

IBM

IBM Software Story



@ business *Live!*




business
on demand

Rational **WebSphere** **DB2** **Lotus** **Tivoli**

Douglas W. Spencer
Worldwide Program Director
IBM Software Group

IBM

IBM Software Story

Applications & Content

Integration

User Experience

Management & Security

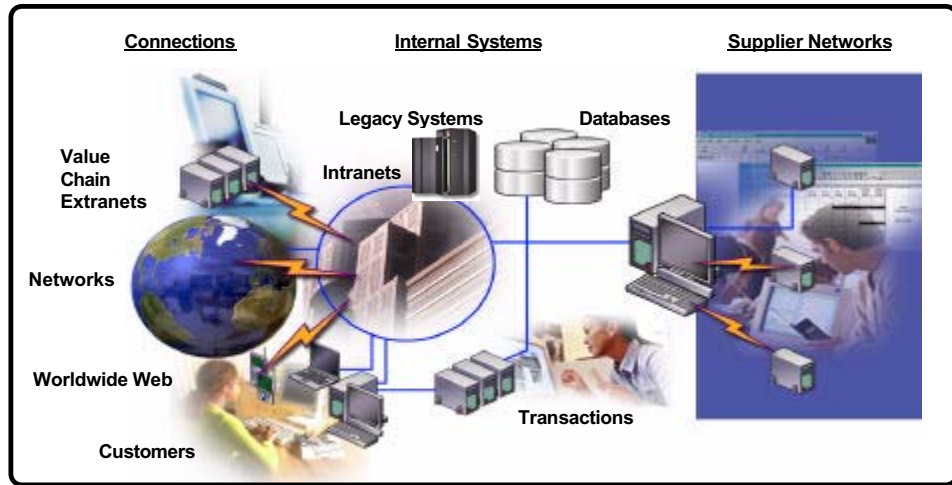
Development




business
on demand

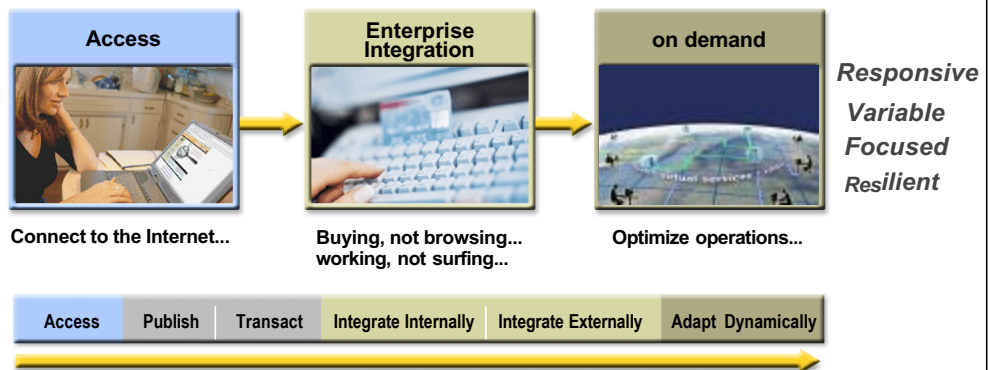
Infrastructure

IT environments are increasingly heterogeneous and complex.



The role of modern middleware is to integrate and simplify.

Stages of e-business Adoption



"An enterprise with business processes --- integrate end-to-end across the company and with key partners, suppliers and customers --, can respond with speed to any customer demand, market opportunity or external threat."



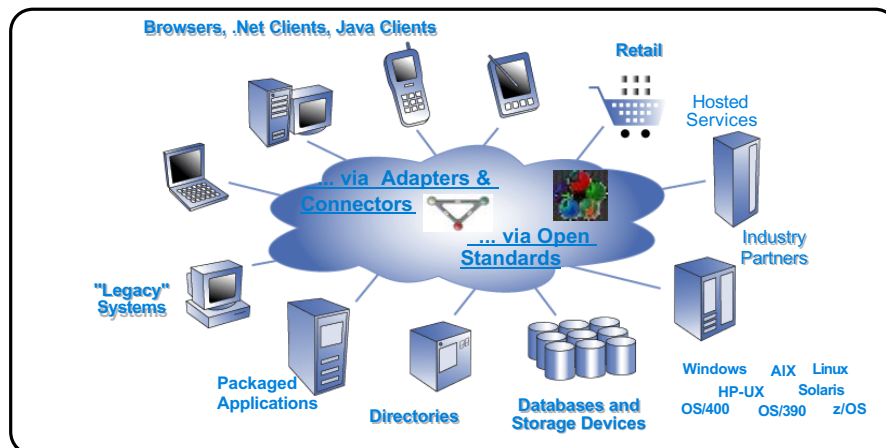
Challenges



- ▶ Technology
- ▶ Infrastructure
- ▶ Adoption
- ▶ Business Model
- ▶ Business Agility
- ▶ Leverage Investments



Business Agility



- Customers require flexibility to rapidly address:
 - new business requirements
 - changes in their business model and design
 - changes in their relationship with suppliers, partners, customers, etc.
- ... while leveraging existing investments*



