

Implementing XML

**Mike Bixby,
e-Data Coordinator, INFO1**

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XML Implementation - Topics

- Analysis – Questions to Ask
- Implementation Options
- Using MISMO XML
- MISMO 2.0 and Beyond
- Other Resources and Tools
- Discussion and Questions

Analysis – Questions To Ask

- ❑ Why do you want to use XML?
 - A: Latest data exchange standard
 - B: Easier to understand and implement
 - C: Recommended by MISMO
 - D: Recommended by Al Gore
 - E: None of the Above

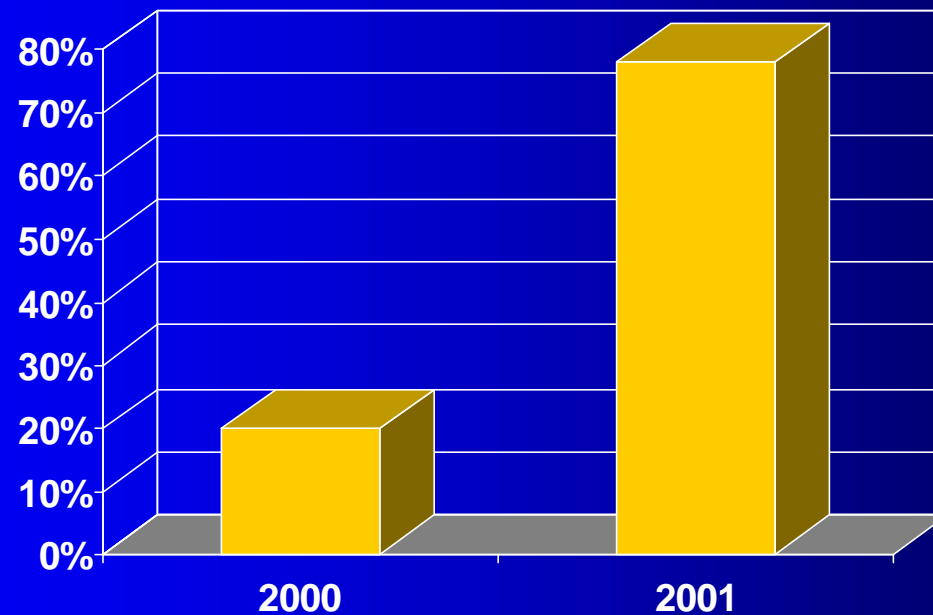
Analysis – Questions To Ask

- ❑ Why do you want to use XML?
 - E: None of the Above
- Unless using XML can help you MAKE money or SAVE you money, why do it?
- In e-Commerce, data transactions ARE money
- Standards enable the exchange of money

XML – Poised For Growth

- Companies using or planning to use XML

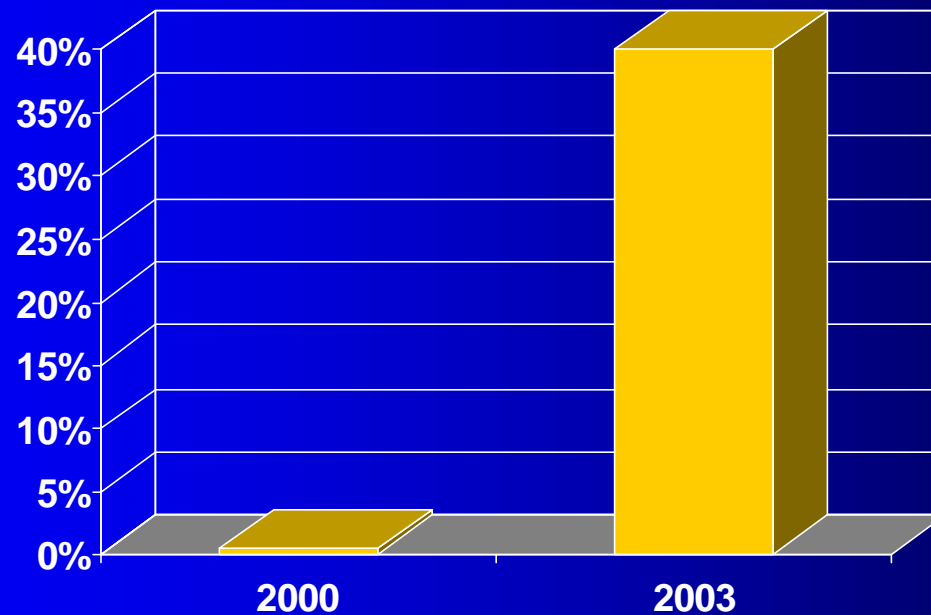
(Source: XML Solutions Corp)



