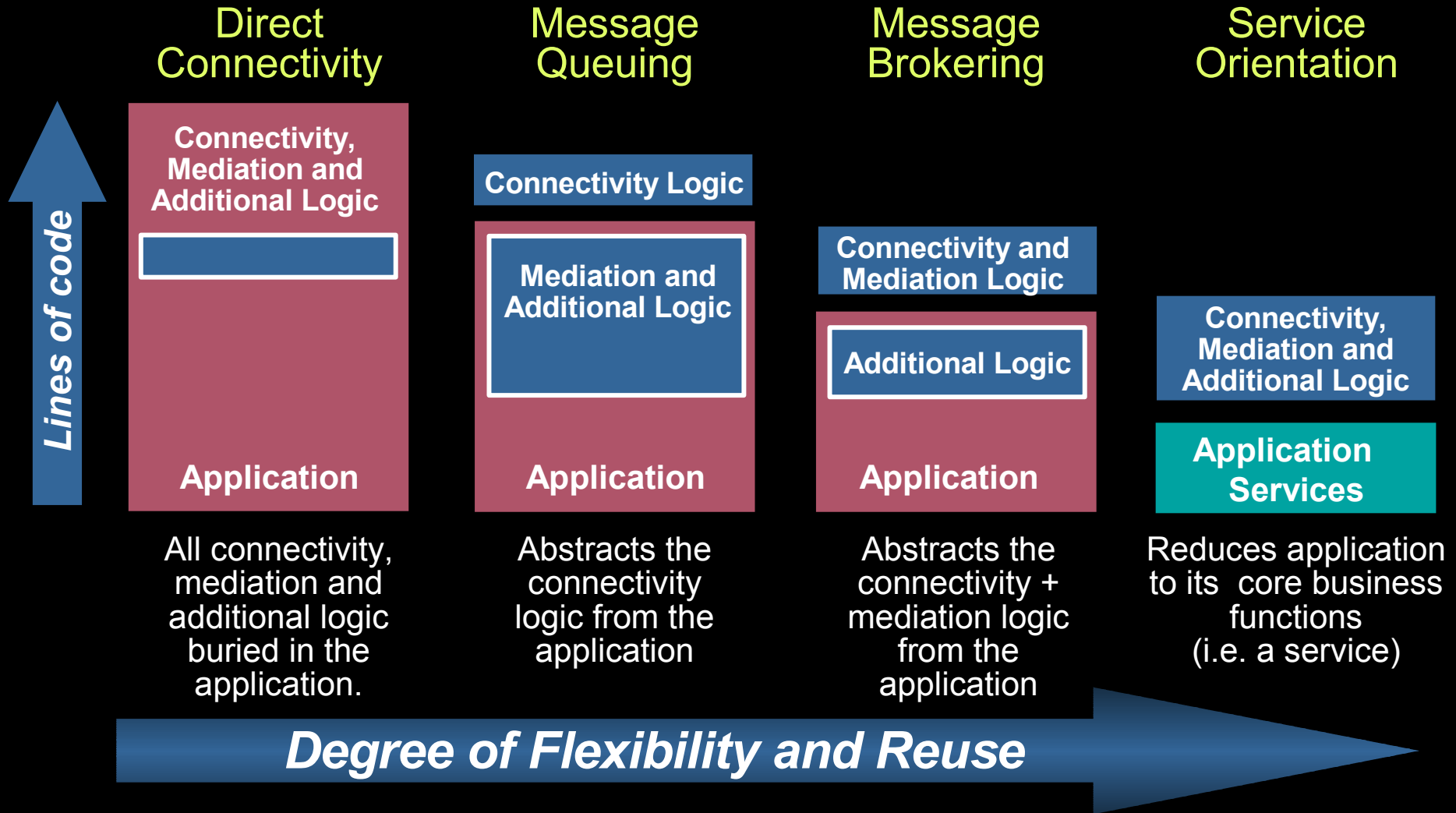


*“SOA is critical for ... executing the on-demand vision and in preparing ... for the **incremental changes** ... over time. Companies ... make better decisions.”*



Service Oriented Architecture (SOA)

