

ebXML Adoption Update

March 2003

Executive Summary

The OASIS ebXML Awareness Team has prepared this document in collaboration with OASIS member organizations and UN/CEFACT partners to give a global picture of the current status of ebXML adoption¹. Our aim is to increase awareness of the substantial amount of ebXML-related activity occurring throughout the world today. This report—which represents our best initial and ongoing research at this time and may not be exhaustive—summarizes the status of more than 50 ongoing ebXML-related projects. ebXML is unique in the breadth of its standards vision and arguably represents the culmination of all previous standards efforts toward a shared global Internet-based B2B framework. ebXML is complementary to many existing standards, such as legacy EDI, XML-based business document standards, and Web Services. Decision makers, involved in global B2B commerce and responsible for making B2B infrastructure investments must evaluate their business strategies and consider the likely need to support trading partners who will want to engage electronically using ebXML protocols.

No truly successful technology or standard is an island. It is therefore exciting to witness ebXML adapting, evolving and growing through research and deployment around the world. Over 2,000 people contributed to the original ebXML development efforts, made public in May 2001. Since then, continuing standards development, pursued jointly by OASIS and UN/CEFACT, has been augmented by creative real world projects applying ebXML with other technologies such as Web Services, XML as a whole, as well as legacy EDI. Major vendors have developed ebXML support into their flagship products and new ebXML vendors are emerging. Key industry sectors and government entities are deploying new eBusiness applications that are serving as benchmarks in the adoption of ebXML globally. Industry groups and standards bodies are working to bring their vocabularies into alignment around ebXML, promising a new level of interoperability that industry has been seeking for more than a decade.

From: the OASIS ebXML Awareness Team: http://www.ebxml.org/ebxml_jmt

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In the News

This section of the document is updated quarterly and contains highlighter items that have happened within the last three months.

UCC completes certification of vendor products for ebXML.

Over a dozen vendors completed a rigorous six-month certification process of their ebXML message service products. The certification is designed to show that the vendors' products are interoperable and therefore provide customers with the ability to deploy reliable production solutions today between their partners.

For complete details see: http://www.ebusinessready.org/pr_ebxml.html

London, England, 2003: The annual ebXML user conference

In May, the ebXML user conference will be held in London, England. Organizers have received a broad range of presentation topics showcasing the use of ebXML-based solutions worldwide.

For more information see: <http://www.xml europe.com/2003/ebxmlconference.asp>

Single European Electronic Market (SEEM)

Calls for participation including implementations of ebXML capabilities have been issued by this European initiative funded by the European Union. For more details see: <http://www.cordis.lu/fp6/subprop.htm>

Specifications News

The core components specifications V1.9 are in final public review and scheduled to be approved during March 2003. The latest copy is available from:

The latest ebXML Registry specifications, V3.0 are also in final public review within the OASIS Technical Committee process.

Continually enhancing the base capabilities of ebXML is an ongoing commitment from the OASIS and CEFACCT organizations. For further information and participation details on ebXML standards see:

Latest News items online can be found at:

www.ebxml.org/

The ebXML global landscape

ebXML is enabler for global eBusiness. As we look at these trends, we see steady growth of ebXML as business balances their functional and technology needs.

