IBM WebSphere

WebSphere & SOA Architectures: Vision and Strategy

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SOA and Web services Marketing

ON DEMAND BUSINESS™

Be prepared for change.

It's the only thing you can count on.

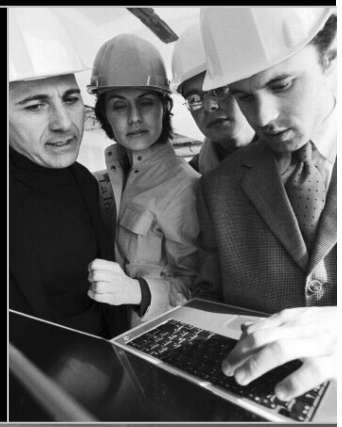
Building a new kind of company

- Need for flexibility and innovation is forcing organizations to break their business processes into manageable parts
- Applications mirror this approach, becoming increasingly modular
- Simplification of underlying IT infrastructure is required to manage and support changes in the business

Business flexibility depends on IT flexibility

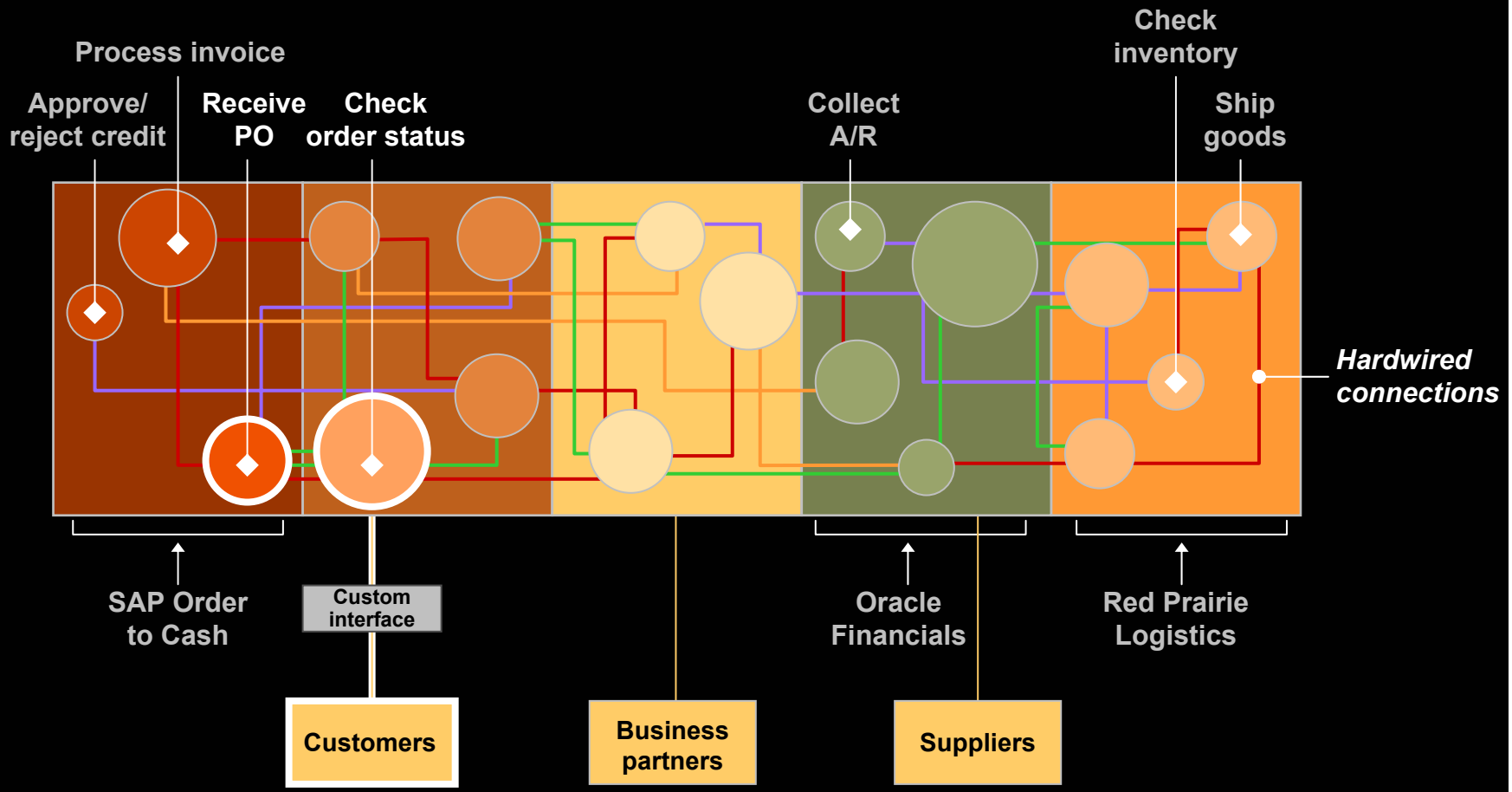
"Today's IT architectures, arcane as they may be, are the biggest roadblocks most companies face when making strategic moves."

–McKinsey
"Flexible IT, Better Strategy"



A typical application architecture

Application can be platform dependent. Application can be protocol dependent.

