

UNIVERSITÉ DU MAINFRAME

Why SOA on the mainframe

Franck Bonsergent

IBM Software – Mgr z Software

franck.bonsergent@fr.ibm.com



May 3, 2006



Agenda

- SOA basics
- SOA technology on the mainframe
- SOA infrastructure on the mainframe
- How do I engage IBM on SOA?





IBM Software Group

SOA Basics



@.business on demand.

© 2006 IBM Corporation

Simply Put, What Is It? Service Orientation? SOA?

... a service?

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

... service orientation?

A way of integrating your **business as linked services** and the outcomes that they bring

... service oriented architecture (SOA)?

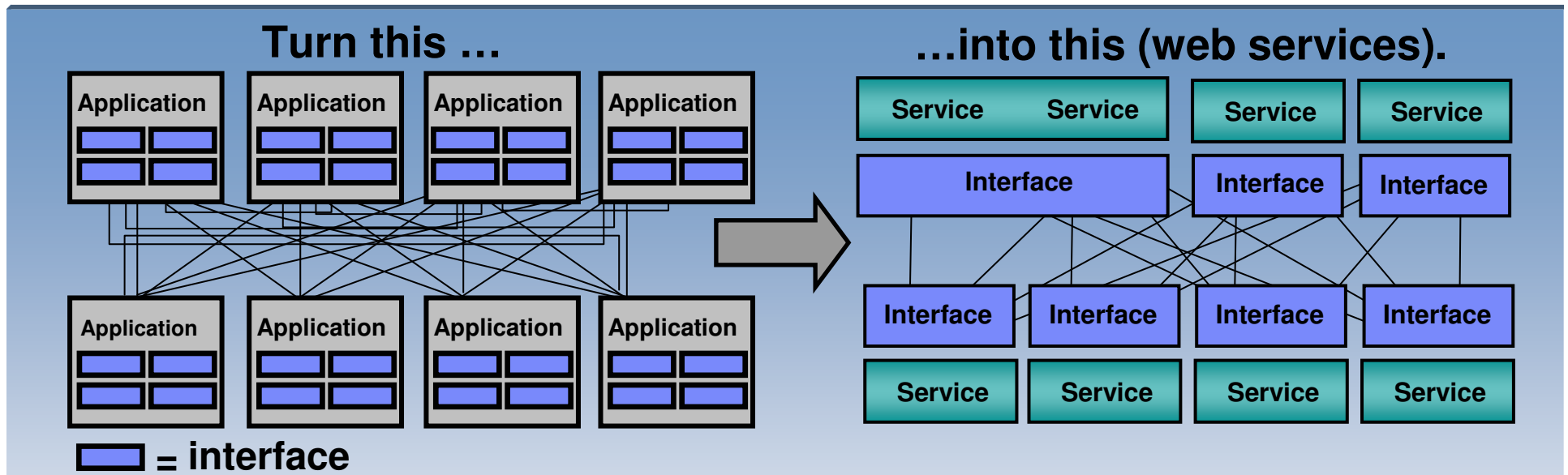
An IT **architectural style** that supports service orientation

... a composite application?

A set of **related & integrated** services that support a business process built on an SOA



Web Services decouples interfaces from their applications...