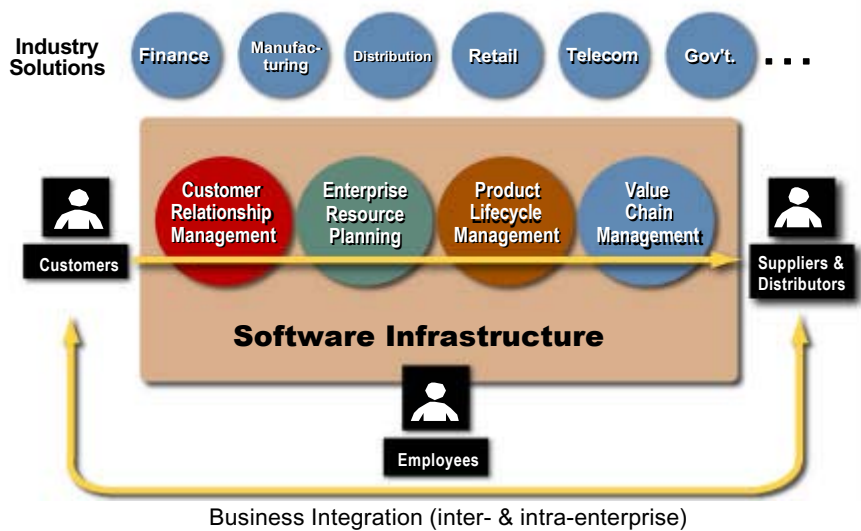
on demand

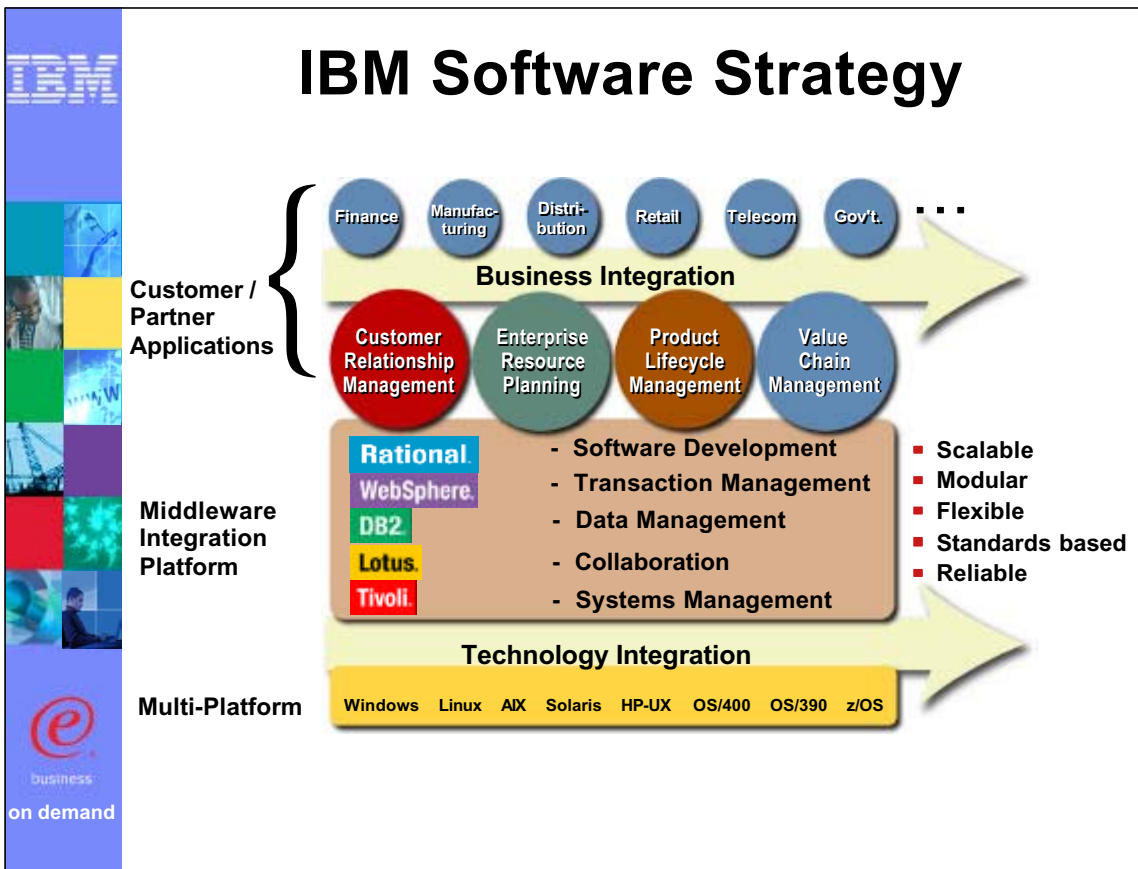
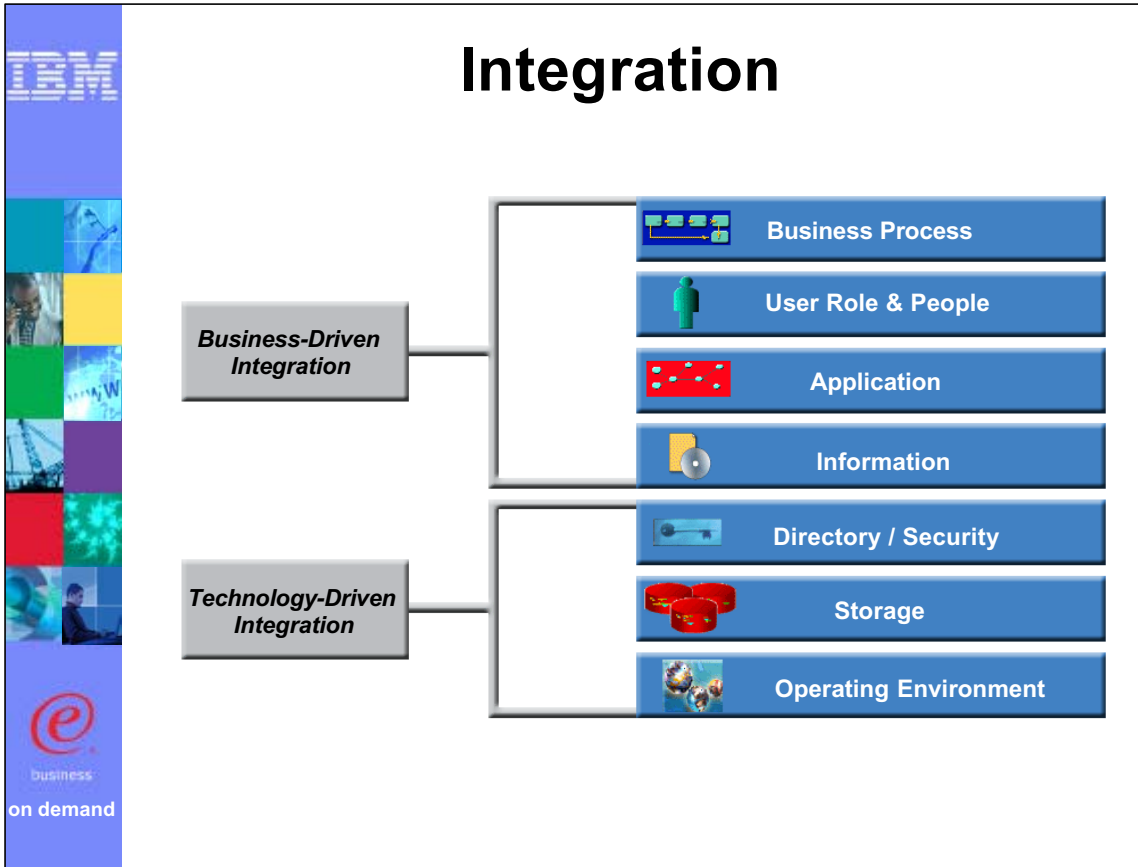


- ▶ Integration
- ▶ Open Standards
- ▶ Autonomic
- ▶ Virtualized

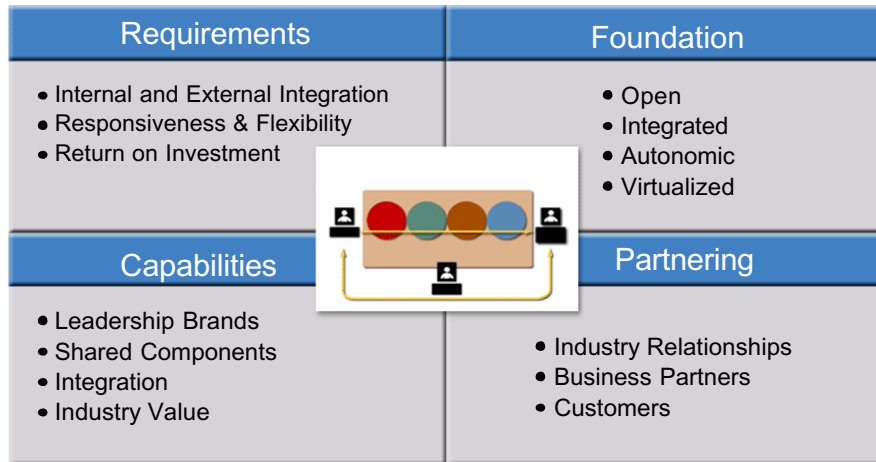


Integration



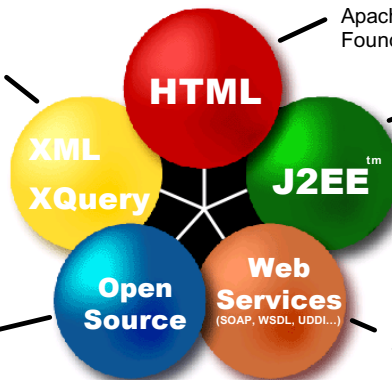


IBM Software Strategy



Open

IBM provides free XML technology to developers via alphaWorks and developerWorks



IBM helped form Apache SW Foundation



IBM contributed to 80% of J2EE



IBM contributed \$40M of initial Eclipse IDE technology

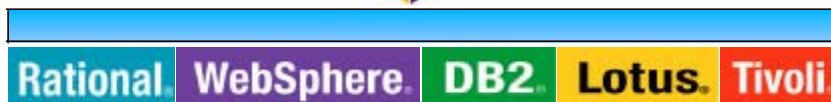
IBM led or co-led the creation of Web Services foundation technologies (SOAP, WSDL, UDDI, ...)


