



# UBL: A Practical Approach to E-Commerce Interoperability

**Jon Bosak  
Sun Microsystems**

**Forum on E-Commerce Interoperability  
and Standardization  
Hong Kong, 14 May 2004**

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



**OASIS**

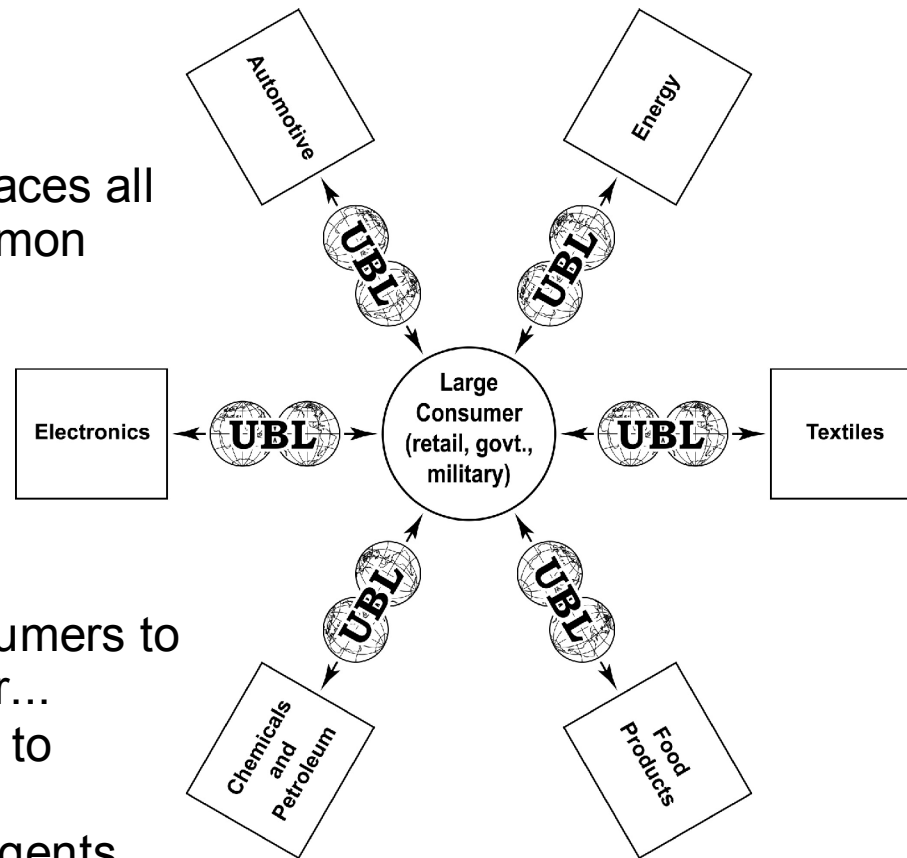
# Documents and e-commerce

- Business is built on the concept of standard, legally binding documents. Putting traditional business online means putting those documents online.
- A commercial document exchanged in a global environment has to be understood the same way everywhere because the agreement it expresses has to be enforceable everywhere.
- The key to global e-commerce interoperability is the standardization of basic business documents.



# 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.



# The Universal Business Language (UBL)

- International effort to define a royalty-free library of standard electronic business documents
- Designed in an open and accountable OASIS Technical Committee with participation from a variety of industry data standards organizations
- Plugs directly into existing traditional business, legal, and records management practices
- Eliminates re-keying of data in existing fax- and paper-based supply chains
- Solves the  $N(N-1)$  problem
- Fills the “payload” slot in XML-based B2B frameworks



# Advantages of a single XML 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
- Historic example: HTML

*“Technology neutral” semantic alignment is a good thing, but only standardization on a **single syntax** will yield these direct advantages.*



# UBL 1.0: the “Fifth Generation” B2B language

**G1** (1Q 1998): CBL 1.0 (Veo/NIST)

**G2** (2Q 1999): CBL 2.0 (Commerce One)

**G3** (4Q 2000): xCBL 3.0 (Commerce One and SAP)

**G4** (1Q 2003): UBL 0.7 (OASIS)

**G5** (1Q 2004): UBL 1.0 (OASIS)

UBL represents over six years of continuous development in the creation of a standard XML business syntax.