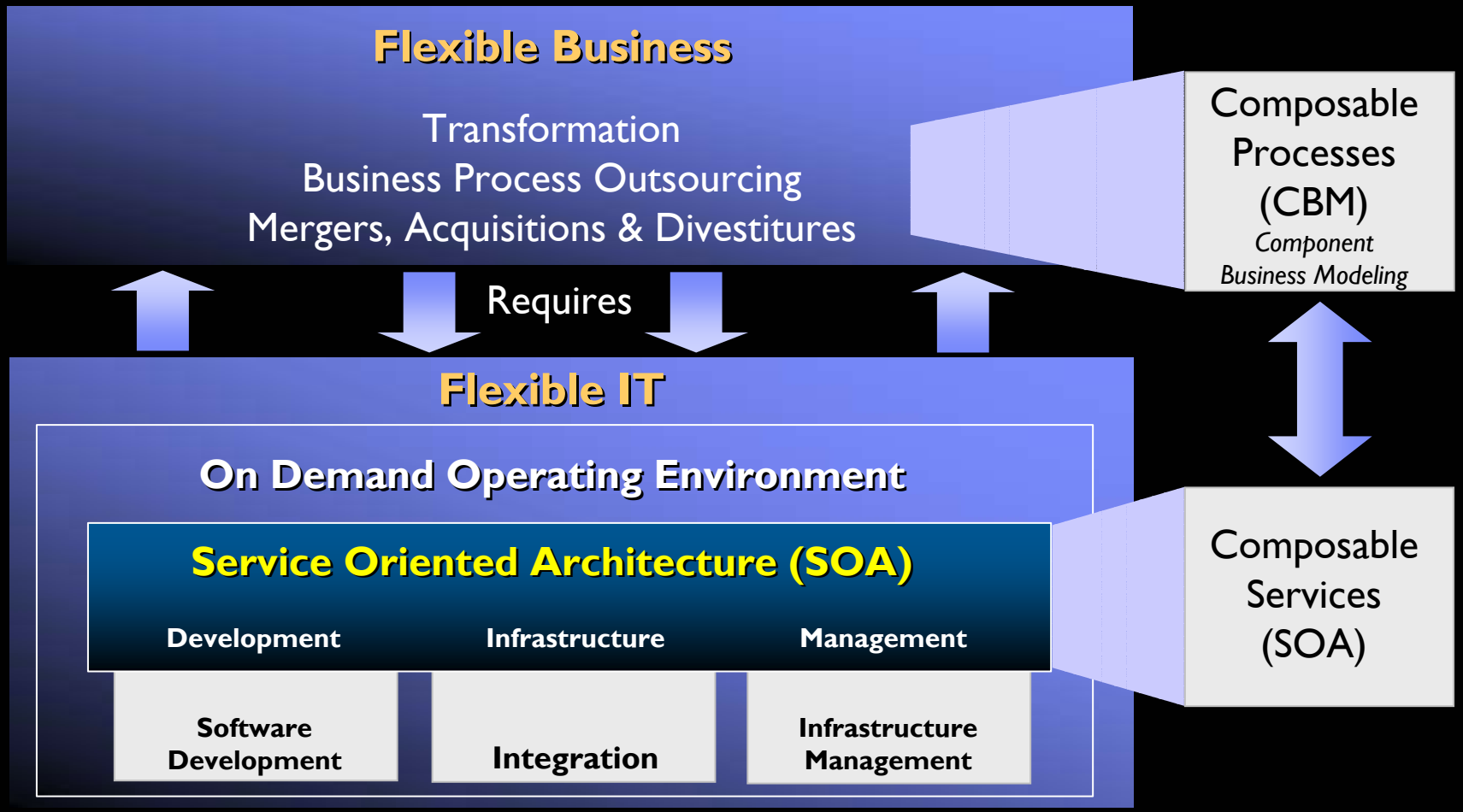


Hardwired = hamstrung

Applications in an architecture built on proprietary standards:

- Don't work across the Internet
- Are device dependent
- Are expensive to implement
- Are expensive to maintain
- Are difficult to reuse
- Are subject to fragile/brittle connections with other components.

Great flexibility is required from business models and the supporting IT architecture



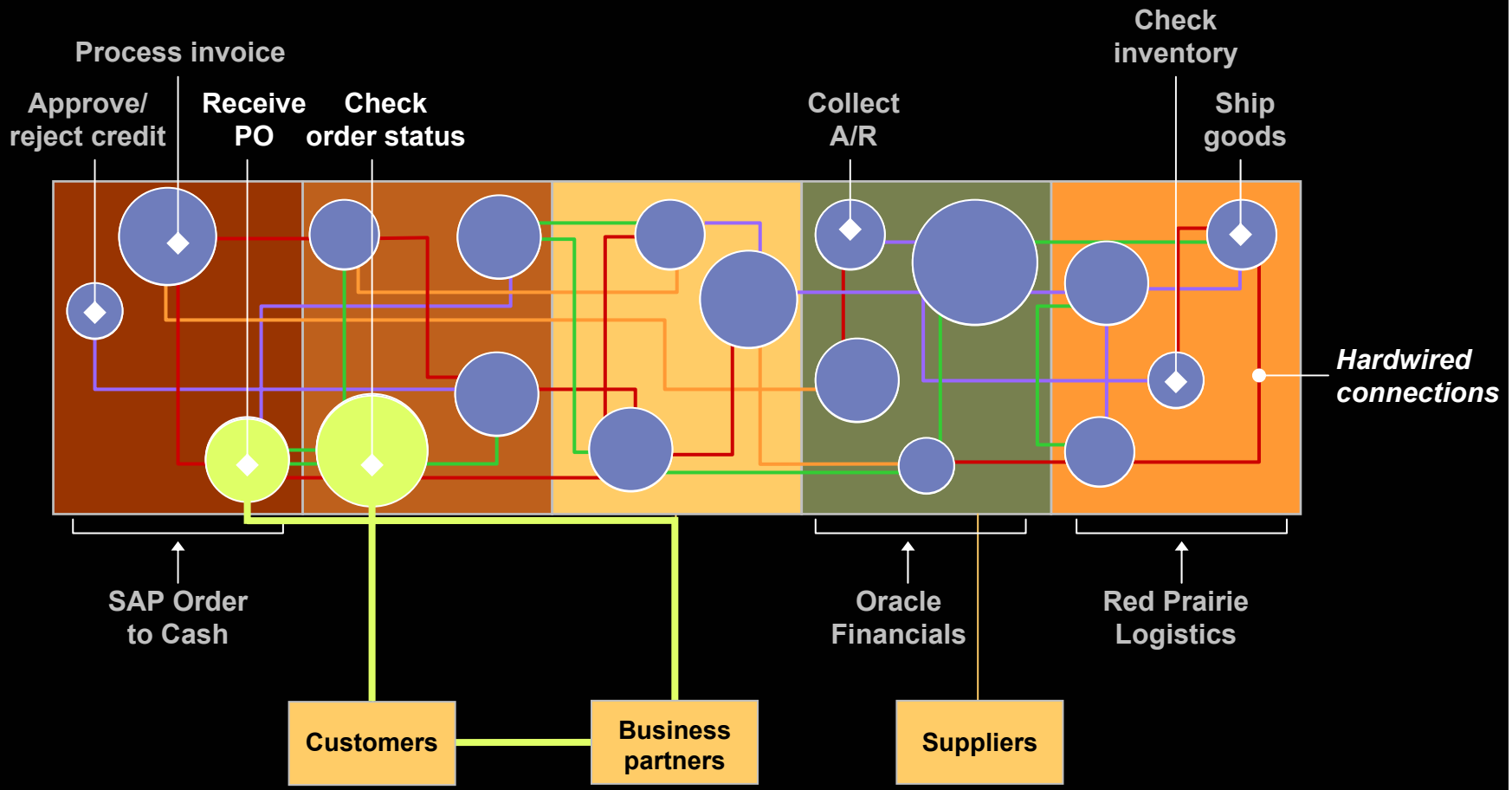
Service Oriented Architecture: the blueprint for change

- In an SOA world, business tasks are accomplished by executing a series of "services," jobs that have well defined ways of talking to them and well defined ways in which they talk back.
- It doesn't really matter how a particular service is implemented, as long as it responds in the expected way to your commands and offers the quality of service you require.
- This means that the service must be appropriately secure and reliable, as well as fast enough.
- This makes SOA a near ideal technology to use in an IT environment where software and hardware from multiple vendors is deployed (do you know of any that are not like that?).

Web services is the best way we have today to implement SOA, but Web services does not equal SOA!

