



Documents Revisited: eCommerce for Everyone

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[http://
oasis-
open.org/
committees/
ubl](http://oasis-open.org/committees/ubl)



OASIS

The big picture

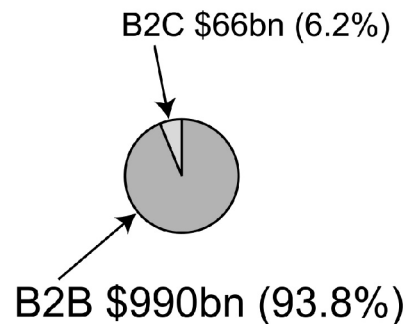
- *UN Millenium Goal Number 8*: to “develop further an open trading and financial system that is rule-based, predictable and non-discriminatory and includes a commitment to good governance, development and poverty reduction – both nationally and internationally.”
- A fair and open global electronic marketplace would
 - allow big companies to extend their electronic trading relationships to small and medium-size companies
 - allow small companies to participate on an equal basis
 - put small nations on an equal commercial footing with big ones
 - solve a lot of economic and social problems
- So.... how do we do this?



The problem: cost of entry

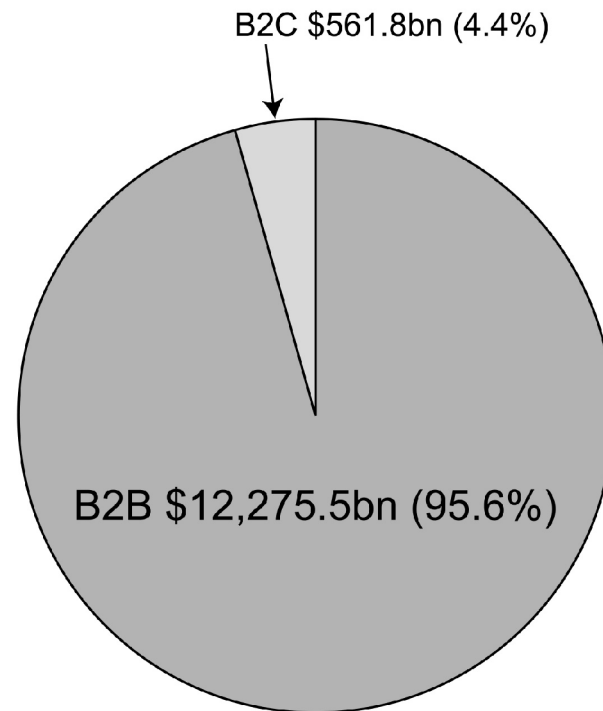
U.S. E-commerce in 2000

Source: U.S. Census Bureau



U.S. E-commerce in 2006

Source: Forrester



- Most e-commerce is B2B
- Most B2B is EDI
- EDI is expensive!
- Most small businesses are locked out



Key enablers

The addition of a few key enablers to the ubiquitous Internet can bring small and medium-sized businesses into global e-commerce.

1. A document-centric architecture
2. A standard royalty-free XML B2B tag set
3. A standard royalty-free B2B infrastructure
4. A standard royalty-free office productivity format
5. Free open-source software to make it all happen



Enabler #1: A document-centric architecture

Business is built on the concept of standard, legally binding documents. Putting business as we understand it online means putting those documents online.



Documents: 3300 B.C.



Source: UN eDocs (an initiative of the UN Economic Commission for Europe)

