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Forging the Future

# XML

## What is it and Where is it Going?

**Birket Foster**

**Chairman and Founder**

**MBFoster**

MB Foster



- Every Minute
- Every Day
- Every Where
- Someone is using an MB Foster Solution

# Data Access

Data Marts

MBF-UDALink

Cross-Platform  
Integration

Client-Server &  
Web Access

Report  
Warehousing

Support  
Services &  
Education

# Delivery Solutions

B2B  
E-Commerce

EDI  
Translation/Map

XML  
Messaging

**FORGING THE FUTURE**





# What are our goals?

- Expand your revenue opportunities
- Reduce your operating expenses
- Maximize your working capital
- Preserve your investment
- Incrementally increase your profits, where we can, as fast as we can

# Our Credentials

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- 24 years of Hewlett-Packard knowledge / expertise.
- Trusted HP/CSY Partner
- Microsoft Certified Solutions Partner
- IBM Certified Partner
- Trusted HP Advisory Group Member
- Oracle Development Partnership
- Member S/W Support Professional Assoc. (SSPA)
- Member, SIG Image Advisory Committee



# ***MB Foster Strategic Partners***



i n v e n t

oracle

IBM

**Microsoft®**

**CERTIFIED**

Partner



## History of XML at MBFoster

- XML started Feb 1998 (first draft)
- Aug 98 part of ISO 14662 - EDI
- XML Data presentation at XMLWorld in Hull, Quebec
- Feb 2000 XML output engine
- Aug 2000 Demo at HPWorld