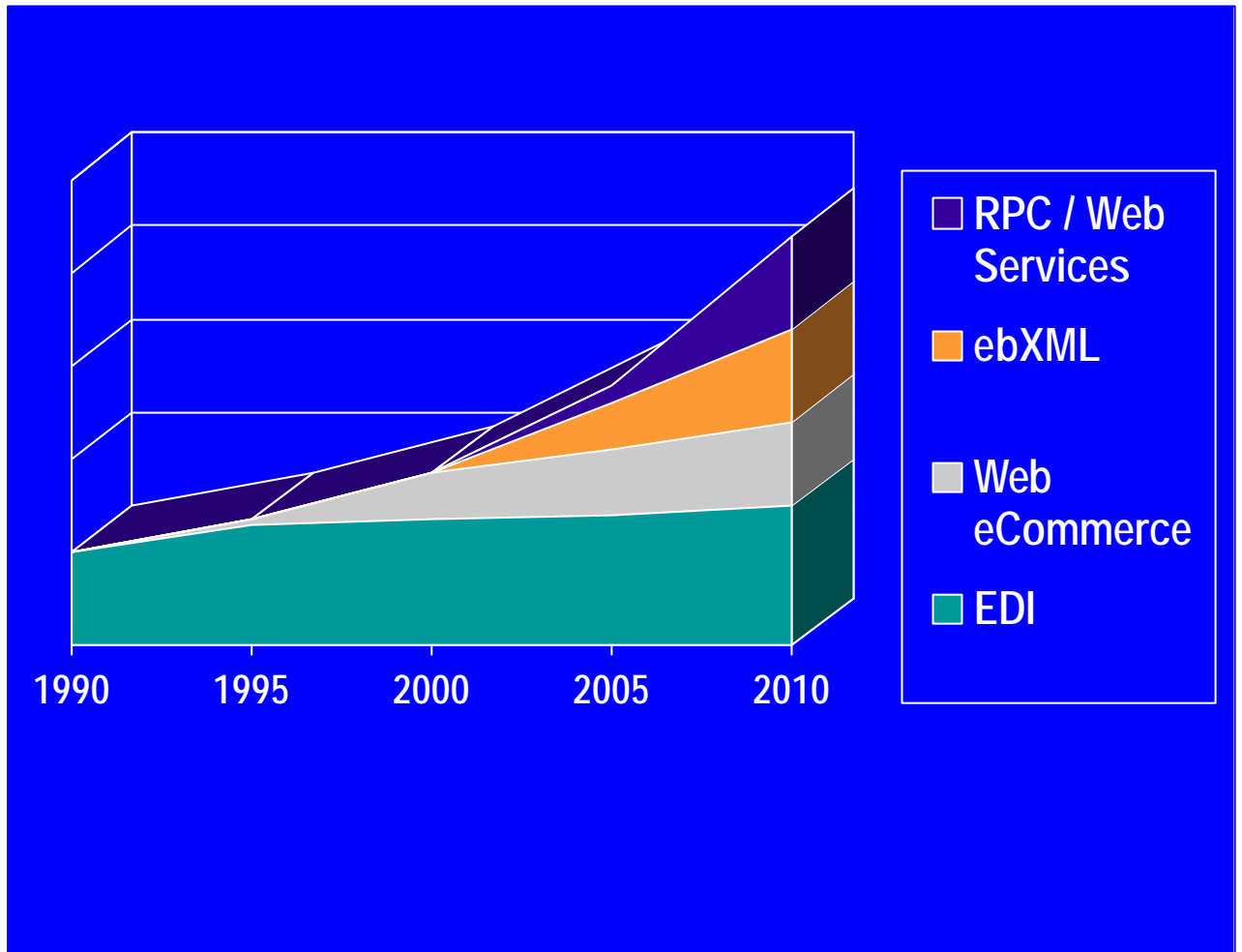


Figure 1 – eBusiness Technology Growth Through 2010²

² Source: OASIS

ebXML Adoption

To help see the complete picture we have organized the work on ebXML into three sections, North America, Europe and Asia-Pacific, and two categories arranged by Commercial and Government work. We have also tallied the industry groups who have endorsed ebXML as their approach, and then we have tabulated available vendor products from almost thirty companies worldwide, from the worlds' largest software companies through to small industry solution providers.

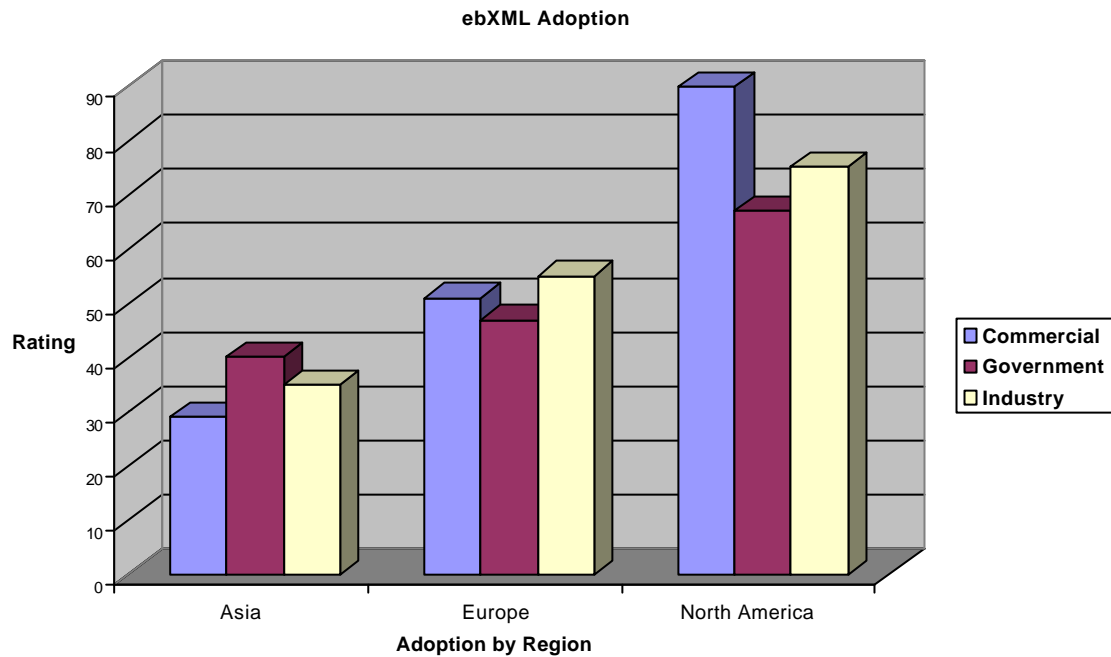


Figure 1 Comparison of ebXML adoption by region, number / size / scope of projects

Note: The graph X-axis is a composite scale based on assigning a factor out of 10 to each ebXML project; each industry adopting ebXML is assigned a score of 5. The totals then reflect the relative activity by region and category. The Rating reflects the composite scale or cumulative rating by region and functional area.

The information is compiled through February 2003. We plan to update this document on quarterly basis. This chart is intended for illustrative purposes only, as a way to show graphically the relative amount of activity.



North America

North America was primarily responsible for bringing EDI into fruition and its use of that technology still exceeds that of any other region. Though the amount of interest in ebXML outside North America is substantial, key industry sectors in which the US is dominant worldwide are once again leading with ebXML (as they did with EDI). This can be expected to influence those sectors particularly.

In addition much collaborative work is developing in North America where the web service aspects of ebXML are being purposed alongside the traditional deployment models. These new patterns of use where ebXML is extending those older systems and creating solutions that had previously proved intractable with EDI is a trend expected to accelerate through 2003 as the underlying ebXML based technologies continue to mature.

Commercial

Key North American industry groups that have committed to utilizing ebXML with their existing vocabularies and standards include: OAG, AIAG, UCC/RosettaNet, GCI, DISA/X12, OTA, AIAG, Covisint, UIG, SWIFT, PIDX, and papi-Net.

The projects listed here³ are presented in order of those with most anticipated business scope and impact first, followed by those that are more technology development orientated second.