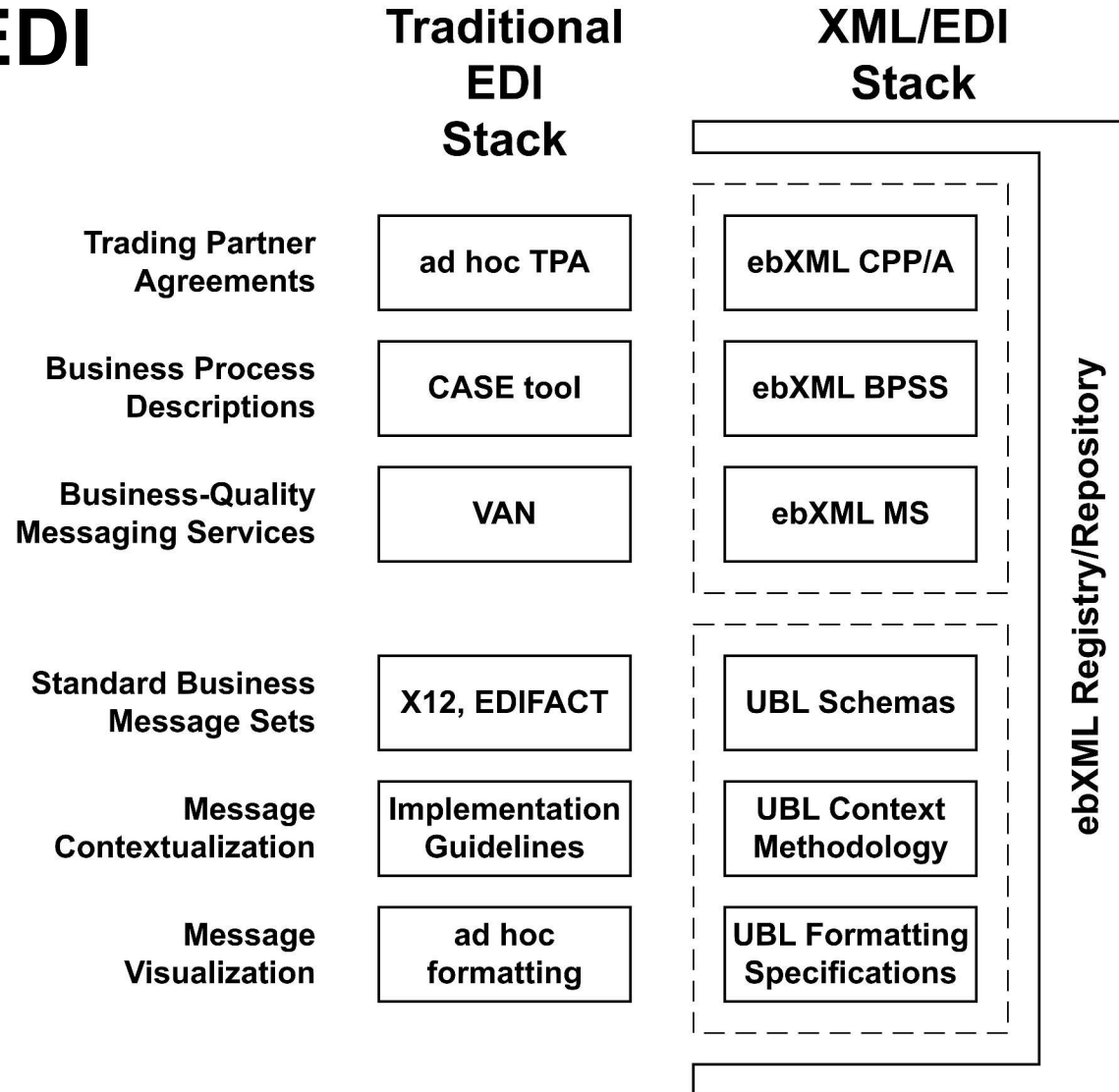


# Latest UBL developments

- UBL 1.0 was released as an OASIS Committee Draft 1 May 2004; it is now a public specification available for general use
- The next step is OASIS standardization
- On its approval as an OASIS Standard, UBL will be submitted to ISO
- A publicly subscribable OASIS ubl-dev list has been formed to provide a public forum for questions and comments
- The Danish government has officially adopted UBL 0.7 for its e-government procurement portal
- The first commercial UBL-based order/invoice system has gone into production in the UK (IMPAQ and Q Associates)
- Chinese, Japanese, Korean, and Spanish Localization Subcommittees have been formed to translate UBL and promote regional adoption
- UBL 1.1 will present guidelines for the specification of UBL industry profiles and include semantic refinements from the localization and translation efforts in regional subcommittees