# OPENEDI <-> XML EDI

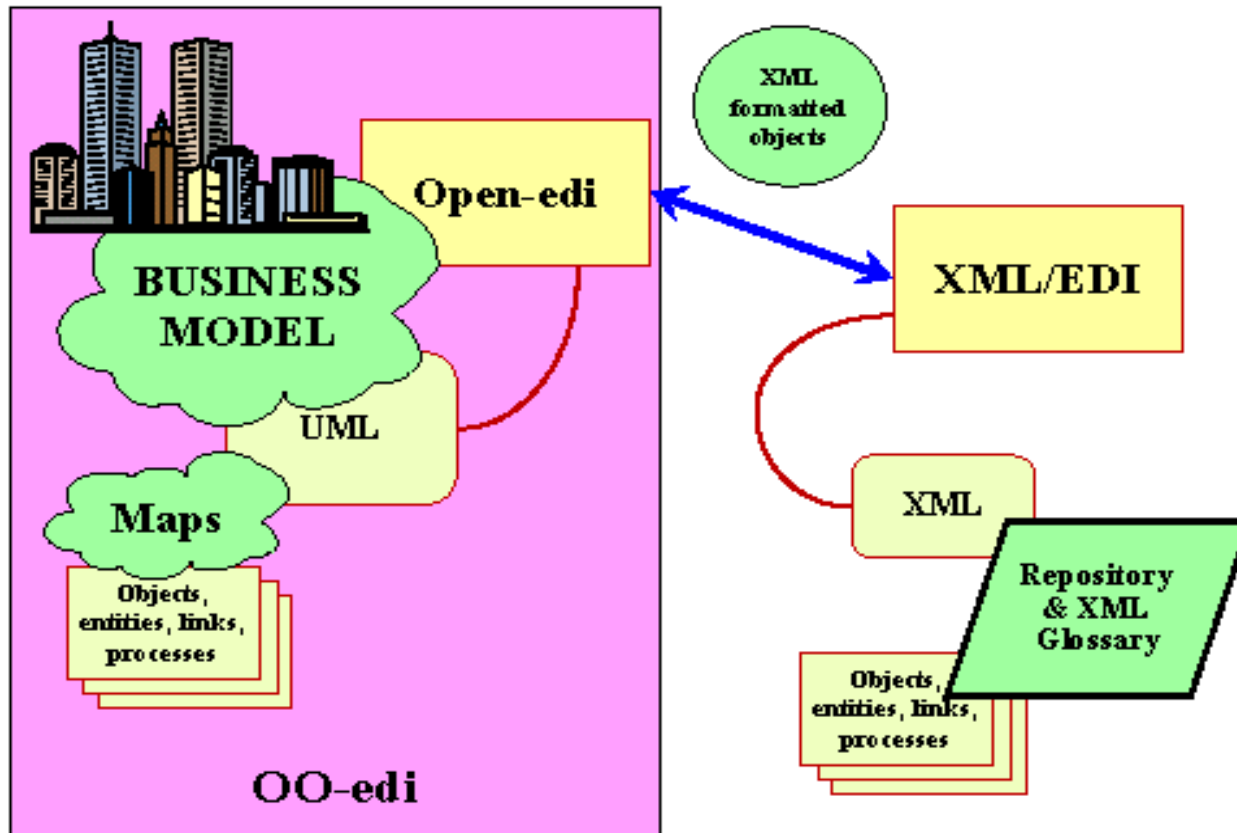


Figure 2: Electronic Business Enablement with OO-edi and XML/EDI





# XML

- HTML -- XML -- SGML
- XML = eXtensible Markup Language
- W3C = [www.w3.ORG](http://www.w3.org)
- CSS = Cascading Style Sheet
- XSL = eXtensible Style Language



# XML - continued

- DTDs
  - = Well formed
  - = Validating
- Schemas CFR Nov 1999
- YASDFF



# XML - continued

- XML is version 1.0
- ebXML.org
  - = OASIS-open.org
  - = UN/CEFACT
- XML101.com
- Too early, too many standards
- Tag set standards



# ebXML

- Internet = information highway
- ebXML provides on ramps, off ramps and rules of the road
- See [ebXML.org](http://ebXML.org) for more info