The Next Step on the Connectivity Evolution



Benefits of Modularity and Composition

Building a Highly-Consumable Component-based Infrastructure

Incremental and Integrated

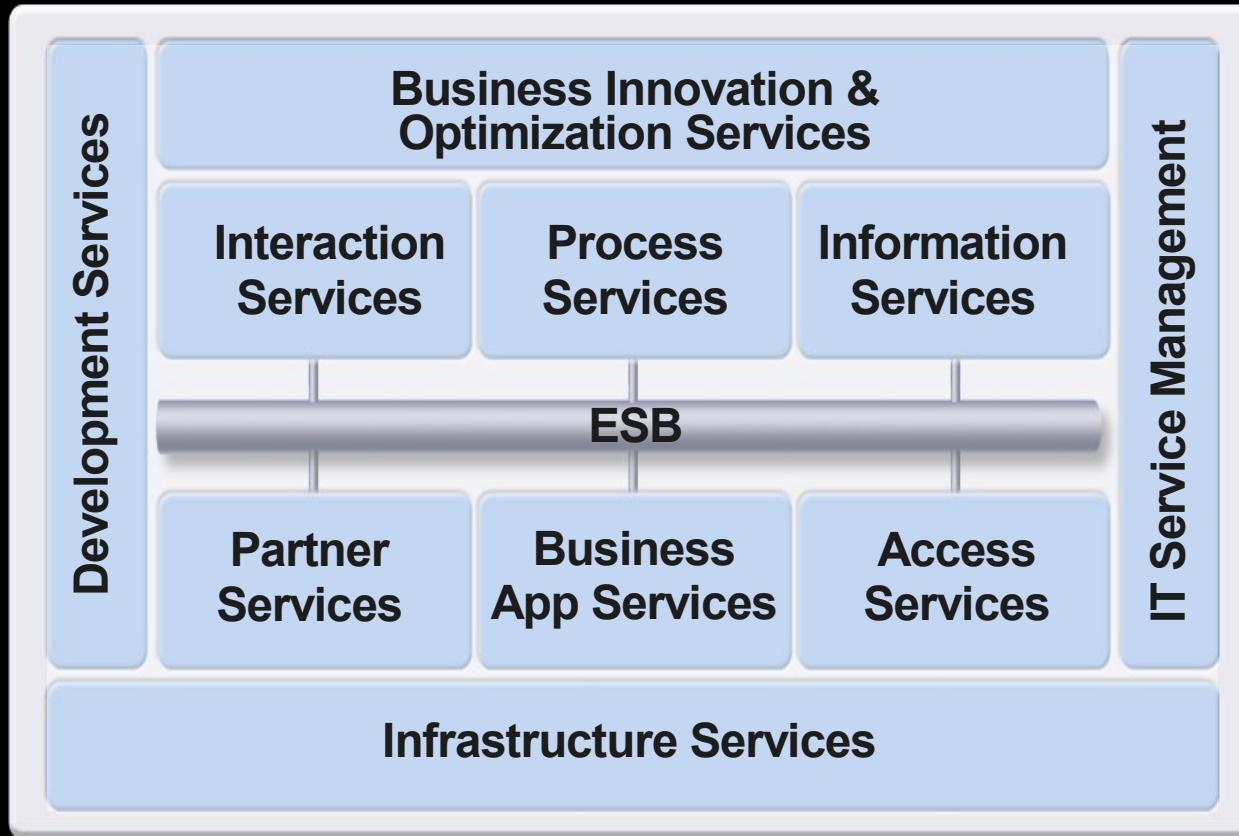
Enable customers to easily, independently, and incrementally acquire and install IBM software platform capabilities through packaged offerings that provide a set of seamless software platform extensions

Agile and Composable

Enable IBM and our partners to rapidly adapt to shifting market pressures (enable market agility) by delivering packaged offerings and solutions to market through the assembly and reassembly of software platform capabilities into new and flexible configurations

