



Architecture Orientée Services (SOA) et Microsoft® BizTalk® Server

Quelles perspectives pour les Services Informatiques ?

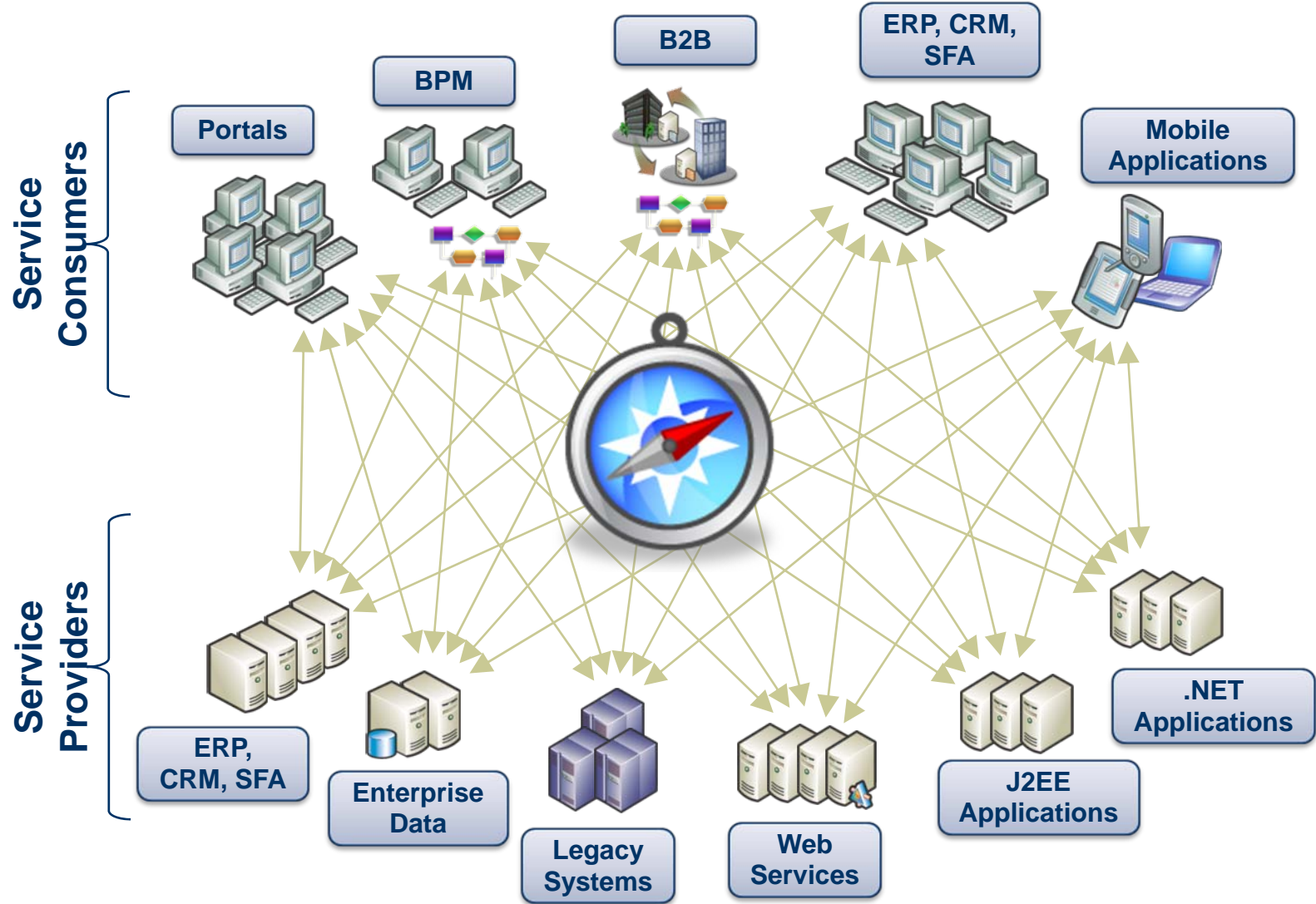
Olivier MICHOUUD et Simon PERRIN, mai 2008