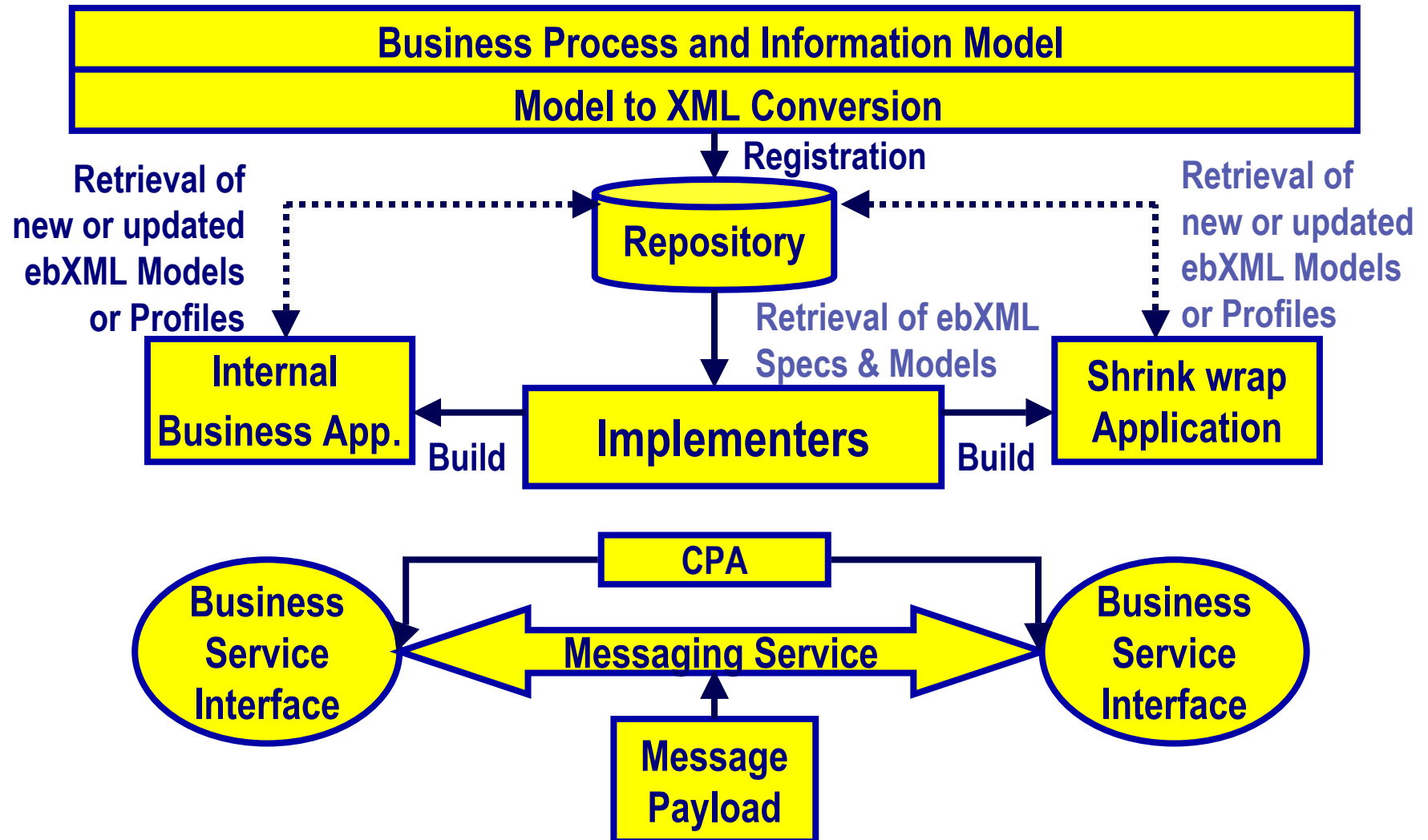


# ebXML

- ebXML architecture provides:
  - = A way to define business processes and their associated messages and content.
  - = A way to register and discover business process sequences with related message exchanges.

# ebXML Architecture

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# ebXML

- A way to define company profiles
- A way to define trading partner agreements.
- A uniform message transport layer.



# ebXML

- Designed
  - = for electronic interoperability,
  - = to allowing businesses to
    - find each other
    - agree to become trading partners
    - conduct business.





# ebXML

- operations performed automatically
- minimizing and/or eliminate the need for human intervention
- streamlines electronic business
- Is low cost, open, and standard

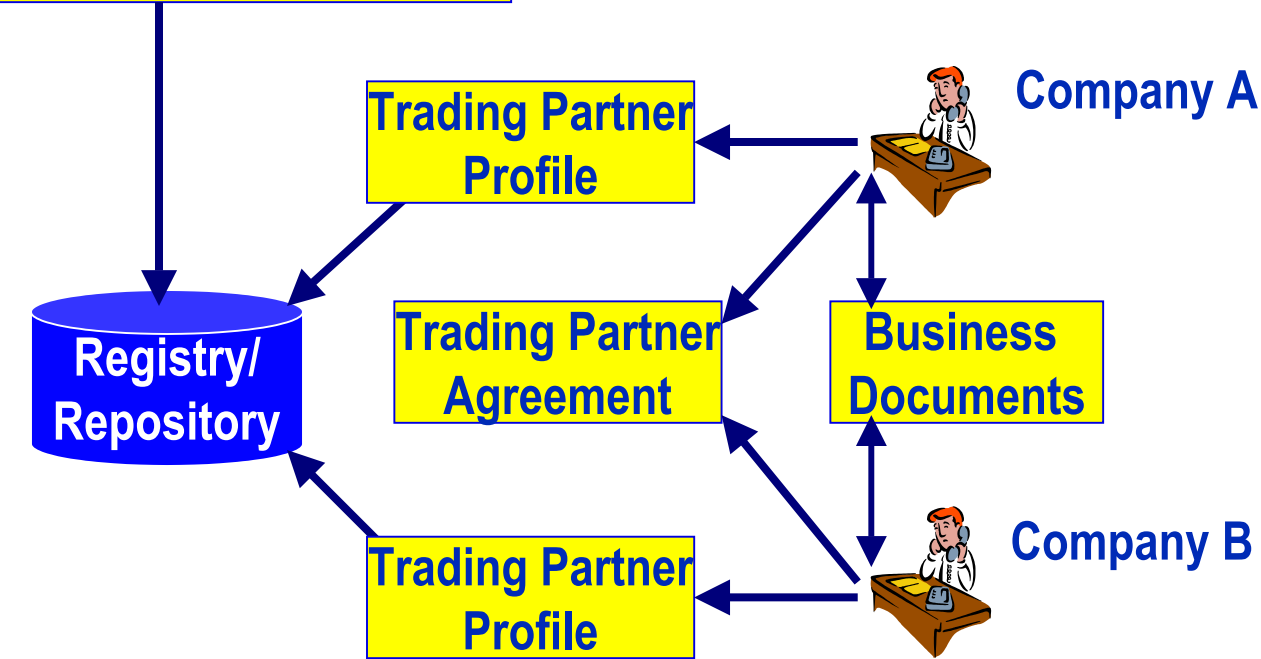


# 4 Easy Steps



Industry Group

Business Process and Information Model



1. Design and Register Process
2. Implement and Register Profile
3. Optionally negotiate agreement
4. Conduct ebXML business



# What is XML?

- Markup Language
- eXtensible Markup Language
- HTML == XML == SGML
- Why another markup language?



