

RESTRICTED
TRADE/CEFACT/2000/CRP.1
3 March 2000

**REPORT ON THE PROGRESS
OF THE ebXML INITIATIVE**

SOURCE: The Standards Liaison Rapporteur and the Chair of the CSG

ACTION: For noting and approval by the 6th UN/CEFACT session
Agenda Item 4

REPORT ON THE PROGRESS OF THE ebXML INITIATIVE

Introduction

1. In September 1999 Heads of Delegation received an electronic briefing on the background behind the announcement of the joint initiative with the Organisation for the Advancement of Structured Information Standards (OASIS) on Electronic Business XML (ebXML); Document TRADE/CEFACT/2000/2 also summarises, under new work items, the CSG actions that led to the initiative. To supplement the briefing and the summary, this report outlines the results of the first two meetings which were held in San Jose, California, USA, from 15 to 17 of November 1999 and Orlando, Florida, USA, from 31 January to 4 February 2000.
2. The joint initiative has received a high level of interest from all sides of the Electronic Business sector. The technical and international press have also heavily featured the initiative and there have been favourable articles in The Financial Times and the Washington Post. The other meetings of the project this year are 8-12 May in Brussels, Belgium, 7-11 August in the USA (location to be advised) and 6-11 November in Tokyo, Japan.

The objectives of the initiative

3. **Electronic Business XML (ebXML)** is an International Initiative established by UN/CEFACT and OASIS with a mandate to undertake a 15-18 month program of work.
4. The purpose of ebXML initiative is to research and identify the technical basis upon which the global implementation of XML (Extensible Markup Language) can be standardized. The goal is to provide an open technical framework to enable XML to be utilized in a consistent and uniform manner for the exchange of Electronic Business data in application to application, application to person and person to application environments.
5. The scope of ebXML initiative is to develop and publish, in the public domain, relevant and open technical specifications in support of domestic and international EB exchanges.

The San Jose meeting

6. Some 150 experts attended the first meeting of the Initiative from Asia, Europe and North and South America. The attendees were experts with either EDI or XML backgrounds distributed broadly equally. The first task was to establish common ground between these two groups of experts and much of the meeting was taken up

with presentations expressing the different views and allowing open unhindered and unlimited exchange. The discussions were very civilized with both sides learning from each other. A key point in the meeting was the commitment of major industry players to adopt the outcome of the initiative if it is delivered within the project time-span of 15 to 18 months. Another important point was the general view that the best way to capture 25 years of EDI knowledge (semantics) was in UML based business information models that could be stored using XMI in an ebXML repository. The meeting also adopted its Terms of Reference (see annex A) and organisational structure and established 8 project teams, each with a project leader and an editor.

7. The organisational structure consists of:

- An executive group made up of 2 representatives from UN/CEFACT (the Standards Liaison Rapporteur, who is also the Chair of the ebXML initiative, and the Chair of the CSG) and 2 representatives of OASIS (the President and the Chief Strategy Officer, who is also the Vice chair of the initiative)
- A Steering Committee made up of the Chair and Vice Chair of the initiative and the project team leaders
- A plenary consisting of all of the experts. (It is the plenary that approves the final specifications.)

8. The 8 working groups are:

- ebXML Requirements
- Business Process Methodology
- Technical Architecture
- Core Components
- Transport/Routing and Packaging
- Registry and Repository
- Technical Coordination & Support
- Marketing, Awareness & Education

9. Most of the project teams started their work before leaving San Jose by beginning to map out their deliverables and agreeing working methods given that considerable work needs to be done electronically between the meetings.

The Orlando meeting

10. Building on the technical work undertaken since the San Jose meeting, the Orlando meeting saw a great deal of progress which is summarised below by project team.

ebXML Requirements Project Team

11. The project team reviewed the first draft of the requirements specification. The outline and organization was simplified to address three major requirements areas:
- Business Requirements (informative)
 - ebXML Requirements (normative)
 - ebXML Organizational and Process Requirements (normative)
12. Issues raised during list server discussions of this draft were resolved and the team will incorporate them into a new revision of the document. The team also arranged for joint meetings with the other project teams.

