UNITED NATIONS CENTRE FOR TRADE FACILITATION AND ELECTRONIC BUSINESS
(UN/CEFACT)

UN/CEFACT STEERING GROUP (CSG)
E-BUSINESS TEAM

Progressing the UN/CEFACT

e-Business Standards Development Strategy

This paper is intended to provide a notional description of the proposed e-Business Working Group and likely responsibilities. It is by no means fully inclusive of all requirements that will eventually be identified. It is intended to establish a baseline and context within which meaningful discussion and alternative proposals can be developed. All aspects of the organisation as well as the various duties will be confirmed through the approval of Mandates and Terms of Reference for the e-Business Working Group and each subgroup.

SOURCE: CSG e-Business Team
STATUS: Final
ACTION: For Distribution

Progressing the UN/CEFACT

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Introduction

The UN/CEFACT Plenary endorsed the proposed strategy for achieving its e-Business vision[1] at its March 2001 meeting. Subsequently, the UN/CEFACT Steering Group (CSG) and OASIS announced the successful completion of the development stage of ebXML and reached an agreement for the allocation of responsibility for maintenance and further development of ebXML specifications.

Under the agreement, UN/CEFACT will be responsible for Business Processes and Core Components. OASIS will be responsible for maintaining and advancing a series of technical specifications.[2,3] Jointly, UN/CEFACT and OASIS will be responsible for marketing and developing the technical architecture specification.

The CSG believe the most effective way forward is to bring together the expertise and resources of the UN/EDIFACT Working Group (EWG), the Business Process Analysis Working Group (BPAWG), the Codes Working Group (CDWG), and the Business Process and Core Component work from the ebXML initiative. The result is the consolidation of all these efforts into a new Working Group, *the e-Business Working Group*, that will be able to address the needs of all its users. This initiative will require considerable planning and consultation if it is to achieve its objectives within the projected time scale. To lead this process, the CSG has established a special e-Business Team to undertake the initial coordination and development work.

This paper is the first deliverable of the e-Business Team. It provides the description and responsibilities of the new *e-Business Working Group.*

e-Business Working Group Description

Three existing UN/CEFACT permanent working groups, the International Trade Procedures Working Group (ITPWG), the Legal Working Group (LWG) and the Techniques and Methodologies Working Group (TMWG), will remain unchanged. Other permanent working groups will be consolidated into the new group.

The initial development and evolution of a new working group will require time to perform the following activities:

♦ transition ongoing functions from existing groups,

♦ develop operating rules and procedures,

♦ establish ample participation to meet established mandates, and

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[1] The vision as expressed in TRADE/CEFACT/2001/7 of 19 January 2001, *Realisation of the UN/CEFACT Vision From an e-Business Standards Strategy.*

[2] OASIS will be responsible for specifications related to: Transport, Routing and Packaging; Registry and Repository; Collaboration – Protocol Profile and Agreement; Security; and Conformance.

[3] In clarification of the responsibility for the registry and repository specification, OASIS will develop and maintain only the specification. UN/CEFACT fully intends to develop and maintain its own repository, and will follow the ebXML specification in doing so.

♦ develop the necessary infrastructure for accomplishing the scope of envisioned work programs and products.