Robust Capabilities Connected in an Open, Flexible Manner

IBM's SOA Reference Architecture



Modular product portfolio built on open standards

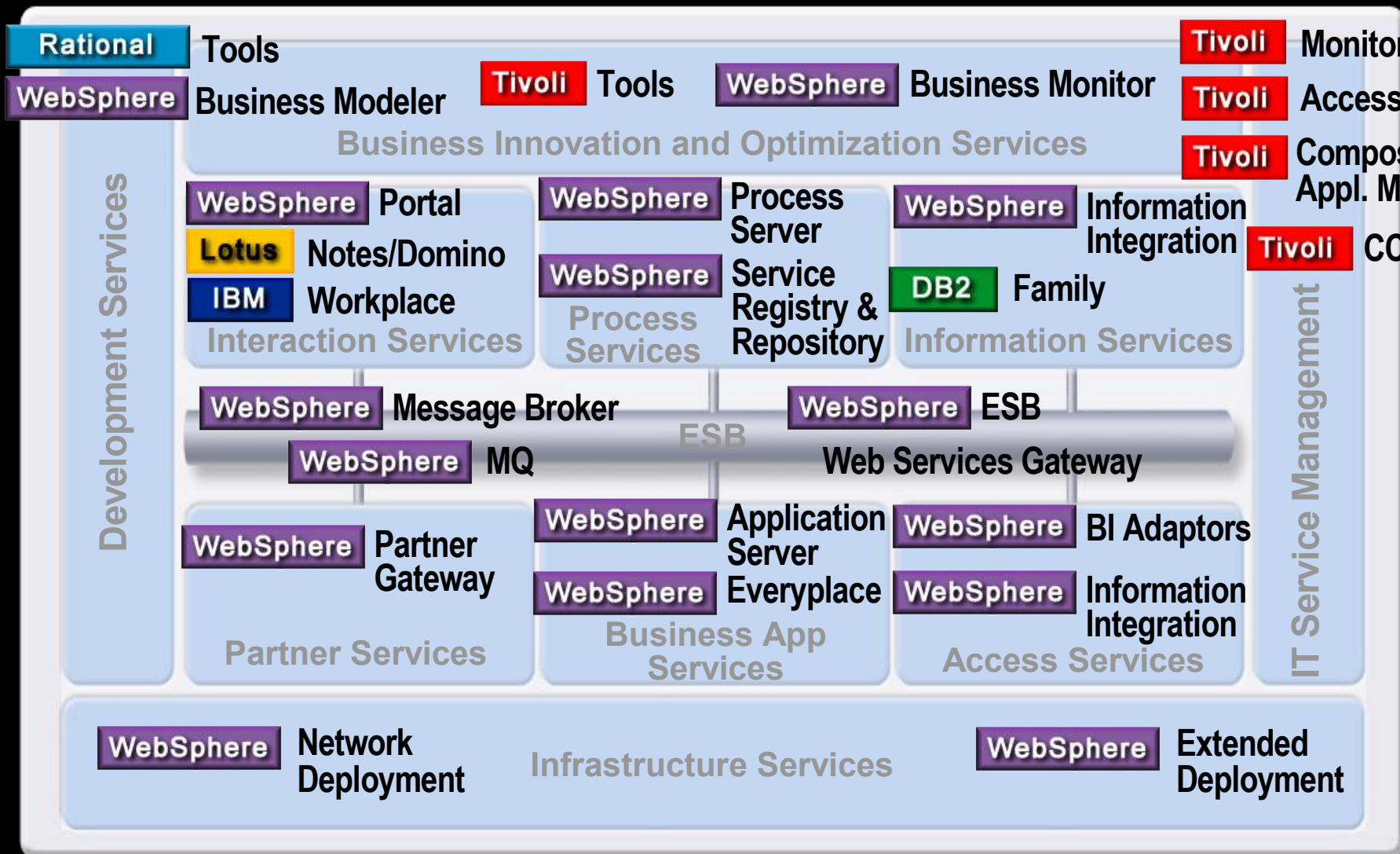
Functionally rich, adopted incrementally