Better: a service-oriented architecture

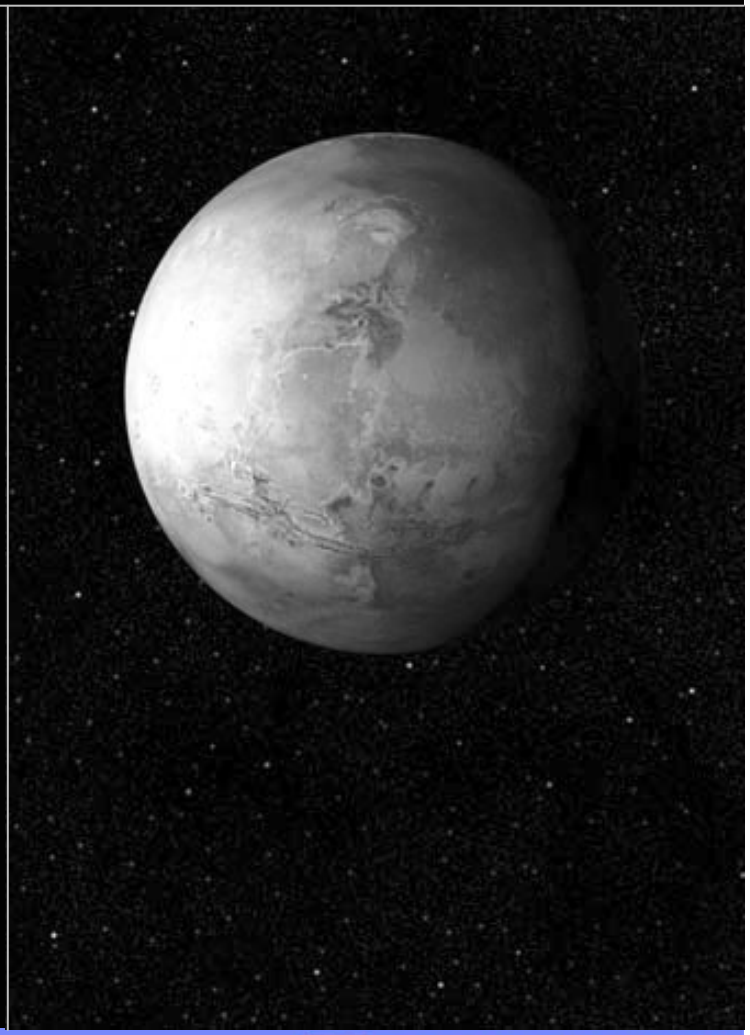
An SOA uses services that can be reused to create applications.



The importance of standards

Mars Climate Orbiter Probe (1999)

- NASA uses English units of measurement during construction
- Metric equivalents used in operation
- Manual processes, inefficient communication let error go undetected
- Probe veers 100km off course and is destroyed
- Cost: US$125 million and a PR nightmare for the agency

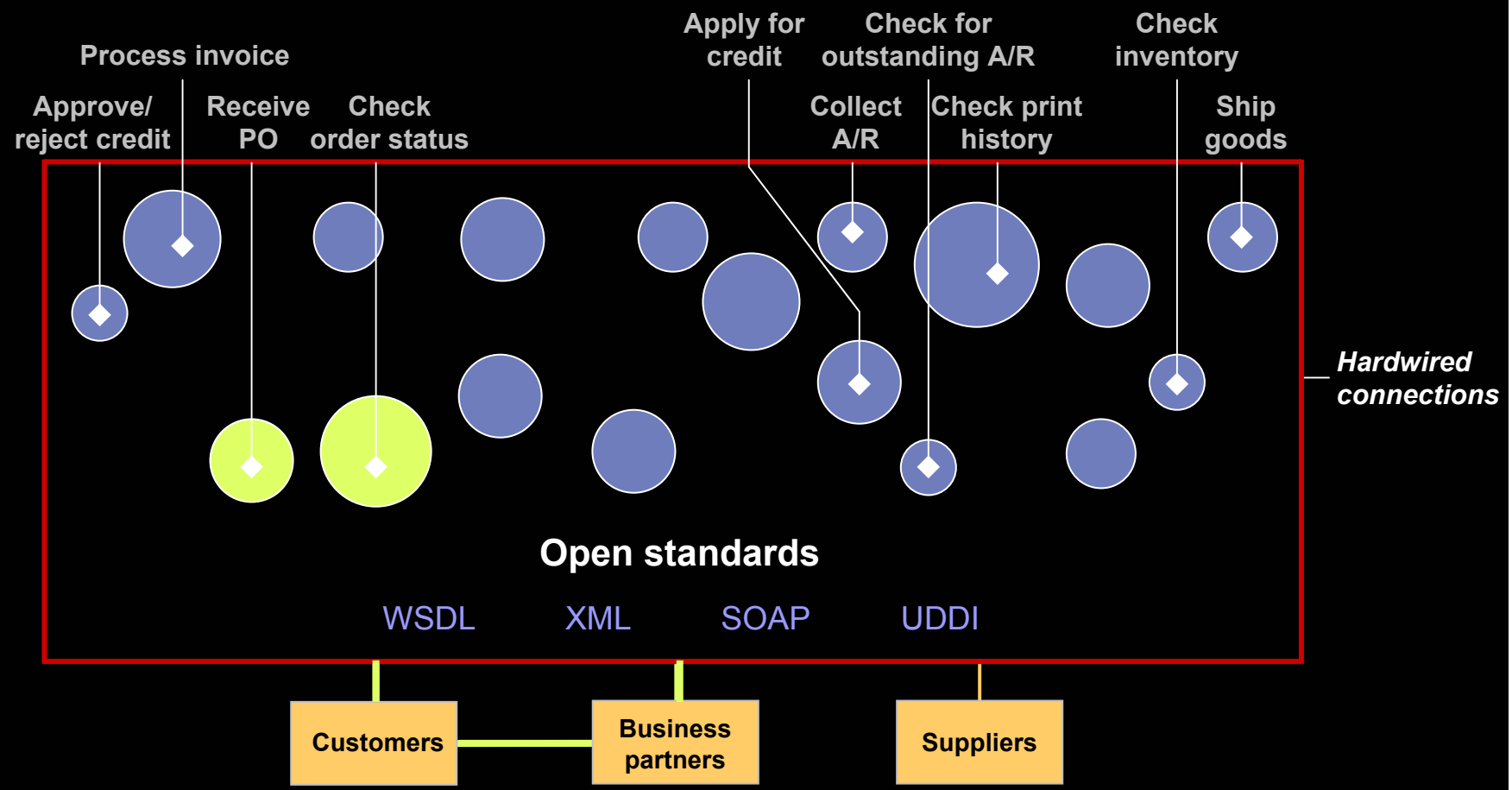


Industry needs standards now

Automotive	▪ Quality issues—high warranty costs ▪ Growing need for multivendor **in-vehicle systems/software integration**
Healthcare	▪ Accelerating costs, slow response times, quality of patient records ▪ Increasing **pressure to integrate payers, providers, hospitals**
Electronics	▪ Moving from traditional manufacturing to configure-to-order ▪ Lack ability to **mass produce with last-minute customization**
Banking	▪ Information silos, redundancy and underutilization of data ▪ Pressure to **speed development and delivery of new products & services**
Retail	▪ Available data increasing exponentially (e.g., RFID), but not leveraged effectively ▪ Access to **realtime information required to optimize supply chain**
Telecom	▪ “Island” infrastructures—multiple legacy systems and heterogeneous environments ▪ **No single view of the customer** (activation, self-service, billing, customer care)