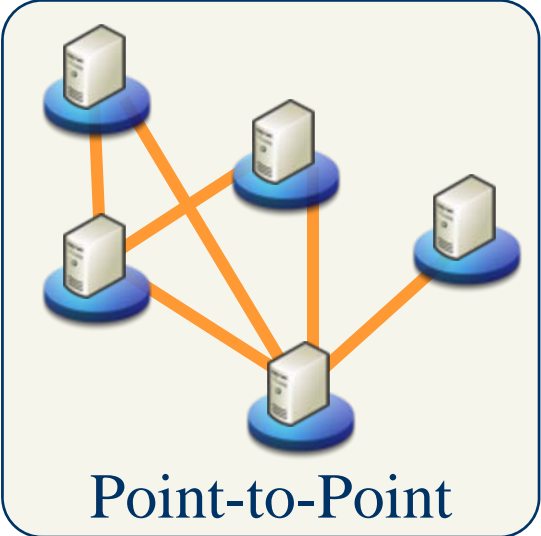
Le contexte de l'entreprise et des SI

- ▶ Besoins de faire évoluer le SI
 - ▶ Plus d'utilisateurs et de sites de production
 - ▶ Augmentation des volumes de données
 - ▶ Plus de connexions inter-applicatives
- ▶ Besoins de gérer et modifier les processus
 - ▶ Gestion des règles métiers
 - ▶ Définition des processus par le Management
 - ▶ Aide au management pour la prise de décisions