Documents and humans

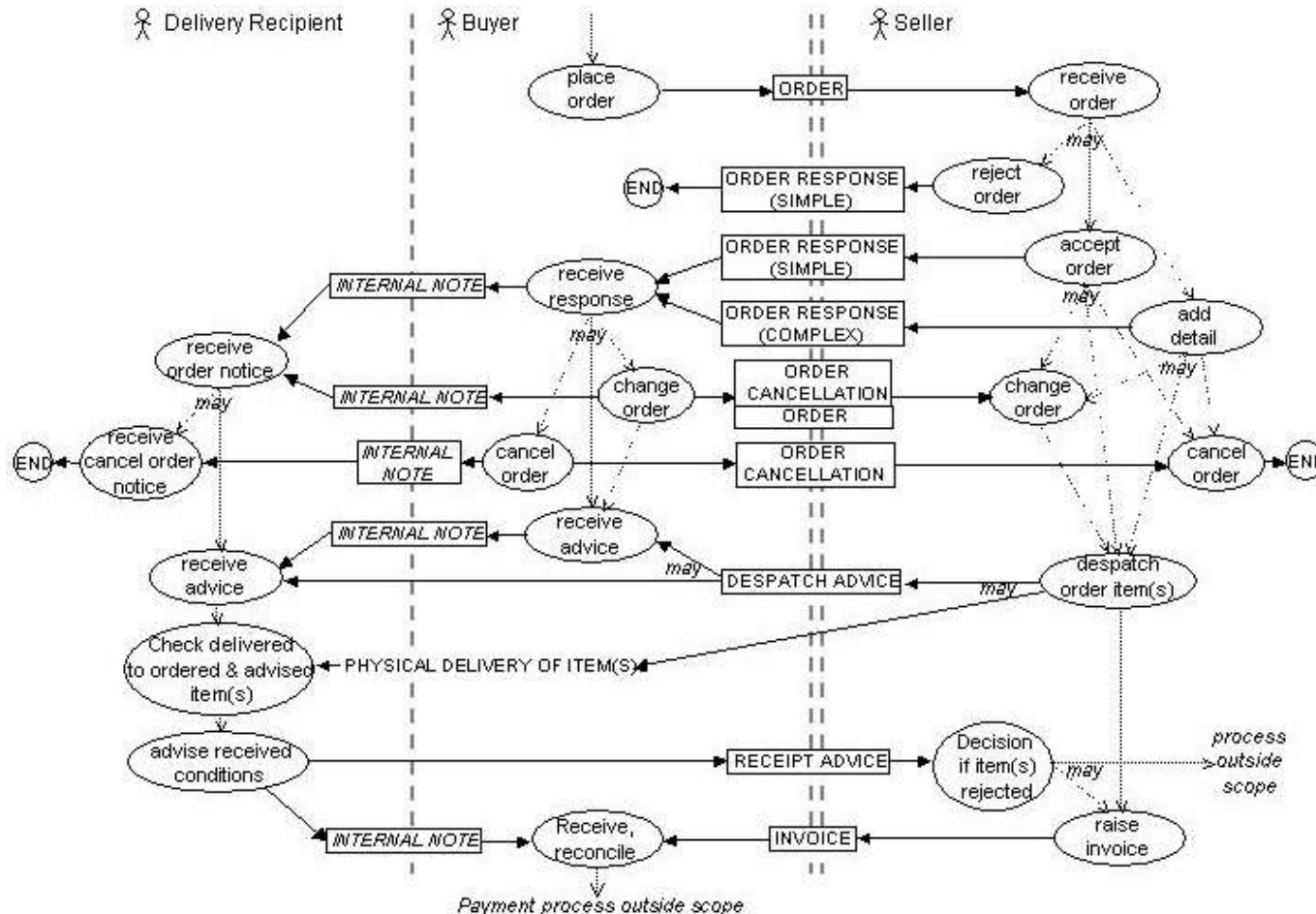
Business is about *intent* and intent is about *meaning*. The hard part of e-commerce is the definition of shared semantics. Documents are the universally understood way to convey semantic information. Documents keep humans in the loop:

- error handling
- legal action
- records management (audit trail)

The system has to remain transparent to humans. XML document standardization is the way to do this.



The role of documents



Source: OASIS UBL 0.7 Review Package



Enabler #2: a common business tag set (UBL)

- Library of standard electronic business documents
- Plugs directly into existing traditional business, legal, and records management practices
- Eliminates re-keying of data in existing fax- and paper-based supply chains
- Fills the “payload” slot in B2B frameworks such as the UN/OASIS ebXML initiative (<http://ebxml.org>) and various “web services” schemes
- Extends global trade to businesses of all sizes