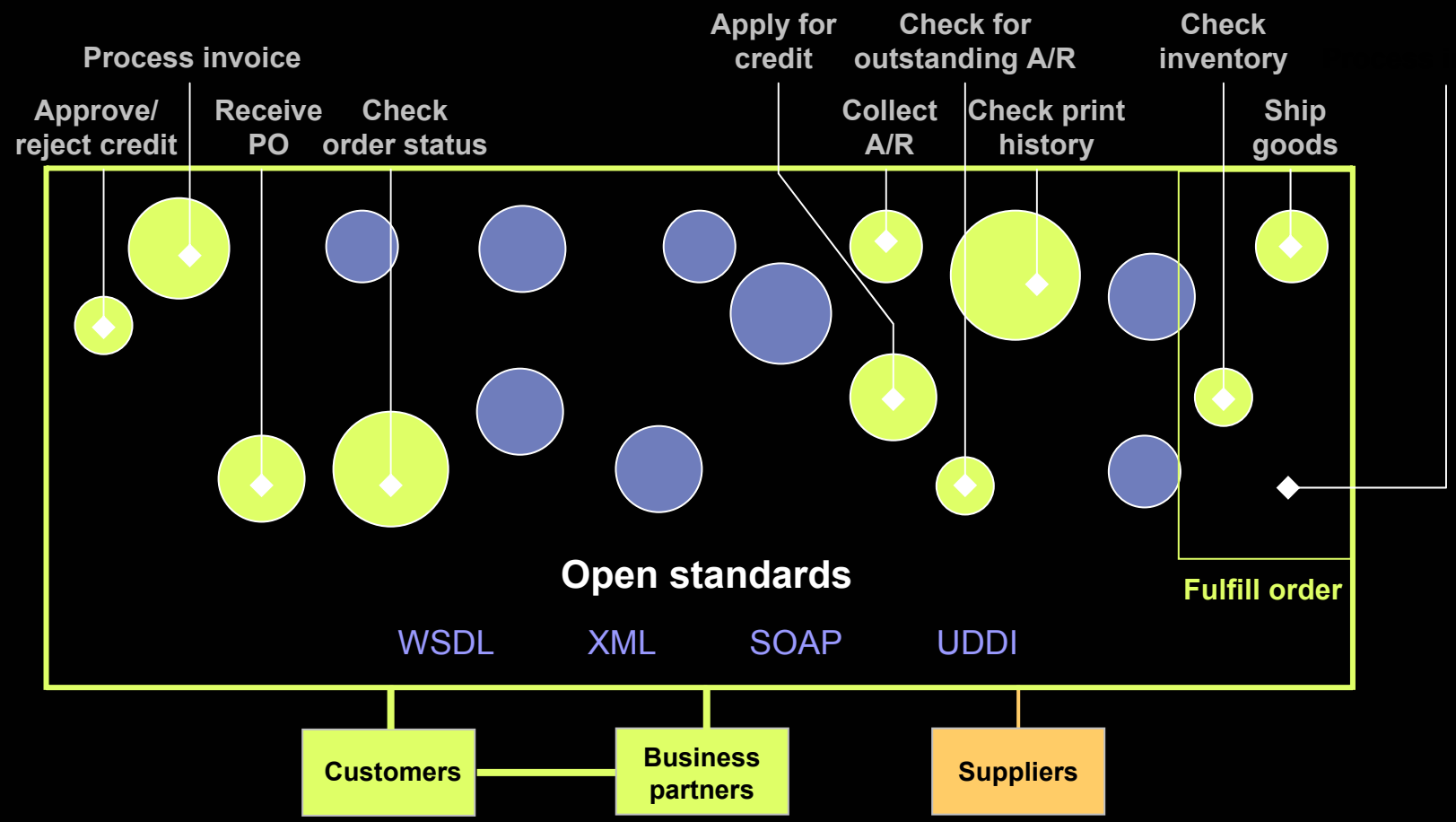
Breakthrough: SOA based on open standards

Web services apply a common interface across the entire environment…



Breakthrough: SOA based on open standards

…so you can move them, recombine them and enhance their functionality.



Why is SOA Important?