✓ Rich business abstractions describe the application interface

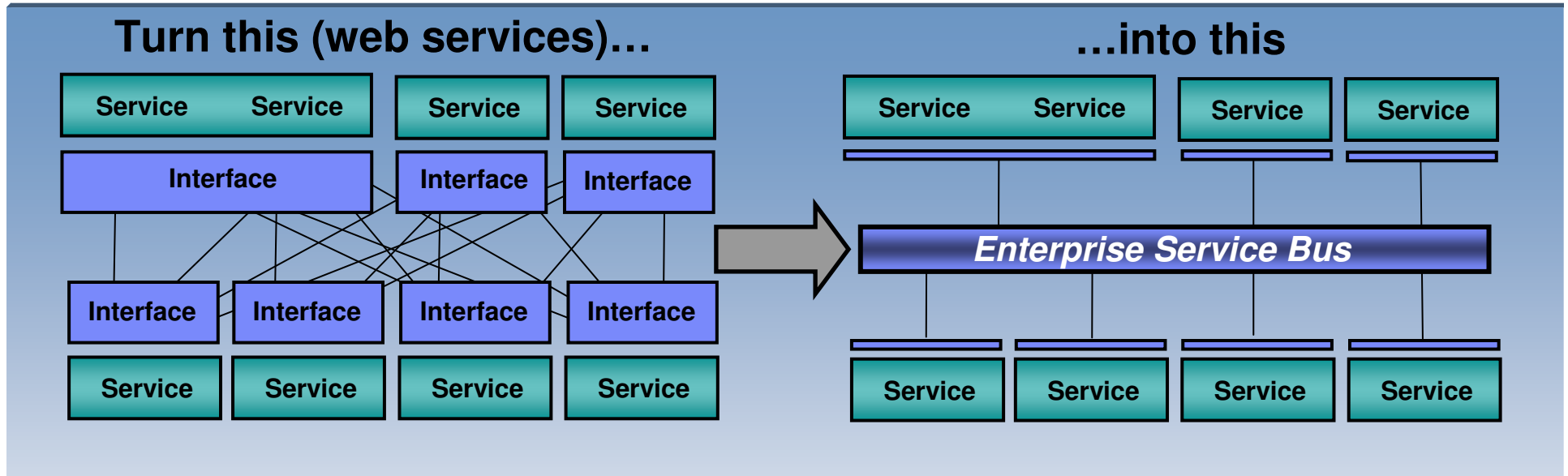
✓ Decouples the interfaces from the business applications

✓ The number and complexity of the interfaces is reduced

✓ Business applications and their interfaces become reusable

But separate connection points still leaving bloated interfaces

The Enterprise Service Bus shrinks those interfaces further



✓ Decouples the point-to-point connections from the interfaces

✓ Allows for dynamic selection, substitution, and matching

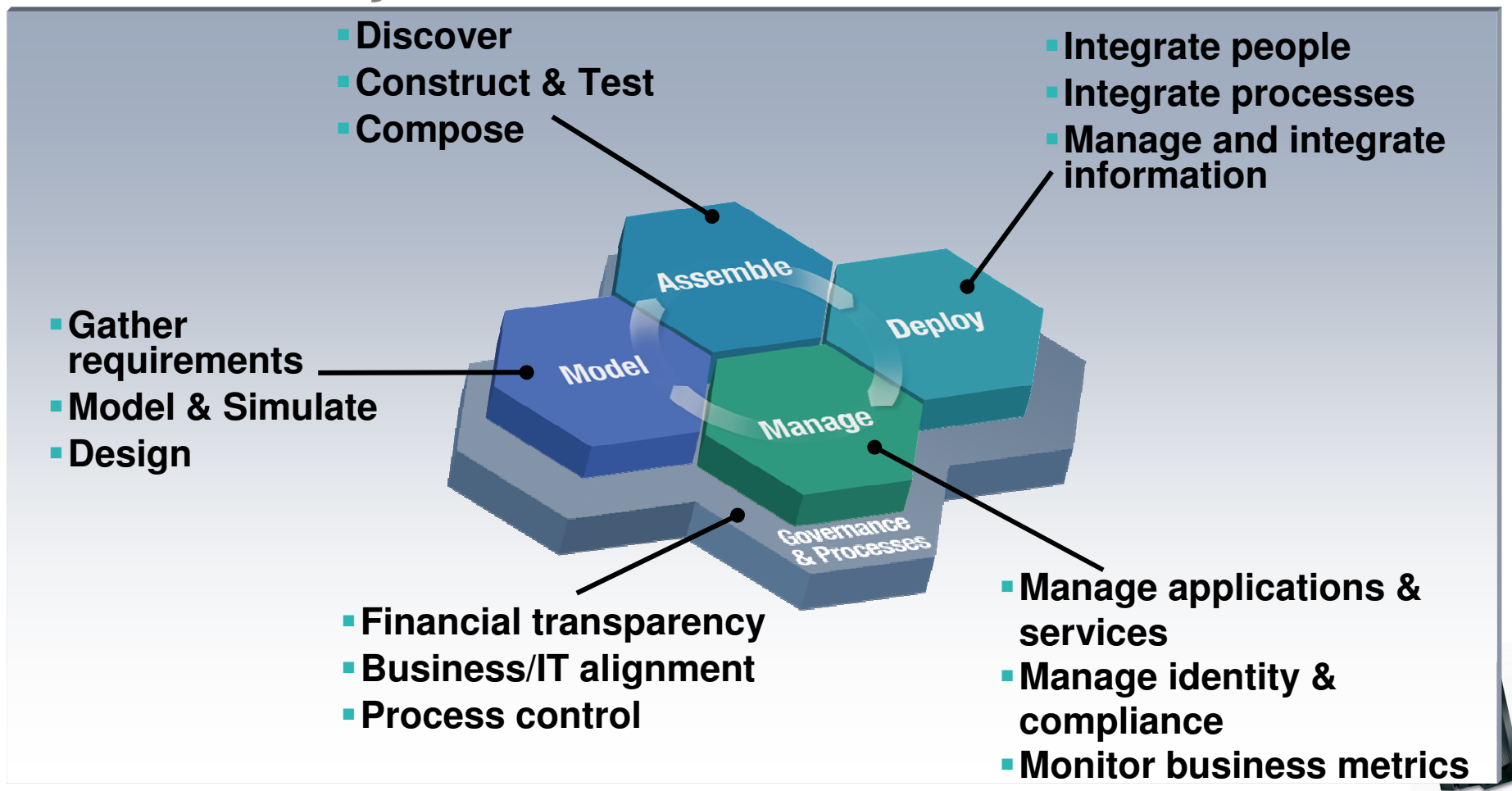
✓ Enables more flexible coupling and decoupling of the applications