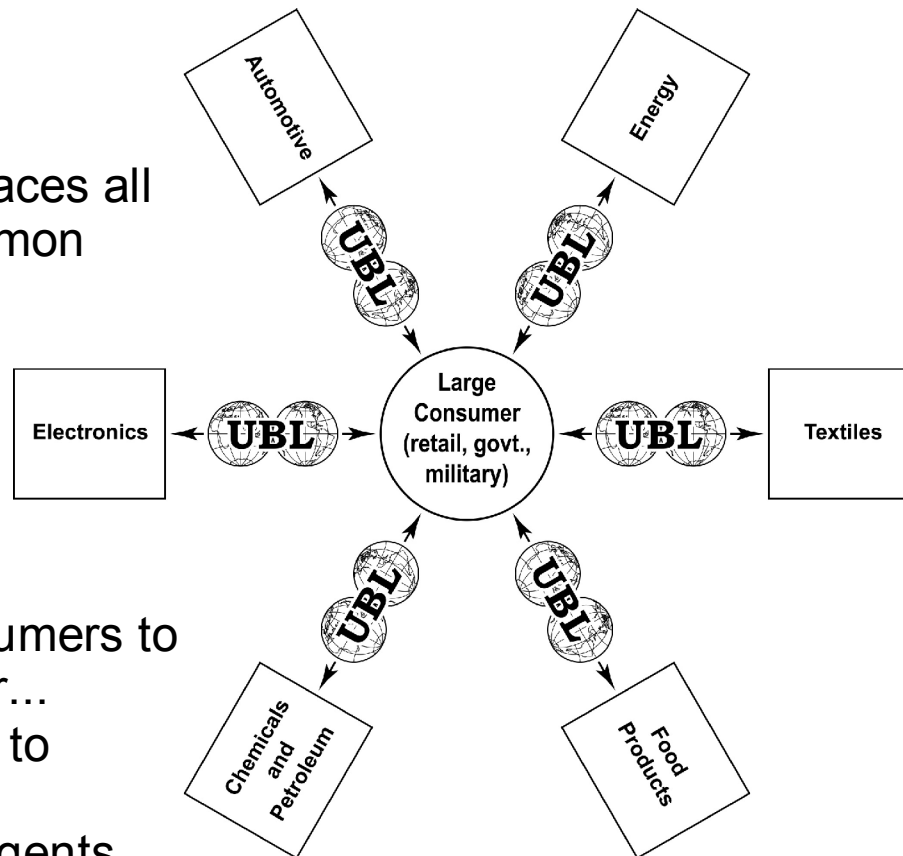
Advantages of a single business format

- Lower cost of integration, both among and within enterprises, through reuse of common data structures
- Lower cost of commercial software (much lower than generic XML software)
- Easier learning curve (just a single library)
- Lower cost of entry and therefore quicker adoption by small and medium-size enterprises (SMEs)
- Standardized training, many skilled workers
- Universally available pool of system integrators



The role of a hub format

One adapter interfaces all suppliers to a common consumer...



as well as all consumers to a common supplier...
and *all businesses* to the tax authorities
and the customs agents
and the accountants
and the transporters ...

There appears to be no practical alternative to this plan.



UBL liaisons

ACORD (insurance)
ARTS (retail sales)
ebXML Asia Committee (ebXML)
e.centre (EAN UK)
EIDX (electronics)
HL7 (healthcare)
Information Technology Standards Committee of Singapore
NACS (convenience stores)
RosettaNet (information technology)
SWIFT (banking)
UIG (utilities)
VCA (optical supplies)
XBRL (accounting)
ASC X12 COTG
UN/CEFACT TBG
UN/CEFACT ATG
OASIS eGov TC
OASIS CIQ TC



UBL in UN/CEFACT

- UN/CEFACT has proposed “that the OASIS UBL TC and UN/CEFACT core component and related syntax activities be incorporated into the work plan of the UN/CEFACT Applied Technologies Group (ATG).”
- Teams have been appointed by both UN/CEFACT and OASIS UBL TC to negotiate an agreement
- This would put UBL into the UN body responsible for the development of electronic data interchange standards such as UN/EDIFACT