# The TLAs

- XSL
- XSLT
- XPATH
- XPOINTER
- XLINK
- XML Topic Maps
- RDF



# The TLAs

- XML Infoset [Groves in SGML]
- XML Inclusions
- Xbase
- XML Fragment Interchange
- XML Query
- XML Signature



# The TLAs

- SVG
- MATHML
- WAP - [wapforum.org](http://wapforum.org)
  
- B2B
- A2A
- P2P - Groove



# A Brief History of Markup

- An IBM lawsuit - the breakup of IBM by DOJ ANTI-Trust
- Goldfarb was assigned to make the documents all readable from the different lawyers
- Standardized General Markup Language was born



# SGML Too Complex

- The scientific community wanted a good way to share documents
- HTML/http were invented in Cern





# What are the parts of XML?

- Structure for humans = presentation
- Structure for software = exchange
- DTD Document Type Definition



# W3C The World Wide Web Consortium

- July 96-Aug 98 build the XML Version 1.0 recommendation
  - = 20 person invited working group
  - = Textuality/Netscape, Microsoft, U of Illinois at Chicago
- Feb-Aug 1998 - XML begins



# It is all about Documents

- Exchange of documents
- Offloading or reloading databases
- Publishing



# XML Environment

- Browser
- Editor
- Parser
- XSL Processor



# DOM, Sax, SOAP

- Document Object Model
- Simple API for XML
- Simple Object Application Protocol



# Document Object Model

- W3C initiative
- An Interface to dynamically access and update the content, structure and style of documents
- Tree oriented
- Platform Neutral
- Language Neutral



# Simple API for XML

- From the user community on XML-DEV mail list
- <http://www.megginson.com/sax>
- Streams oriented
- Event Handling
  - = Start doc; start element; data
  - = end element; end doc



# Simple Object Access Protocol

- From IBM via [ietf.org](http://ietf.org)
- RPC using XML syntax
- Allows client server across net
- Standard object invocation
- uses HTTP transport
  - = socket 80 - gets through firewall
- XML for encoding





# SOAP

- Endorsed by IBM, SUN, M\$
- Version 1.1 is a note to W3C
- The S does stand for Simple
  - = No Authentication
  - = No Asynch calls
  - = No Distributed Transaction Support



# SOAP

- Platform Neutral
- Language Neutral
- Object Neutral



# SOAP from M\$

- Proxy
  - = Wrapper class for clients
- SOAPPackager
  - = Creates SOAP messages
  - = Serialize/deserialize Params
- Wire Transfer
  - = POSTs HTTP request
  - = Set and get HTTP headers



# SOAP M\$

- Officially supported by W2K only
- ROPE
  - = Remote Object Proxy Engine
  - = NOT part of SOAP specification
  - = In next visual studio for .NET



# SOAP M\$

- Expose COM components methods through XML file
  - = SDL (Service Description Language) is used to describe:
    - Services
    - the parameters for the service
    - return values



# SOAP M\$

- ASP or ISASP
  - = ASP is Simple
  - = will need to know performance
  - = ISASP uses ROPE
- Benchmark DCOM vs SOAP
  - = DCOM 70X ISAPI Listener
  - = DCOM 300X ASP