Les besoins d'interconnexions



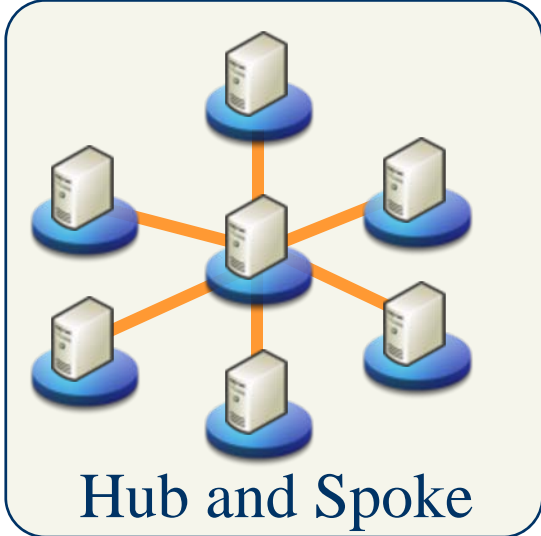
Evolution des Architectures



unmanaged / decentralized

Suitable for small environments

n^2 lines of connectivity



managed / centralized

Supports loose coupling of systems

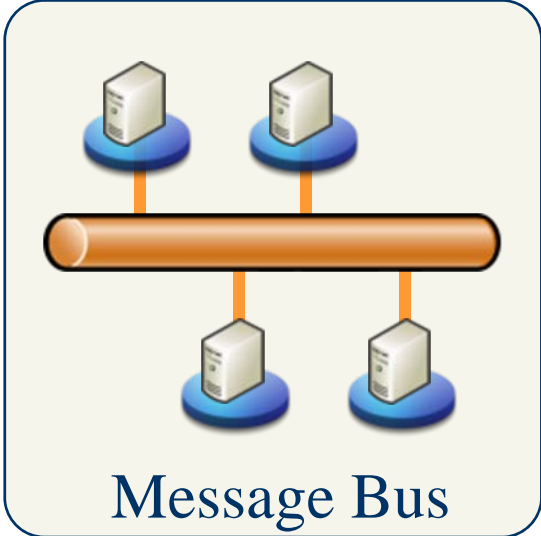
Message Broker

n lines of connectivity

Centralized management

Limited scalability

Single point of failure



managed / decentralized

Common communication infrastructure

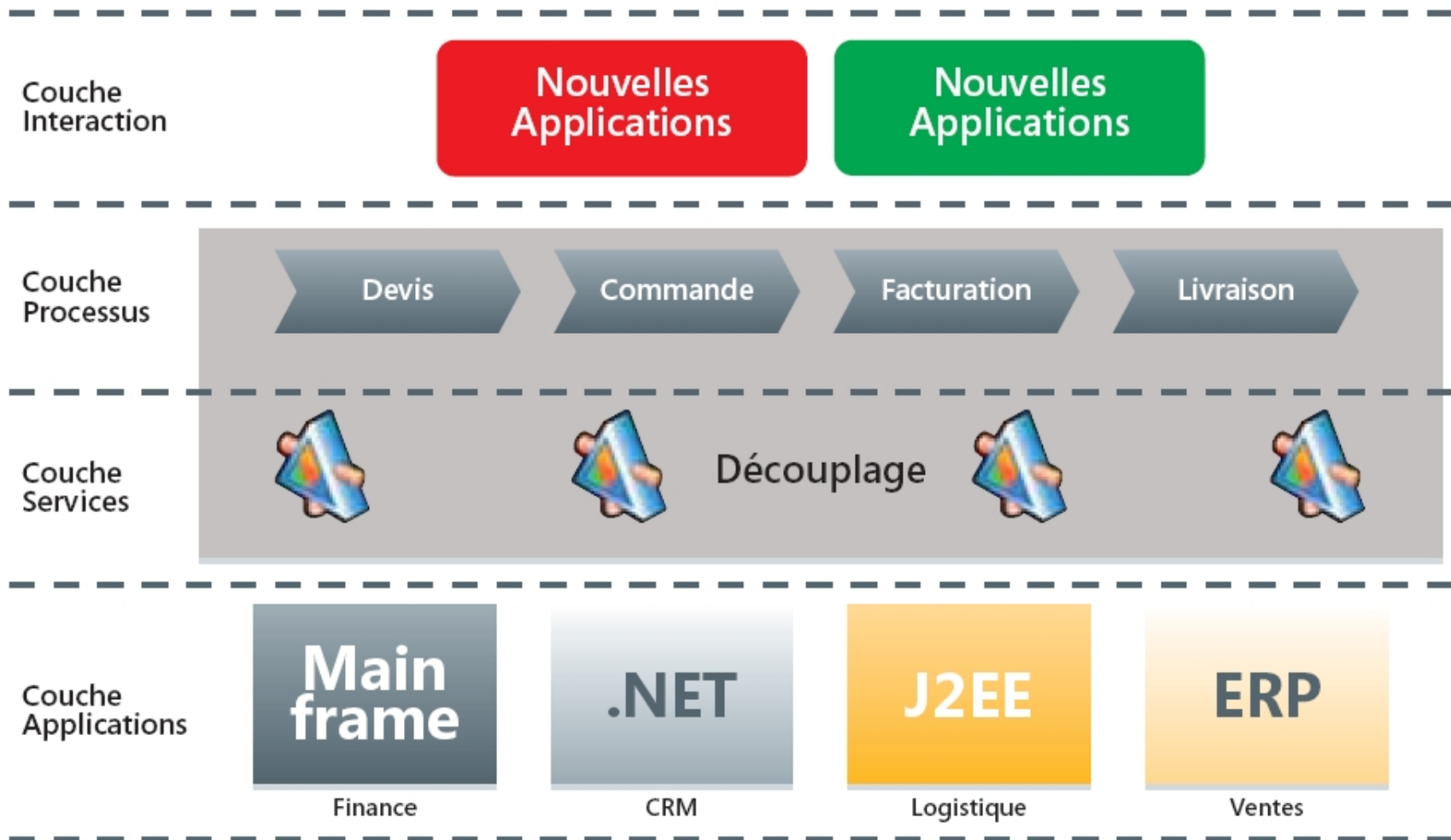
Common command infrastructure

n lines of connectivity

Proprietary communication protocols

Complex management

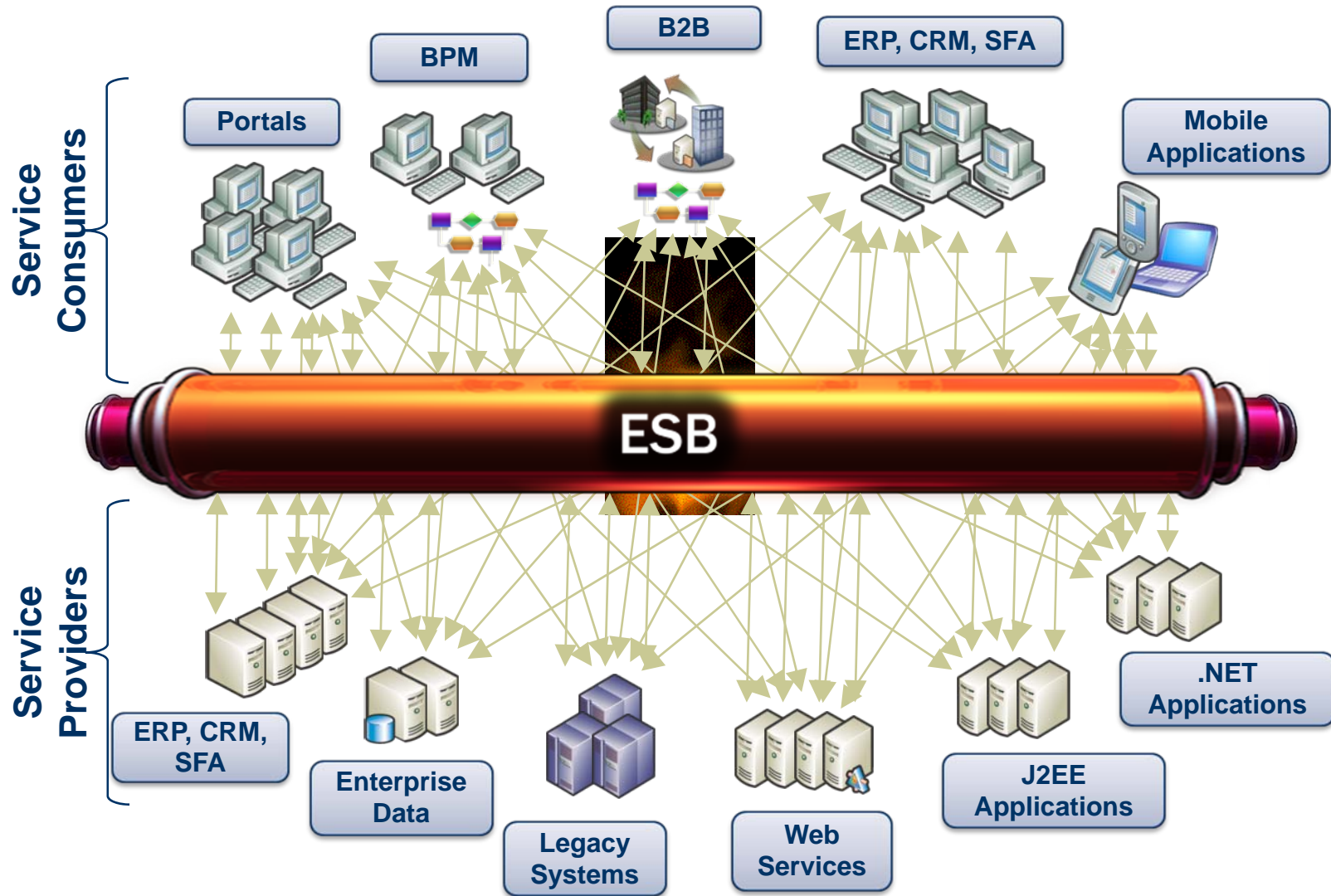