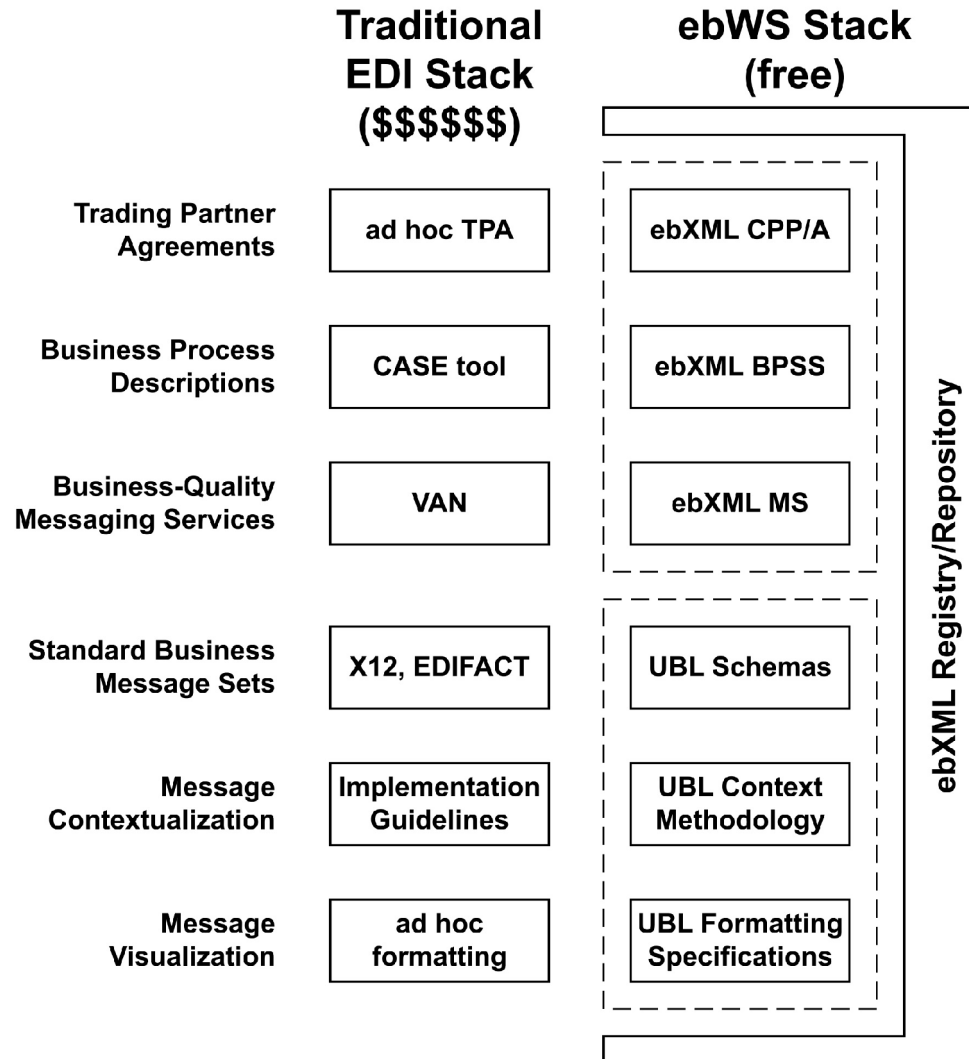


Enabler #3: a standard B2B infrastructure (ebXML)

- Joint UN/OASIS initiative, now in its third year
- International effort involving hundreds of participants
- Basic specifications delivered 2001, most now at version 2 or 3
- The only nonproprietary XML-based B2B infrastructure
- Centerpiece of national initiatives in Korea and Japan; under active consideration by other European and Asian governments
- Basic components can be implemented separately, allowing great flexibility in adoption
- Commercial products available from Sun, Sybase, BEA, Excelon, webMethods, Fujitsu, Samsung, and others