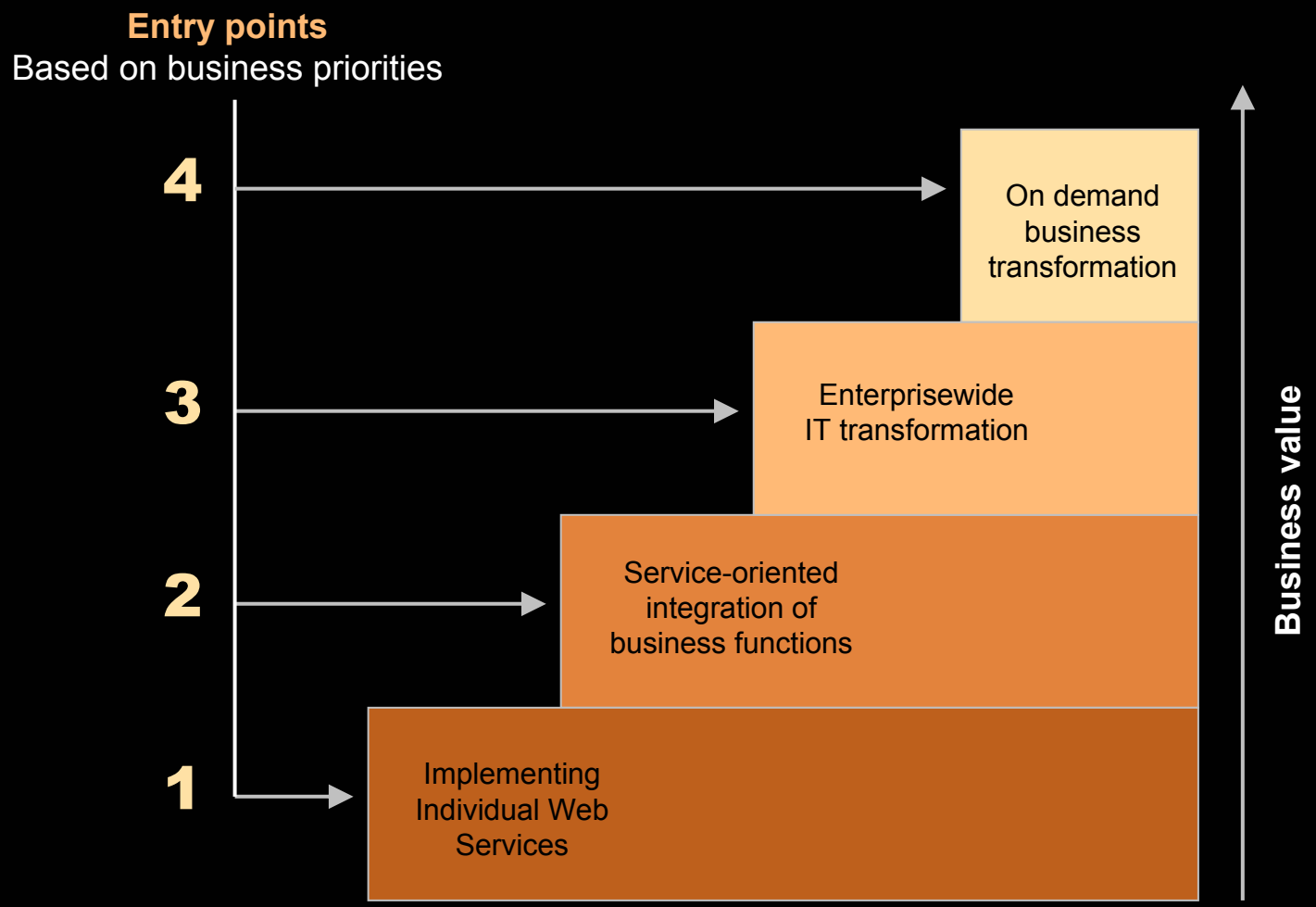
Business Benefits

- Business flexibility provided by increased granularity of processes enabled through services
- Ability to quickly create business processes and composite applications to respond to changes in the marketplace
- Improved customer service using services without having to worry about the underlying IT infrastructure

IT Benefits

- Becoming a more responsive IT organization with a secure and managed integration environment
- Decrease development and deployment cycle times through the use of pre-built, reusable services building blocks.
- Reducing complexity and maintenance costs with common services
- Enhancing existing IT systems rather than replacing them

SOA and Web services adoption



Things are getting interesting

"Service-oriented architecture deployments are increasing and becoming a mainstream architectural model for developing services, applications and infrastructures."

"Effective Web Services and SOBAs Require Management"

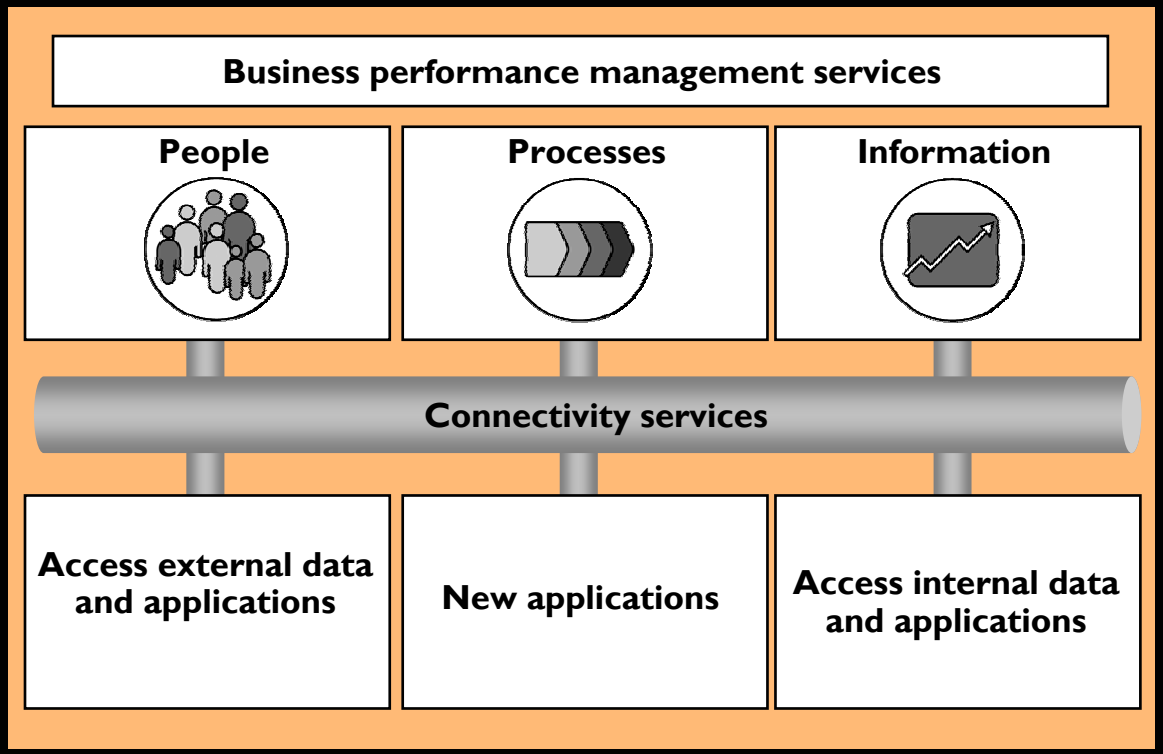
Frank Kenney, Gartner
September 28, 2004