Simple to develop, deploy and manage

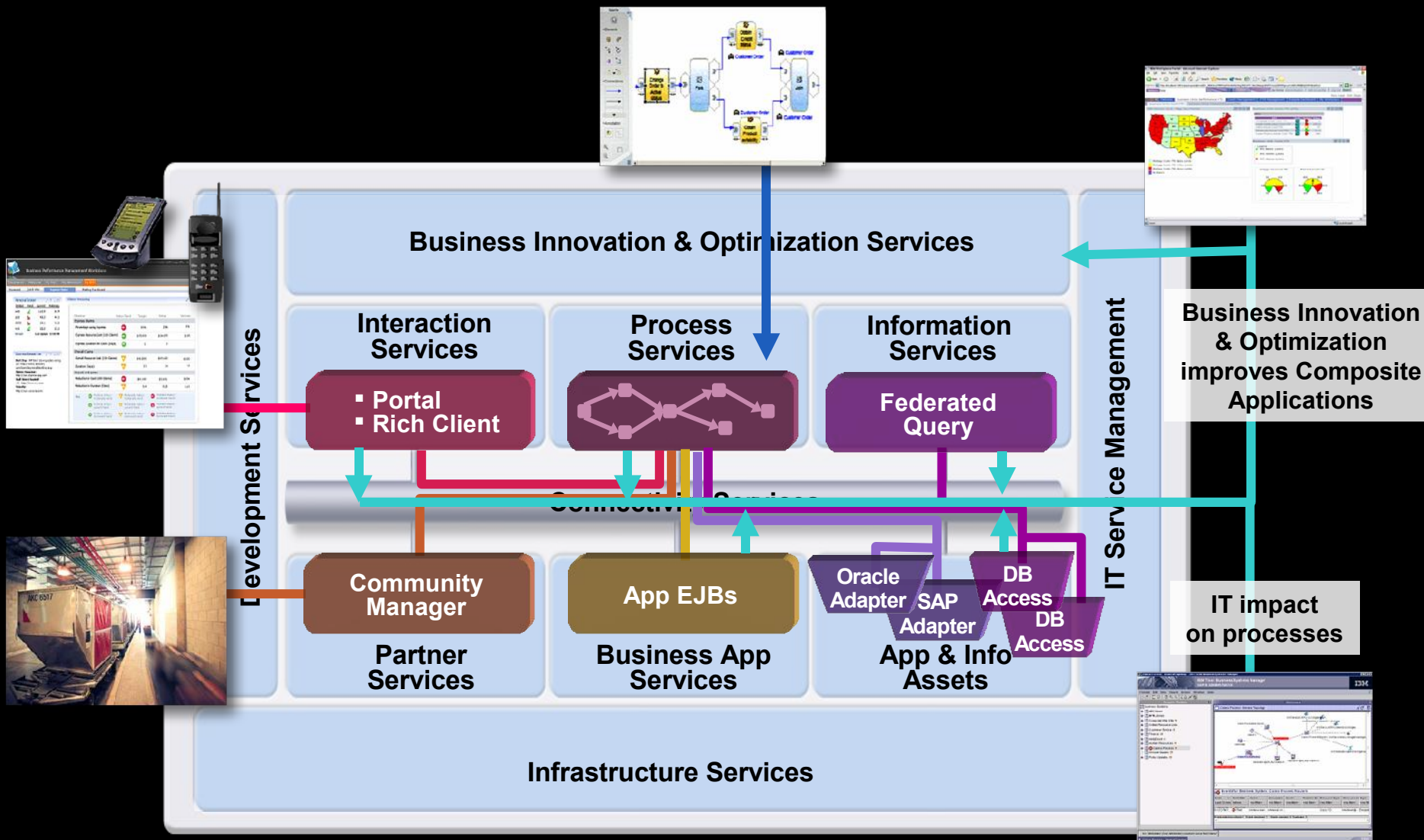
Integrated role-based tools for development & administration

*...delivering
the value of SOA,
today*

IBM's SOA Reference Architecture



Composite Application Development Through SOA

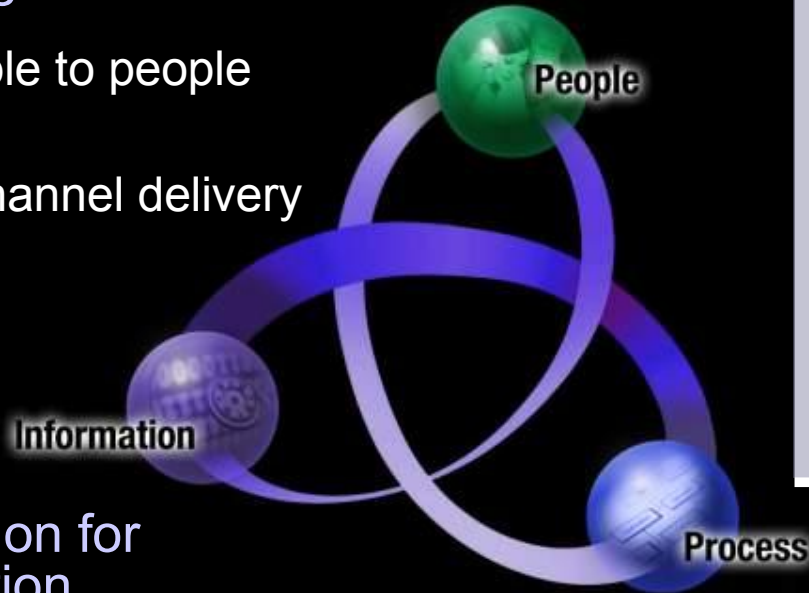


Change Requires a Business Centric View of SOA

Drive Innovation Priorities Through People, Process, & Information

Extend the ability to collaborate inside and outside

- Enhancing people to people collaboration
- Support multi-channel delivery



“Technology is certainly key to a successful SOA integration, [but] it is the coalescence of the people, process and information [with] business insight and emerging best practices for overall organizational change through SOA.”