L'approche SOA



Architecture Orientée Services

- ▶ Rendre modulaires les grosses applications
- ▶ Intégration des différents modules applicatifs
 - ▶ ERP, CRM, Stock, Finances, RH etc.
 - ▶ Web, Intranet, Messageries etc.
- ▶ Couplage faible entre les applications
- ▶ Définition et modification des processus indépendamment des applications

The ESB Architecture



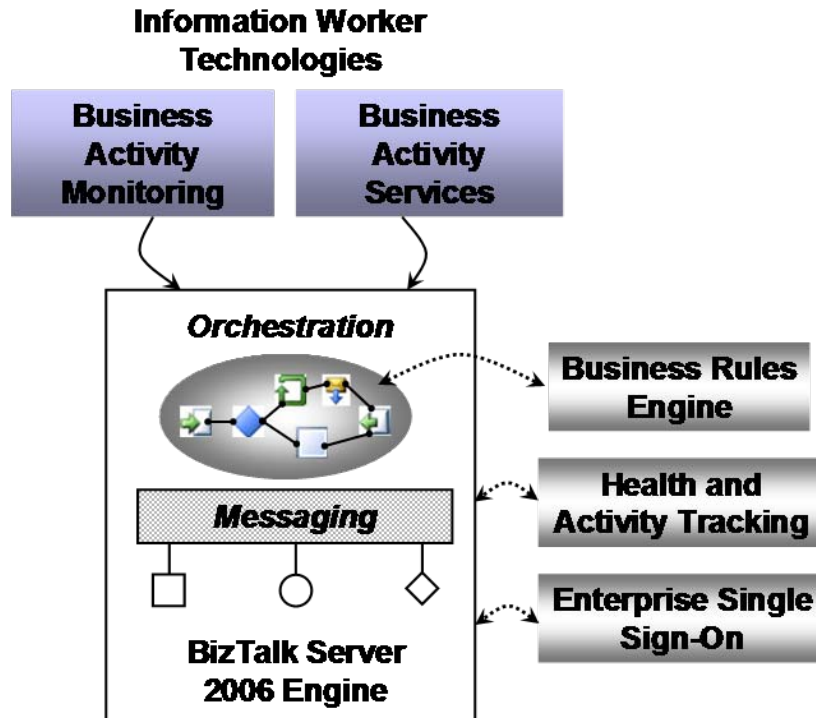
Microsoft Biztalk

- ▶ Serveur Microsoft pour l'automatisation et l'optimisation des processus métiers
- ▶ Outil Microsoft essentiel pour le SOA
- ▶ Technologie .NET 3.5
- ▶ Multiples possibilités d'extension
- ▶ Trois types de licences