Projects:

Title / Sponsor	ebXML use ⁴	Summary	Technical	Schedule	Contact(s)	Link(s)
General Motors, AIAG	ebMS, CPPA, BPSS, Registry	New business system for Used Vehicles Purchasing. This effort is progressing into other supply chain processes within GM and with their suppliers.	details	Pilot done; additional efforts planned in 2003.	Sally Fuger, AIAG.	http://www.aiag.org
Electric Reliability Council of Texas, Inc (ERCOT)	ebMS	ERCOT replaced File Transfer Protocol (FTP) solution with ebMS. The software passed ERCOT certification testing and is in production (more).	details	Full production end of 2002.	Dick Brooks, Systrends Inc.	http://www.ercot.com/Participants/FTPReplacement/index.htm
UCC / ebXML Messaging Certification	ebMS	Sponsored by the UCC, this interoperability test uses the Drummond Group interoperability test and trademarked processes. The test will use ebMS v 2.0. (more)	Details	About 11 entities (14 products) successfully completed tests and eBusiness Ready launched in February 2003.	Beth Morrow, DGI.	http://www.ebusinessready.org/
Standards for Technology and Automotive Retail (STAR)	ebMS, BPSS, CPPA	Involves an implementation using ebMS 2.0 and is ongoing through efforts of OAGI, XMLGlobal, National Automobile Dealers Association (NADA) and many other automotive industry leaders.	details	Pilot completed; production readiness ongoing	Bryan Baker, XML Global, and Tony Blazej, Open Applications Group.	http://www.starstandards.org/ and http://openapplications.org

³ The list is representative, and is not intended to be exhaustive. New initiatives are added as the marketing team is updated on the specific details. To date over 50 projects have been identified.

⁴ For acronym descriptions see the Acronym section at the end of document

Title / Sponsor	ebXML use ⁵	Summary	Technical	Schedule	Contact(s)	Link(s)
TransCanada Pipelines	ebMS	In a partnership between Sun, their customer TransCanada Pipelines, and an integrator, the team for the Cortex Project is using a JAXM, the Sun ONE Message Queue to integrate ebXML and Web Services. (more)	details		Peter Kacandes, Sun Microsystems, Inc.	http://www.sun.com/software/sunone/wp-cortex.pdf
Open Applications Group	Core Components	Identifying and defining CC as it relates to the OAG Business Object Documents (BODs).	details	First quarter 2003 deliverables mapped with inputs to next release of OAGIS 8.x.	Team lead: Garret Minakawa, Oracle	<a href="http://groups.yahoo.com/group/oag-general<sup>5</sup">http://groups.yahoo.com/group/oag-general⁵
Boeing projects	ebMS - CPPA - BPSS – Registry planning	Broad scoped phased effort that concentrates on the complexity of Boeing (and AIA) processes. This effort is investigative around standards such as OAG, ebXML, UBL, AIA, ATA, etc.	details		Sally Chan, The Boeing Company	
DISA Registry/Repository (DISA DRIVE)	Registry - CPPA	ebXML Registry demonstration project for XML standards developed by DISA partners.	details	Site is live, with testing / updates ongoing.	Alan Kotok, DISA.org	http://www.disa.org/DRIVE
WEDI/SNIP	CPPA - ebMS	Work Group for Electronic Data Interchange (WEDI) TM /Strategic National Implementation Process (SNIP) is working to support the automated discovery of health care partners for compliance with the Health Insurance Portability and Accountability Act (HIPAA).	Engaged in the development of an Electronic Trading Partner Agreement (eTPA) based on CPPA.		William Kammerer	http://www.wedi.org/

⁵ Requires login to the group.

Title / Sponsor	ebXML use ⁶	Summary	Technical	Schedule	Contact(s)	Link(s)
papi-Net Consortium	Registry - ebMS	The papiNet Consortium, the organization developing business data exchange specifications for the paper industry, to the industry groups announced support for ebXML. Its enveloping specifications explicitly endorse use of version 2.0c of the ebXML Message Service specifications.	papiNet payload in an ebXML message envelope using SOAP.		Arthur Colman, Technical Lead ⁶	http://www.papinet.org/Guide_V1.0/toc.asp
Open Source ebXML Registry RI	Registry	This open source project is developing a reference implementation. The project at Source Forge is developing a client user interface. The client software, currently in alpha release, provides a user interface (UI) for graphically visualizing registry content.	Java based implementation libraries		Farrukh Najmi, Project Manager, Sun Microsystems, Inc.	http://ebxmlrr.sourceforge.net/
Covisint	ebMS	The automotive exchange has committed to implement the ebMS using the OAG BODs for business content in lieu of development of automotive industry XML standards.	details			Covisint.org
SABRE	ebMS - CPPA – BPSS – Registry	In a proof of concept, built a reusable infrastructure using open standards, including ebXML and SAML.	details		Dan Malks, Sun Microsystems	

⁶ colman@drybridge.com

Government



Governments in North America have been in the vanguard of developing the systems to support eGov and government for the citizen. This is reflected in activities supporting and adopting ebXML.

The projects listed here are presented in order of those with most anticipated business scope and impact within the government sector first, followed by those that are more technology development orientated second

Projects:

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
US Center for Disease Control (CDC)	ebMS	Using ebXML Messaging for transporting public health surveillance data. CDC is integrating and testing the messaging layer across various public health partners and the CDC.	Custom version of ebMS developed for project use.	Developed ebMS software, going to initial production in 2003.	Dr. Barry Rhodes	www.cdc.gov/cic/functions-specs/function_1.htm
OAG /NIST- ebXML Test Bed	ebMS, BPSS, CPPA, IIC	Conducting collaborative interoperability, limited scope demonstrations relevant to OAG membership such as automotive, aerospace and supply chain related efforts, with tool and engineering assistance from NIST.	details	Initial test-bed is deployed and work is ongoing on extending content and functionality	Nenad Ivezic, NIST.gov	http://www.oagi.net/QuickPlace/b2bttestbed/ (Login required)
OAG / NIST - ebXML Test Bed Registry	Registry	Provide a semantic registry of industry vocabularies, ebXML artefacts and validation of ebXML registry specifications; registry for support of OAG/NIST test-bed work	details		Tom Rhodes, NIST	http://www.NIST.gov
Canadian project using ebMS and BizTalk	Registry, ebMS	Canadian project was built to a smaller subset of the ebXML MHS to specifically make calls to an ebXML v 2.0 registry system.	Using ebXML to provide open bridge between proprietary systems.	Completed, April 2002. Evaluation of future efforts is pending.	Gerrie Abrahamson, PWGSC	http://www.stockquotes.com/integrator/newsrelease.asp?news=27187&ticker=XMLG&lang=EN
PWGSC Canada	Registry	Involves EDI transformation using ebXML approach via registry services.	Demonstrate ebXML technology able to process high-volume production data.	Funded, with initial phase of work commencing	David Webber, XML Global.	