Leverage information for business optimization

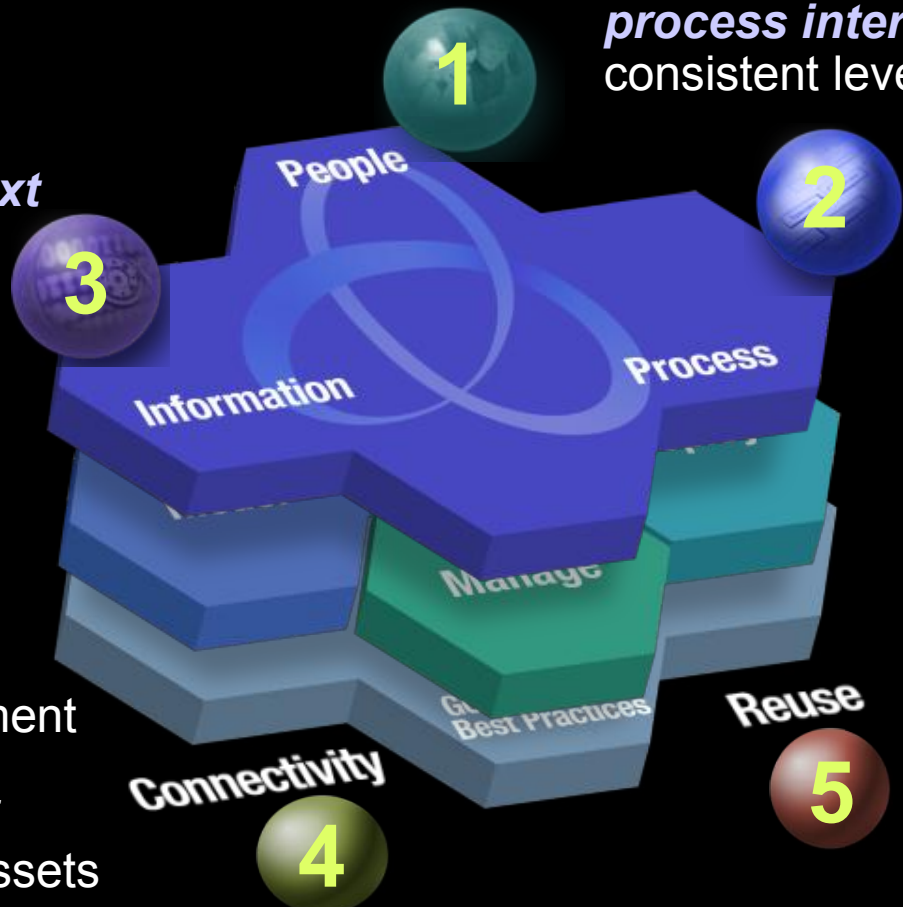
- Deliver trusted information real time and in context
- Reduce risk and improve visibility into business operations

Business model and process innovation

- Seamless coordination between automated and people/information driven business processes
- Increase organizational effectiveness

SOA Entry Points Help Customers Get Started *Both Business Centric and IT Focused*

- Deliver trusted information in **business context** to enable innovation
- Enable **human and process interaction** with consistent levels of service
- Achieve greater efficiency and effectiveness with **business model innovation**
- Protect investment with **service enablement** of existing core assets
- Leverage **existing assets** to improve business agility



Standard Life Group (UK)



Reuse - Rapid Development

SOA Solution

- Standard Life implemented a SOA that componentized its IT functions and associated business processes into self-contained modular applications that are designed to work together without relying on custom-coded connections

Benefits

- Increased customer service levels
- Significant decrease in development times
- Achieved a services re-use of over 50%; 300 business services in production
- 70 applications consume those 300 services
- Sustained a 900% increase in workload with no increased in operational staff
- Saved company £4 Millions in application development costs to date



Products

- WebSphere Message Broker
- WebSphere MQ
- WebSphere Application Server
- IBM Rational Application Developer

Harley Davidson

Automating Business Processes

SOA Solution

- Deployed information services to share analytical information from the data warehouse with dealer systems; linked information directly into dealer inventory mgmt. systems to automate decisions