✓ Enables you to find both the applications and the interfaces for re-use

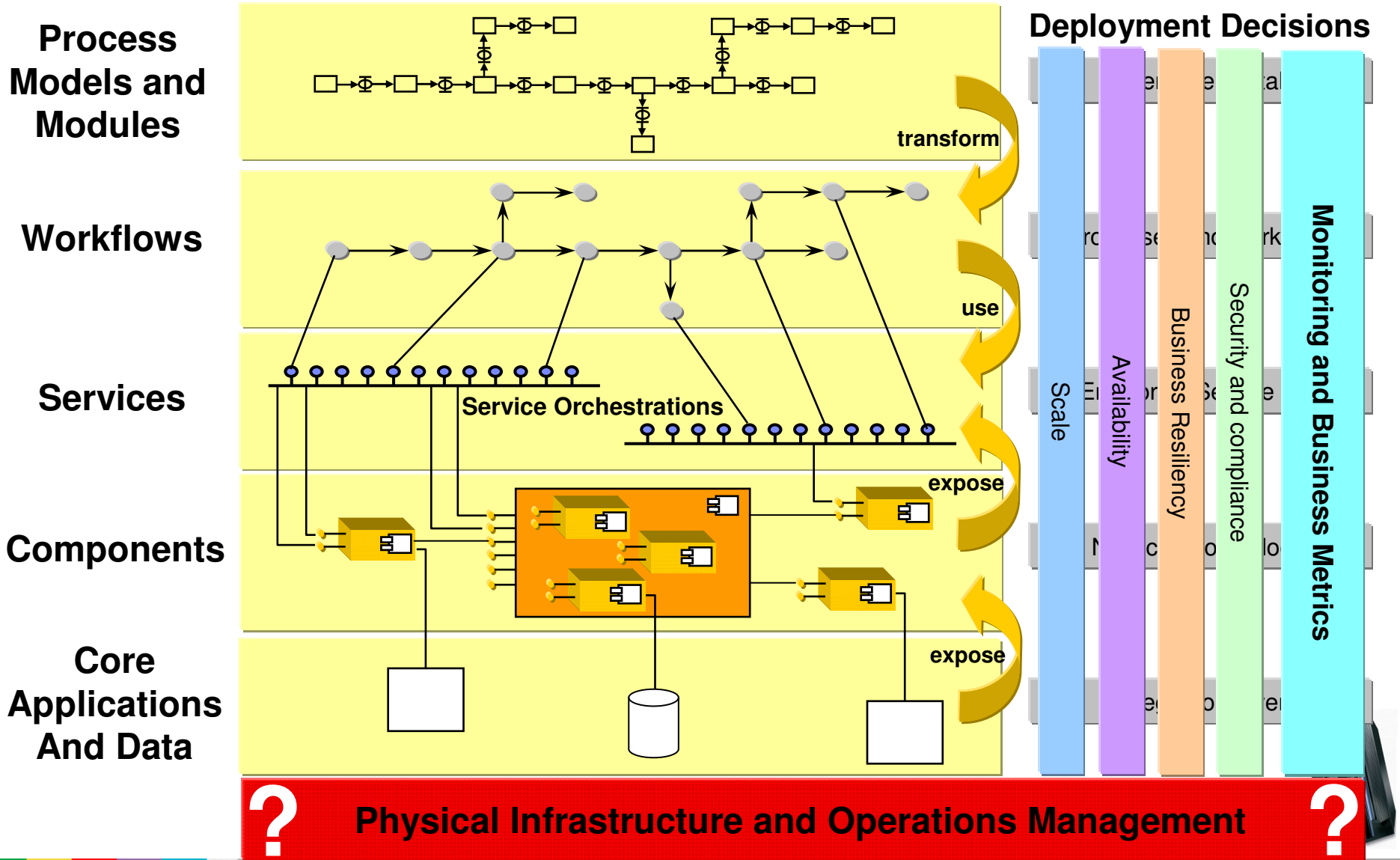
RESULT → Greater Business Responsiveness

