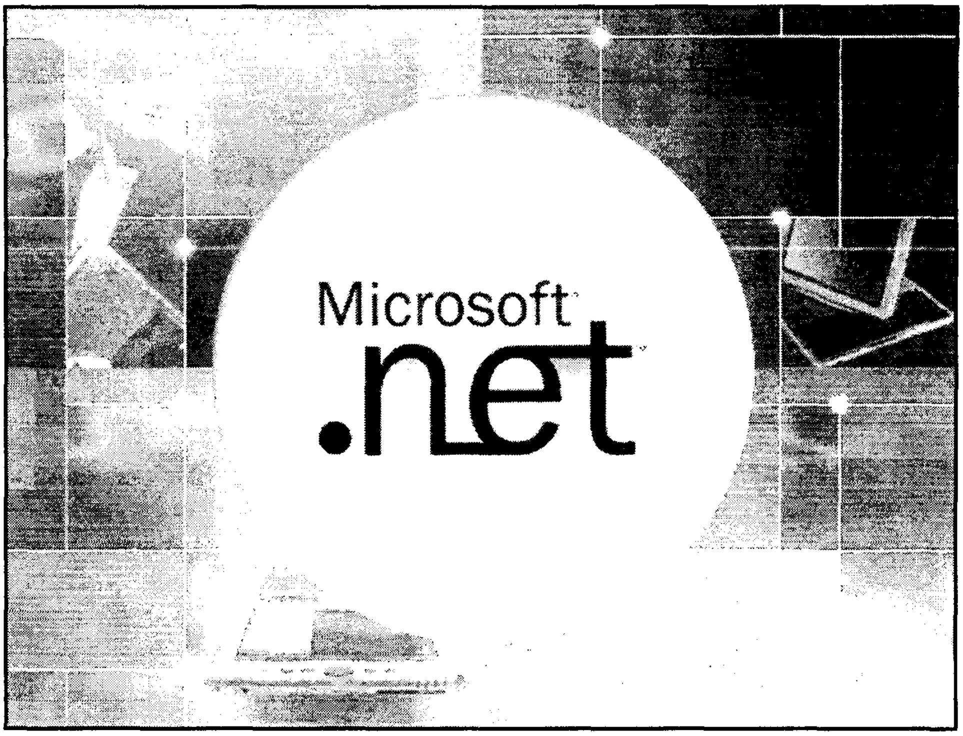

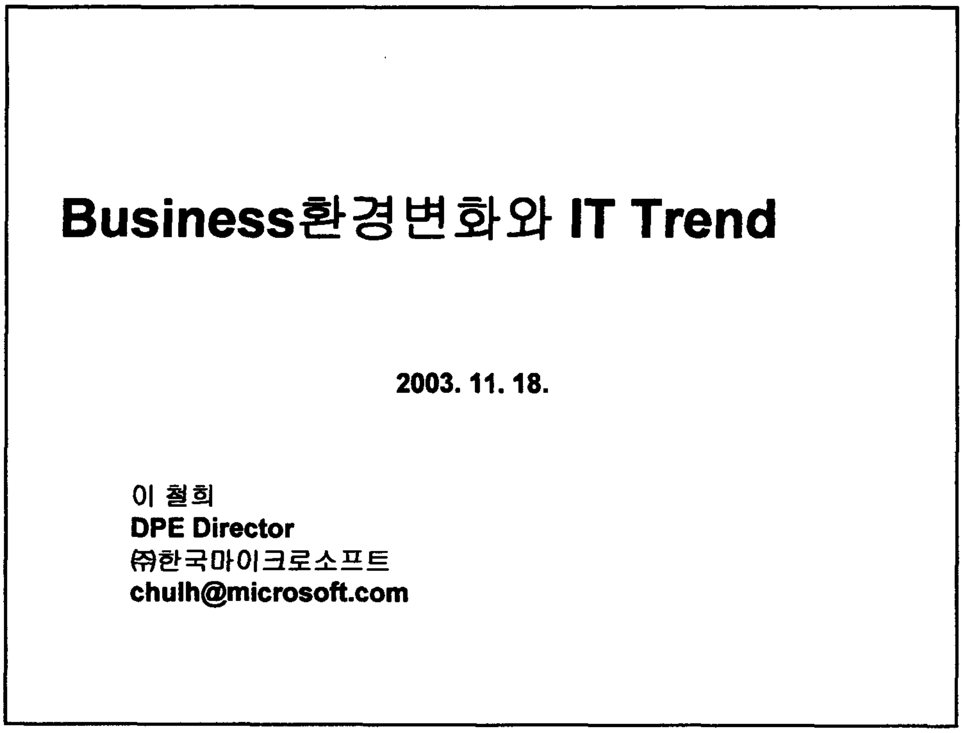

Business환경변화와 IT Trend

2003. 11. 18.

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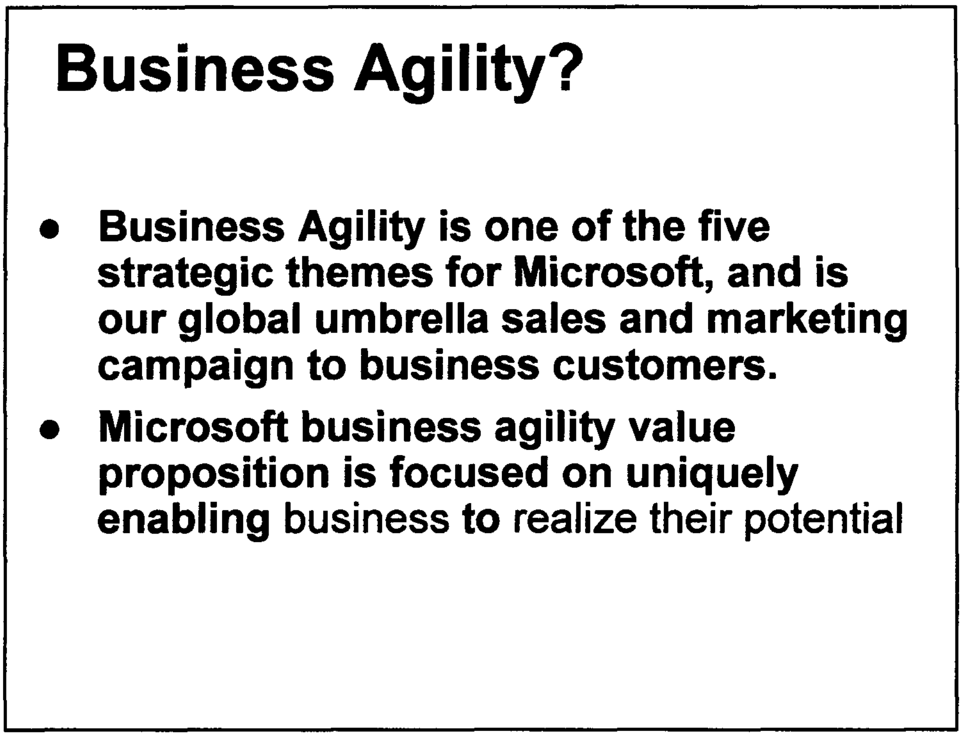
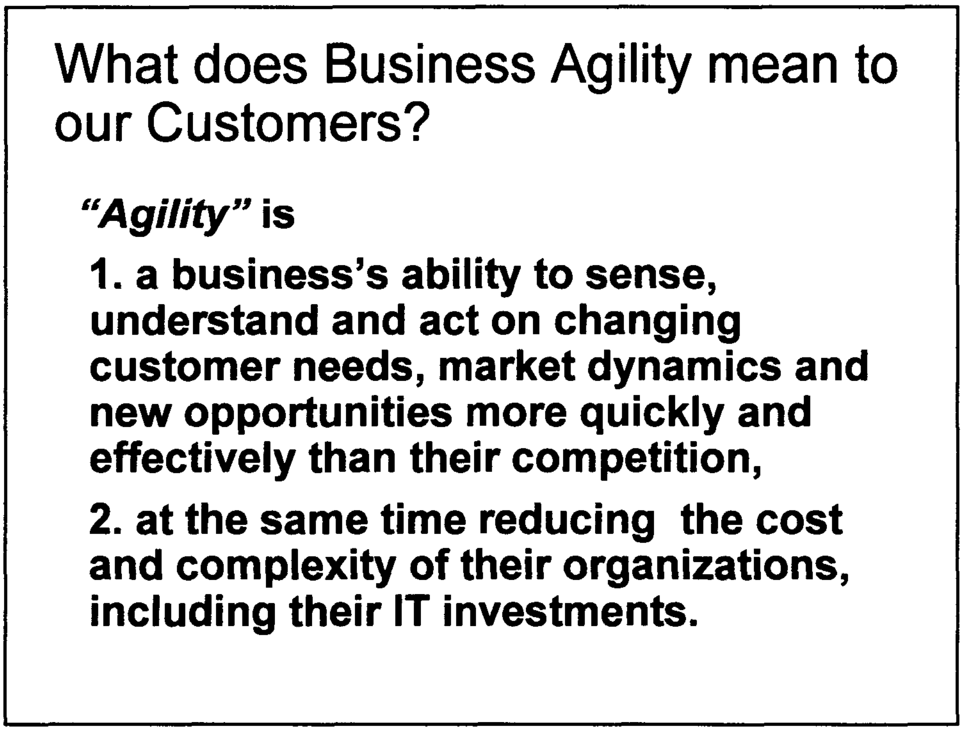