Benefits

- Automated the inventory management process using the latest detailed analysis in the company
- Harley-Davidson can now efficiently measure and manage operational efficiency and provide this level of detail to its dealers
- Saved more than 1,600 staff days due to reuse of integration logic across enterprise application integration and data warehouse environments
- Avoided 2,200 days for software development at a cost savings of US \$1.8M



Products

- WebSphere Process Server
- WebSphere Information Integration

PepBoys

Improved Customer Loyalty

SOA Solution

- Created 200+ functional services, both from new and from existing assets on IMS/CICS/Java
- Developed SOA based store integration framework to improve business flexibility
- Reused functions in existing POS system to protect investment
- Created information services providing real-time information to enhance customer services
- Created single customer view

Benefits

- Deployed to > 590 stores in less than 12 months to achieve rapid ROI
- Faster customer checkout and reduced costs



Products

- WebSphere Process Server
- WebSphere MQ
- DB2 UDB
- Linux

Volkswagen AG (Germany)

Supply Chain Optimization

SOA Solution

- Roles-based Workplace that includes enterprise-wide portals for customers, employees, suppliers and service dealers to speed-decision making and become more responsive to rapidly changing needs

Benefits

- 20% increase in productivity for Volkswagen's procurement staff – payback within one year
- Shorter order-to-delivery cycles
- Improved ability to leverage purchasing economics through a more unified view of Volkswagen's supply chain
- Optimized work processes for interaction with the customer on the basis of high-quality data
- Up-to-data data for marketing and campaign management



Products

- WebSphere Portal
- WebSphere Process Server
- WebSphere MQ
- WebSphere Application Server
- DB2 UDB
- Tivoli Access Manager

Miami-Dade County (Florida) *Multilingual e-Government Portal* SOA Solution

- Implemented an open standards-based integration platform based on a SOA that models online services around the needs of Miami-Dade's constituency

Benefits

- Number of visitors to the portal increased by 50% in the first year, bringing total to nearly 10 million
- Processed 60,000 electronic payments totaling more than \$4M in revenue
- More than 11,000 building permits booked online
- Online property searches up by 140%
- 25% decrease in the cost of maintaining and enhancing portal resulting from adoption of SOA concepts reuse and speed of deployment



Products

- WebSphere Portal
- WebSphere MQ
- WebSphere Edge Server
- WebSphere Translation Server
- WebSphere Application Server
- DB2 UDB
- Rational Tools
- Tivoli

IBM Corporation

Supply Chain Optimization

SOA Solution

- Transformed a rigid legacy order application system, Customer Order Analysis and Tracking System (COATS), into an adaptable, open environment that accommodates changing business requirements and high volume by implementing an SOA with reusable components.

Benefits

- Ability to react with more agility to changing business requirements
- Decreased the time and cost of development of new COATS applications by 25%
- Shortened the cycle time from 26 weeks to less than 20 weeks, and reduced costs per cycle from \$465K to less than \$35K
- Transactional flows are tailored dynamically to accommodate the parameters of individual customer contractual agreements



Products

- WebSphere Process Server
- WebSphere Business Modeler
- WebSphere Studio Application Developer