Business flexibility enabled by robust capabilities

Integrate business processes and the underlying infrastructure

Extend and reuse existing IT assets

Scale quickly and cost-effectively



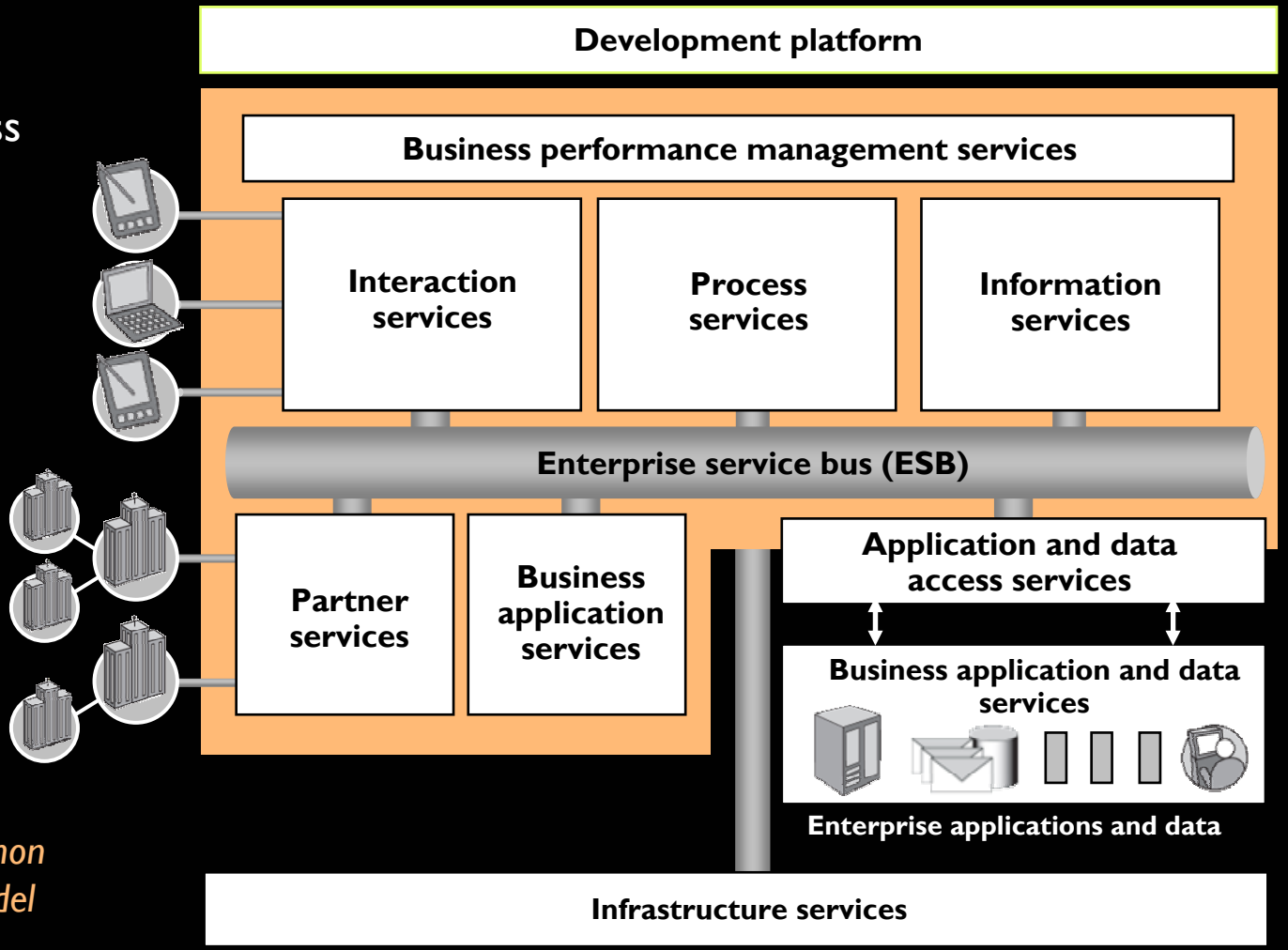
Business flexibility enabled by the WebSphere Business Integration Reference Architecture