Business Agility?

- **Business Agility is one of the five strategic themes for Microsoft, and is our global umbrella sales and marketing campaign to business customers.**
- **Microsoft business agility value proposition is focused on uniquely enabling** business to realize their potential



What does Business Agility mean to our Customers?

***"Agility"* is**

1. a business's ability to sense, understand and act on changing customer needs, market dynamics and new opportunities more quickly and effectively than their competition,

2. at the same time reducing the cost and complexity of their organizations, including their IT investments.

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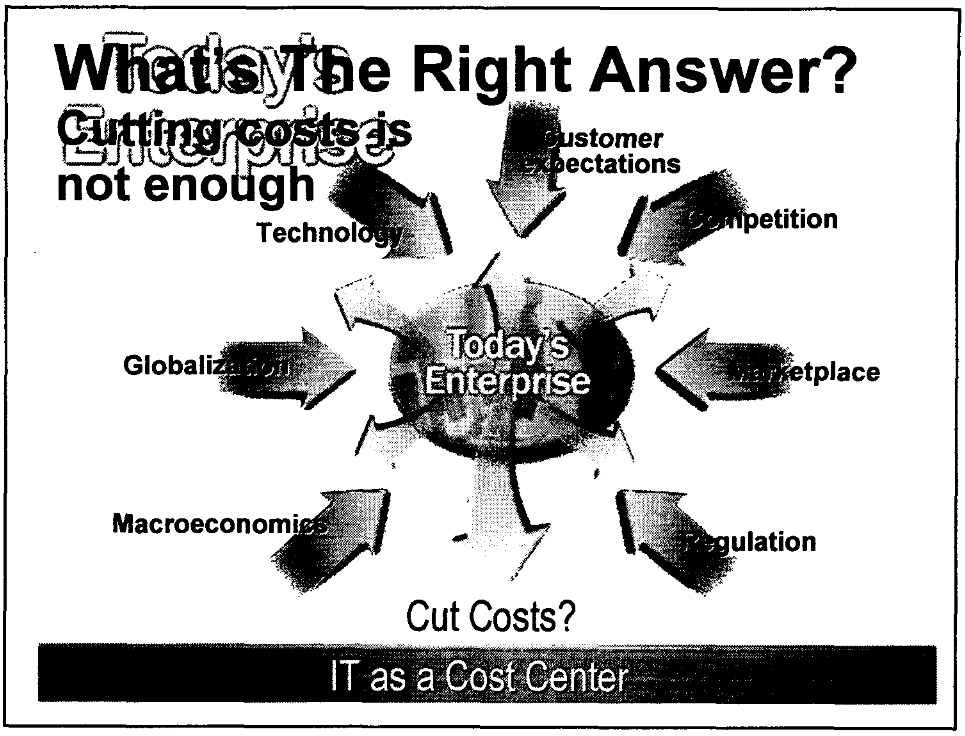
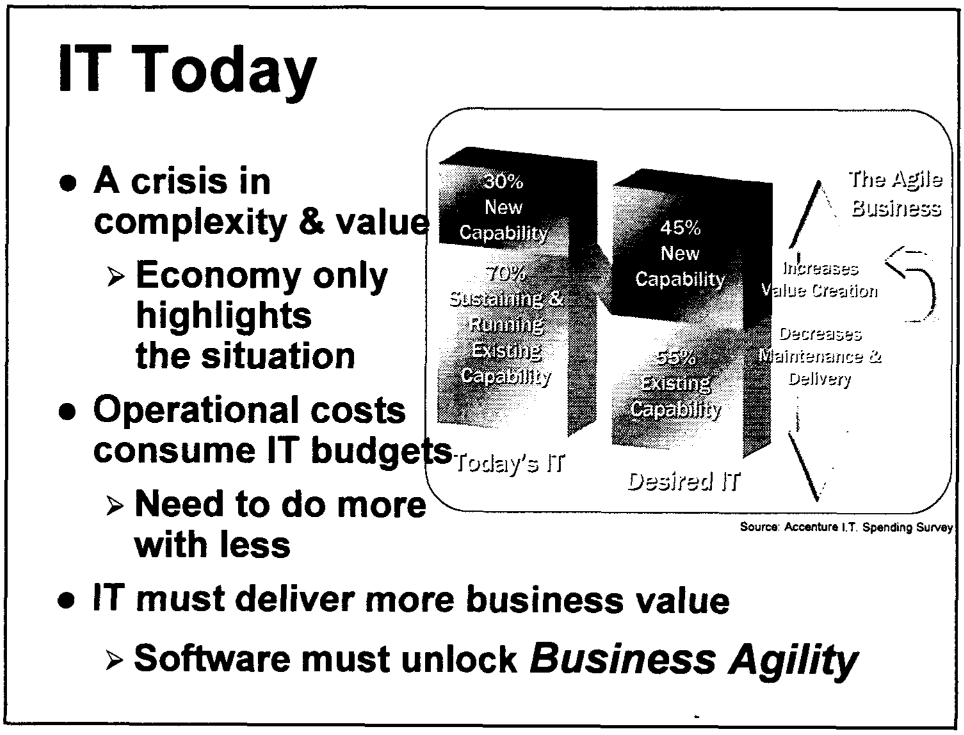


What's The Right Answer?

Cutting costs is not enough



IT Today

- A crisis in complexity & value
  - Economy only highlights the situation
- Operational costs consume IT budgets
  - Need to do more with less
- IT must deliver more business value
  - Software must unlock *Business Agility*

Source: Accenture I.T. Spending Survey

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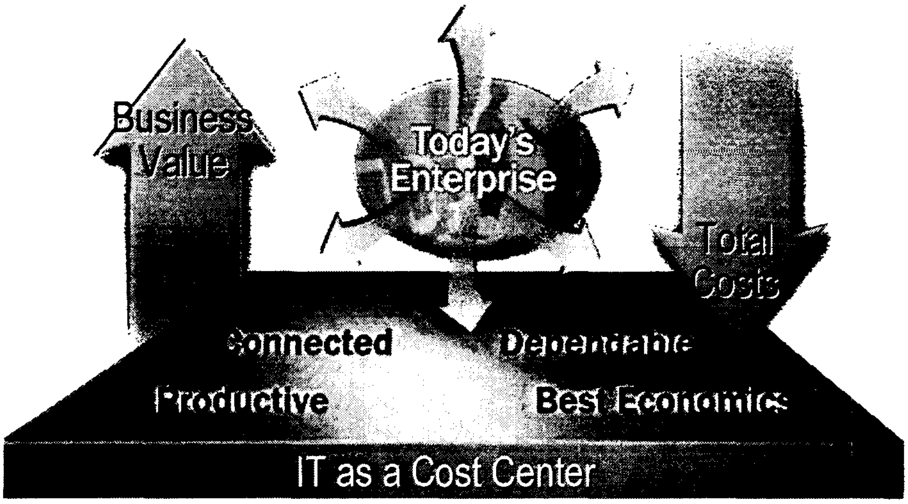
The Agile Business
Microsoft Promise