Business Process Methodology (BPM) Project Team

13. The following items were addressed and completed by the team during the week:
- ebXML BPM Vision
 - ebXML BPM Deliverables
 - Clarified the level at which the ebXML Initiative will create Document Type Definitions (DTDs)
 - Identified ebXML BPM Project Team Liaisons
 - Clarified the Role of the ebXML BPM Project Team within the ebXML Initiative
 - Identified interdependency deliverables for ebXML BPM and other Project Teams
 - Identified issues to be addressed at a later date by the ebXML BPM
 - Definitions for Terms Used in the Description of ebXML BPM Deliverables (Glossary of Terms)
 - Defined ebXML BPM Project Team Milestones and Timetable for Completion of Tasks
 - Refined the ebXML BPM Requirements as they relate to the ebXML Initiative

Technical Architecture Project Team

14. The goals for the ebXML architecture were agreed. They are to:

- Reduce the need for collaborative business partners to have individual and expensive prior agreement on how to integrate business processes
- Provide a direction for the integration of business processes among ad-hoc or established independent business partners by electronic means
- Provide a high-level business-centric view of distributed e-business processes
- Support and represent business processes independent of the technical solution
- Provide and support a library of common, standard intra-business processes
- Allow for both business processes and enabling technologies to evolve independently while retaining long-term investments in both
- Integrate with new and legacy systems throughout the enterprise
- Leverage existing technologies and standards

Core Components Project Team

15. This was the largest project team with a core of about 28 members with a 50/50 distribution between XML and EDI backgrounds. The team also identified representation to, or connection with, approximately 50 industry associations or standards bodies.

16. The objectives for the meeting were to establish a shared common vision within the project team, identify deliverables and determine a work plan and work method for completing deliverables.

17. It was agreed that the best way of going forward was not to re-invent the wheel or duplicate existing work but to develop a new view. The team identified that the key to this is 'Context' and utilizing the rich set of existing/related work.

18. The deliverables identified are:

- Scope
- Project Plan
- Attributes which specify context
- Methodology for Describing Core Components

- Core Component Content
- Reuse and extension methodology

Transport/Routing and Packaging Project Team

19. The team developed its definitions and requirements and started the process of reviewing and selecting standard for the message structure.

20. The agreed objectives are to:

- Enable any party to carry out integrated e-business transactions with any other party anywhere in the world using their hardware and software vendor of choice
- Persuade a wide variety of vendors to implement the approach
- Avoid reinventing the wheel - re-use wherever possible
- Enable existing 'messaging' solutions to 'bridge' to the ebXML solution
- Ensure scalable from SME's to large companies and from low power to high end solutions

21. The deliverables identified were to:

- Provide an envelope and header for routing of message content
- Define template sequences for the exchange of messages
- Adopt security protocols that enable:
 - non repudiation of sending of messages and acknowledgements
 - privacy and integrity of communications between parties
 - authentication of senders of messages
 - control over access to services
- Support verifiable audit trails
- Provide mechanisms for reporting on errors or other problems
- Develop a messaging protocol for reliable message delivery
- Define the information required that describes how to interact with a service
- Develop a default method of usage that enables bootstrapping of services

Registry and Repository Project Team

22. The objective of the team is to define the business and functional requirements for an ebXML registry and repository and the XML-based interfaces required to interact with the registry and repository. The registry and repository will be comprehensive, distributed, business analysis driven, and support the runtime and development viewpoints of the ebXML architecture.
23. The Business requirements for the repository were presented as:
 - Storage of items in their original form
 - Support Services
 - Query; search / retrieval
 - Workflow, e.g., development of process models
 - Quality Assurance; ensure consist process models
 - Transformation; to / from different forms, e.g., XMI
 - Repository Interface Discovery; capabilities of distributed Repositories
 - Logging; transactional events
24. The team completed the following items during the week:
 - Finalized on Business Requirements
 - alignment with OASIS XML.ORG specification/prototype
 - Completed scope statements
 - Identified all (18) use cases for the submission, work-in-progress, and technical specification registry and repository partitions