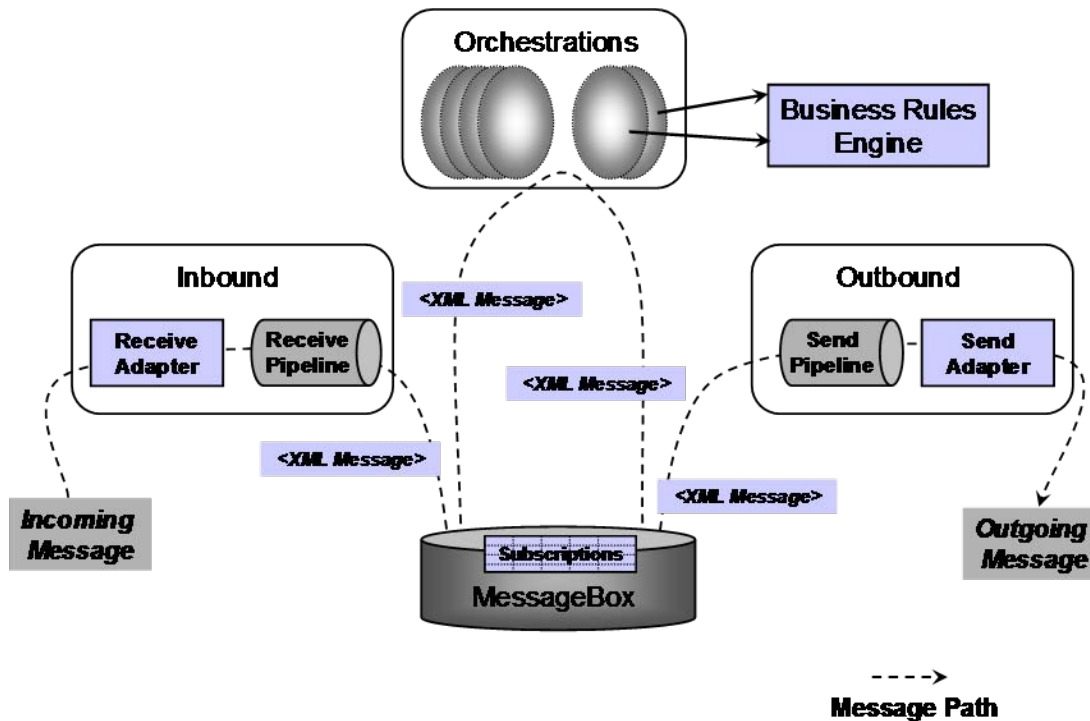
Technologie Biztalk

- ▶ Interopérabilité / Flexibilité
- ▶ Business Process Management (Orchestration)
- ▶ Business Activity Monitoring
- ▶ Business Intelligence
- ▶ Transformation (Schémas, Mapping)
- ▶ Adaptateurs (EDI, SOAP, HTTP, SMTP, FTP, SQL, WSE, WCF, SharePoint, IBM, SAP, ...)