Technology Accelerates Business Innovation



Microsoft Strategy

Software For The Agile Business

- **Integrated platform**
  - ➢ **Spans and connects the entire solution cycle**
- **Software architecture**
  - ➢ **The only way to reduce complexity and cost**
- **Partner ecosystem & economics**
  - ➢ **Un [illegible] and value**

Connected Dependable Productive Best Economics

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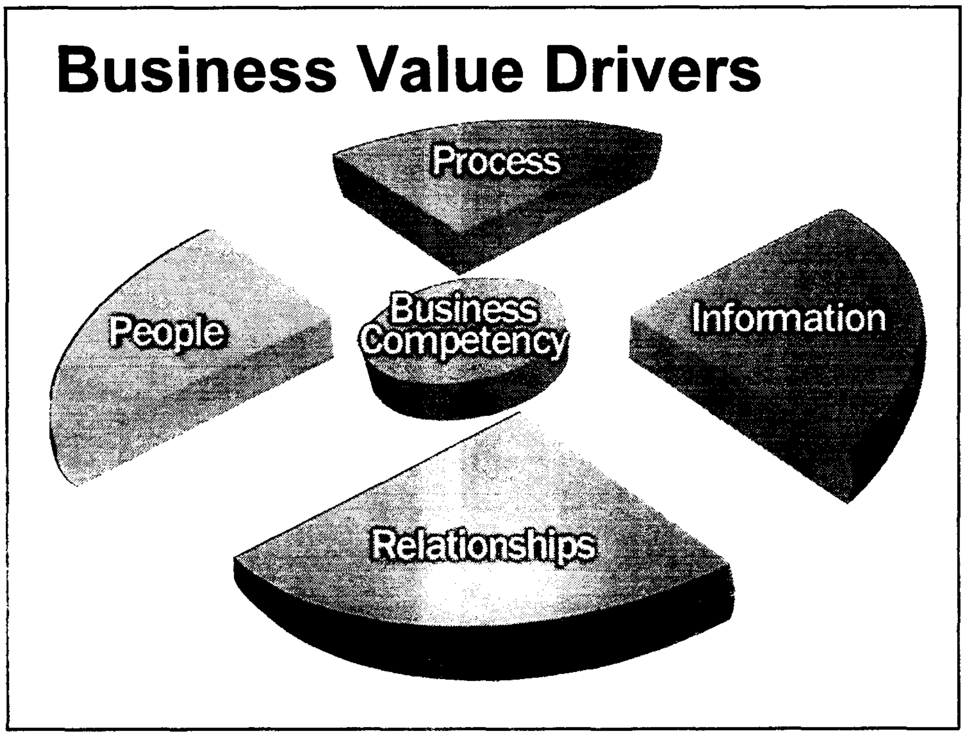


Business Value Drivers

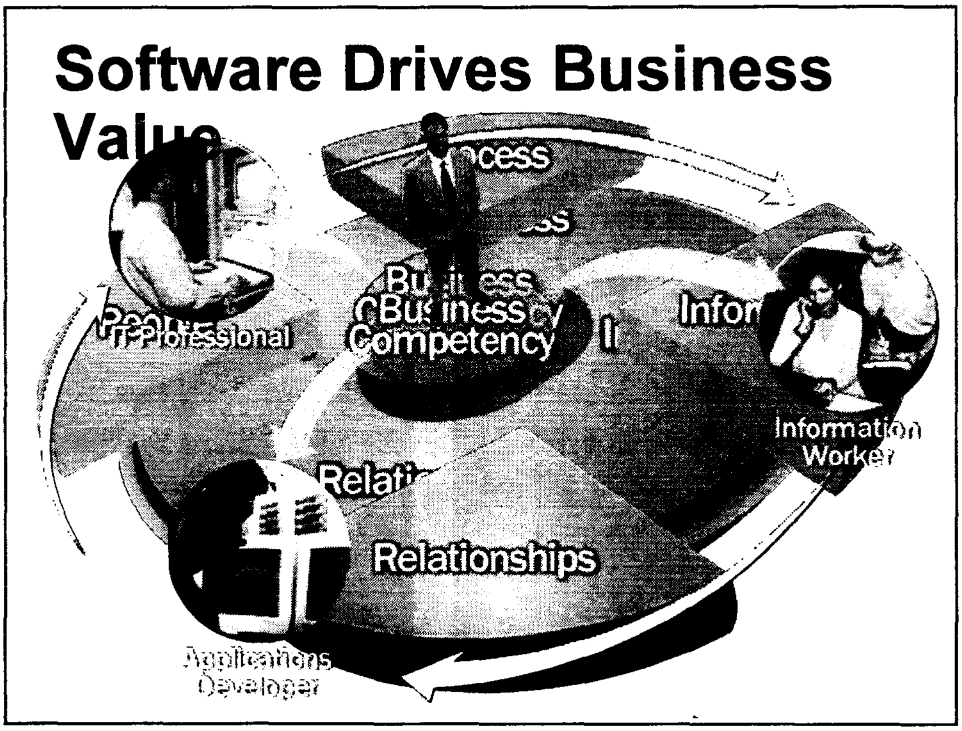
Process

People

Business Competency

Information

Relationships



Software Drives Business Value

Process

Business Competency

People

IT Professional

Information

Information Worker

Relationships

Applications Developer

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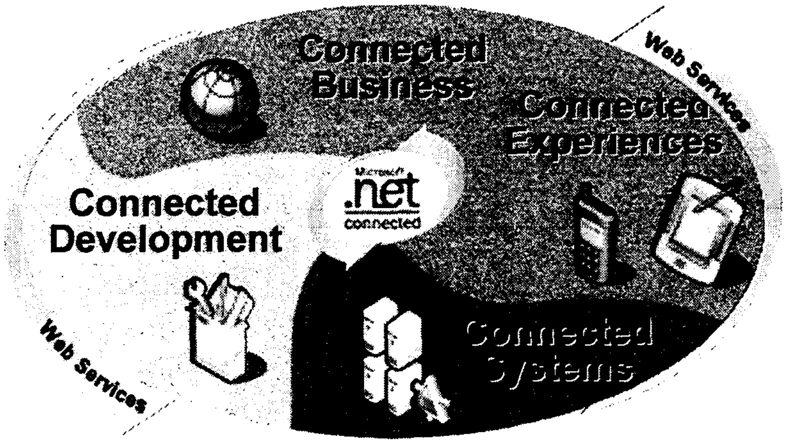
Microsoft .NET

Software for connecting information, people, systems and devices

Web Services Everywhere



Enterprise Requirements

- Cross-application integration, support for standards
- Legacy/mainframe interoperability
- Scalable architectures and reusability
- Heterogeneous programming environment
- Advanced security technologies to help protect investments
- Enterprise-wide deployment
- Architectural guidance and best practices guidelines
- Systematic development, collaborative work environment