How are customers thinking technically about flexible IT through SOA?

The SOA Lifecycle



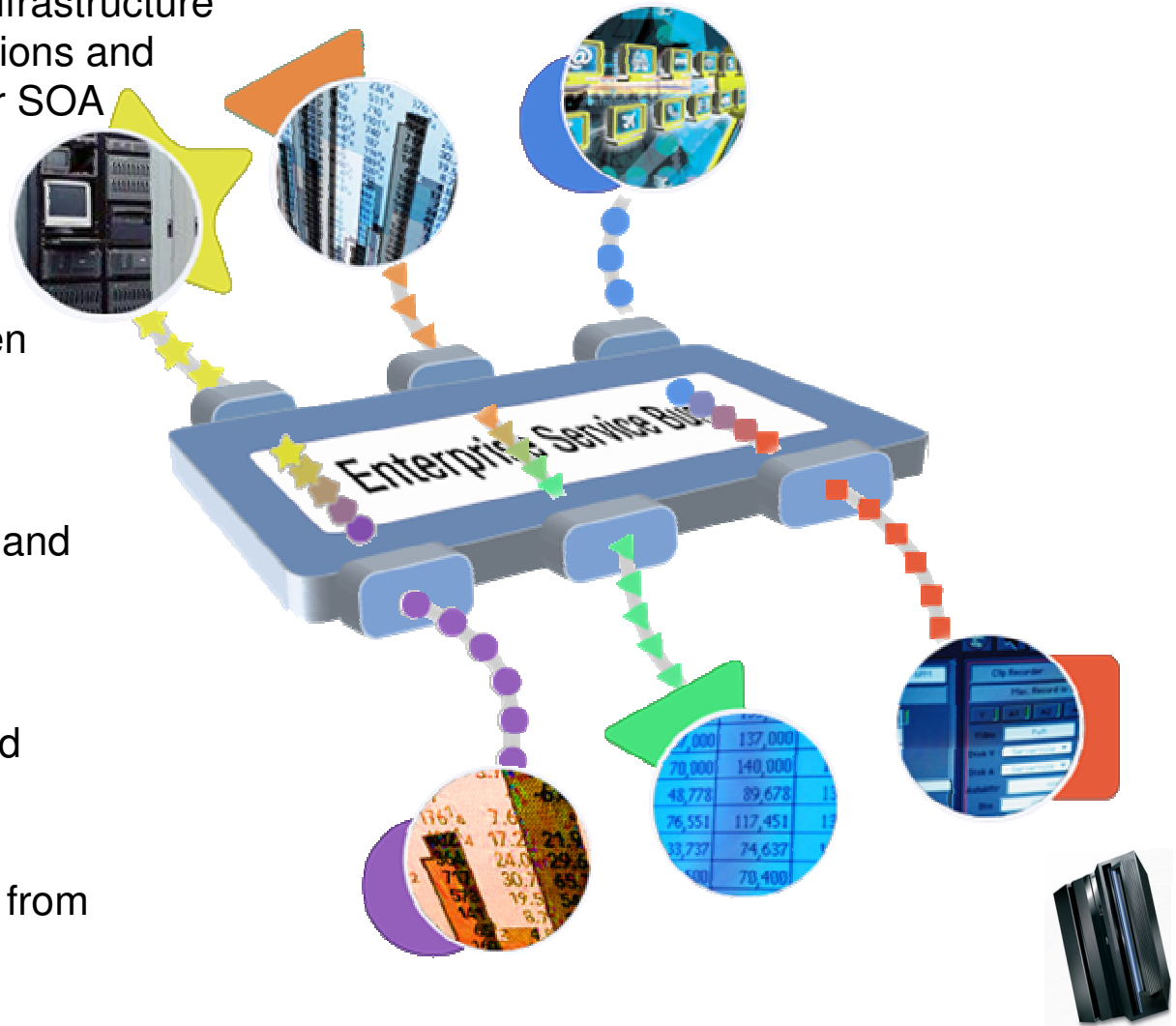
Building and deploying SOA applications



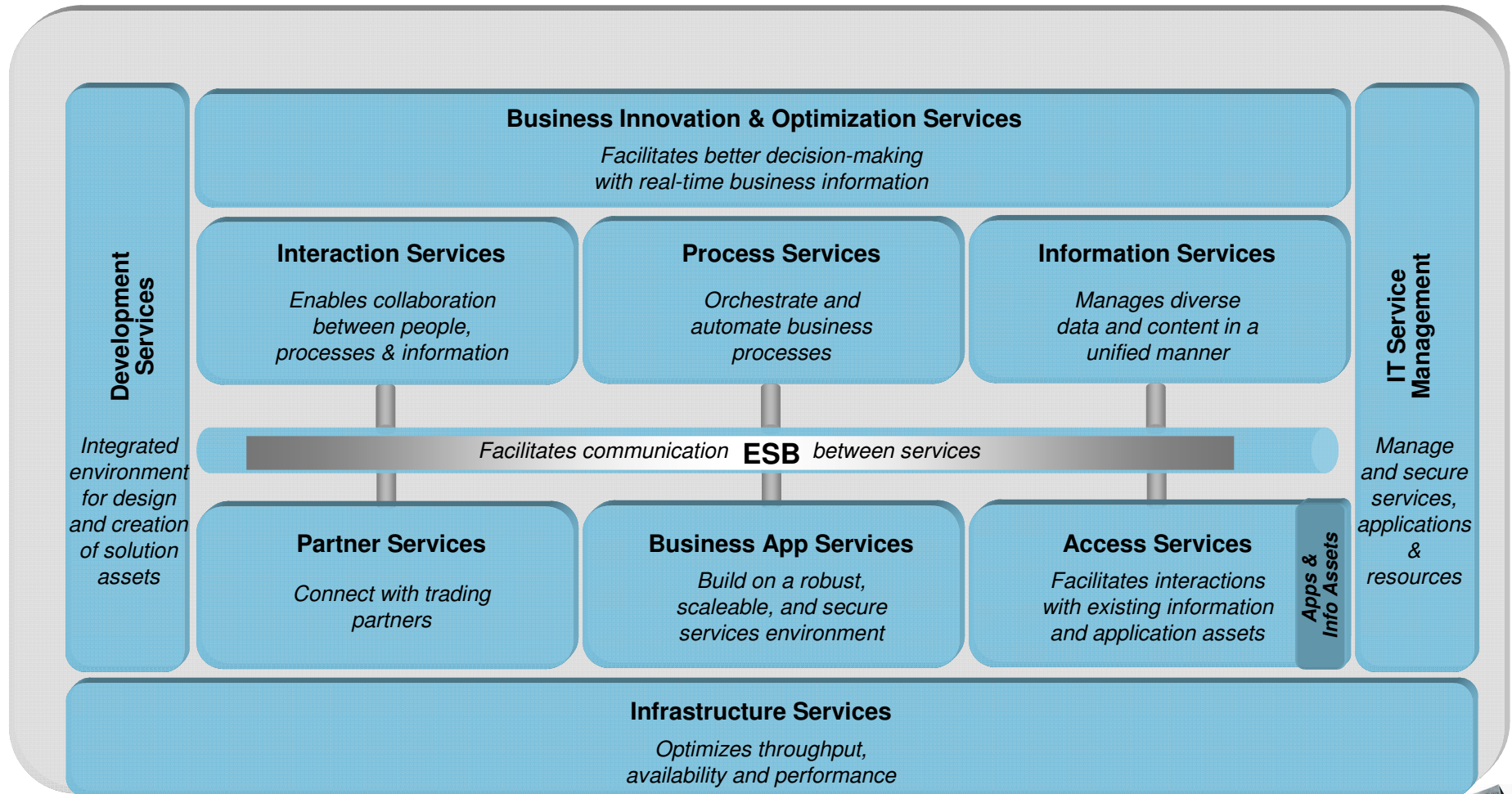
Enterprise Service Bus – the centerpiece of a SOA

- 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



The SOA Reference Architecture



Leverage z/Middleware for maximum business flexibility.