Technical Coordination & Support Project Team

25. The team did not meet during the week because its Terms of Reference (ToR) were not finalised until the meeting. However, the project team leader and project editor visited all the other project teams in order to identify their work in regard to the ToR.
26. Below are the ToR as approved by the executive committee.

ebXML's Technical Coordination and Support Project Team - ToR

27. Purpose

The purpose of the Technical Coordination and Support Project Team is to coordinate the work among the ebXML's technical project teams in order to identify inconsistency among their deliverables. Other responsibilities include defining ebXML compliance in regard to implementing ebXML deliverables. Further, the Technical Coordination and Support Project Team shall research external work related to the overall ebXML deliverables in regard to their applicability and benefits to the ebXML's work efforts.

28. Scope

To support the mission and objectives of ebXML and its project teams.

29. Key issues

- Possible inconsistency among the various project teams outputs
- In order to ensure that ebXML's deliverables are interoperable when implemented an unambiguous definition what entails ebXML compliance is required.
- External XML efforts in regard to Electronic Business that are not part of ebXML

30. Deliverables

- Analysis of ebXML's project teams deliverables identify possible conflicts and inconsistencies as related to other ebXML deliverables
- Research, by request from other ebXML project teams, internal or external XML related concepts or topics.
- Recommendations to the ebXML executive committee on how external XML efforts can be encouraged to participate in ebXML.
- Definition for ebXML compliance

Marketing & Awareness Project Team

31. The team identified its future deliverables, which are:

- Develop 1-page 'What is ebXML?'
- Create FAQ's
- Develop ebXML Web site content
- Develop ongoing ebXML Press Releases

- Consolidate/report Project Team work
 - Develop standard ebXML speaker presentation(s)
 - Develop ebXML Press Kit
 - Facilitate increasing ebXML membership/participation
 - Create ebXML speaker bureau & supporting material
 - Develop Press Releases
32. The team presented to the plenary the ebXML mission, its value and how ebXML will deliver it. The ebXML mission is:
- *To provide an open XML-based infrastructure enabling the global use of electronic business information in an interoperable, secure and consistent manner by all parties.*
33. As part of the mission, the team delivered the ebXML tag line, which is
- *“Creating a Single Global Electronic Market”*
34. The value propositions are:
- Provides the only globally developed open XML-based Standard built on a rich heritage of electronic business experience
 - Creates a Single Global Electronic Market
 - Enables all parties irrespective of size to engage in Internet-based electronic business
 - Provides for plug and play shrink-wrapped solutions
 - Enables parties to
 - complement and extend current EC/EDI investment
 - expand electronic business to new and existing trading partners
 - Facilitates convergence of current and emerging XML efforts

Conclusion

35. A successful meeting where the energy, commitment and innovation were self-evident as the various working groups focused on the real technical specifications required to meet the objectives of the initiative. It is important to note that the ebXML participants are drawn from many of the very groups that two years ago doubted the future of XML for serious business interchanges. The 125 participants at this meeting were a broadly equal mix of seasoned veterans with up to twenty years of electronic business experience combined with the new guard of the dot COM era. With the first draft of the 'Conceptual Architecture' being available within weeks, the ebXML initiative has put a substantial stake in the ground. It is expected that by the time the group meets in Brussels, at least 5 more draft specifications will have been put out for review.

Further Information

36. For further information on ebXML please visit the website <www.ebXML.org> You will find the participants list, or be able to register your own participation, and the presentations and contributions from the first two meetings.

ANNEX A

Electronic Business XML Initiative

Terms of Reference

Electronic Business XML (ebXML) is an International Initiative established by UN/CEFACT and OASIS (the Organization for the Advancement of Structured Information Standards) with a mandate to undertake a 15-18 month program of work. This document represents an agreement between UN/CEFACT and OASIS on overall objectives (scope and purpose), key deliverables and the responsibilities delegated to the ebXML Working Group (ebXML/WG).

The purpose of ebXML initiative is to research and identify the technical basis upon which the global implementation of XML (Extensible Markup Language) can be standardized. The goal is to provide an open technical framework to enable XML to be utilized in a consistent and uniform manner for the exchange of Electronic Business data in application to application, application to person and person to application environments.