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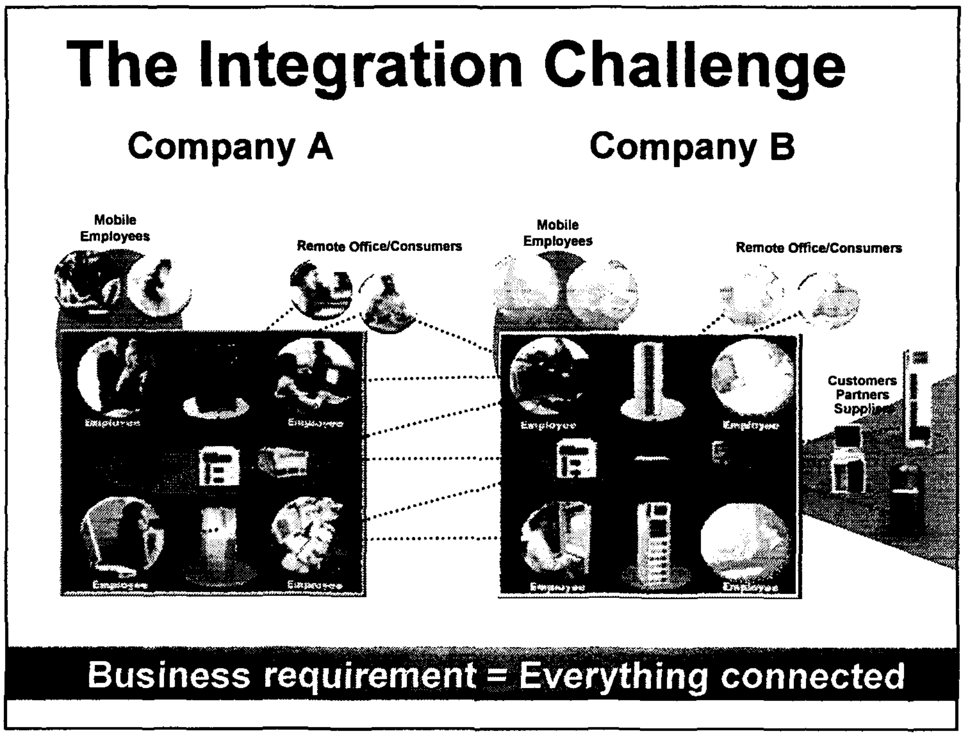
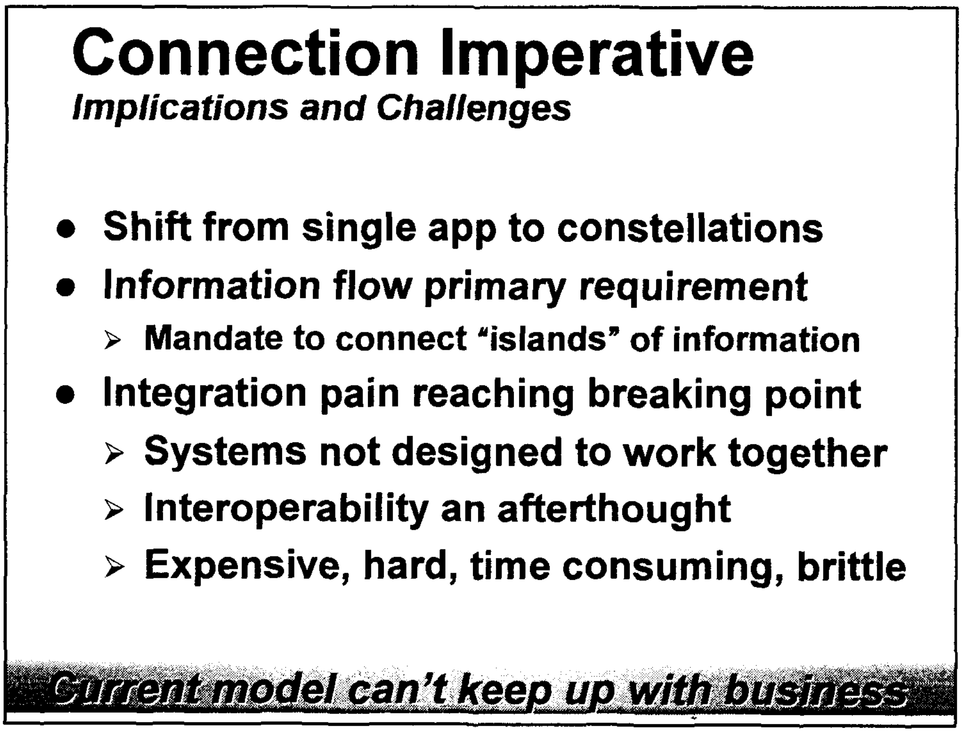


The Integration Challenge

Company A

Company B

Business requirement = Everything connected



Connection Imperative

Implications and Challenges

- Shift from single app to constellations
- Information flow primary requirement
  - ➢ Mandate to connect "islands" of information
- Integration pain reaching breaking point
  - ➢ Systems not designed to work together
  - ➢ Interoperability an afterthought
  - ➢ Expensive, hard, time consuming, brittle

Current model can't keep up with business

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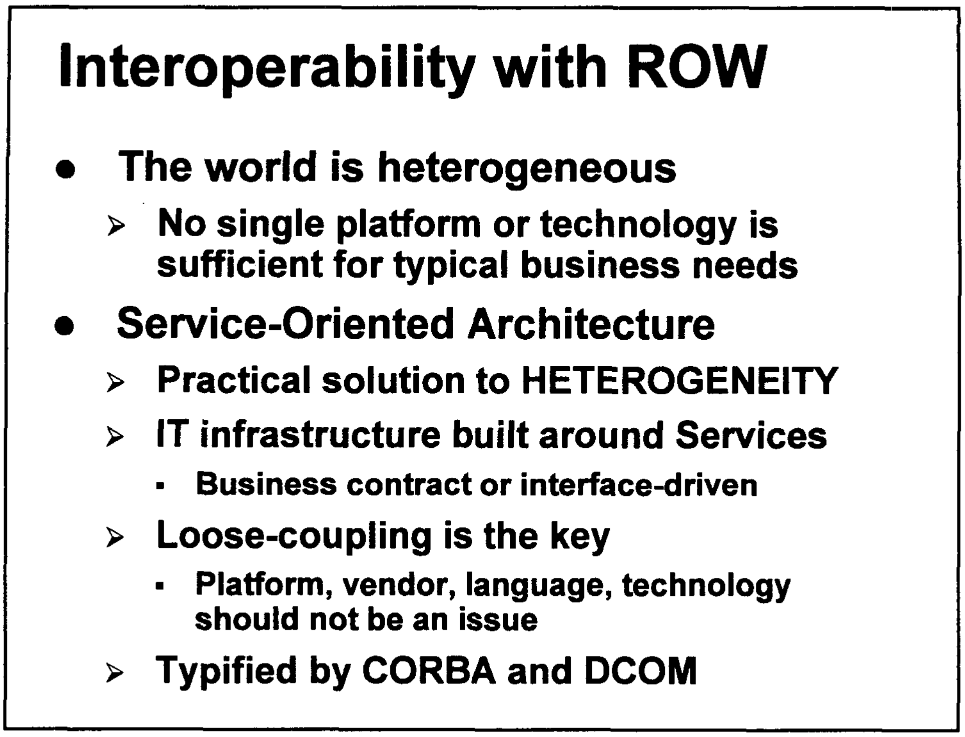
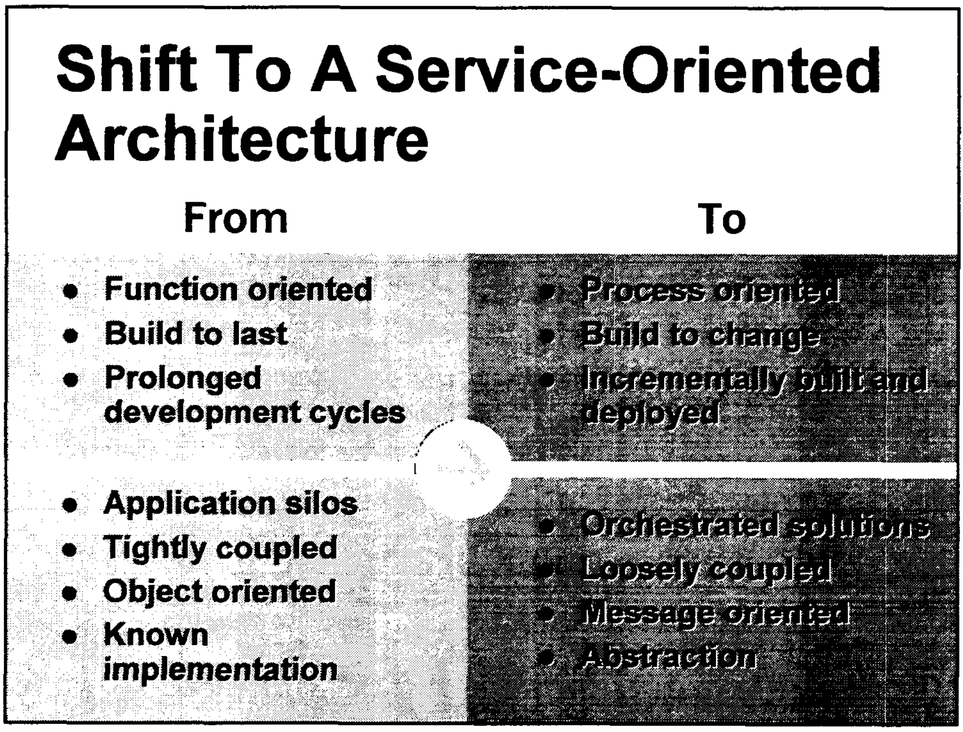