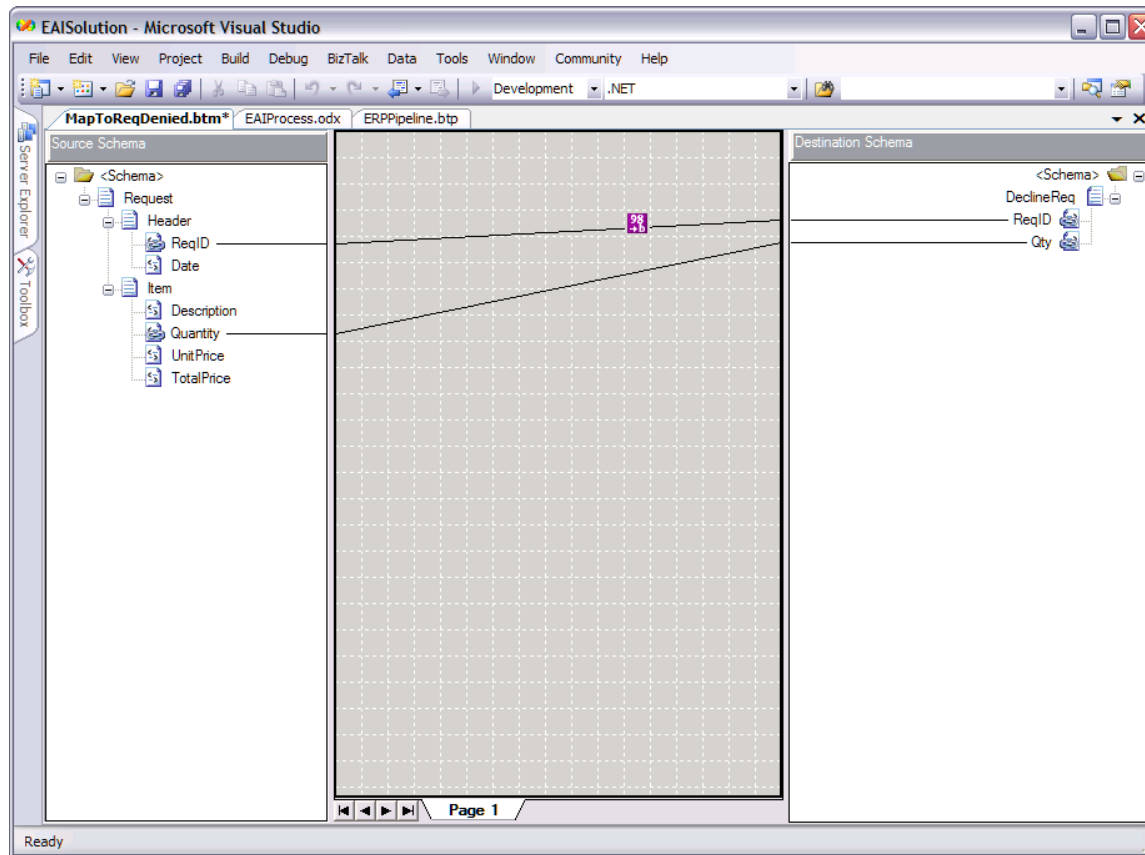
Moteur Biztalk



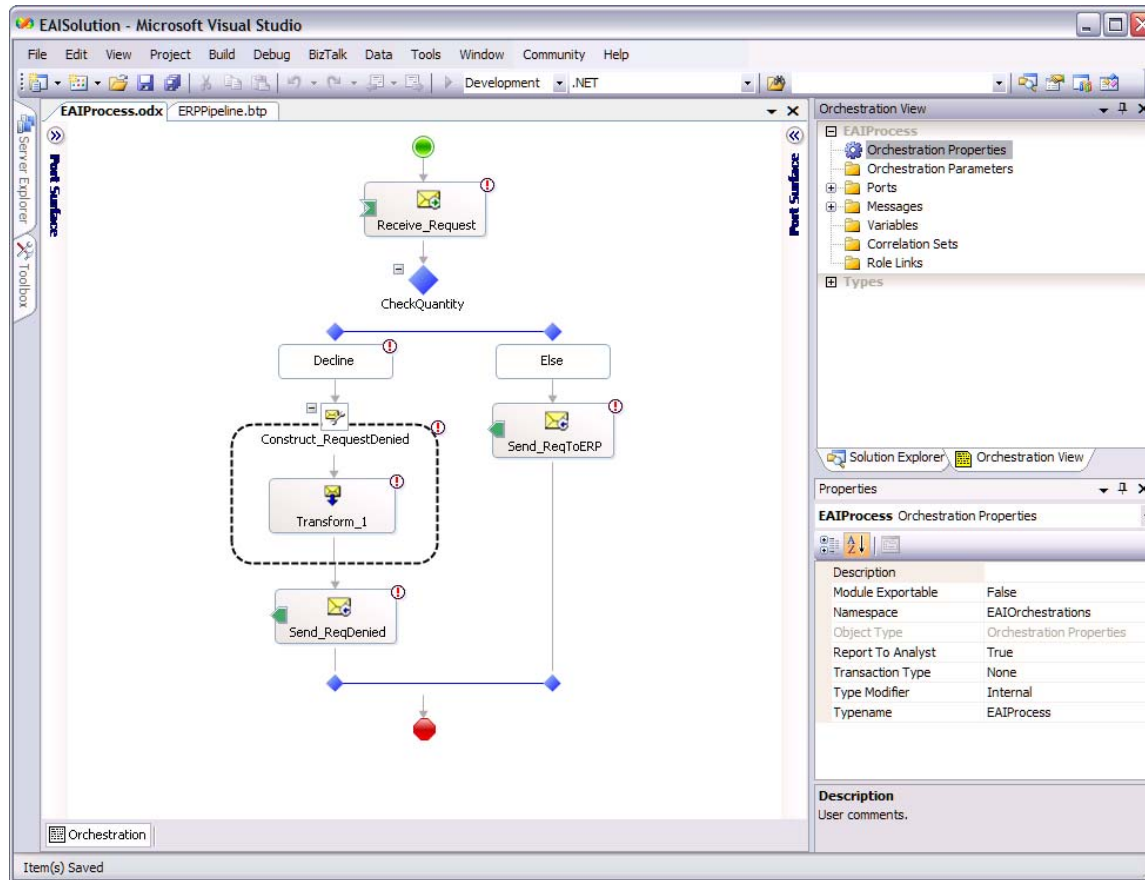
Application BizTalk