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
XML in Ontario	Registry, ebMS; BPSS	During 2001, Corporate Architecture Branch (CAB) researched and investigated XML technology to understand how to position to the benefit of G2G within the Ontario Public Service (OPS). A vision and an architecture framework were developed for future XML OPS applications. Phase I effort resulted in recommendation that ebXML be the e_government framework for OPS.	ebXML was selected as the eGovernment framework for OPS.	Phase 2 scheduled to complete in March 2003.	Zheng (Jane) Liang, OPS, Corporate Architecture Branch	
Health Care Industry and NIST (SAGE)	Registry	Develop a standardized shareable set of clinical guidelines using common vocabularies.	Develop a guideline registry that is web-enabled, to facilitate a SAGE.	Identify metadata for guidelines and how it is mapped to RIM.	Dick Beard, IDX; Tony Weida, Apelon	
Health Care Industry and NIST (HL7)	Registry	Investigate the viability of using the ebXML Registry for HL7 artifacts.	V3 Templates and V2 Conformance Profiles	Prototype registry online for user registration in January 2003	John Silva, Philips	http://groups.yahoo.com/group/HL7-Conformance/files/
Health Care, Center for Disease Control	Registry	Coordination planned for testing registry capabilities with other federal agencies.				
Dealersphere	ebMS	Enables car dealerships to hook into a central integration engine by way of a small system that plugs into the dealers' Local Area Network (LAN).	Details	Deployed in February 2002.		

Europe



The eBusiness landscape in Europe is defined today by the use of the UN/CEFACT EDIFACT messaging and other legacy standards. As such Europe has always considered EDIFACT messaging support as vital to ebXML. Europe has also sponsored a significant amount of the development work of ebXML, and is now the center of the continuing CEFACT eBusiness technical architecture based work.

The European Union has also recognized the vital role that ebXML can play in standardizing interchanges between member countries and as such is aggressively promoting a number of initiatives. Allied with this has been the early work of the European eBusiness standards bodies themselves in facilitating pilot projects to demonstrate using EDIFACT payloads with ebXML components.

Several commercial initiatives are underway specifically for applications within Europe. There is also significant commercial cooperation and adoption of XML based specifications between North America and Europe, examples include SWIFT intra-banking, OTA travel specifications, and UCC and EAN all of whom are also embracing ebXML technologies.

Commercial

Significant European electronic business standards groups and associations that have committed to utilizing ebXML with their existing vocabularies and standards include: EAN International, CEN / EBES, The e-Centre and SWIFT.⁷

Projects

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
European Steel 24-7 Marketplace	ebMS	Steel 24-7, the European steel marketplace owned by three of the world's largest steel companies, Arcelor, Corus and Thyssen-Krupp, is using ebMS as the preferred transport protocol to communicate with Steel buyers and sellers for the exchange of EUROFER EDIFACT and ESIDEL XML messages.	Details	Upgrading to ebMS V2.0 and using for eBES interoperability pilot.	Anders Tholén, Ferrologic.com	http://www.steel24-7.com
EAN International	ebMS, BPSS, CCSD.	Is actively assisting in the development of a deployment guide for the use of ebXML Messaging Service within the framework of the EAN.UCC XML System including BPSS, CPPA, Core Components, and CCSD. Conducting an example on development of CC and BIE within CCSD (aggregates). EAN International has developed a process suite called 'Simpl-eb', in July 2001.	details	Development in progress	Frederico Franciosi, EAN International.	lists.oasis-open.org/archives/announce/200009/msg00009.html

⁷ EAN International is based in Europe, and is now present in 97 countries worldwide, encompassing Europe, Latin America, Africa, Asia and Australia. This reference is categorized for ease of understanding, yet the breadth of EAN International spans across several continents.

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
European Transmission System Operators (ETSO)	CCSD	As a European organization of electric power transmission operators, the ETSO is building a data dictionary that supports ebXML Core Components, the feature that provides semantic interoperability.	details	Development in progress	Erik Hartwell, Convenor of ETSO Task Force 14, erik.hartwell@etra.dk	http://www.edi.etso-net.org/role-model-cc-eic/core-components.pdf
European ebXML Interoperability Pilot	ebMS - simple CPPA - simple IIC - some BPSS	This group of 10 or more participants is defining interoperability tests for rollout in mid-2003 for demonstrating ebMS interoperability from core to extended or advanced functions. They have also developed a draft plan for a test for a real-world business scenario being developed by one of its sub-teams.	Sponsored by OASIS and CEN-ISSS (eBES)		Pim Van der Eijk from OASIS (their European Consultant)	http://www.cenorm.be/iss/Workshop/eBES/WorkingArea/Vendors%20Forum/Pilot_Project/default.htm
ANZA Electronic Exchange, Iceland	ebMS with EDIFACT transactions soon-Registry, CPPA, UBL	Iceland secretary of Industry and Trade, Valgerdur Sverrisdottir, opened the SARIS conference on e-Business on April 17, 2002. One of the main focus areas at this conference is the rapid emergence of business messaging using the UN specified ebXML framework. Efforts have continued to progress to date.	details	In production	Rúnar Júlíusson	http://www.dimonsoftware.com http://www.seis.se/pdfer/sem7nov/ebXML%20projects%20in%20Iceland.pdf
Bayerische Landesbank	ebMS	This large German bank has implemented ebMS to comply with German and Euro banking regulations. Their goals were to enable a virtual, real-time automated calculation of market and borrower default risk.				