Interoperability with ROW

- The world is heterogeneous
  - ➢ No single platform or technology is sufficient for typical business needs
- Service-Oriented Architecture
  - ➢ Practical solution to HETEROGENEITY
  - ➢ IT infrastructure built around Services
    - ▪ Business contract or interface-driven
  - ➢ Loose-coupling is the key
    - ▪ Platform, vendor, language, technology should not be an issue
  - ➢ Typified by CORBA and DCOM



Shift To A Service-Oriented Architecture

From	To
• Function oriented • Build to last • Prolonged development cycles	• Process oriented • Build to change • Incrementally built and deployed
• Application silos • Tightly coupled • Object oriented • Known implementation	• Orchestrated solutions • Loosely coupled • Message oriented • Abstraction

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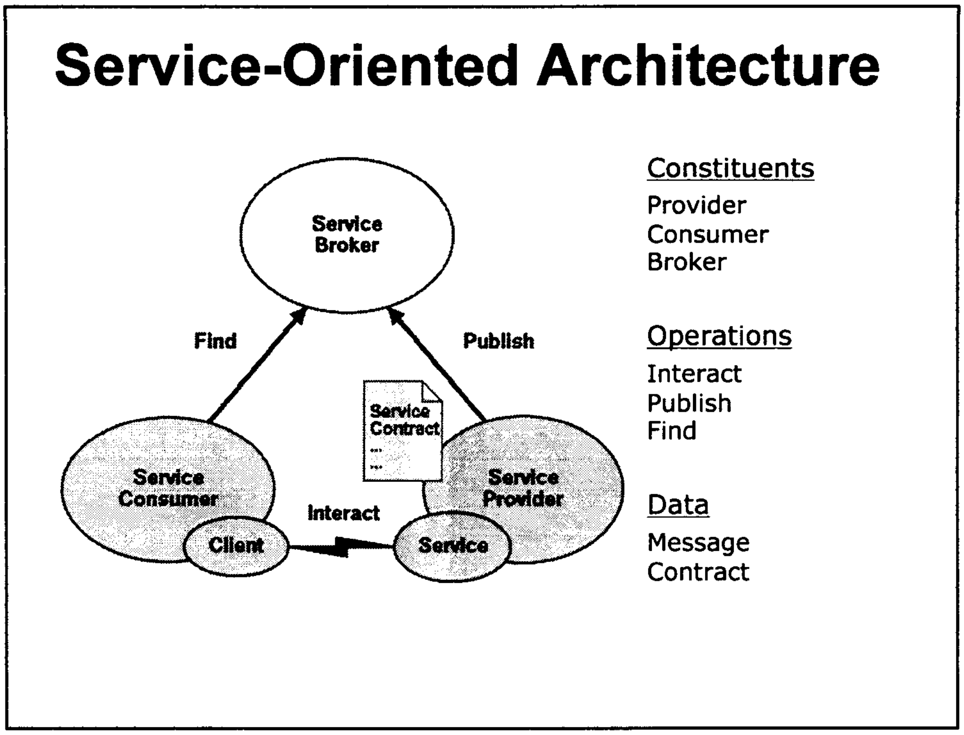


Service-Oriented Architecture

Constituents

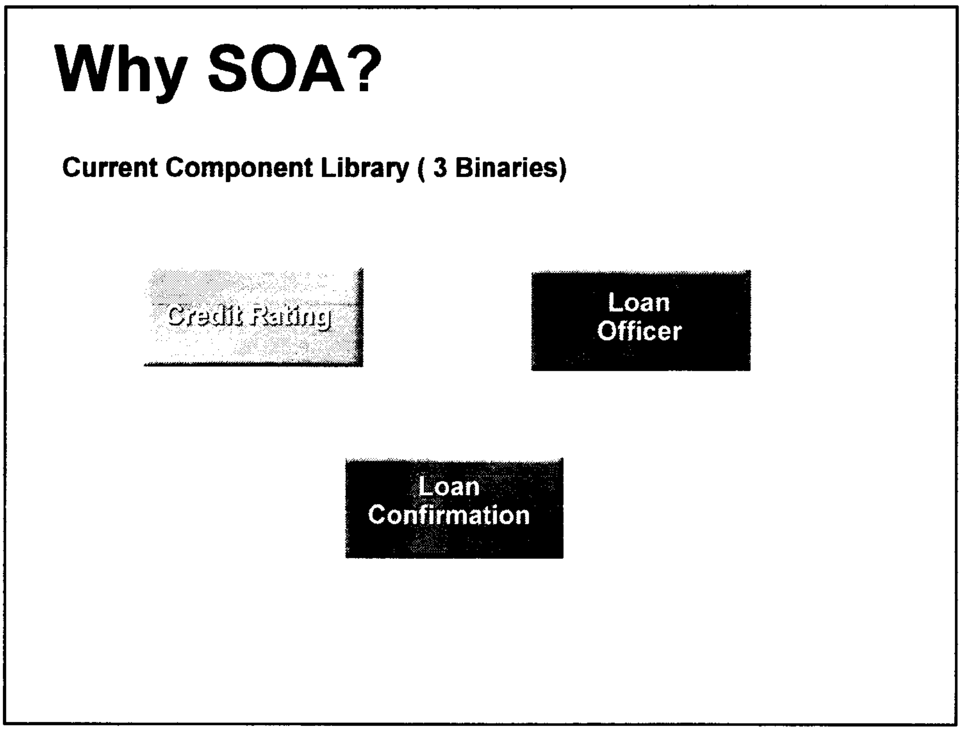
Provider
Consumer
Broker

Operations

Interact
Publish
Find

Data

Message
Contract



Why SOA?

Current Component Library (3 Binaries)

Credit Rating

Loan Officer

Loan Confirmation

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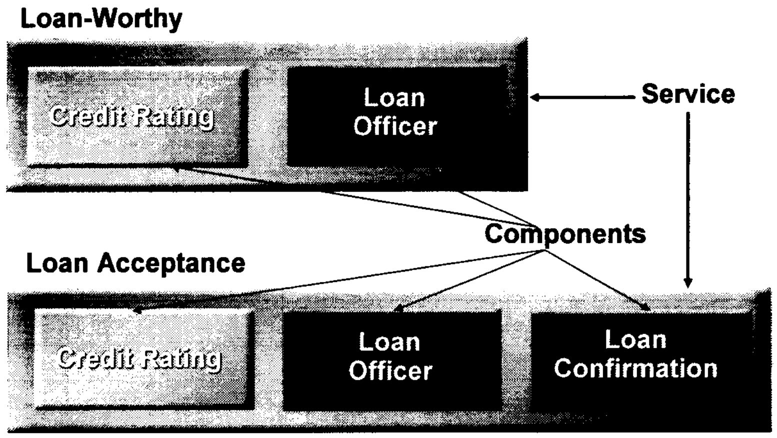
Service (Composite Services)