Linux Windows AIX Solaris HP-UX OS/400 OS/390 z/OS

Rational led the creation and industry adoption of the Universal Modeling language




The Apache Software Foundation <http://www.apache.org/>





Open

Enabling Business Innovation




Linux



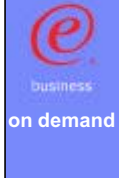

Enterprise-quality Operating System

Reliable, scalable, secure multi-platform integrates with existing operating system


IBM Activities

- ✓ 65+ software products on Linux
- ✓ IGS enterprise support and service for Linux
- ✓ All IBM platforms support Linux



Integrated



Pervasive Computing

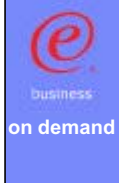
Accessibility— flexible access to a variety of devices and contexts

Multimodal — Voice and Data

Standards based

IBM's Activities

- ✓ **Mobile access**
Intermittently connected computing model— Edgelets; Portlets
- ✓ **Voice access**
Natural language/voice
Portal Access
- ✓ **Multimodal Access**
Multimodal tool enablement—Eclipse
- ✓ **Device's embedded software—**
device management, Datastore, VPN, IM
- ✓ **Strategic partnerships**





Integrated



Web Services

Radical reduction in time required to connect & process

Connect companies with less programming effort

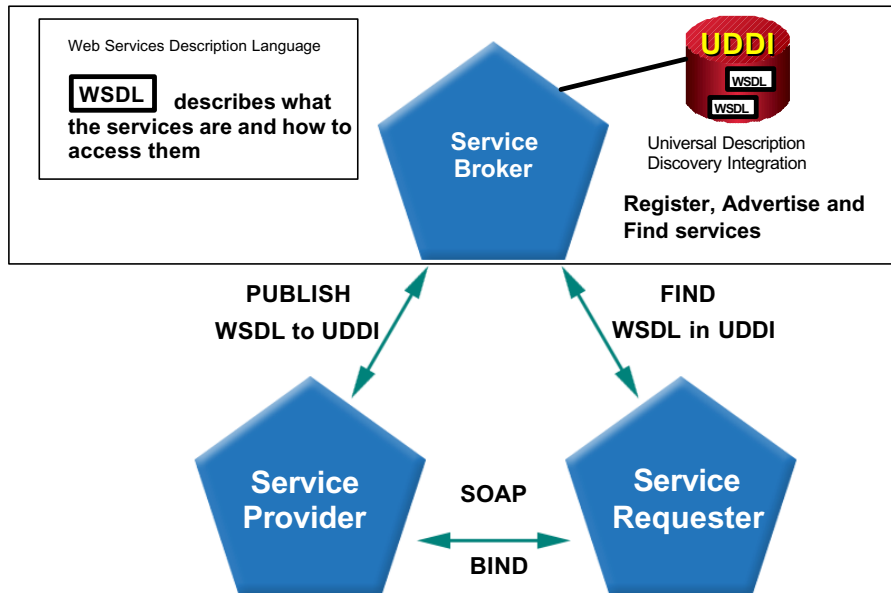
IBM's Activities

- ✓ Drive definition and adoption and interoperability of WS
- ✓ Extensive Web Services enablement within multi-platform products
- ✓ Comprehensive WS Development Life Cycle
- ✓ Accelerating adoption
- ✓ Drive definition and adoption of new WS standards
 - BPEL4WS
 - WS-Security
 - WS-Coordination
 - WS-I



Web Services

Web Services



Applications interact with each other using Web standards

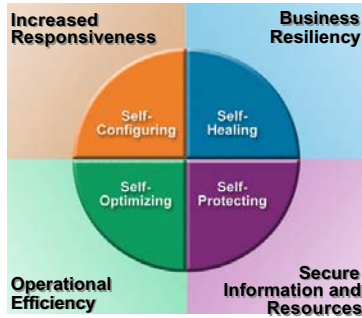


IBM

Autonomic



Autonomic Computing



Self-protecting Self-optimizing
 Self-healing Self-configuring

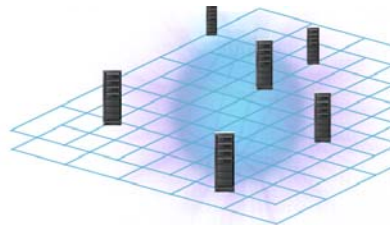
IBM's Activities

- ✓ Autonomic capabilities delivered in IBM SWG products
 - WebSphere, DB2, Lotus, Tivoli
- ✓ Tivoli provides cross platform autonomic capabilities
- ✓ Storage management enhancements via Tivoli
- ✓ IGS Services for Autonomic Computing
- ✓ Open industry approach—Engaging with standards bodies like IETF, DMTF, GGF
- ✓ Worldwide Autonomic Computing Design Centers

business on demand

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Virtualized



Grid Computing

Flexible, dynamic access to computing resources

Increased reliability and availability

A vast aggregation of geographically dispersed computing resources

Standards-based



e-Diamond

"The e-Diamond program ... will improve the detection of breast cancer and increase the efficiency of its subsequent treatment."

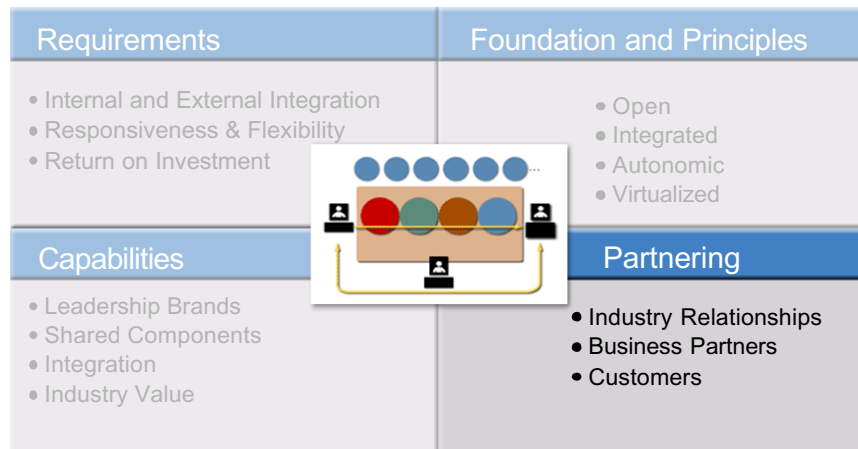
Lord Sainsbury, Minister of Science, United Kingdom Government

IBM's Activities

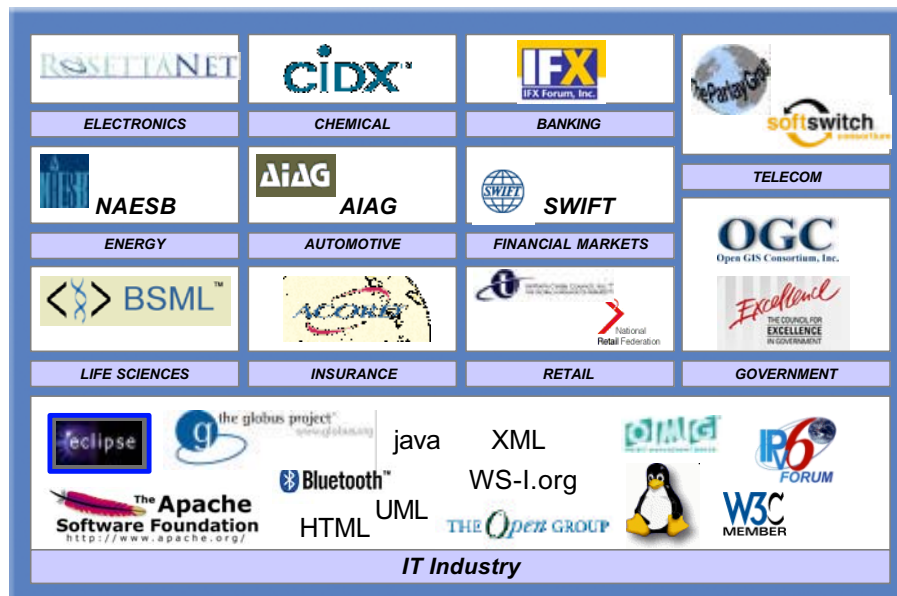
- ✓ Partnership with Globus to create J2EE-compliant version of Globus Toolkit
- ✓ Open Grid Services Architecture (based on Web services) workgroup leadership
- ✓ Since April 2002, established three Grid Innovation Centers (France, U.S. and Japan)
- ✓ IGS Grid Services to plan, design, migrate, implement, run and manage grid environments

business on demand

IBM Software Strategy



Industry Relationships



IBM is a leader in promoting open standards engaging with IT companies, industry consortiums, open source communities, standards bodies, etc.