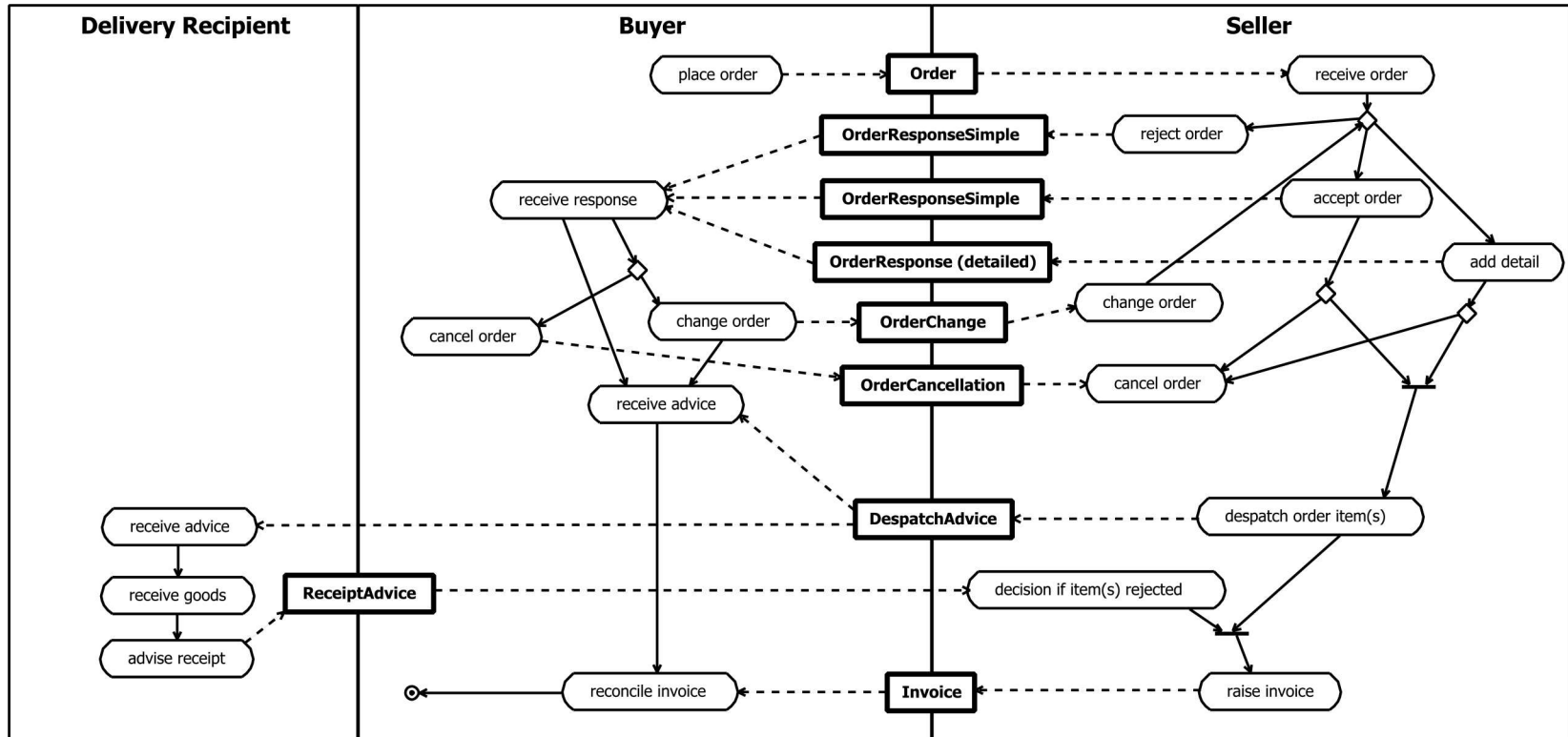


# XML EDI





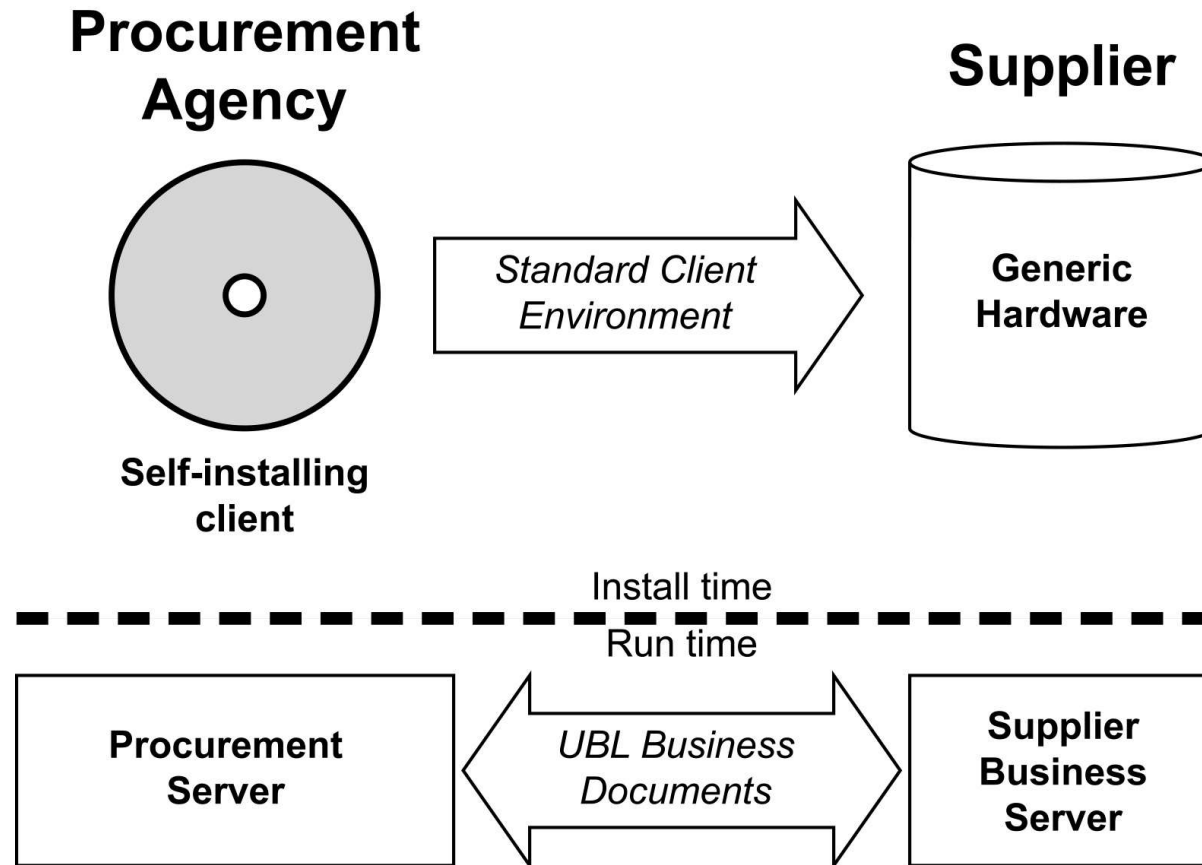
# UBL order-to-invoice



This model describes a very large class of use cases.



# Cheap interoperability



With secure email, this model can be applied even to very small suppliers.



# Summing up

- UBL and ebXML are open e-commerce technologies designed by business people for business people
- UBL+ebXML implements XML EDI – that is, web services specifically optimized for B2B
- The first big UBL adopters will probably be government procurement agencies
- Government agencies can provide ebXML/UBL open source software bundles to government suppliers
- The same preconfigured software bundles can facilitate the entry of small businesses into electronic commerce
- You will be seeing a lot more of UBL!



# For more information

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

**UBL 1.0:** <http://docs.oasis-open.org/ubl/cd-UBL-1.0/>

**ubl-dev:** <http://www.oasis-open.org/mlmanage/>

**ebXML:** <http://ebxml.org>

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

**OpenOffice:** <http://openoffice.org>

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

UBL chair: [jon.bosak@sun.com](mailto:jon.bosak@sun.com)