Loan-Worthy

Credit Rating

Loan Officer

Service

Components

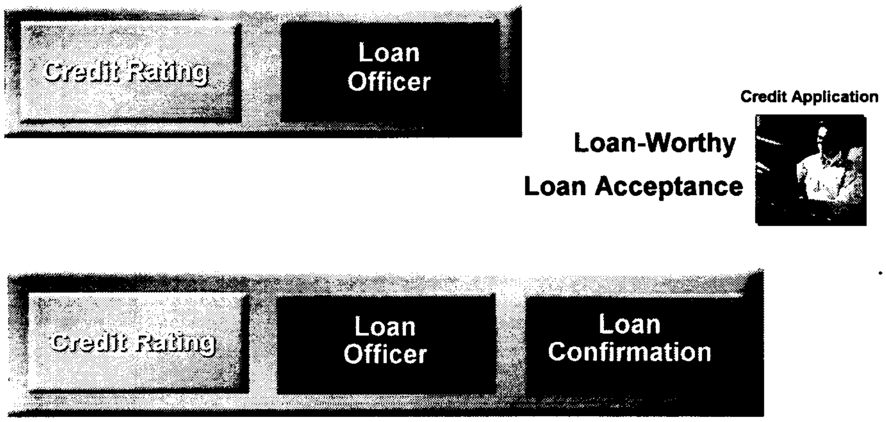
Loan Acceptance

Credit Rating

Loan Officer

Loan Confirmation

Client Application requests two services



Credit Rating

Loan Officer

Credit Application

Loan-Worthy

Loan Acceptance

Credit Rating

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Loan Confirmation

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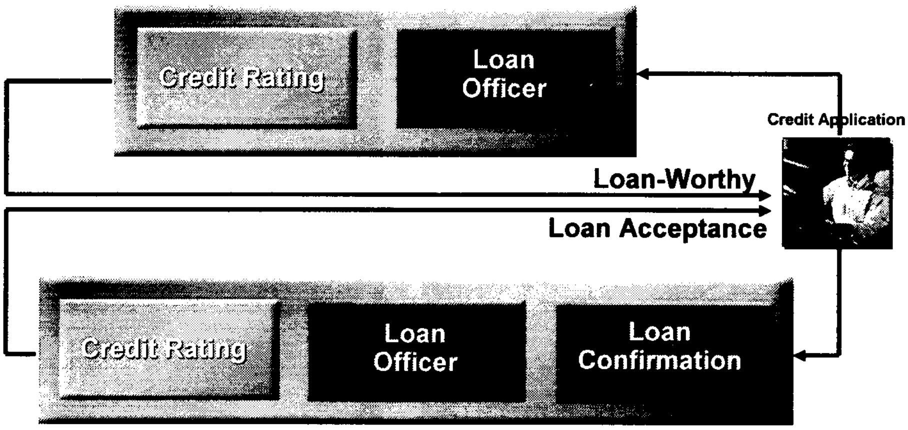
Client Application requests two services



Credit Rating

Loan Officer

Credit Application

Loan-Worthy

Loan Acceptance

Credit Rating

Loan Officer

Loan Confirmation

Old SOA met Little Success

- Too technology-oriented
  - "This is the technology; Why not build services on top of it" approach
  - Not the technology but the design will make a service
- Lacked industry backup
- Too low level seen from today's needs
  - Business often needs to exchange compound documents, not binary data

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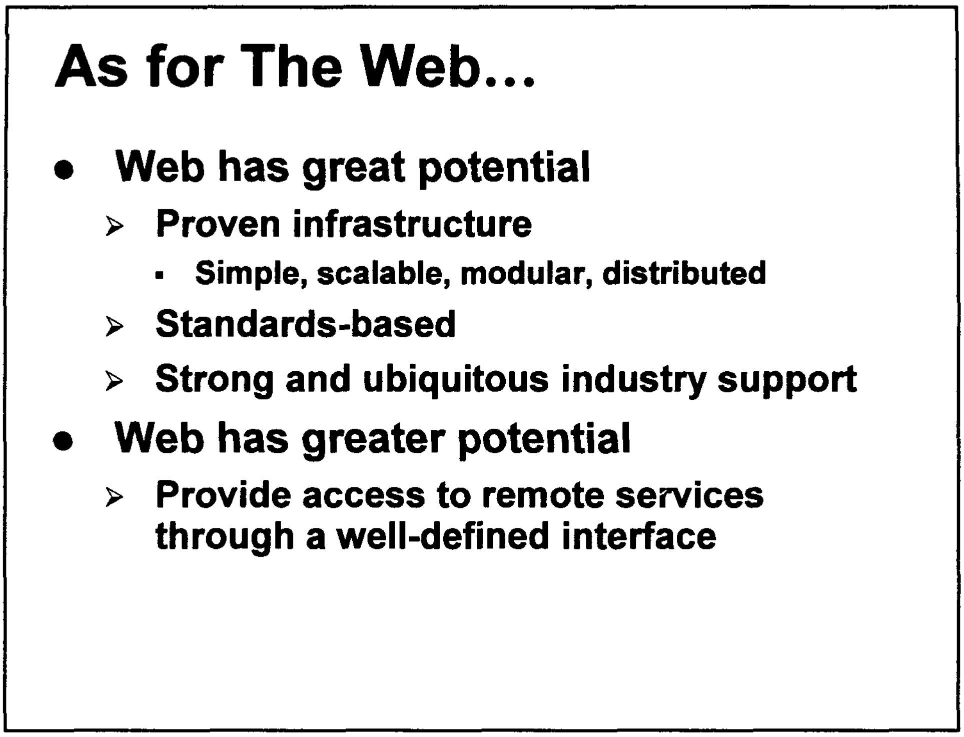
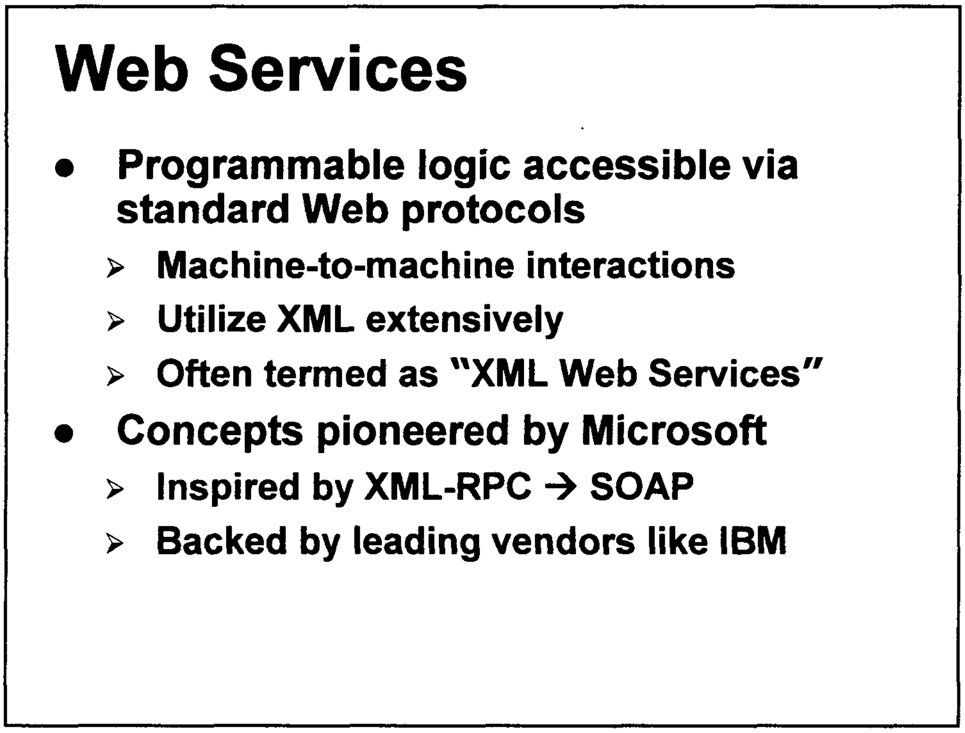


As for The Web...