Integrate business processes and the underlying infrastructure

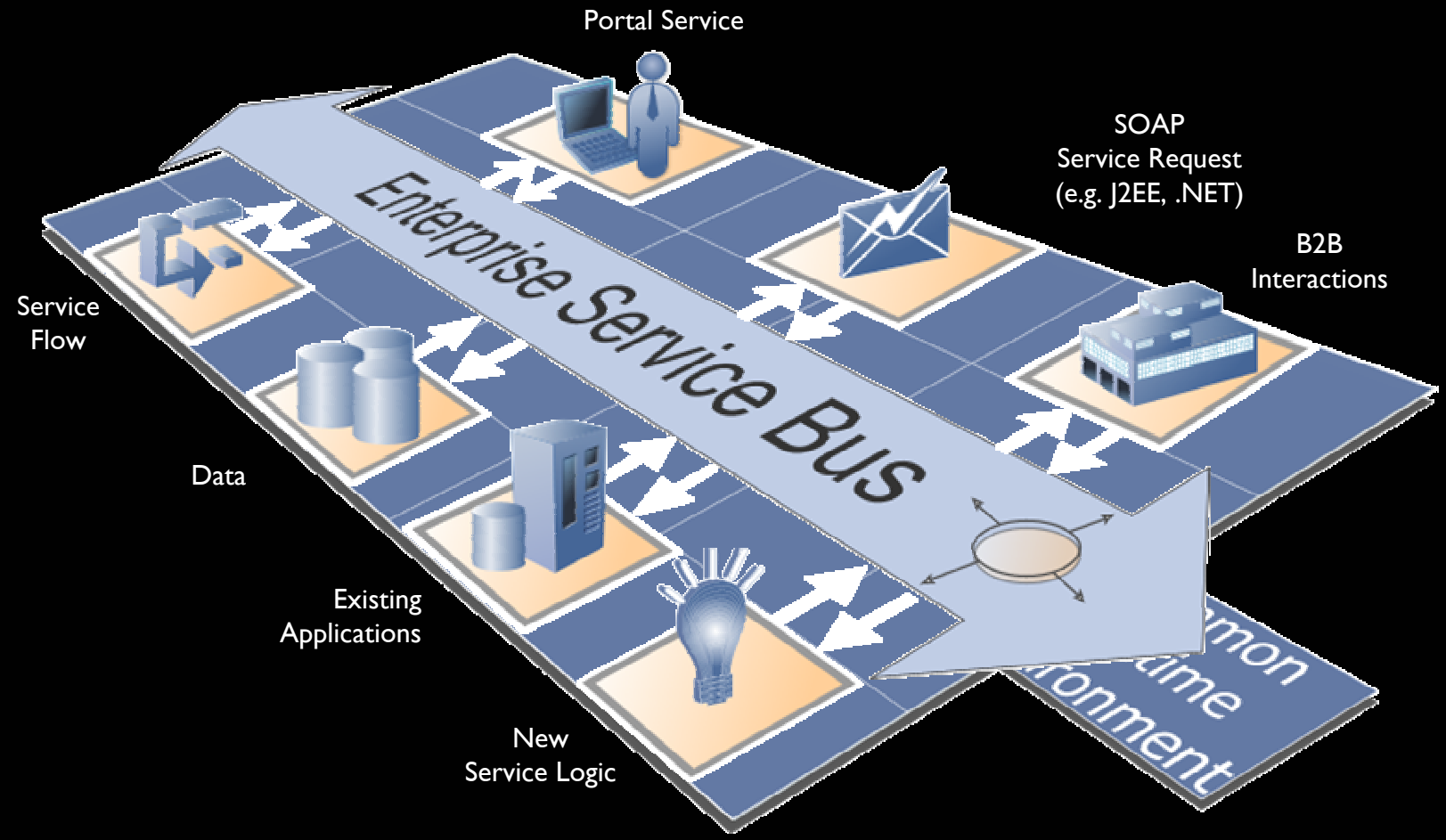
Extend and reuse existing IT assets

Scale quickly and cost-effectively

…utilizing a common programming model

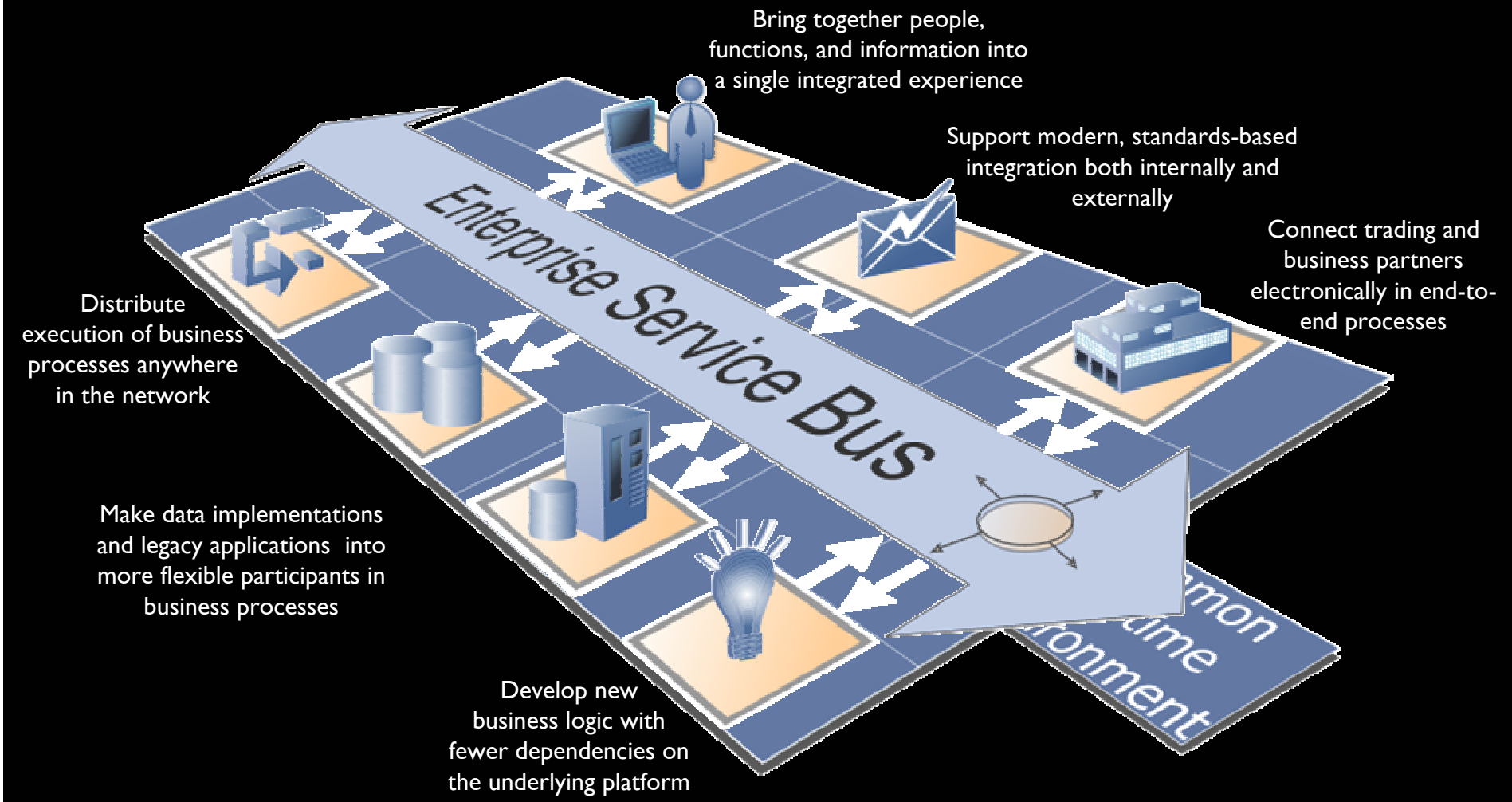


Service Oriented Architecture and IT functions



SOA and ESBs integrate the most diverse environments, bridging protocols, languages, platforms, APIs and messaging paradigms to provide the scale and scope of integration required by today's extended enterprise.

Service Oriented Architecture and business value



SOA and Enterprise Service Buses are providing business value today.

Requirements across the Architecture

Imperatives…	Middleware features needed to strengthen your to ability to enable…
Increase return on existing investments and lower total cost of ownership	**Key Service Oriented Architecture Building Block** Application platform with support for standards based messaging and the latest Web services standards
Do more with less	**Secure, Optimum Resource Utilization** Quick and secure scaling across the multiple platforms
Eliminate lost business opportunities	**On Demand Infrastructure** Near continuous uptime for mission critical applications
Improve time to value and employee productivity	**Rapid Development and Deployment** Ease of use enhancements and out of the box performance improvements

Increased **satisfaction**, decreased costs

Case study: **MAAF Assurances**

The Challenge
Round-the-clock telephone support and services for a growing customer base --- leveraging multiple heterogeneous systems including reuse of business logic on mainframe

The Solution
IBM WebSphere Application Server
IBM WebSphere Studio Application Developer

The Results
Increased customer satisfaction
Seamless extension to new customer segments
Support for multiple partner & internal applications/channels
Unified integration platform
Lower operational cost and reduced maintenance charges

"With the help of IBM and partners we have re-architected our channel support, where Web Services have proven to introduce the level of flexibility that we require for a future proof solution" Philippe Poirier, Architect, MAAF Assurances.

Increased **responsiveness**, decreased costs

Case study: **Belgacom**

belgacom

The Challenge
Improve customer service and streamline business processes

The Solution
IBM WebSphere Portal
IBM WebSphere Application Server
IBM WebSphere Studio Application Developer

The Results
Increased customer satisfaction and employee productivity
Increased sales via improved cross-selling capabilities
Decreased integration effort between applications
Eased future end to end business processing integration

"We believe the Web services standards to become pervasive in our industry. The technology can be used to well define components in application development and then to re-use these components. Web services are the basis for a Service-Oriented Architecture and can in such an architecture perform many application integration functions," says René Dewil – Belgacom IT Strategy Manager

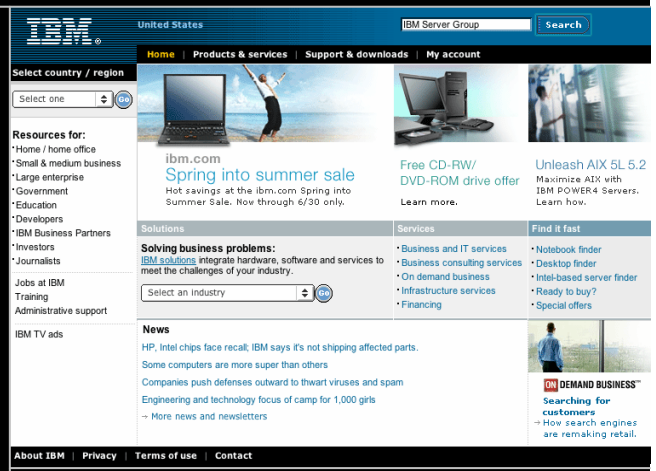
Improved **efficiencies**, reduced **cost**