Business Partners



- ISV, SI & influencer success
 - 100+ strategic alliances signed
 - alliance "lites" signed
 - SMB solution strategy is partner led
 - regional partners for personalized and long term relationships
- 68,000 ISVs
 - 16,500 Reseller Partners
 - 4,500 Systems Integrators
 - 1,500 Web Integrators
 - 400 Service Providers
 - 100 Strategic ISV Alliances

www.ibm.com/partnerworld



Customers

Partnering to Increase Customer Success

PartnerWorld®

Rational Developer Network™



Business Partners



IBM Patterns for e-business

developerWorks™



jStart Program



IBM Redbooks



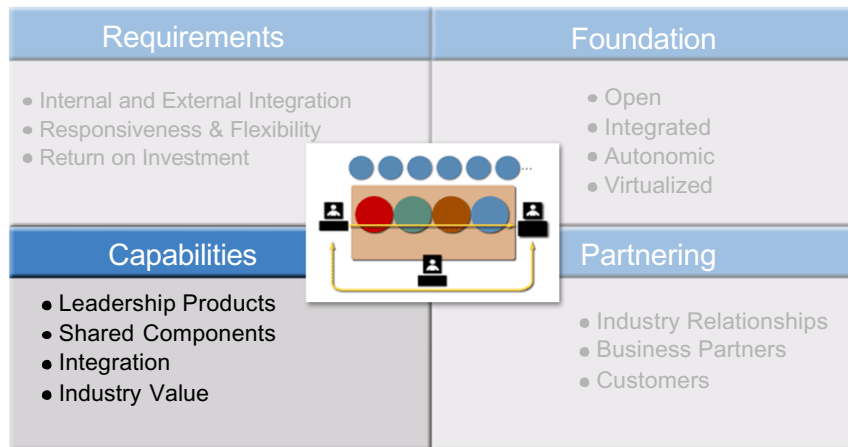
IBM Global Services

IBM Business Consulting Services

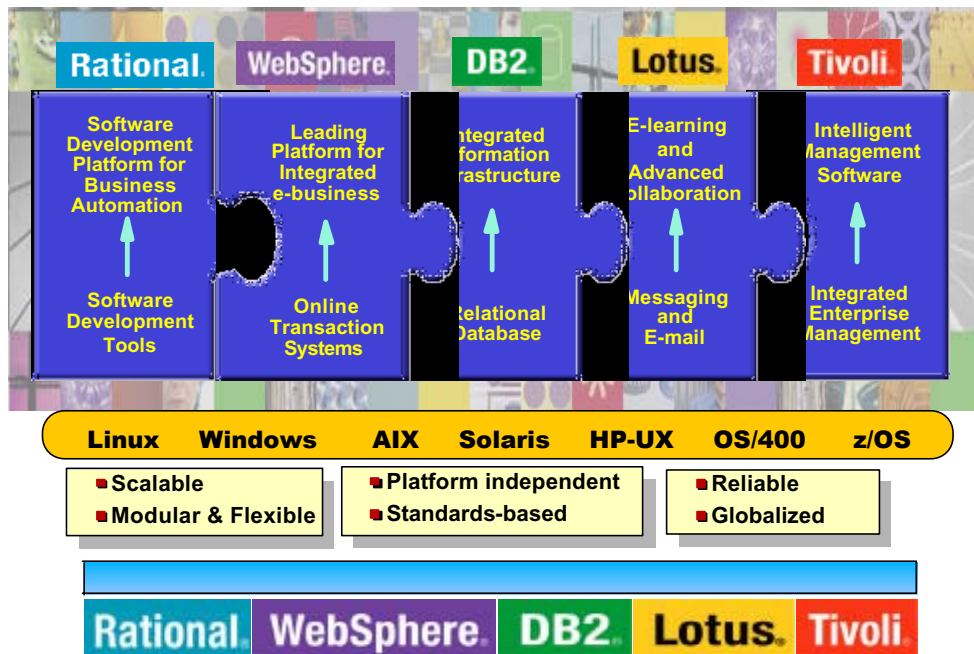
IBM SWG Lab Services

Sharing Expertise → Fee Based Services

IBM Software Strategy



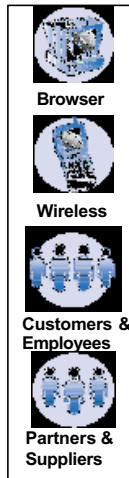
Leadership Products





Transformation & Integration

WebSphere software forms the e-business software foundation



- Commerce
- Voice
- Portal
- Pervasive
- Translation



- Process Hub
 - Integration
 - Automation
- Industry Templates
- Messaging Hub



- Web Application Server
 - XML, UDDI, WSDL, SOAP, J2EE, JMS, VoiceXML
- Application Servng
- Assured Messaging
- Roles Based Tooling
- Eclipse IDE



Leveraging Information

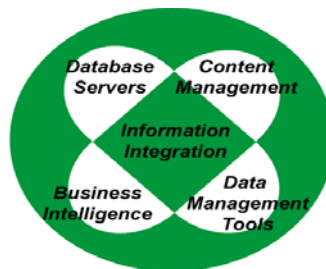
DB2 software harnesses explosion of heterogeneous and distributed information



Information Portals

Integration services

- Metadata Mgmt
- Mining & Categorization



Pervasive

Integrated Access

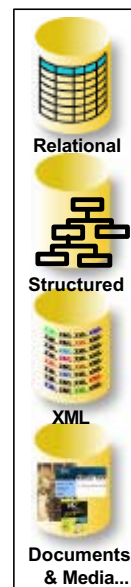
- Replication
- Federation
- Messaging
- Web Services

DB2 Data Management Software

Business Intelligence

Database Servers

- Relational, Hierarchical
- XML, Unstructured Content

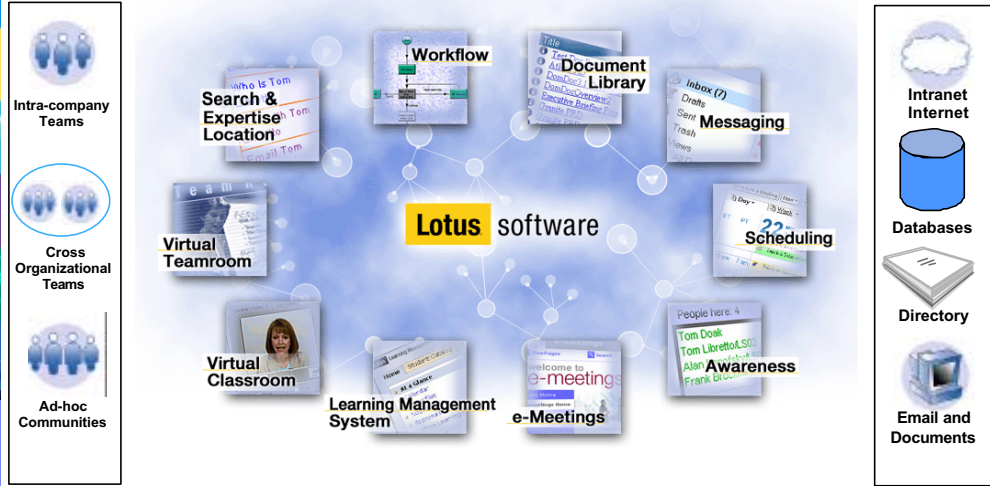


e-business on demand



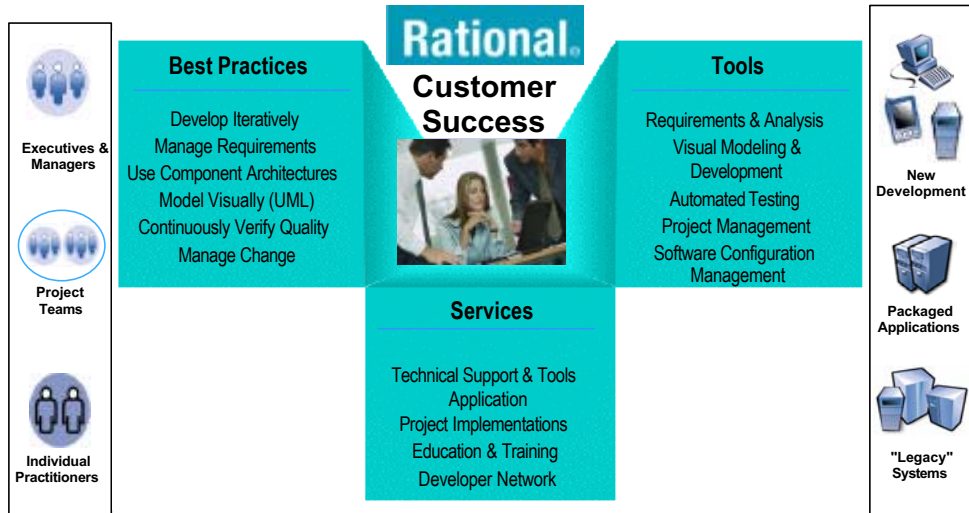
Knowledge & Collaboration

Lotus software leverages know-how and realizes the power of people working together