IBM Software Group

SOA Technology on the mainframe



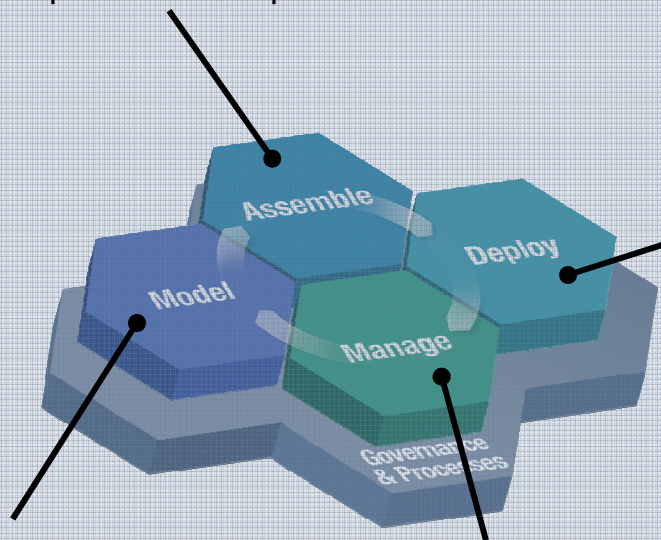
@.business on demand.

© 2006 IBM Corporation

SOA Foundation & Additional SOA Enabling Products

Part of a broader portfolio to meet your every need

WebSphere Integration Developer
 Rational Application Developer
 WebSphere Developer for z



Process:

WebSphere Process Server*
 WebSphere ESB & Message Broker*
 WebSphere Partner Gateway & Adapters*
 CICS Transaction Gateway*

People:

WebSphere Portal*
 WebSphere Everyplace Deployment
 Workplace Collaboration Services

Information:

WebSphere Information Integrator*

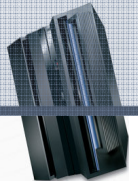
Application Infrastructure

WebSphere App. Server & Extended Deployment*
 CICS Transaction Server* / IMS

WebSphere Business Modeler
 Rational Software Architect
 WebSphere Studio Asset Analyzer*
 CICS Interdependency Analyzer*

WebSphere Business Monitor*
 Tivoli Composite Application Manager*
 Tivoli Identity & Access Manager*

* Indicates products currently running – or with stated plans to run – natively on System z9 and zSeries.



SOA Foundation & Additional SOA Enabling Products

Enhance existing products

- Web Services in CICS and WDz
 - ▶ +Service Micro Flow
- Web Services Gateway in IMS
- Web Services in WebSphere Application Server z/OS
- Web Services in DB2

IBM differentiator:
Maximize the re-usability of existing applications



SOA-ready applications on the market

- More & more ISVs will provide application solutions as:
 - ▶ Web Services (Business components)
 - ▶ Business Processes
 - ▶ Portlets

- Large ERPs provide Web Services integration solutions (Technically speaking)
 - ▶ More difficult to provide business components

- Customers will then integrate these assets into their SOA infrastructure using:
 - ▶ Model (WebSphere Modeler)
 - ▶ Assemble (WebSphere Integration Developer)
 - ▶ Deploy (WebSphere ESB, WebSphere Process Server, WebSphere Portal Server, WebSphere Message Broker)
 - ▶ Manage (ITCAM for SOA, WebSphere Monitor)





IBM Software Group

SOA Infrastructure on the mainframe



@.business on demand.

© 2006 IBM Corporation

What is SOA Infrastructure?

- SOA Infrastructure is the set of runtimes needed to run SOA:
 - ▶ The Enterprise Service Bus
 - ▶ The Process Server
 - ▶ The System management infrastructure
 - ▶ The Security infrastructure
 - ▶ The Business Monitoring infrastructure



Questions from customers?