Case study: **IBM**

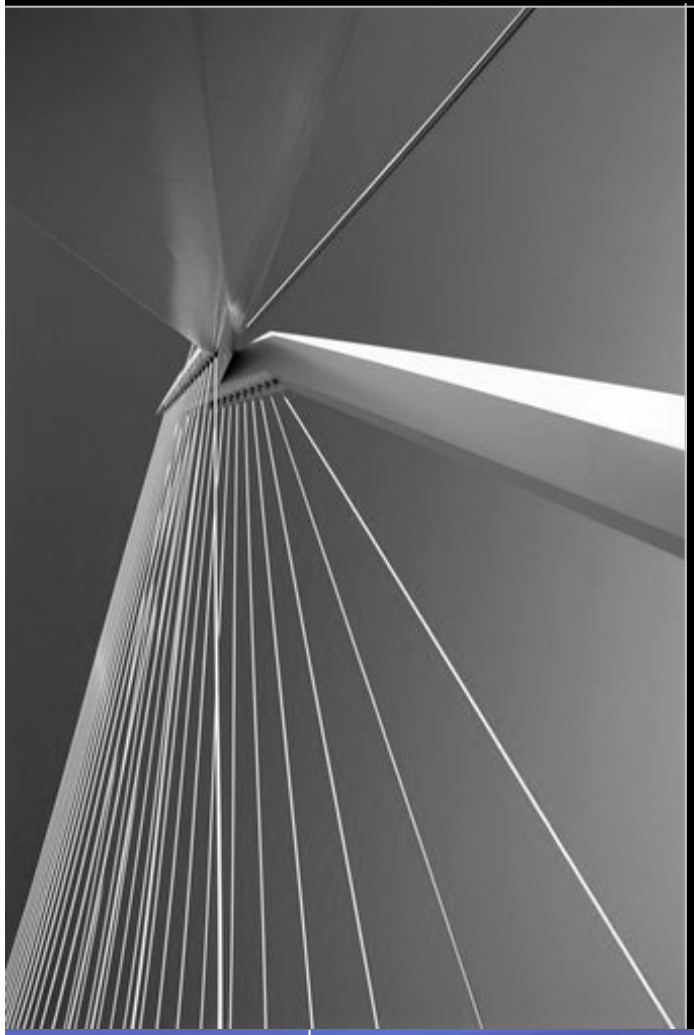
The Challenge
Supply chain unable to keep pace with customer demand and market opportunities

The Solution
IBM WebSphere Business Integration Modeler
IBM WebSphere Business Integration Server Foundation
IBM WebSphere Studio Application Developer (IE)
IBM Rational XDE
IBM DB2 Universal Database
IBM WebSphere Portal

The Results
Order tracking system release cycle time reduced 35%
Release costs reduced 32%



Components of success—and how IBM delivers



- **Standards Leadership**
  Actively leading and facilitating the creation of standards with other IT Industry leaders.
- **Web services-enabled products and solutions**
  IBM has more than 40,000 developers actively working on SOA and Web services applications.
- **Application of best practices**
  IBM SOA / Web Services Center of Excellence employs thousands of senior architects who have led successful implementations over the last several years.
- **Support of professional services**
  IBM has more than 35,000 consultants with Web services knowledge or experience.

SOA is working today

"Leading IT shops have basically proved that the technology can work. SOA is the hottest architectural topic among Forrester's clients."

"IBM Global Services unveils SOA Management Practice"
Application Development Trends

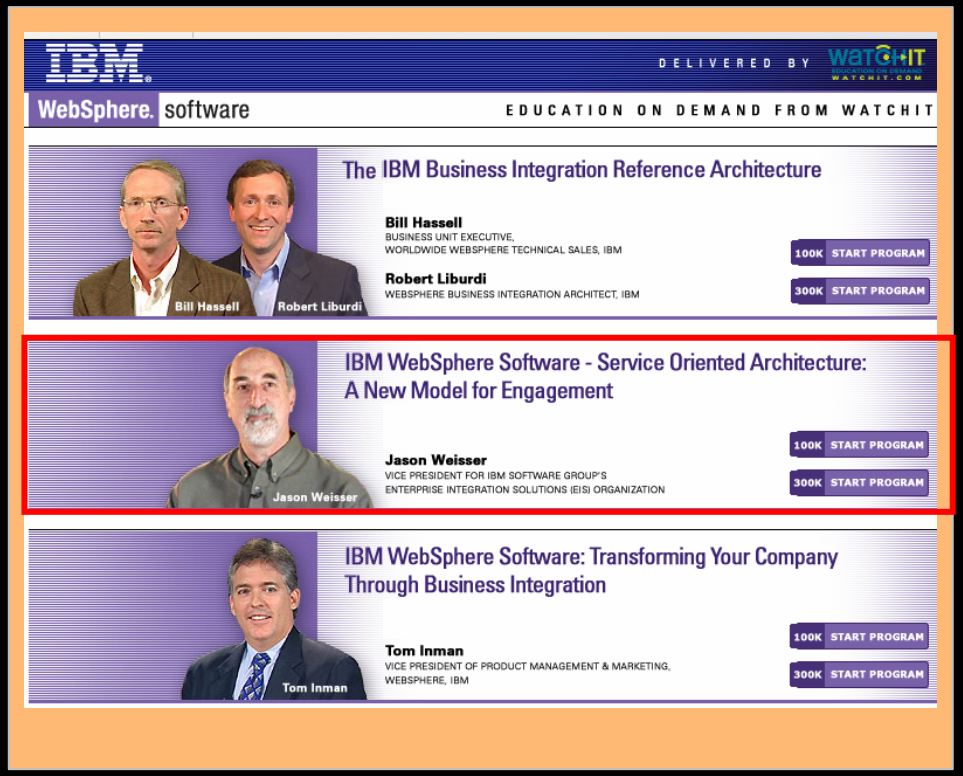
John Rymer, Forrester

Next steps

1. Understand and quantify the value of SOA to you.
2. Assess your SOA readiness and map out your implementation scope and strategy.
3. Establish an enterprise reference architecture and infrastructure based upon SOA and Web services.
4. Let IBM help you with its industry leading products, research, and services.

For More Information

http://www.watchit.com/websphere/



"Using IBM's WebSphere Business Integration software, we took a 45 minute task down to about 15 minutes and then six months later we reduced the additional systems down to basically one. We are now performing a 45 minute function in about two to three minutes and the resulting savings to us has been phenomenal. We estimated our saving to be within the hundreds of thousands, if not into the low millions, just by reducing that amount of labor. "
Elizabeth Hackenson

MCI

For more information

- Software Group Web Services/SOA Main Page
  - http://www.ibm.com/webservices
- on demand Operating Environment and SOA
  - http://www.ibm.com/software/info/openenvironment/soa/
- IGS Web Services/SOA Main Page
  - www.ibm.com/services/bcs/webservices.html
- SOA and Web services Zone
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