Software Development

Rational integrated solutions combine market-leading tools, software engineering best practices, and services to build software development capability.





Management & Security

Tivoli provides trusted security and manages your IT infrastructure


CIO
IT Mgmt

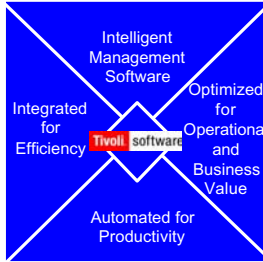

Administrators:
Network
Security
System

Configuration & Operation

- Role-based configuration
- Configure resources
 - Schedule, automate and coordinate

Performance & Availability

- Identify, notify and cure infrastructure problems
- Contract, measure and proactively manage end-user service levels




Security


- Align e-business & security
- Manage user identities
 - Centralize access control
 - Correlate infrastructure security events

Storage

- Policy-based automation
- Backup & recovery
 - Enable continuous operation
 - Identify and manage storage resource utilization


e-business
Infrastructure


Data/Storage


Clients/Server


Pervasive Devices


Software and
Applications



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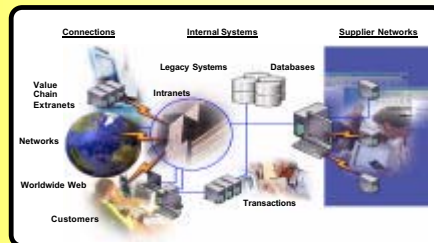
Applications & Content

Integration

User Experience

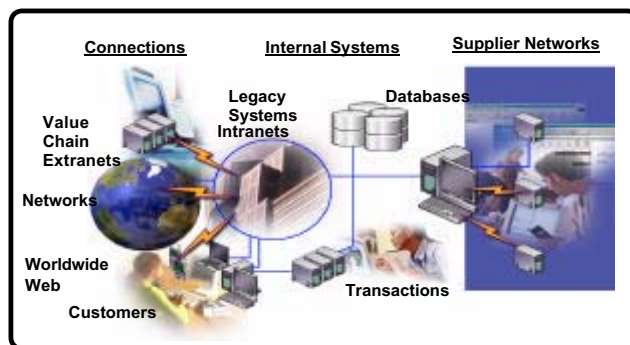
Management & Security

Development





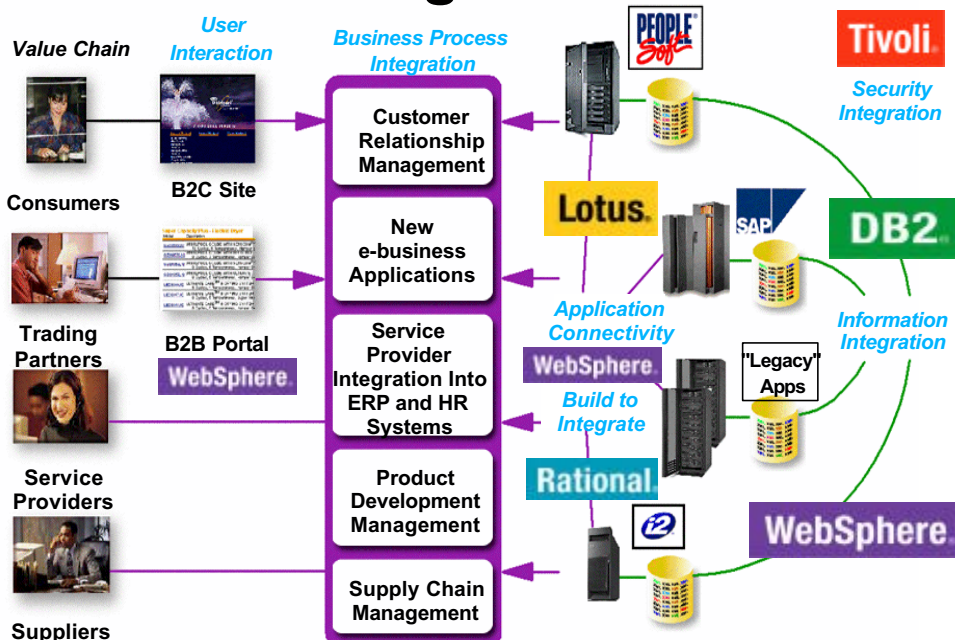
Applications & Content



- Applications
- Collaboration
- Data Management
- Transactions
- Content Management
- Performance
- Protection
- Mobile Infrastructure



Integration





User Experience

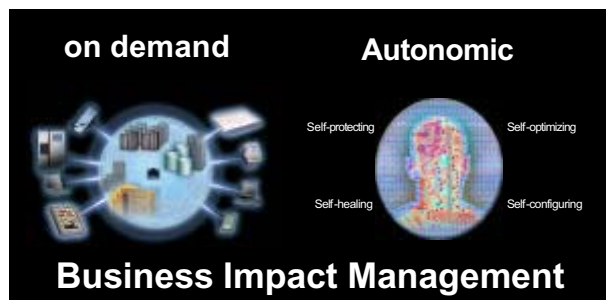


- ▶ Content
- ▶ Applications
- ▶ Collaboration
- ▶ Personalization
- ▶ Presentation
- ▶ Pervasive
- ▶ Host Integration
- ▶ Administration



Management & Security

Managing a complex IT infrastructure



- ▶ Manage Resources
- ▶ Improve Security
- ▶ Greater Performance
- ▶ Better Asset Utilization








Development



Value Proposition

Key Customer Requirements: <ul style="list-style-type: none"> Internal and External Integration Responsiveness & Flexibility Return on Investment 	Integration <ul style="list-style-type: none"> Provide on demand responsiveness Leverage existing technology investments Business and technology integration capabilities Extensive business partner enablement 
	Infrastructure <ul style="list-style-type: none"> Leadership products Open standards based Platform independence Customer-centric development & support culture Scalable, reliable, secure, high-performance 
	Innovation <ul style="list-style-type: none"> Shared components - Rapid time to market of offerings Visionary in e-business evolution to on demand Driving industry to virtualized & autonomic solutions Accelerated adoption of research technologies 



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Rational WebSphere DB2 Lotus Tivoli

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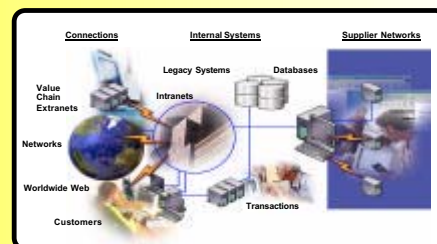
Applications & Content