Government / EU

Governments in Europe and the European Union (EU) itself have been tracking and supporting the ebXML development. Now significant programs are being funded and the following table shows the scope of these efforts today.

The projects listed here are presented in order of those with most anticipated business scope and impact within the government sector first, followed by those that are more technology development orientated second.

Projects

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
Single European Electronic Market (SEEM) ⁸ , IST: ADAPT	All aspects	Using ebXML as a baseline focused on SME using XML representations.	Study			
Single European Electronic Market (SEEM) - Netherland's OpenXchange	ebMS - CPPA - BPSS	The full OpenXchange runtime engine and associated components automatically use the CPPA and include a transaction manager for BPSS.	details	Collaborative government and private industry project for 2003	Fred vanBlommestein, Berenschot.com	
SEEM: eBip	BPSS, and ebMS	Tile marketplace is part of Cluster for Electronic Commerce in Europe C-ECOM.	Start ebXML-conform marketplace interface and BPSS for the tile industry.			
SEEM: OPUS	Registry	Provide capability to maintain a unified Pan-European registry of healthcare related products using ebXML. ⁹	Joint effort between Greece, Italy and Belgium		Geert Thienpont ¹⁰	http://opus.pouliadis.gr

⁸ Short update brief related to SEEM was given in Brussels in December 2002: <http://isg.uninova.pt/pub.ideas/bscw.cgi/d31920/02%20Laso%20SEEM.ppt>.

⁹ OPUS is doing a study (Research and Development Project) for e-Procurement in the Healthcare sector, called OPUS or Optimal Public Procurement in the Healthcare Marketplace. Their goals include:

- Create an efficient e-procurement mechanism that enables hospitals and pharmaceutical suppliers to electronically exchange contractual information, aided by the technologies of optimisation and business rules.
- Provide a mediation service provider who will grasp the market opportunity, as this is triggered by the consumer's request, offer the participants the ability to dynamically constellate with other medical suppliers, and promote collective competition among the constellations. Appropriate settlement modules will address the necessary contractual and/or value sharing arrangements spontaneously or dynamically.
- Develop modules, entailing the various business perspectives, policies and market rules that will resolve any apparent conflict. The dynamic pricing module will dismantle the generated product and disseminate the value among the implicated partners.

¹⁰ geert.thienpont@ramit.be

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
SEEM: REGNET	Study	REGNET aims to set up a Network of Cultural Service Centres through Europe that will provide IT-services dedicated to cultural heritage organisations (e.g. Museums, Library, art galleries, etc.).	Includes 10 countries and 25 partners.		Jean-Pierre Lorre, Valtech Toulouse	
SEEM: SCOOP	Planning	A system that supports cooperative planning in worldwide manufacturing and service networks, implemented for textile/garment and printing industries.				
Tambag's METU-CENG ebXML Registry/Repository	Registry ebMS BPSS CPPA	A student implementation based on the RS and RIM that expanded to include several ebXML components. The effort called ebIOP runs on Linux. METU-SRDC is currently working on an automated generation of a CPA from two CPPs; as well as using RosettaNet PIPs as ebXML BPSS. They have expanded their efforts to include storing DAM-S service ontologies into an ebXML classification hierarchy.	Download is available on the site.	In 2002, released update	Yusuf Tambag, ceng.metu.edu.tr ¹¹	www.ceng.metu.edu.tr/~e102830/ebXML/
Software Research and Development Center (SRDC) - Middle East Technical University (METU), Ankara, Turkey	ebMS		details		Asuman Dogac ¹²	http://www.srdc.metu.edu.tr/ebXMLProject/
Speech Act Theory	BPSS UMM	Uses the constructs from business collaborations defined in the UMM and expresses them in Speech Act Theory.		Presented at the TMG of UN/CEFACT in December 2002.	Anders Tell, Toolsmiths.se	http://www.openebxml.org/methodology/SAT/sat.html
Open ebXML Laboratory	Registry, ebMS and CPPA at a minimum	This open source implementation supports the primary architectural components and an ebXML GUI workbench.	details		Anders Tell, Toolsmiths.se	www.openebxml.org

¹¹ e102830@ceng.metu.edu.tr

¹² asuman@srdc.metu.edu.tr

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
Ministry of Finance, Finland	CC, Registry	They are working with a project which aims to bring 700 government forms into a public ebXML registry.	details		Jouko Salonen, jouko.salonen@republi.ca.fi	
European Interchange of Data between Administrators (IDA)	Registry	Metadata Management System Project is implementing a system for managing metadata about information resources, documents and services.	Details	TBD	Peter Burgess	http://europa.eu.int/ISPO/ida
eCentre United Kingdom CC Implementation	CC	Working on a CC implementation, where business trials are set to start this month (February 2003).	Compliant with v.1.8 specification but working toward current release	In February 2003 business trials set to begin.	James Whittle, eCentre	

Asia-Pacific



This region has always had special needs that traditional ASCII based EDI transactions struggled to fulfil. Therefore Asia has been one of the early adopters of XML based technologies to solve the challenges of their business needs.

This has been particularly true of government-sponsored research through the NTT in Japan, and this has led to adoption projects in Korea, China, Taiwan and Australia with XML as the region works to develop coherent commerce components.

Commercial

Traditionally the region has followed key North American industry groups who are major customers of products from the region, and particularly the automotive and electronics industries.

The RosettaNet initiative within the electronics industry has been a focus for the region, and that standard work is now being continued under UCC. Therefore the UCC is taking prior RosettaNet work and may in the future migrate to the equivalent ebXML technologies. Thus ebXML requirements are coming to the fore across Asia as the following commercial project details show.