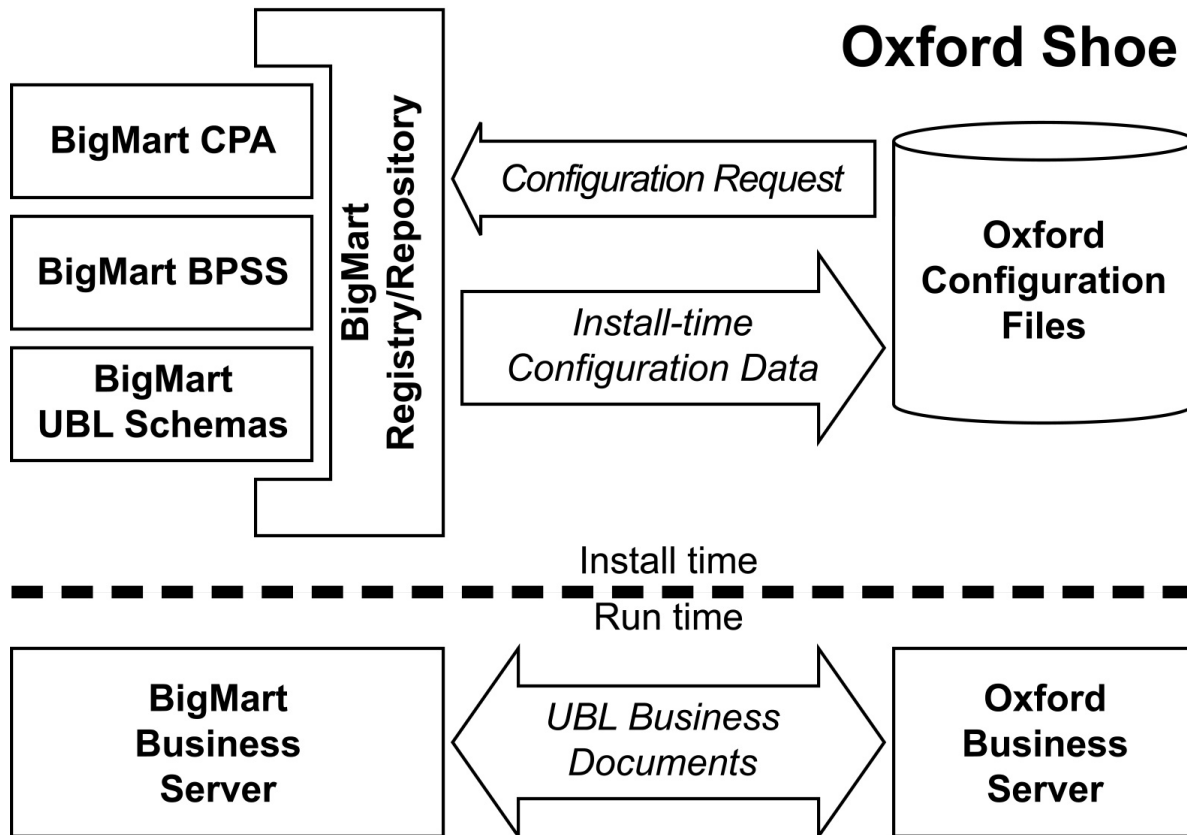
EDI to ebWS (ebusiness web services)



B2B in a box

BigMart Inc.

Oxford Shoe Co.



Enabler #4: A standard office productivity format

- A set of standard tag sets for word processing, spreadsheets, and presentations
 - OASIS Open Office TC
- A free cross-platform open-source software suite for editing and presenting the standard formats
 - openoffice.org
- This will have a revolutionary effect in the office productivity space similar to the effect that UBL is intended to have in the B2B space