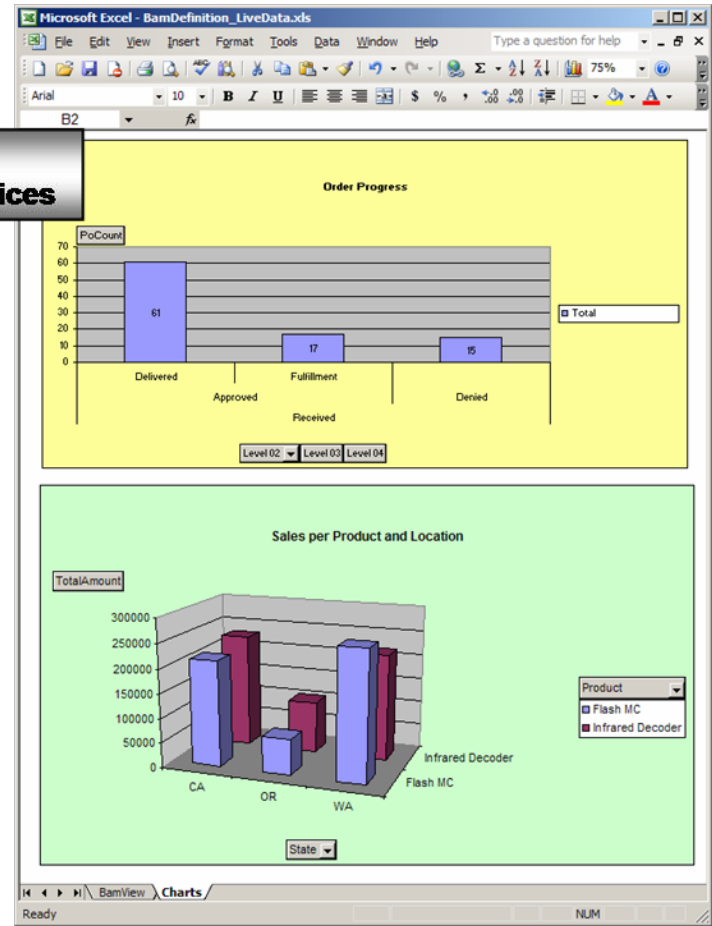
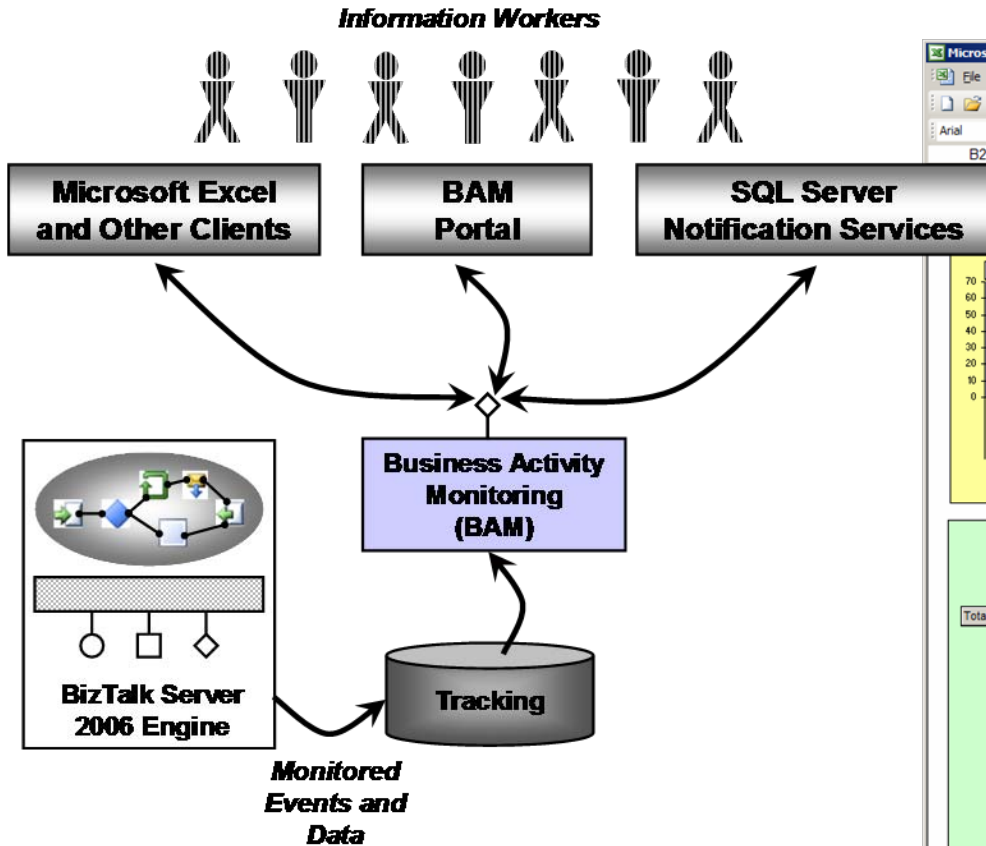
Schémas et Transformations