Characteristically government work is matching commercial work within Asia as local governments look to assist their own industries gain advantage with ebXML technologies. Australia has a long history of promoting EDI and specifically UN/EDIFACT based systems for their export markets and this is being reflected in Australian initiatives around ebXML.

Projects

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
VENCorp - Victorian Energy Networks Corporation	ebMS	VENCorp have just gone live with an industry wide B2B implementation using the ebXML messaging infrastructure, carrying an aseXML document as the payload. The aseXML is the Australian energy industries data description language.	details	In production handling up to 100,000 transactions daily.	Neil Belford Architect, FRC B2B System VENCorp	http://www.vencorp.com.au
Australian Distributed ebXML Grid	References: ebMS, Registry, BPSS, CCSD, and peer architecture.	Through Tradegate ECA and GTD Technologies Pty Limited, this project is loosely based on existing ebXML work such as BPSS, UDDI, Core Components, Message Handling services and also a significant influence from X.500/LDAP. The project uses a distributed computer grid for dialup, broadband and wireless connections.	Combining ebXML with a peer-to-peer environment	A first demonstration was made on 20 August 2002.	David Lyon, Australia.	
Korea Trade Network (KTNET)	Registry, ebMS and CPPA	Provides an ebXML Registry service to support eTrade in Korea. The registry will serve the GXMLHub project and in Pan-Asia.	details	First phase online	Ho-beom Jang, Application Team Manager, 82-2-6000-2745	www.GXMLHub.com/english/index.html
Japanese Kasumi Project and Electronic Commerce Promotion Council of Japan (ECOM)	ebMS - with optional CPPA - IIC	Using ebMS and the BPSS as a basis to develop a next generation EDI system named JEITA-Collaborative EDI (Japanese Electronics and Information Technology Industries Association).	They are developing a set of test cases, plans and framework for interoperability (and coordinating with IIC).	Details December 2002: exchange pre-test DUMP data among organizations (not real-time) January 2003: online test across organizations and borders (1st attempt)	Yukinori Saito, ECOM.com	

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
Kasumi B2B Integration Project (Kasumi Co. Ltd.)	ebMS	Kasumi developed Information share system between Retail and maker.	Details	Kasumi did an actual proof experiment test from Nov. 2002 to Mar. 2003. But the real operation is postponed as of Oct. 2002.	Yukinori Saito Electronic Commerce Promotion Council of Japan (ECOM)	
JEITA Collaborative EDI (Japan Electronics and Information Technology Industries Association)	ebMS V2.0 CPPA V2.0 BPSS V1.05	JEITA is developing next generation standard EDI system in Electronics and Information Technology Industry.	This system covers standardization and processing electronically from Business Process layer to Messaging layer.	Actual Experiment Test Phase 1: from Nov. 2001 to Jan. 2003 Actual Experiment Test Phase 2: from Dec. 2002 to Feb. 2003 Real Operation will be started from April 2003.	Yukinori Saito Electronic Commerce Promotion Council of Japan (ECOM)	

Government

Governments in Asia have traditionally worked closely with their commercial sector. Examples include governments like Singapore and Malaysia who have devoted significant resources to creating digital technology facing economies as their competitive advantage.

The projects listed here are presented in order of those with most anticipated business scope and impact within the government sector first, followed by those that are more technology development orientated second.

Projects

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
Australian National Office of the Information Economy (NOIE)	Registry	Committed to ebXML at their Interoperability and eBusiness summit in April 2002.	.	Request for information for registry and registry authority released in July 2002. This project is in its initial stages.	Victor Pawley, NOIE	www.evision.com.au and www.noie.gov.au
Australian National Office of the Information Economy (NOIE)	SME deployments	Has a committee to define and address capabilities that will support small business use of ebXML, such as integration of ebXML into business applications like Quickbooks.	This first phase is to define the business requirements, and then engage business to work toward solutions. This committee progressing.	Completing contractual items to proceed in January 2003. ¹³	Victor Pawley, NOIE	www.noie.gov.au
Project Phoenix/ Center for eCommerce Infrastructure Development (CECID) at the University of Hong Kong	Registry, CCSD	As a main contributor to the ebXML Registry 2.0 implementation, CECID is the worldwide test site for the registry. CECID has also donated the source code and binary of its ebMS, Hermes, as an open-source project hosted www.freebxml.org .	Details	First deployment completed online	Thomas Lee, cecid.hku.hk	http://www.cecid.hku.hk http://www.freebxml.org http://ebxmlrr.sourceforge.net

¹³ Per Pawley 6 January 2003, Microsoft appears to be willing to support the toolkit project, as many Australian players use their products (such as Quicken).

Title / Sponsor	ebXML use	Summary	Technical	Schedule	Contact(s)	Link(s)
Project Phoenix / Center for e-Commerce Infrastructure Development (CECID) at the University of Hong Kong	ebMS	SME deployments Developing countries deployments Under the auspices of its Project Phoenix, CECID has developed ebMail, a lightweight application with an e-mail interface, for business document exchange.	Detail Pilot project with the Department of Health	Pilot project continues this 2003 quarter.		
Distributed Systems Technology Centre (DSTC)	Architecture	The Elemental Project seeks to extend the ebXML meta-model (research of enterprise modeling languages and methodologies).	Details		Dr Zoran Milosevic dstc.edu.au	http://www.dstc.edu.au/Research/elemental-ov.html
Korean Institute for Electronic Commerce (KIEC) KIEC Reg/Rep is now REMKO	Registry CPPA Architecture	Headed by Jasmine Jang, the team has developed a flexible architecture to support a distributed national and other information registries. KIEC has 116 online vendors (http://www.ecom.or.jp/ecom_e/latest/ecomjournal_no4/ecomjournal_e04.pdf).	details	In early 2003, will add more than 60 XML/EDI messages for cross-industry use in REMKO (components and business process libraries).	Jasmine Jang, REMKO	Lists.oasis-open.org/archives/ebxml-cppa/200205/ppt00002.ppt Update pending
Taiwan ebXML Registry and Repository (XR2)		The NII Enterprise Promotion Association's portal supports the Taiwanese XML community. This is an ebXML registry based on RIM 1.0. The Department of Industrial Technology, Ministry of Economic Affairs supports this effort in Taiwan.				
FreebXML	Open-source project	The Steering Committee of freebXML announced the launch of a new initiative that aims to foster the development and adoption of ebXML and related technologies. Pronounced as "Free b X M L" freebXML is an international effort comprising of founding members from technology firms, government organizations, standardization bodies, and academic institutions.	details	Website launched and two source code projects are available (more)	Thomas Lee, cecid.hku.hk	http://www.freebxml.org/