XML – Poised For Growth

- Percentage of e-Commerce Transactions

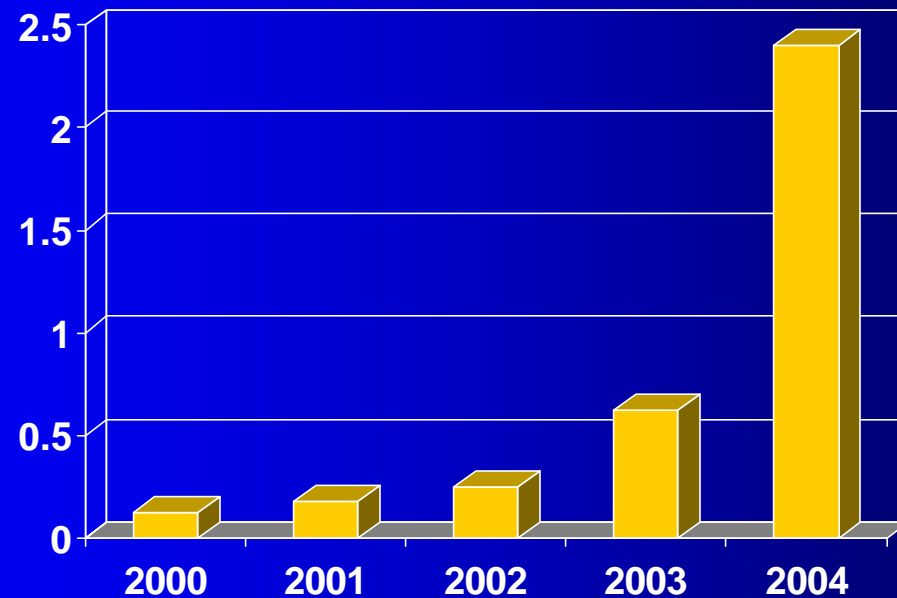
(Source: Zona Research)



XML – Poised For Growth

- XML Products & Services (in \$ billions)

(Source: Upstream Consulting)



Analysis – More Questions

- ❑ Do you have current web presence?
- ❑ Want to use XML for internal use only or externally with business partners?
- ❑ Who are your business trading partners?
- ❑ What is your position in the mortgage business “food chain”?

Analysis – Still More Questions

- ❑ What are your current I.T. Development assets?
 - Currently use X12 or SWIFT transactions?
 - Use a Loan Origination System?
 - Use Oracle, DB2, or SQL 2000 databases?
 - Are you a Microsoft, IBM, Sun or Unix shop?
 - Do you have a programming staff?
 - None of the above?

Analysis – Final Questions

- ❑ What are your performance needs?
 - Develop solutions quickly?
 - High throughput (transactions per second)
 - Quick analysis for decision making
- ❑ And finally... What is your budget for development tools AND labor?

Implementation Options

- Any, several, or none of the following may apply as an option for your company
 - Loan Origination System Software
 - Mortgage Service Portals or ASPs
 - Custom Software Development
 - Data Translators
 - Enterprise Application Integration
 - Web Service Frameworks

Implementation Options

- Custom Software Development
 - Either with existing staff, outside consultants or both
 - Most commonly used development platforms now support XML
 - May be more labor intensive than other options
 - Even with Enterprise Application Integration (EAI), custom software fills in the “holes”

Implementation Options

- Custom Software Development - Libraries
 - Apache XML Project (Xerces Library)
 - (xml.apache.org)
 - IBM developerWorks
 - (www-106.ibm.com/developerworks/xml)
 - Microsoft MSXML
 - (msdn.microsoft.com/xml/default.asp)
 - Oracle XML Developer's Kits
 - (otn.oracle.com/tech/xml)
 - Sun Java 2 Enterprise Edition (J2EE)
 - (www.sun.com)

Implementation Options

- Data Translators
 - Perform simple to/from XML to/from other formats
 - Data Junction (www.datajunction.com)
 - Whitehill <xml> Transport (www.whitehill.com)
 - Many existing X12 translators now also “speak” XML (or will soon)

Implementation Options

- Enterprise Application Integration (EAI) - Features
 - Integration / translation between systems, files and databases
 - Inter-application communication supporting the major messaging protocols
 - Process management
 - Security & Authentication
 - Administration
 - Scalable

Implementation Options

- Enterprise Application Integration (EAI) - Products
 - Ariba (www.ariba.com)
 - Crossworlds (www.crossworlds.com)
 - Mercator (www.mercator.com)
 - Microsoft Biztalk (www.microsoft.com/biztalk)
 - See-Beyond (www.seebeyond.com)
 - Tibco (www.tibco.com)
 - Vitria (www.vitria.com)
 - Web Methods (www.webmethods.com)

Implementation Options

- Web Service Frameworks
 - Standardizing the way applications make themselves visible over a network via XML
 - Automates the process of implementing connections with new business partners
 - Backed by Hewlett-Packard, IBM, Microsoft, Oracle, and Sun Microsystems
 - “Cooperate on specifications, compete on implementations” – XML DevCon 2001