Integration

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Management & Security

Development



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business
on demand



IBM Software Story

Applications & Content

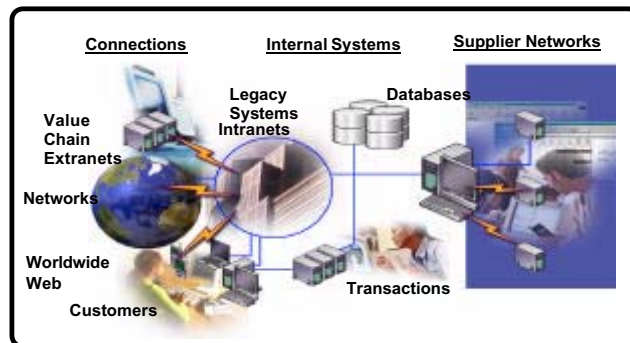
Integration

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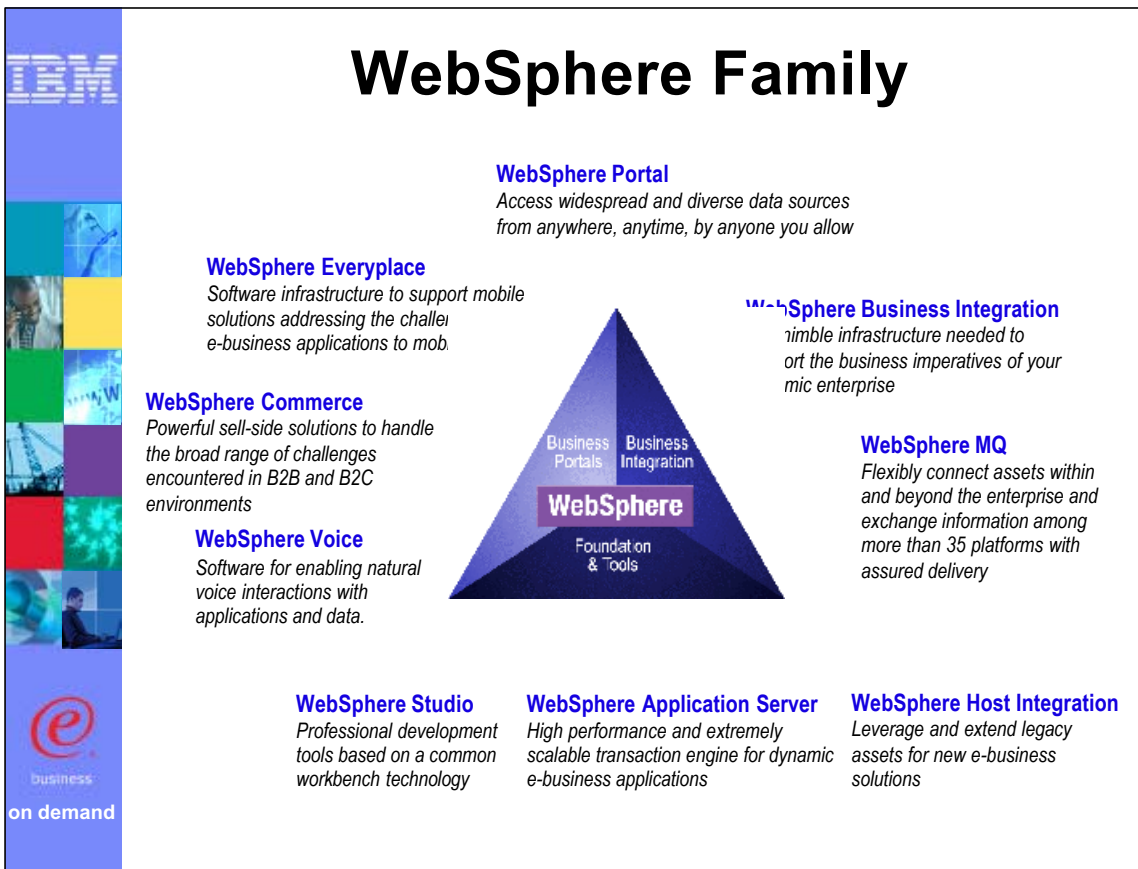
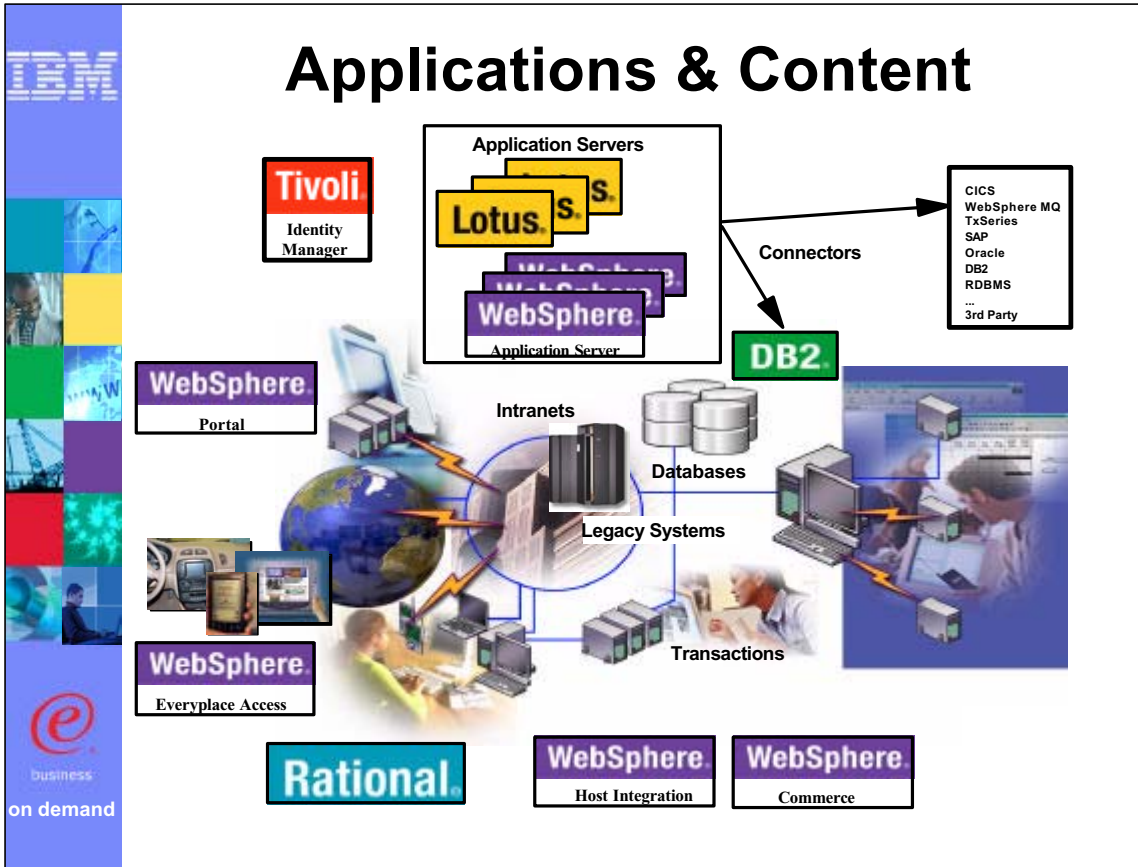
Applications & Content



- ▶ Applications
- ▶ Collaboration
- ▶ Data Management
- ▶ Transactions
- ▶ Content Management
- ▶ Performance
- ▶ Protection
- ▶ Mobile Infrastructure

- Java Servlet Engine
- EJB Server
- Session Management
- Web Services
- J2EE
- XML
- SOAP
- WSDL





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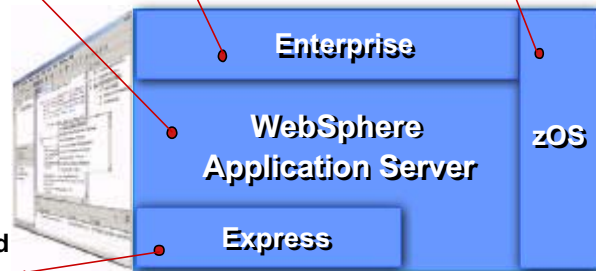
WebSphere Application Server v5

An extended J2EE & Web services 'build-to-integrate' platform for composing & choreographing adaptable application workflows and behaviors

The core Web services **J2EE 1.3** certified application server enabling industry leading QoS and flexible deployment options