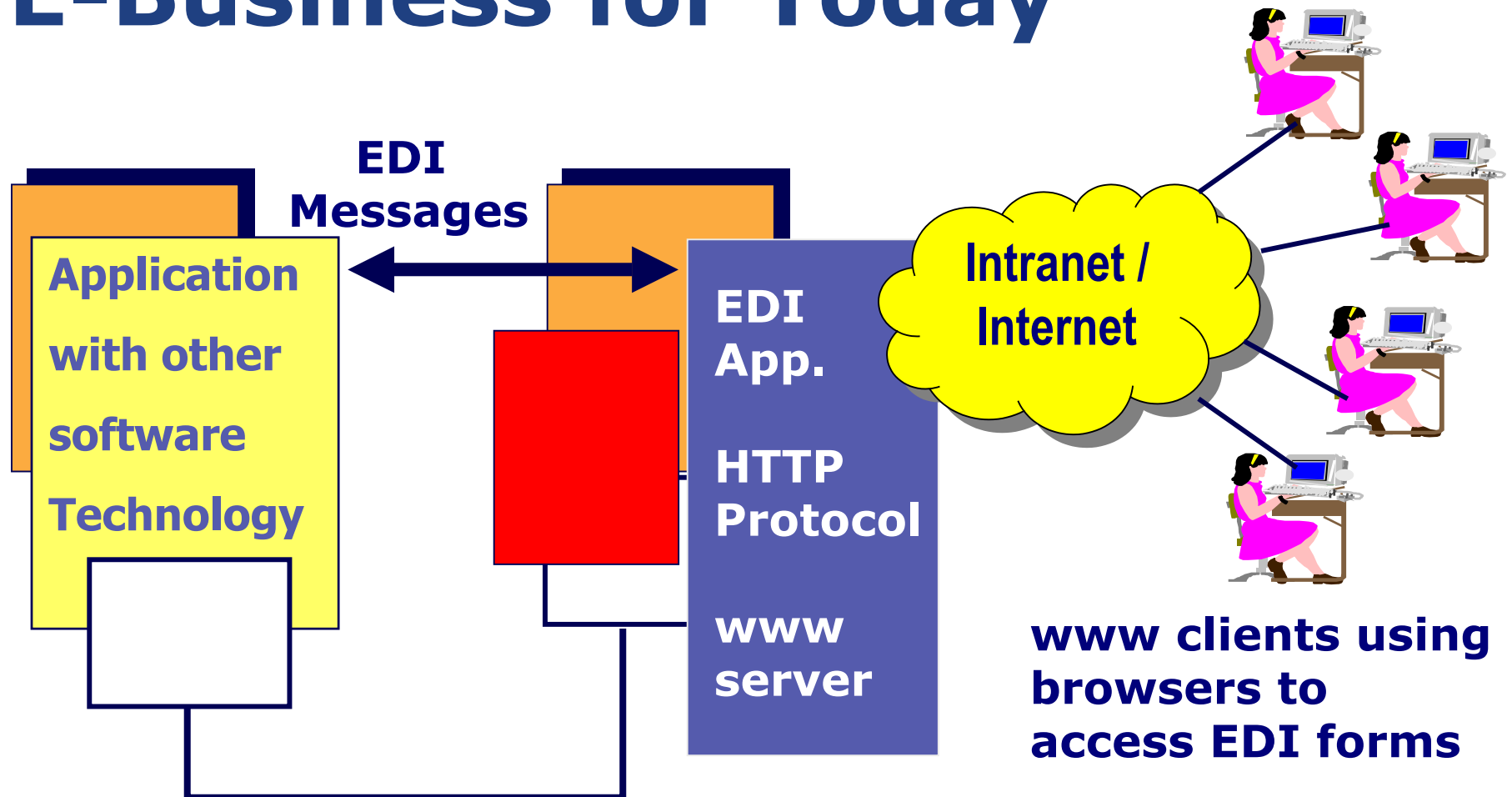


# Web

- Universal Data Access
- Browsers are everywhere!
- XML brings new functionality to browser
  - = Richness of Data Structure
- Good for low volume transactions