Get Started Today *Let Us Help You*



Client Architecture Readiness Evaluation

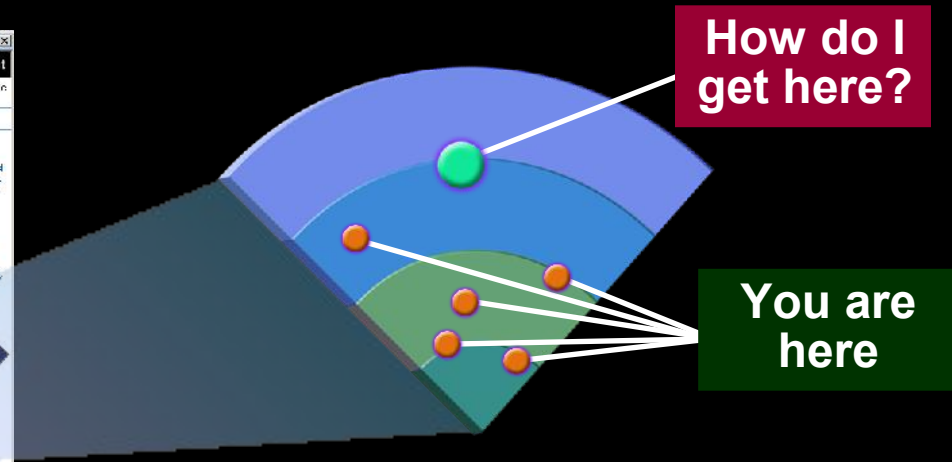
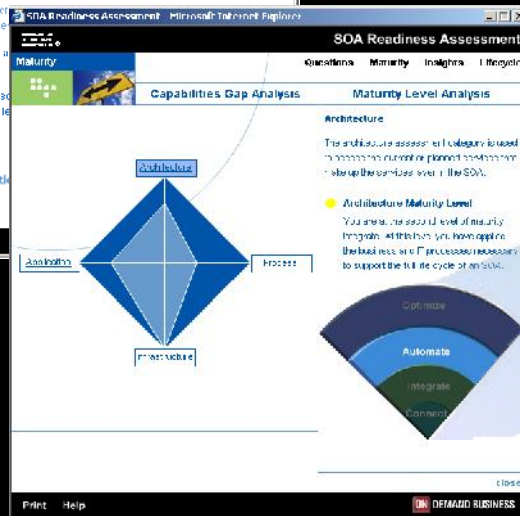
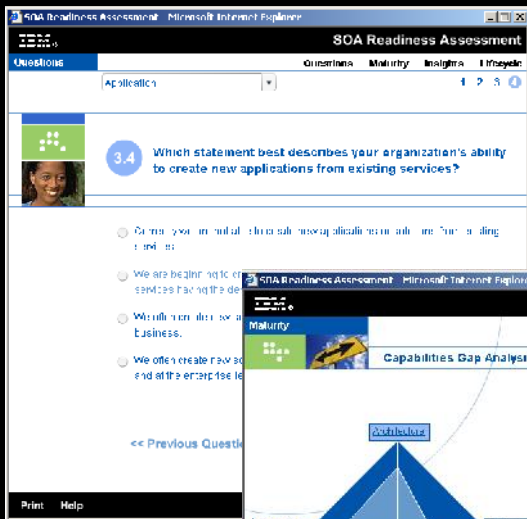
- Review business/IT Initiatives and architecture alignment
- Evaluate enterprise architectures SOA support readiness
- Analyze governance maturity
- Provide SOA-based solution adoption roadmap

SOA Jumpstart

- Multi-day on-site session
- Available worldwide
- Skill development and governance
- Integration architecture workshop
- Actionable next steps

IBM SOA Assessment Tool *Online or On-site*

*Receive actionable recommendations
customized to your level of SOA maturity*



*Find out at ibm.com/soa
or contact soa@us.ibm.com*

Get Started Faster! Skills & Offerings for SOA Entry Points

New Offerings From IBM Global Services and Partners

IBM Global Services Skills

- **Skills:** 90,000 Business Consultants being trained to help clients realize the business benefits from SOA
- IGS SOA Center of Excellence; Information On Demand COE

IBM Global Services Offerings

- **Readiness:** Infrastructure Services Readiness Engagement for SOA; Information Architecture Health Check
- **Implementation:** IGS Design and Implementation Services for WebSphere, Message Broker, WebSphere MQ, DataPower Appliance, Tivoli ITCAM, SOA Security
- **Management:** IT Service Management Design for SOA, IBM Performance Management Testing for SOA, IGS SOA Business Dashboard

IBM Business Partner Offerings

- 1200+ ISVs and SIs participating in IBM SOA Partner Program delivering SOA enabled offerings and services
- New! **IBM SOA Specialty Program** to accelerate training and validation of partner skills and solutions

Why IBM for SOA

IBM understands service orientation and your business



Expertise in aligning business and IT processes

- 15,000 SOA consultants, architects and IT specialists
- Dozens of SOA-enabled business solutions
- Unique intellectual property and methods

Thriving ecosystem of partners (ISV, SI, Reseller)