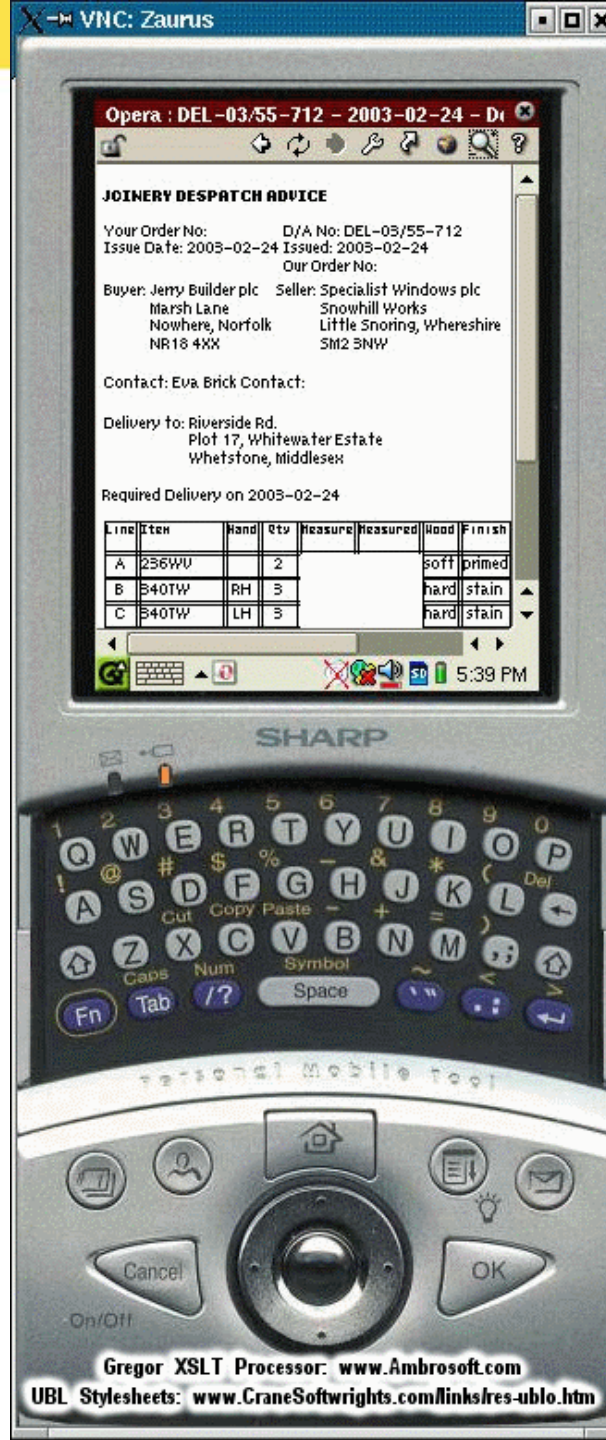
Enabler #5: Free open-source software

- O/S: Linux/Gnome (including utilities, GUI, database, ...)
- Web server: Apache
- freebXML
 - ebXML registry/repository: ebxmlrr*
 - ebXML HTTP messaging: Hermes
 - ebXML SMTP messaging: ebMail
- OpenOffice*
 - word processor
 - presentation
 - spreadsheet
 - graphics
- xmlroff*
 - XSL-FO batch production of business forms

** ebxmlrr, OpenOffice, and xmlroff are Sun contributions to the international open-source community*



Portable B2B



ebWS outcomes

- Web-enable existing fax- and paper-based business practices and achieve the basic EDI ROI by eliminating rekeying
- Preserve the existing investment in EDI and paper systems while allowing businesses to migrate into electronic commerce at their own pace
- Integrate small and medium-size businesses into existing EDI-based supply chains
- Maintain an audit trail understandable at the level of a local civil court
- Incrementally enable true global market availability

The standardization of XML business documents within a nonproprietary infrastructure is the easiest way to accomplish these goals.



UBL timeline

January – March 2003: UBL 0.7 review (see UBL web site)

- XML naming and design rules
- Library of about 500 reusable XML data components
- Set of basic buy/sell schemas based on the library
- Data models, UML class diagrams, example instances, stylesheets, process descriptions, ASN.1 specification

June 2003: release UBL 0.8 data models to RN, eGov, and OAG reviewers

July/August 2003: TC meeting in Montréal

September 2003: finish 1.0 data model

October 2003: finish UBL 1.0



Historical observations

- The web came about when a simple fixed tag set for electronic publishing (HTML) was combined with an appropriate transport mechanism (HTTP) and some free software (Mosaic)
- The combination of a simple fixed tag set for electronic business (UBL) and an appropriate transport mechanism for B2B (ebXML) together with some free software (freebXML) can create the equivalent phenomenon in the business space
- Historical fact: Microsoft tried to kill the web with a proprietary alternative ("Blackbird," 1995-96), but it failed
- Prediction: we can expect the same kind of struggle this time, and national governments will play a pivotal role in the outcome



Let's remember the social agenda of XML!

Slide from keynote presentation, SGML/XML Europe '98:

XML inherits the social agenda of SGML

- The social agenda of SGML has always been about creator ownership of content.
 - Freedom from proprietary data formats
 - Vendor neutrality
 - Platform neutrality
 - Language neutrality

Not only can XML change the world — it's about to!



For more information

UBL: <http://oasis-open.org>

ebXML: <http://ebxml.org>

CECID (Hong Kong University): <http://www.cecid.hku.hk>

freebXML: <http://www.freebxml.org>

OpenOffice: <http://openoffice.org>

xmlroff: <http://xmlroff.sourceforge.net/>

Note: these slides combine the XML Europe 2003 keynote with a slightly revised version of the same talk presented at Enterprise Ireland one week later (Dublin, 12 May 2003). The information contained herein is current as of June 2003.