# E-Business for Today







# EDI

- TDCC
- X12
- EDIFACT
- XML-EDI



# OPENEDI <-> XML EDI

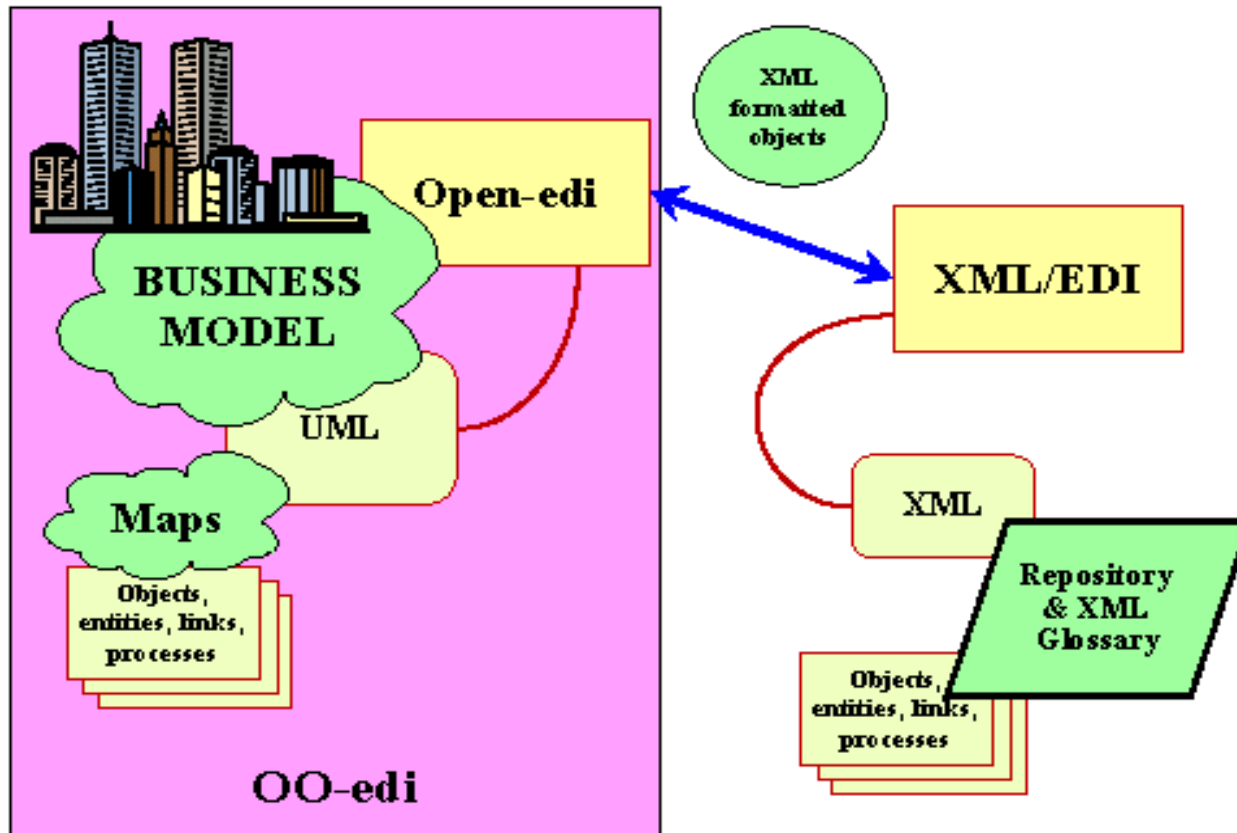


Figure 2: Electronic Business Enablement with OO-edi and XML/EDI



# Information Management

- To take full advantage of XML you must:
  - = Structure
  - = Model
  - = Link
  - = Style
  - = Access



# Style

- Print
- Display
- Aural
- Data



# The 3 R's

- Re-Publish
- Re-Use
- Re-Purpose



# The Business side of XML

- The Enterprise is the target
  - = Understand Mission
  - = Understand value add activities
  - = Understand decisions
  - = Understand where the data is
  - = Build corporate workflow
  - = Build MetaData
  - = KMT



# Understand Mission

- Must understand what your business is here to do
- This allows definition of “ecosystem”
  - = Who internal creators of data
  - = who are internal consumers of information
  - = what about external



# Understand Mission

- CPIs
- KPI (CSF)
  - = Measure
  - = Level
  - = Time
- Current situation SWOT





# Understand Mission

- Mission
- Goals
- Strategies
- Tactics
- Operational Plans



# Value add activities

- How do you add value for customers
- How do you deliver the value
- What role can the web play?
- How does customer want value delivered
- Check customers perception



# Build corporate workflow

- Understand flow for internal and external transactions
- Understand control points
- Understand the value-add points
- Know the external interfaces
- Goods and services leave an information trail



# Understand decisions

- To support the workflow who makes what decisions
- what data (information is required to make decision?)
- What are thresholds (normal vs exception)
- How are exceptions handled?



# Where is the data?

- What systems
  - = IT Systems
  - = Manual Systems
- What is data model
- How to interface systems
- What are the transactions



# Build MetaData

- Knowing transactions, workflow and systems build an architecture or business model
- Describe the architecture using MetaData
- Anticipate coming technology
- Learn to measure flows



# KMT

- Its about the smart corporation
- How to exchange data without a programmer being involved helps the knowledge communication
- Learn visualization tools
- Measure inside and external



# Whats Next

- How many have a laptop
- PDA?
- Cell Phone
- Expectations are 75% of messages will be Wireless





# Contact Us

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# Bibliography

- The XML Handbook - Charles Goldfarb
- Professional XML - Richard Anderson et al
- Building Corporate Portals with XML



# Bibliography

- Open Source XML Database Toolkit
- XML & Java - Developing Web Applications
- XML in a Nutshell - O'Reilly



# Web Sites

- [W3.ORG](http://W3.ORG)
- [ebXML.Org](http://ebXML.Org)
- [OASIS.org](http://OASIS.org)
- [XML101.com](http://XML101.com)
- [Microsoft.com](http://Microsoft.com)