- Web has great potential
  - ➢ Proven infrastructure
    - ▪ Simple, scalable, modular, distributed
  - ➢ Standards-based
  - ➢ Strong and ubiquitous industry support
- Web has greater potential
  - ➢ Provide access to remote services through a well-defined interface



Web Services

- Programmable logic accessible via standard Web protocols
  - ➢ Machine-to-machine interactions
  - ➢ Utilize XML extensively
  - ➢ Often termed as "XML Web Services"
- Concepts pioneered by Microsoft
  - ➢ Inspired by XML-RPC → SOAP
  - ➢ Backed by leading vendors like IBM

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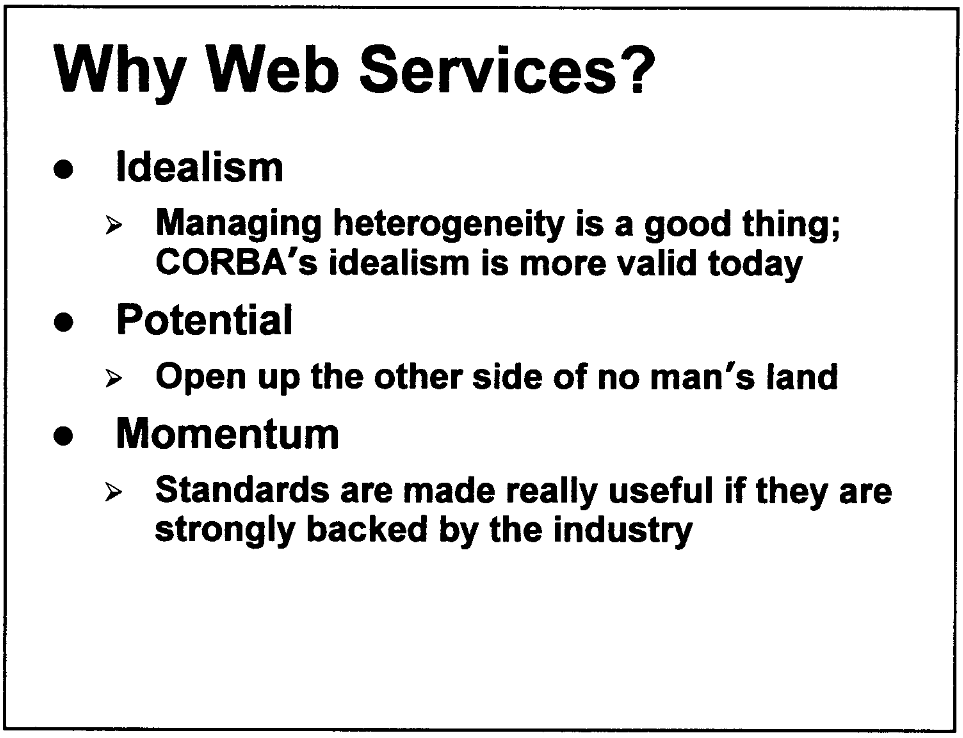
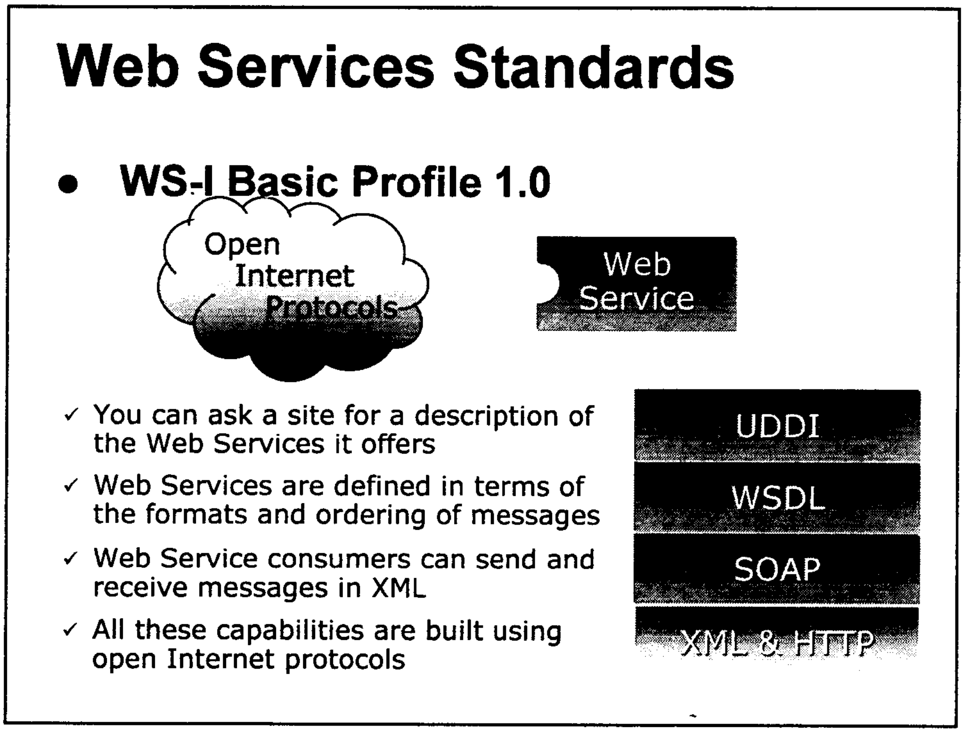


Why Web Services?

- Idealism
  - ➢ Managing heterogeneity is a good thing; CORBA's idealism is more valid today
- Potential
  - ➢ Open up the other side of no man's land
- Momentum
  - ➢ Standards are made really useful if they are strongly backed by the industry



Web Services Standards

- WS-I Basic Profile 1.0

Open Internet Protocols

Web Service

- ✓ You can ask a site for a description of the Web Services it offers
- ✓ Web Services are defined in terms of the formats and ordering of messages
- ✓ Web Service consumers can send and receive messages in XML
- ✓ All these capabilities are built using open Internet protocols

UDDI

WSDL

SOAP

XML & HTTP

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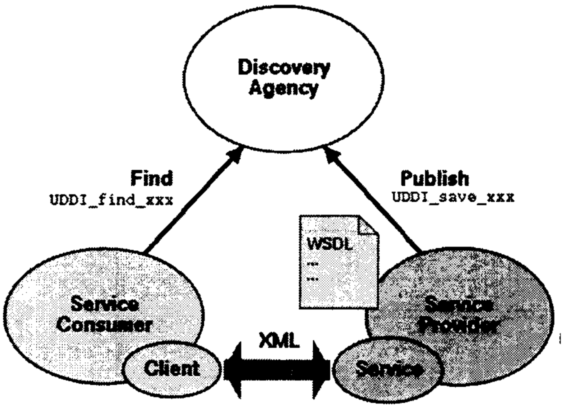
Web Services and SOA



Constituents

Provider
Consumer
Broker

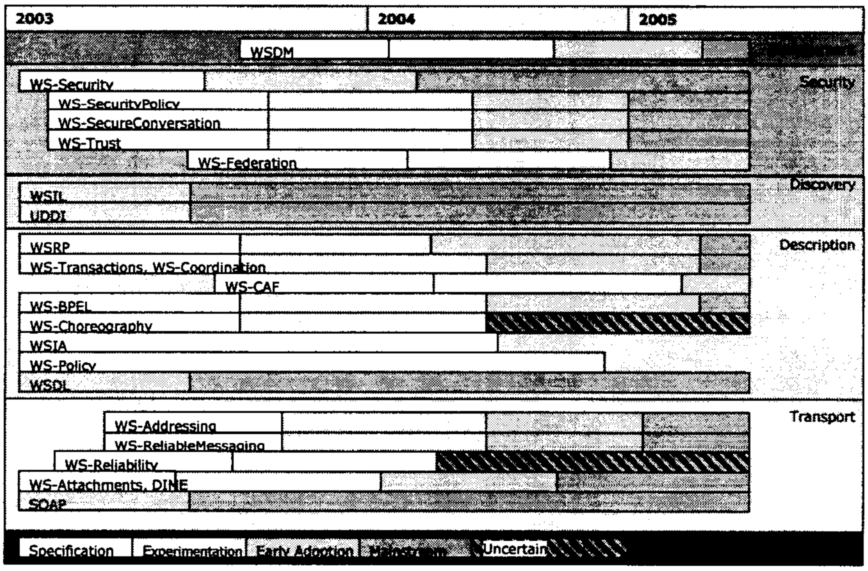
Operations

Interact: SOAP
Publish: UDDI
Find: UDDI

Data

Message: XML
Contract: WSDL

Web Services Roadmap



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Where does ebXML fit?