Implementation Options

- Web Service Frameworks - Protocols
 - Universal Description, Discovery and Integration (UDDI) – protocol for locating web-based services
 - Web Services Description Language (WSDL) – how to connect to the web-based services
 - Simple Object Access Protocol (SOAP) – standard for messaging between web-based services

Implementation Options

- Web Service Frameworks - Products
 - HP E-Speak
 - (www.e-speak.hp.com)
 - IBM Web Sphere
 - (www-4.ibm.com/software/webservers/commerce)
 - Microsoft .Net
 - (www.microsoft.com/net)
 - Oracle Dynamic Services
 - (otn.oracle.com)
 - Sun Open Net Environment
 - (www.sun.com)

Using MISMO XML

- MISMO Resources
 - Trimester Work Group Meetings
 - Work Groups / Conference Calls / ListSrvs
 - MISMO Web Site
 - Implementation Guides
 - Logical Data Dictionary
 - Commented DTD
 - Engineering Guideline

Using MISMO XML

- What does MISMO XML Look Like?
 - Example: Mortgage Terms data
 - Mortgage Type = **FHA**
 - Amortization Type = **Fixed**
 - Term = **360 Months**
 - Interest = **7.5%**

Using MISMO XML

- **MBA'86 - Mortgage Terms Data**

MT110000 FHA

MT112000 FIXED

MT130000 7.5

MT140000 360

Using MISMO XML

- Fannie Mae - Mortgage Terms Data

01A03

7.5 36005

- X12 - Mortgage Terms Data

LRQ~~7.50~~~~~3~05~~360

Using MISMO XML

- MISMO 1.x - Mortgage Terms Data

```
<PRODUCT LoanAmortizationType=Fixed MortgageType=FHA>  
  <InitialPaymentRatePercent>7.5</InitialPaymentRatePercent>  
  <LoanAmortizationTermMonths>360</LoanAmortizationTermMonths>  
</PRODUCT>
```

MISMO 2.0 and Beyond

- Architecture Changes in 2.0??? (Not Finalized)
 - More performance-oriented
 - More transaction-oriented
 - Data stored in attributes rather than elements
 - More abbreviations
 - Allow use of “legacy” codes for data

MISMO 2.0 and Beyond

- MISMO 1.x - Mortgage Terms Data

```
<PRODUCT LoanAmortizationType=Fixed MortgageType=FHA>  
  <InitialPaymentRatePercent>7.5</InitialPaymentRatePercent>  
  <LoanAmortizationTermMonths>360</LoanAmortizationTermMonths>  
</PRODUCT>
```

MISMO 2.0 and Beyond

- MISMO 2.x - Mortgage Terms Data
(April 11, 2001 Underwriting Draft)

```
<MTG_TRMS LnTypCd="03"  
    LnAmrtTypCd="05"  
    AmrtTrm="360"  
    OrigIntRt="8"/>
```

MISMO 2.0 and Beyond

- MISMO 2.x - Mortgage Terms Data
(April ??, 2001 Underwriting Draft)

```
<MTG_TRMS LnTypCd="FHA"  
    LnAmrtTypCd="Fixed"  
    AmrtTrm="360"  
    OrigIntRt="8"/>
```

MISMO 2.0 and Beyond

- Development of Standards for e-Mortgages
 - Reduce Time Period Between Application and Closing
 - PKI – Digital Signatures
 - “Smart” Documents
 - Electronic Loan Package

MISMO Benefits

- Benefits of being a MISMO Subscriber
 - Help build and maintain the standards for the business transactions
 - Work and interact with industry peers
 - Keep up with (or blaze a trail for) current trends in your segment of the industry
 - Helps support the infrastructure that maintains the standards

Other Resources and Tools

- Books on XML, XSL, XSLT
- XML Information Sources
 - www.xml.org
 - www.xml.com
 - msdn.microsoft.com/xml/default.asp
 - www-106.ibm.com/developerworks/xml
 - www.informationweek.com/center/xml.htm
 - www.softwareag.com/xml
- XML Seminars (check your junk mail)
 - www.sdbootcamp.com
 - www.xmldevcon2001.com

Other Resources and Tools

- Computer Industry Trade Magazines
 - XML Magazine (www.xmlmag.com)
 - Software (www.sdmagazine.com)
 - Web Techniques (www.webtechniques.com)
 - Information Week (informationweek.com)

Other Resources and Tools

- XML Editors / Generators
 - XML Instance (www.extensibility.com)
 - XMetaL (www.softquad.com)
 - XML Spy (www.xmlspy.com)
- DTD/Schema Editors
 - XML Authority (www.extensibility.com)
 - XML Spy (www.xmlspy.com)

Other Resources and Tools

- XSL / XSLT Editors / Generators
 - eXcelon Stylus (www.exceloncorp.com)
 - Whitehill <xsl> Composer (www.whitehill.com)
 - XSLerator
(alphaworks.ibm.com/aw.nsf/techmain/xslerator)
 - XSLWiz (www.EBProvider.com)

Discussion and Questions