ebXML Registry Repository Update

To educate and communicate the community on the adoption and deployment of ebXML, presentations are being made on an ongoing basis. In this section, we provide a more detailed outline of Registry/Repository implementations. This implementation update was explained at the recent Open Forum for Metadata Registries in Sante Fe, New Mexico (January 2003).

Table 1 – Registry/Repository Implementations (1 of 4)



<u>Project / Standards</u>	<u>Stakeholders</u>	<u>Progress</u>	<u>Plans</u>
<p>US Government and Health Care – HL7</p>  <p>ebRS and ebRIM 2.1</p>	<p>HL7 NIST Sun Microsystems</p>	<p>For HDF effort, study how to use Reg/Rep to store V2 Conformance Profiles and V3 Templates.</p> <p>Experimental Reg/Rep online</p>	<p>Study HL7 processes and artifacts to understand how to effectively use the ebXML Reg/Rep – metadata, storage, query, retrieval and process integration. In future - MWB Interface and registry host.</p>
<p>Health Care – Institutions, Providers - Advanced Technology Program</p>  <p>ebRS and ebRIM 2.1</p>	<p>NIST Apelon, Inc. Mayo Clinic IDX Univ. of NE Univ. of Utah Intermountain Health Care Stanford Medical Informatics</p>	<p>Continue to define standardized shareable clinical guidelines using common vocabularies.</p>	<p>Identify metadata for guidelines and how it is mapped to RIM.</p> <p>Develop a guideline registry, that is web-enabled, to facilitate SAGE.</p>

Table 2 - Registry/Repository Implementations (2 of 4)





<u>Project / Standards</u>	<u>Stakeholders</u>	<u>Progress</u>	<u>Plans</u>
<p>Pacific Rim - KIEC Reg/Rep now REMKO</p>   <p>ebRS and ebRIM 2.0</p>	<p>KIEC Iron and Steel (KISA) Other industry players</p>	<p>Completed v.1.0 and first development stage.</p> <p>**Ten Pacific Rim countries plan to implement ebXML by 2005.**</p>	<p>Continue effort with Iron and Steel industry to support their National Central Registry and Repository.</p> <p>Upgrade v3.0 planned. Interconnect NCRR, and Iron and Steel.</p>
<p>Pacific Rim - KTNET</p>   <p>ebRS and ebRIM 2.1</p>	<p>KTNET (XENI-Global Business Registry, GXML Hub-messaging center)</p> <p>Pan-Asia Alliance (PAA) POSData Innodigital</p>	<p>Launched the XENI RegRep in November 2002, which hosts XML schema, CPP and EDI libraries.</p>	<p>Have plans to participate and/or collaborate with ebXML IIC in test arena.</p> <p>Will promote BPMS Engine adoption.</p>

Table 3 - Registry/Repository Implementations (3 of 4)






<u>Project / Standards</u>	<u>Stakeholders</u>	<u>Progress</u>	<u>Plans</u>
<p>DISA - Finance, Mortgage Banking, Standards, Travel, Grocery, etc.</p> <p>ebRS and ebRIM 2.0 Registry only</p> 	<p>DISA ASC X12 IFX MISMO OTA XML Global</p>	<p>Created registry with MISMO, IFX using NAICS, UN/SPSC.</p> <p>Tests involve CPP and SOAP messaging.</p>	<p>Add new testing features.</p> <p>Add more classifications and objects – registering objects in a more granular manner.</p>
<p>General Motors – Automotive</p> <p>Software Factory Enabler Project</p>  <p>ebRS and ebRIM 2.0</p>	<p>General Motors Suppliers OAG Inc. AIAG / STAR Sun Microsystems Sybase New Era Networks BEA IBM</p>	<p>SOA – ebXML/ Web Services Demo/Pilot in September 2002</p> <p>Reg/Rep as the B2B Document Mgmt System; ebxmlrr used.</p>	<p>Q4 2002 and into 2003: Formalize use of ebXML Reg/Rep and other non-ebXML elements.</p> <p>Standardize SOA products/processes for integration guidelines.</p> <p>Mentor ebXML and Web Service projects.</p>

Table 4 - Registry/Repository Implementations (4 of 4)

<u>Project/Standards</u>	<u>Stakeholders</u>	<u>Progress</u>	<u>Plans</u>
<p>Government of Australia</p>  <p>Standards Australia ebRS/RIM 3.0 planned</p>	<p>NOIE backed by Government of Australia Standards Australia Multiple, cross-industry stakeholders</p>	<p>Completed analysis. Pilot ongoing. Decisions almost complete to move forward with later phases.</p>	<p>Phase 1: Distributed registry. Phase 2: Multiple ebXML specs – BPSS, CPPA, Reg/Rep. Implementation and deployment anticipated soon, after finalization of contractual agreements.</p>
<p>Government of Canada E-Forms Domain Architecture</p>  <p>Government of Canada</p> <p>XML in Ontario</p>  <p>EDAT: 1.0; XiO: 3.0</p>	<p>EDAT: Ottawa and Vancouver XMLGlobal Sun Microsystems</p> <p>XiO: In Ontario - Transportation, health and economic agencies</p>	<p>EDAT: In 2002, integrated MS BizTalk environment with a Registry and ebXML adapter. XiO: Phase 2 – Evaluate tools. Committed to ebXML.</p>	<p>EDAT: Using current version, until funding allows next steps. XiO: Complete evaluation; implement prototype by March 2003; work with government ministries/agencies to enable ebXML solution (plan Reg/Rep 3.0).</p>

Commercial ebXML Products

The table here provides details of commercially available products and services from vendors that support the ebXML specifications¹⁴. These are categorized under broad groupings that reflect the marketplace the products are targeted at. Links are provided to the individual vendors websites.