- XML-based e-Business standards
  - Business documents standards
  - Rules for exchanging those documents
  - Even entire business processes
- Rivaled with Web Services at first
  - Defined its own protocol for conveying ebXML docs that competed with SOAP
- Eventually, ebXML group endorsed SOAP and UDDI
  - To take benefits of enhanced synergy with emerging (de facto) standards

.NET and Web Services

- Microsoft has a strong religion in XML and Web Services
  - Leading and shepherding standards
- .NET was built for Web Services
  - Native and ground up support
- Creating and using Web Services is extremely easy with .NET
  - Every method can be exposed as SOAP-callable, WSDL-described service
  - SOAP proxies can be easily generated
  - No need to perceive SOAP or WSDL

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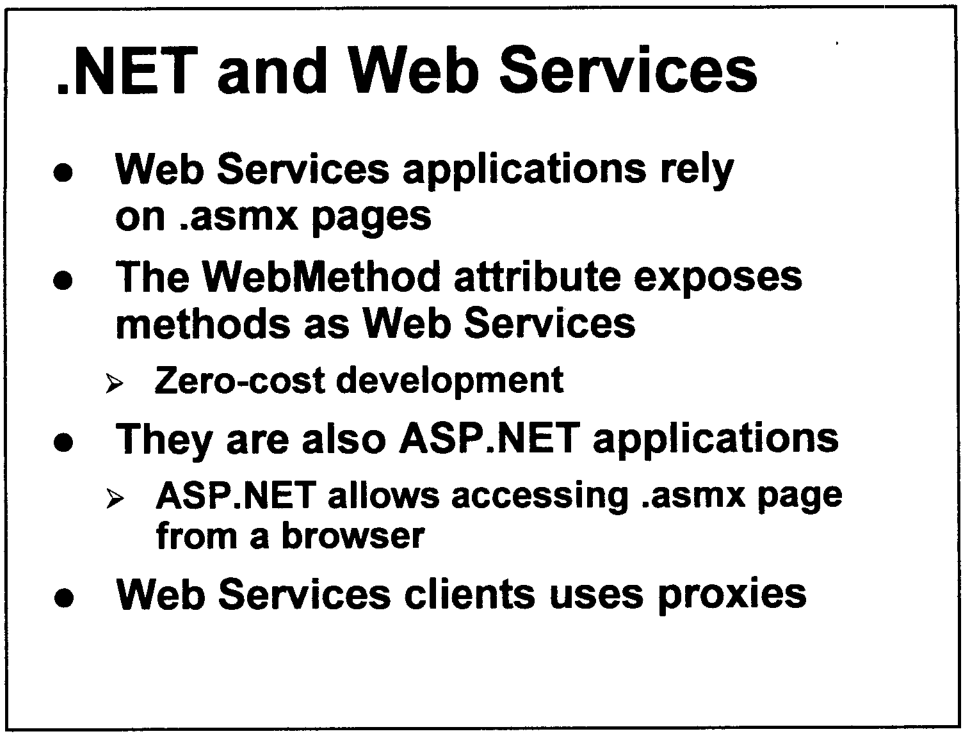
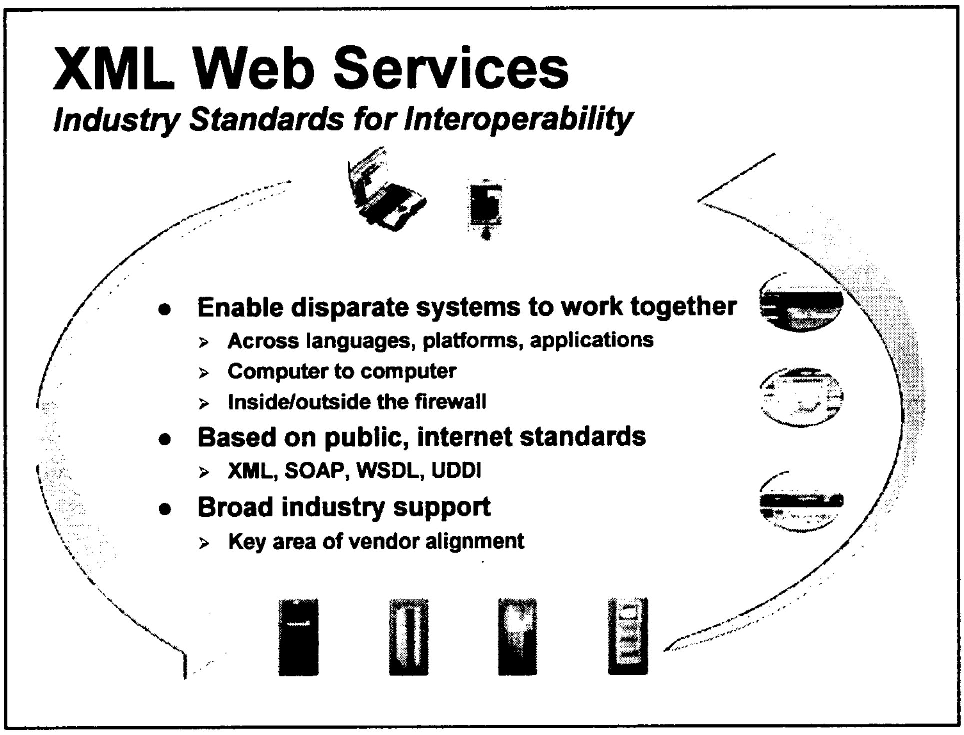


.NET and Web Services

- Web Services applications rely on .asmx pages
- The WebMethod attribute exposes methods as Web Services
  - Zero-cost development
- They are also ASP.NET applications
  - ASP.NET allows accessing .asmx page from a browser
- Web Services clients uses proxies



XML Web Services

Industry Standards for Interoperability

- Enable disparate systems to work together
  - Across languages, platforms, applications
  - Computer to computer
  - Inside/outside the firewall
- Based on public, internet standards
  - XML, SOAP, WSDL, UDDI
- Broad industry support
  - Key area of vendor alignment

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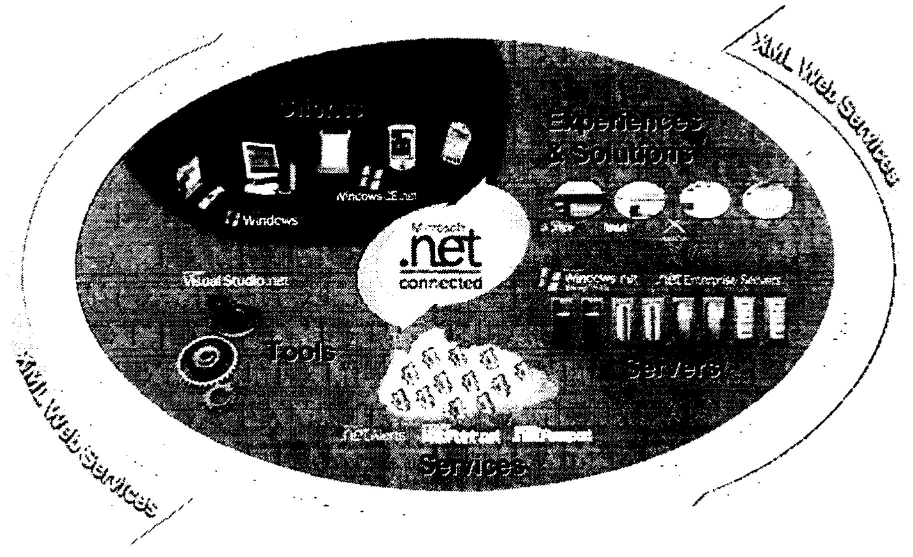
Microsoft .NET

XMLWebfSeGvonseatingsInfoeriatioe,MeopaefSPlatfosrand Devices



SOFTWARE FOR THE AGILE BUSINESS

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