- Why shall I deploy SOA on the mainframe?
- What are the Pro & Cons for SOA on the mainframe?
- Where do I deploy the ESB?
- Is SOA on the mainframe mature enough?
-



Several answers.....

- “The irony is that **host applications are probably better suited for exposure as part of an SOA than many applications based on more modern 4GL object-oriented languages**, said Phil Murphy, a principal analyst with consultancy Forrester Research, in an interview last year. “When folks wrote screen-based transactions many months ago, they wrote it at a business function viewpoint: I add a customer, I add an order for that customer, I check backlogs for that customer, etc. So in many respects, those CICS screens of 15 years ago are better suited to service orientation than a lot of the newer, distributed code that’s been written over the last several years, because of their affinity with a business function,” he argued, adding: “What did the object-oriented guys do? They took those screens and they broke them down into a thousand different objects.”

From Enterprise Systems Journal, 7/26/2005
<http://esj.com/enterprise/article.aspx?EditorialsID=1457>



Several answers.....

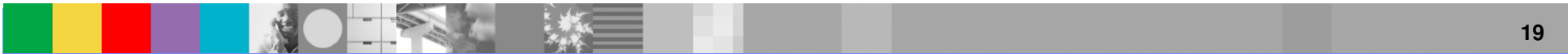
IBM System z9: Enterprise Service Bulldozer

In summary, while it's increasingly clear that a range of options will be available to support enterprise class SOA, organizations looking for a highly scalable deployment and management platform should certainly be evaluating zSeries as SOA project hub.

IBM is investing anew to ensure z9 has a strong presence in the SOA world. It may well be that IBM has discovered a powerful new role for its mainframes, that of enterprise service bulldozer.



www.redmonk.com



Several Answers....

- Enterprise Service Bus and Process Servers are **KEY INFRASTRUCTURE COMPONENTS**
- What happens if:
 - ▶ The ESB is unavailable?
 - ▶ Process Server is unavailable?
 - ▶ Strategic Business Services/Processes are unavailable?
 - ▶ Hackers gets into the ESB?
 - ▶
- Mainframe technologies brings:
 - ▶ Resilience / Scalability
 - ▶ Security
 - ▶ Workload Management (all the services/processes do not have the same priority)





IBM Software Group

How do I engage IBM?



@.business on demand.

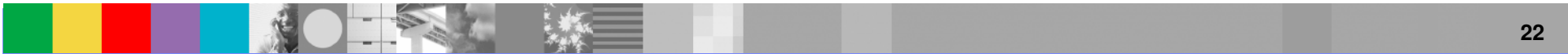
© 2006 IBM Corporation

How do I engage IBM?

- I want to develop and run a prototype:
 - ▶ Engage IBM Software Group
- I want to implement a single project:
 - ▶ Engage IBM Software Group
- I want to address a business need through SOA
 - ▶ Engage IBM Business Consulting Services (BCS)
- I want to re-think my IT System by implementing SOA principles
 - ▶ Engage IBM Business Consulting Services (BCS)

In any case: Ask you regular IBM contact or contact me:

franck.bonsergent@fr.ibm.com



Summary

- SOA can make the difference for your enterprise on its market through higher flexibility and better alignment between IT and Business.
- IBM solutions on SOA are maximizing re-use of existing applications (leverage investments, minimize risks)
- zSeries has the Quality of Service required to run SOA
- IBM solutions for SOA are reality today, not just products plans
- IBM is the market leader on SOA





IBM SOA Technology Summit - 13 juin à l'hôtel Hilton Paris Suffren

Un parcours complet du cycle de vie de l'approche SOA.

Valeur métier du SOA	Gestion d'une architecture SOA	Déploiement infrastructure	Services d'information	Poste de travail SOA
Spécif des services Méthode SOMA	Sécurité	ESB : bus de services	Master Data Management	WebSphere Portal V6
Service métiers : conception/devt	Performances et disponibilité	Appliances : DataPower	WebSphere Information Server	E-forms, le zéro papier
Model/Pilotage des processus métier	Gouvernance	Management des web services	DB2 Viper	Stratégie : Services Collaboration

Pour visualiser l'agenda et vous inscrire :

http://www.ibm.com/fr/events/soa_technology_summit.html



Thank
YOU