- 2,500+ Channel Partners and Solutions

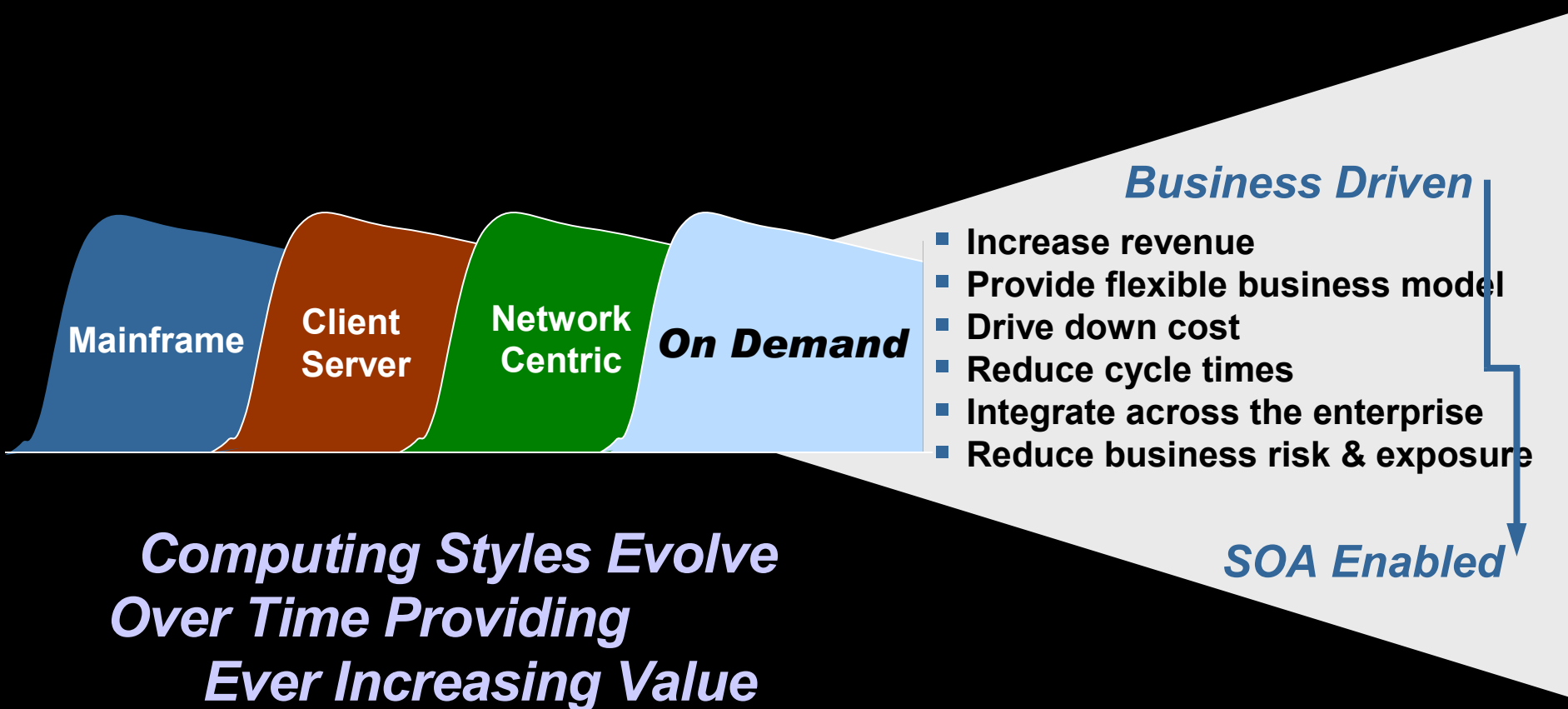
Extensive Industry experience and best practices

- Over 1,900 customers worldwide

Unmatched breadth and depth of products

- Over \$1 Billion / year invested in SOA
- Leadership in open standards: active in 50+ committees
- Over 300 SOA-related patents
- Over 3,000 SOA assets for BPM
- 500 pre-built industry specific data and process models
- 100's of pre-built portlets ready for SOA dashboards

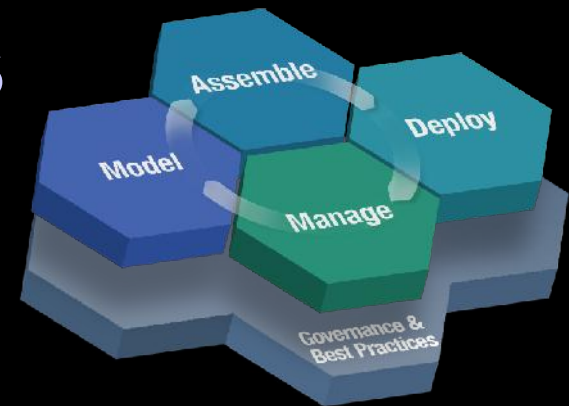
Business Process + Standards + Technology is Driving Change






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