A J2EE 1.3 certified & optimized to the unique QoS of z/OS

An easy "on-ramp" to e-business, providing fast and productive development, deployment of dynamic web applications




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WebSphere Commerce

- WebSphere Commerce
 - ▶ Relationship marketing
 - ▶ Multicultural enablement
 - ▶ Marketing Tools
 - ▶ Content Management
 - ▶ Payment and Order Management
 - ▶ Mobile Commerce
 - ▶ Collaboration
 - ▶ Integration
- Commerce Extensions
 - ▶ Portals
 - ▶ Digital Media
- Technical Architecture
 - ▶ Subsystems
 - ▶ EJBs, Servlets, Commands & JSPs
 - ▶ Programming Model




business
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Lotus Software

- Messaging
- Calendar
- Schedule
- Awareness
- Chat
- Meetings
- Workflow
- Documents
- Discussion
- Expertise
- Team Room

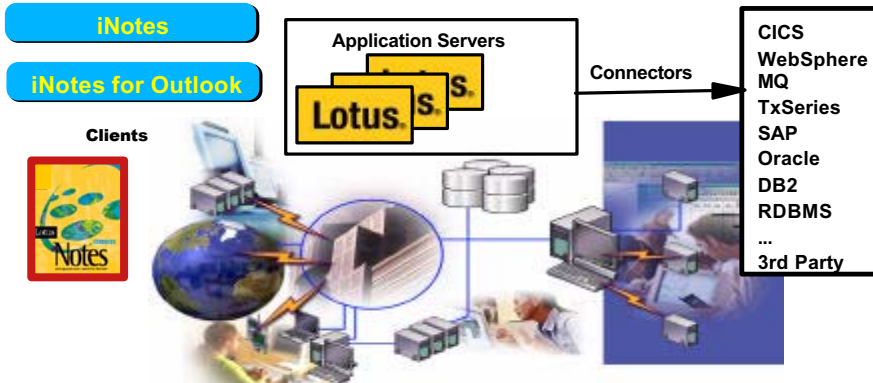
Integrating collaborative capabilities into your e-business environment



e business on demand

IBM

Lotus Domino

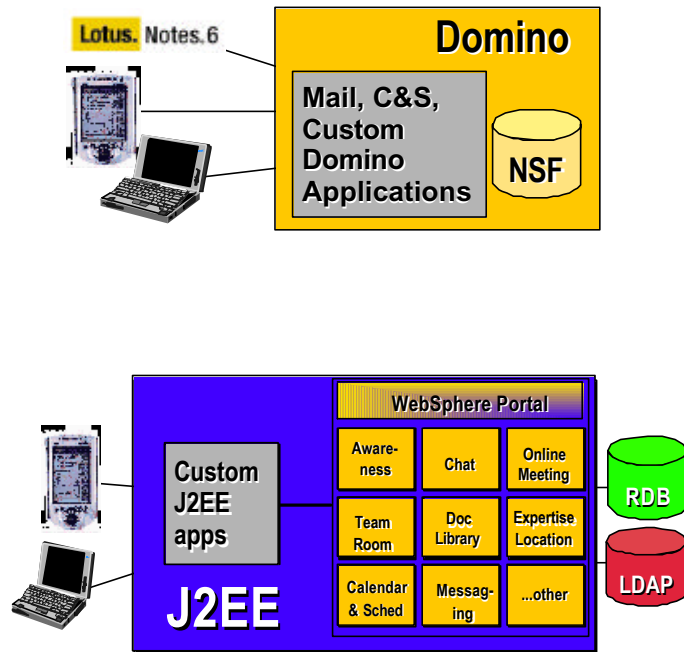


- Applications
- Routing
- Access Control
- Document Container
- Workflow
- Replication
- Indexing
- Directory
- Mail & Calendar
- Encryption

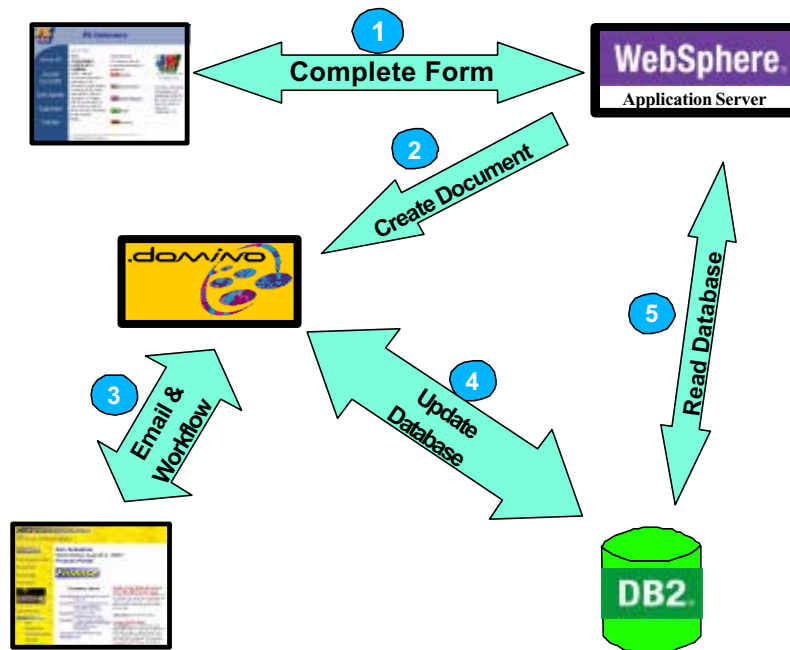
e business on demand



Lotus Domino & Components

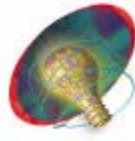


Collaboration





Lotus Software



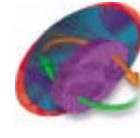
IBM Lotus Virtual Classroom



IBM Lotus Domino.Doc



IBM Lotus Team Workplace



IBM Lotus Workflow



IBM Lotus Instant Messaging



IBM Lotus Web Conferencing



IBM Lotus Discovery Server



Data Management

***Database is just one part of Data Management
Comprehensive Solutions are required.***

Database Tools

Information Integration

Content Management

Business Intelligence

Transactions



***Leveraging information to gain
competitive advantage***

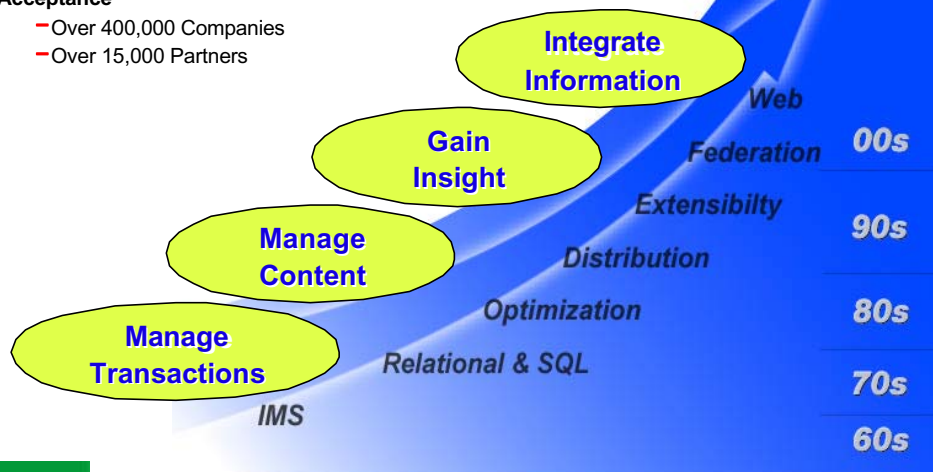


Data Management

- **Technology**
 - Invented Relational Database & SQL...
 - 7 times industry - patents
 - 2 times industry - accepted standards
- **Acceptance**
 - Over 400,000 Companies
 - Over 15,000 Partners

e-business transactions:

- fast, secure, dynamic,
- intelligent, closed loop
- content complete
- always on



Advances have been evolutionary



Cross Platform Support

- **Common programming & management**
- **Feature rich**
 - Object relational database
 - Cost-based optimization
 - Parallelism
 - Federation
 - Java & XML integration
- **Platform optimization**
- **Open standards**