Table 1. Available Commercial ebXML Products and Services

Company	Category	ebXML	Website
BEA	eBusiness integration	ebMS, BPSS	http://edocs.bea.com/wli/docs70/ebxml/
Bind Systems	Modeling / BPM	BPSS, CPPA, UMM	http://www.bindsys.com
BitDeamons Ltd	Messaging	ebMS	http://www.bitdaemons.com
Briyante	Messaging	ebMS	http://www.briyante.com
bTrade	eBusiness Services	ebMS	http://www.btrade.com
Component-X	Java Components	ebMS	http://www.enterprise-component.com
Cyclone Commerce	eBusiness integration	ebMS	http://www.cyclonecommerce.com
Data Access Technologies	eBusiness integration	ebMS, BPSS	www.enterprise-component.com
Dealersphere	Automotive industry	ebMS	http://www.sun.com
Dimon Software	Messaging	ebMS	http://www.dimonsoftware.com
Drake Certivo	Education services, CertificationTest solution suite	ebXML teaching and training	http://www.certivo.net
Drummond Group	Certification	ebXML compliance	http://www.drummondgroup.com/
ebXMLsoft	eBusiness Integration	Registry	http://www.ebxmlsoft.com
eXcelon Corporation	BPM	ebMS, BPSS	http://www.exln.com/products/bpm

¹⁴ This list is assembled from currently available products that have been commercially announced, from OASIS member companies, and from media sources. It is intended to be illustrative only; companies are listed in alphabetic order by company name. Listing here is not any certification or endorsement of the companies or products themselves.

Company	Category	ebXML	Website
Fujitsu Limited	Application Server	ebMS, CPPA, BPSS	http://interstage.fujitsu.com
HanMaek IT	Messaging	ebMS	http://rnd.hmit.co.kr/ebMS/
InnoDigital Co., Ltd	EBusiness integration	ebMS, BPSS, CPPA, Registry	http://www.innodigital.co.kr/ebxml/ebxml_main.html .
IONA	eBusiness integration	ebMS	http://www.iona.com
IPNet Solutions Inc.	eBusiness Services	ebMS	http://www.ipnetsolutions.com
iWay Software	eBusiness integration	ebMS, BPSS	http://www.iwaysoftware.com
Killdara Corp	Messaging	ebMS	http://killdara.com/products/vitiris.htm
Kinzan	Messaging	EbMS	http://www.kinzan.com
Mega Software	eBusiness Integration	ebMS, BPSS	www.mega.com
Mercator	eBusiness integration	ebMS	http://www.mercator.com
Oracle	Application Server	ebMS	http://otn.oracle.com/products/ias/9ias_twp.pdf
Samsung, SDS, Korea	EBusiness integration	ebMS; CPPA	http://www.sds.samsung.com/index.jsp www.bizentro.com
SeeBeyond	eBusiness integration	ebMS	http://www.seebeyond.com
Sterling Commerce	eBusiness services	ebMS	http://sterlingcommerce.com
Storefront.COM	EBusiness integration	Unknown	www.storefront .com ¹⁵
Sun Microsystems	Network computing	ebMS, Registry (JAXR)	http://www.sun.com
Sybase Inc	eBusiness integration	ebMS, BPSS, CPPA	http://www.sybase.com
TIBCO Software Inc	eBusiness integration	ebMS	http://www.TIBCO.com/products/exchange.html

¹⁵ Working on a PHP implementation (PHP is an HTML-embedded scripting language) – actual components unknown (Murray Macdonald).

Company	Category	ebXML	Website
Vitria	eBusiness integration	ebMS	http://www.vitria.com/products/standards/?st=ebxml
WebMethods	eBusiness integration	ebMS	http://www.webmethods.com
XENI	eBusiness integration	Registry	http://xeni.co.kr
XML Global Technologies	eBusiness integration	ebMS, BPSS, CPPA, Registry	http://www.XMLGlobal.com
Zenaptix	BPM	BPSS, ebMS	http://zenaptix.com

Common ebXML Acronyms

Like any technology sector ebXML has its own set of terms and usage. The following table serves as a guide.

Term	Description
ebMS	ebXML Messaging Services – component that implements the messaging interchange specifications.
CPP	Collaboration Protocol Profile – used with messaging services to configure access to an ebMS system.
CPPA	Collaboration Protocol Profile and Agreement; OASIS TC (technical committee) defining standards for business agreements for interchanges. http://www.oasis-open.org/committees/ebxml-cppa/
CCSD	Core Component Supplemental Documents
BPSS	Business Process Specification Schema; defines a business process in achieve a physical business interchange between parties
Registry	An ebXML Registry component conforming to the OASIS ebXML Registry specifications.
IIC	Implementation, Interoperability and Conformance; OASIS TC (technical committee) defining test suites for ebMS components.
Core Component	Conceptual term for nouns and collections of nouns (BIEs – business information entities) that represent primitive business units of information.
SME	Small to Medium Enterprise; US Government term for a small business (under 500 employees).
ebXML	Electronic Business XML

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