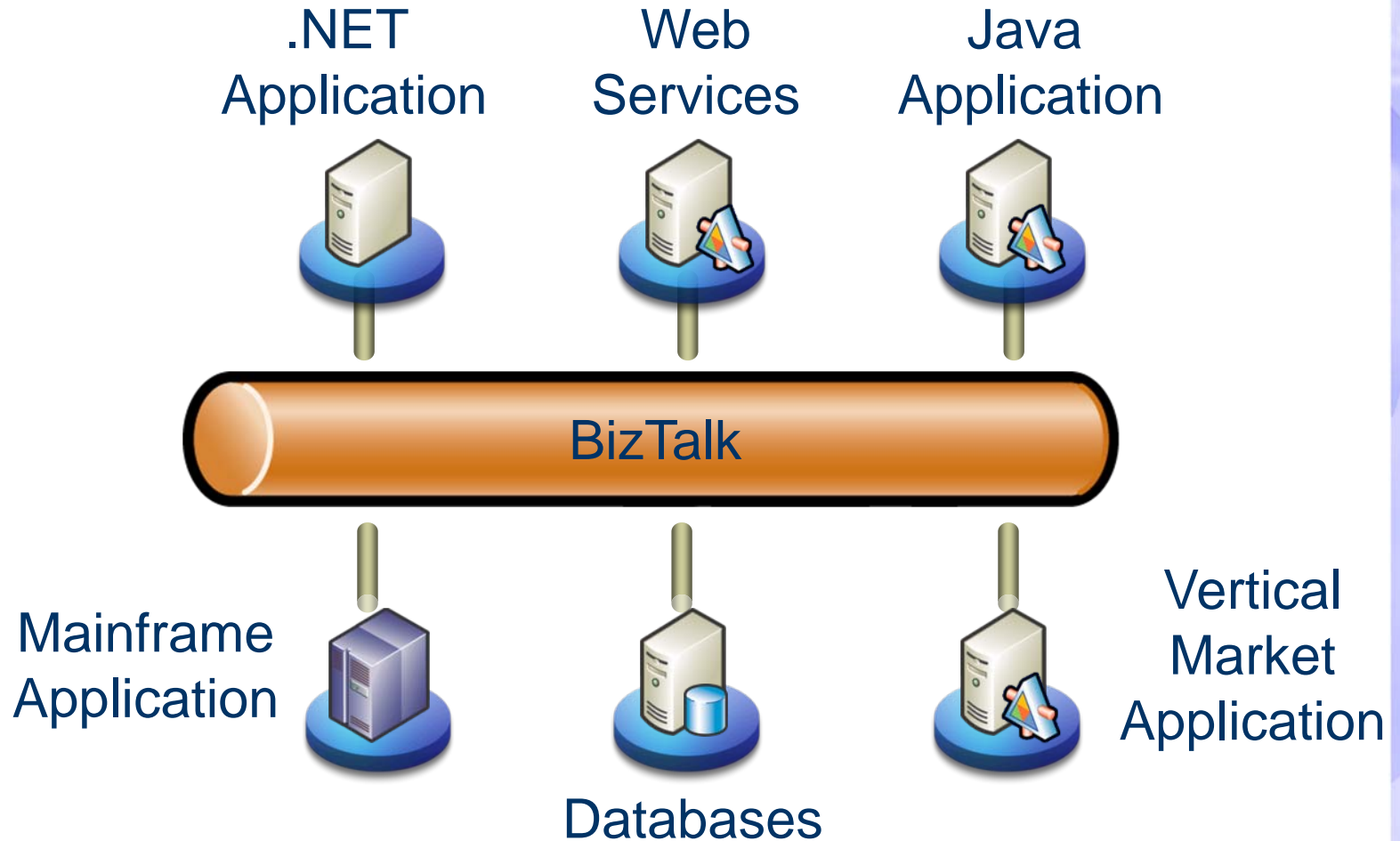
Orchestration



Monitoring



Adaptateurs



Bibliographie



- ▶ Architecture orientée services réaliste grâce à la plateforme Microsoft
 - ▶ <http://www.microsoft.com/france/biztalk/utilisez/livres-blancs/soa/livre-blanc.mspix>
- ▶ Microsoft SOA/ESB Web Site
 - ▶ <http://www.microsoft.com/biztalk/solutions/soa/esb.mspix>
- ▶ Microsoft ESB Guidance for BizTalk Server 2006 R2
 - ▶ <http://msdn2.microsoft.com/en-us/library/bb931189.aspx>

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