Distributed Platform Servers

- DB2 UDB for Linux, UNIX, and Windows
- Informix IDS

Host Servers

- DB2 UDB for z/OS, OS/390
- DB2 for Linux for zOS, OS/390
- DB2 for VM and VSE
- DB2 UDB for OS/400
- IMS

Highly Scalable Clustered Servers

- DB2 EEE
- Informix XPS

Embedded/Zero Maintenance DB

- Informix SE
- CloudScape (java)
- Online 5
- U2

Pervasive

- DB2 Everyplace

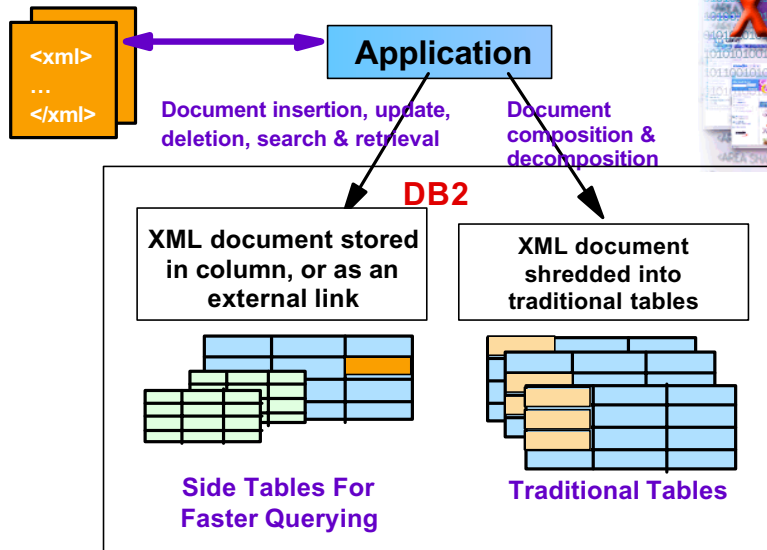


A Database Server for every need!



XML Extender

Storing And Querying XML Today

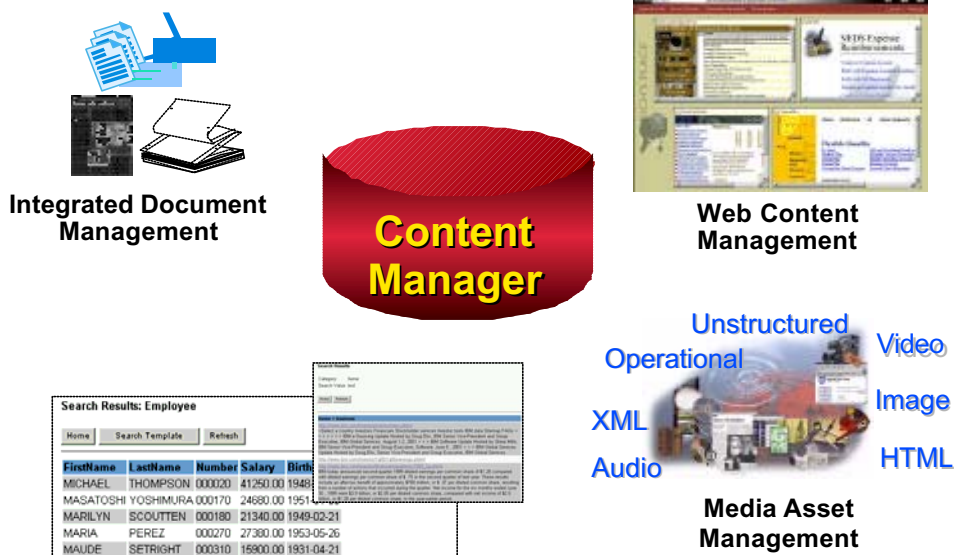


Open Standards Support



Content Management

Manage large collections of digital content



Search Results: Employee

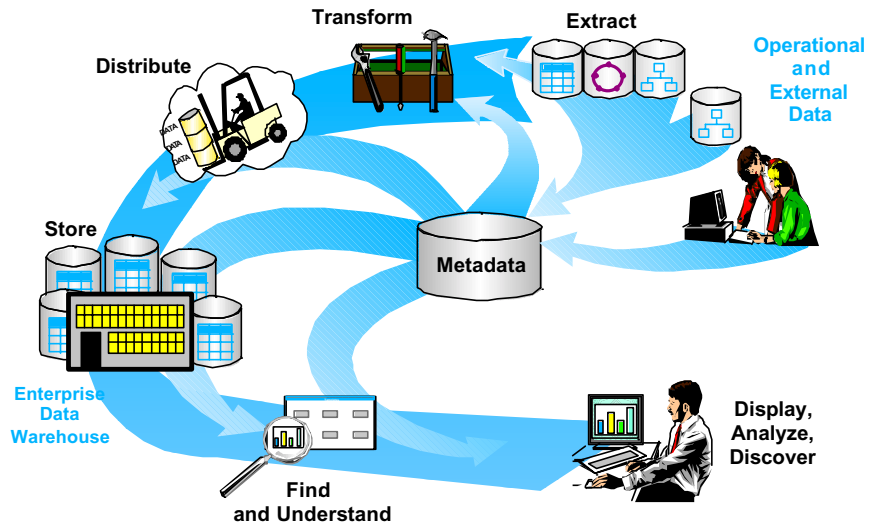
FirstName	LastName	Number	Salary	Birth
MICHAEL	THOMPSON	000020	41250.00	1949
MASATOSHI	YOSHIMURA	000170	24680.00	1951
MARILYN	SCOUTTEN	000180	21340.00	1949-02-21
MARIA	PEREZ	000270	27380.00	1953-05-26
MAUDE	SETRIGHT	000310	15800.00	1931-04-21

IBM Content Manager delivers comprehensive Enterprise Content Management





Business Intelligence

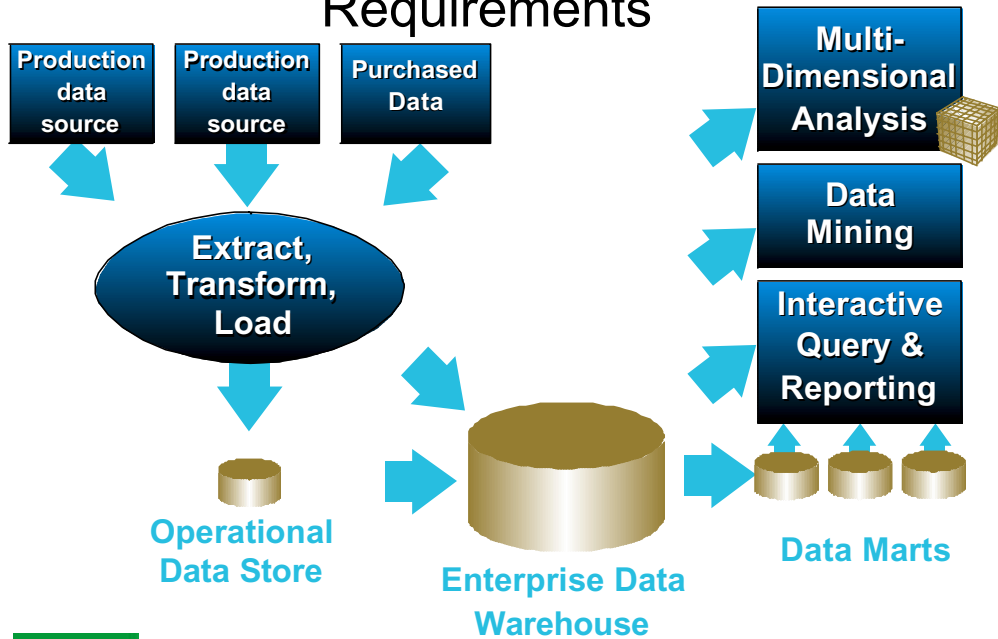


Business Intelligence is a process



Business Intelligence

Requirements



Business Intelligence is a process