The scope of ebXML initiative is to develop and publish, in the public domain, relevant and open technical specifications in support of domestic and international EB exchanges.

These Terms of Reference cover:

- A definition of the specific technical issues to be addressed;
- A description of the proposed deliverables;
- Criteria for membership;
- The organisation of the group;
- Target time scales and milestones for its deliverables; and
- A proposal for membership from other relevant groups and organizations.

The detail for each of the above is as follows:

1 Definition of the specific technical issues to be addressed

In order to support the inter-operability of XML based information exchanges in Electronic Business, the ebXML initiative will provide the following deliverables:

- An analysis of the current EDI/EC/EB processes and issues;
- An assessment of the advantages and disadvantages of utilizing XML; and

- A definitive set of open technical specifications and recommendations that support the inter-operability of XML based information exchanges in application to application, application to person and person to application environments.

2 Description of the proposed deliverables

- The ebXML initiative shall define its detailed deliverables during its first meeting. This will be achieved by reviewing those contributions which address the technical issues identified under section 1 above and identifying the resulting work items. These deliverables shall be submitted to UN/CEFACT and OASIS for review.
- A mid-term and final report for submission to UN/CEFACT and OASIS

3 Criteria for Membership

The ebXML initiative shall comprise of a group of experts with broad-based knowledge of existing techniques and technological developments within EDI/EC/EB, XML, and their related standards. Membership in the ebXML initiative is open to any group or organization that is engaged in developing solutions for the utilization of XML in EDI, EC and EB. Each group or organization may designate one or more experts to the ebXML initiative. Experts are expected to contribute to the work based solely on their expertise. The ebXML initiative is not a commercial undertaking.

4 The Organisation

In order for the ebXML Initiative to fulfill its deliverables, a Working Group (ebXML/WG) is to be established. The WG leadership shall consist of a Chair, Vice-chair and an Executive Committee. UN/CEFACT and OASIS shall appoint the Chair and Vice-chair.

The WG shall be organized into project teams, each with its own elected project leader. Any election shall be decided by a simple majority of those voting.

Project teams will address specific tasks, such as architecture, repositories, naming conventions, etc.

The Steering Committee shall be composed of the WG Chair and Vice-chair and the project team leaders. The Steering Committee shall provide overall WG leadership and shall support and address issues that do not require the attention of the Plenary.

The Plenary shall be composed of all WG members and shall serve as the mechanism for reaching consensus on defining overall WG direction and deliverables, as well as approving the output of the project teams.

The WG Chair shall lead the Plenary and the Steering Committee.

5 Target Time Scales

The overall project has a limited life span of 15 to 18 months. In order to achieve this deadline, the WG shall meet at least once a quarter in different parts of the world, with regular tele-conference calls between these meetings.

6 Proposals for membership from other Working Groups and external organizations

The organizations listed below are those organizations that are known to UN/CEFACT and OASIS to be active in developing EC related XML solutions. Membership in the Working group is not limited to those listed in any way. Organizations or groups that are interested in the work of ebXML/WG are strongly encouraged to contact UN/CEFACT (Hans Hansell <Hans.Hansell@unece.org>) and/or OASIS (Laura Walker execdir@oasis-open.org) in order to be invited.

- Ariba - cXML
 - ASC X12
 - CEN ISSS XML WS
 - CommerceNet - eCo Framework WG
 - CommerceOne - Common Business Library (CBL)
 - EEMA
 - HL7
 - IBM – e-business
 - IEC
 - ISO
 - J.P. Morgan & PricewaterhouseCoopers – Financial Product Markup Language (FpML)
 - Meta Data Coalition - OIM work
 - Microsoft - BizTalk
 - NIST
 - OASIS
 - Object Management Group (OMG)
 - Open Application Group (OAG)
 - Open Buying on the Internet (OBI) Consortium
 - Open Trading Protocol (OTP) Consortium
 - Open Travel Alliance (OTA)
 - RosettaNet
 - UN/CEFACT/TMWG & EWG
 - XML/EDI Group
 - Workflow Management Coalition - Wf-XML
 - W3C XML WG
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