Accordingly, this paper will focus only on the proposed organisational structure and general functionality providing a baseline for initial deliberations with respect to developing the e-Business Working Group. Figure 1 provides a view of the overall proposed UN/CEFACT organisational structure.
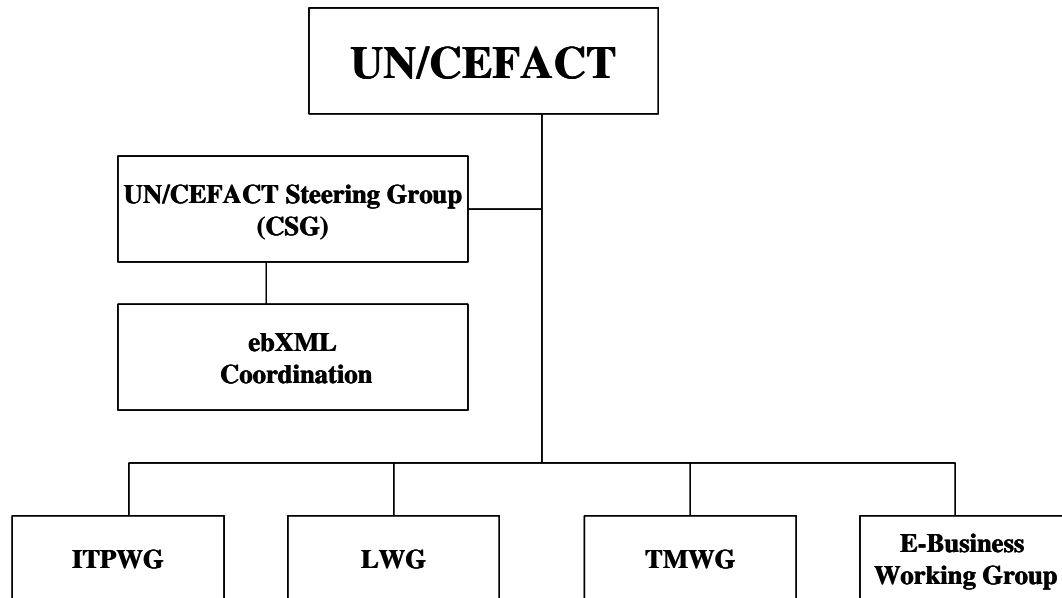
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        │        (CSG)            │
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  │  ITPWG  │   │   LWG   │   │  TMWG   │   │  E-Business  │
  │         │   │         │   │         │   │ Working Group│
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Figure 1. Notional UN/CEFACT Organisational Structure

e-Business Working Group Organisation

Traditionally, organisations are established based on a functional perspective. Given the nature of the work that must be performed here, it is considered more appropriate to develop the new organisation around the process that will be followed. Accordingly, a series of five subgroups is anticipated. Note that the precise naming for each subgroup remains open at this time. Figure 2 provides a proposed representation for the new e-Business Working Group organisational structure.

Descriptions of each subgroup are provided in the following sections.

Business Process and Information (BPI) Modeling Subgroup

The BPI Modeling Subgroup would be responsible for conducting all business process and information modeling activities using the UN/CEFACT Modeling Methodology (UMM), as specified by the TMWG. A minimal "fixed" organisational structure is anticipated. Membership will consist of experts possessing business process knowledge and modeling expertise.

Work will be conducted by project teams that are formed to conduct a specific initiative. Upon completing the specific project, the team will dissolve. Work will originate either as a project initiated by members of the BPI Modeling Subgroup or brought to the subgroup by some third party.
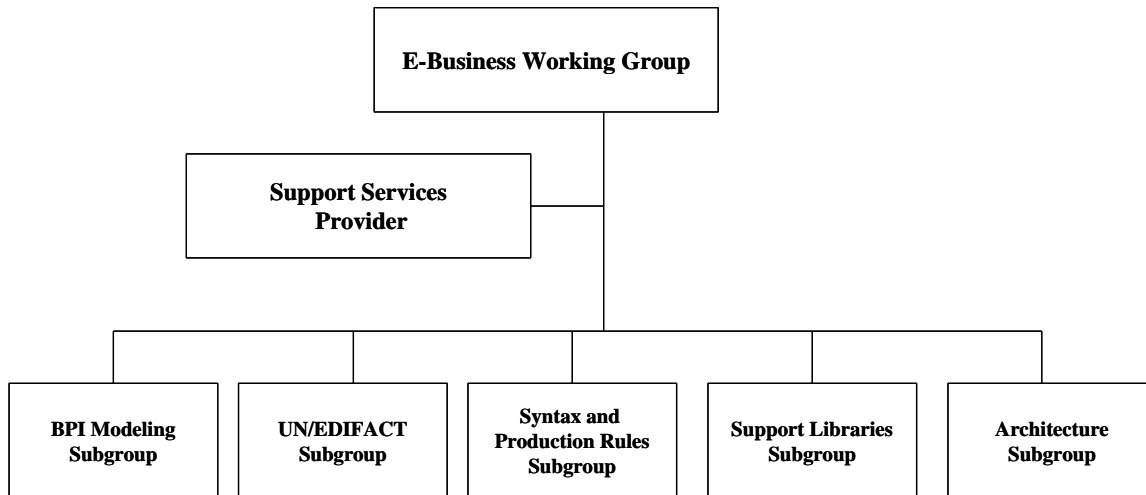
Figure 2. Notional e-Business Working Group Organisation

One of the subgroup responsibilities would be the development and confirmation of all "high level" business domains, including the reference model, that constitute the various segmentations of work as defined by the BPAWG.

In general, the subgroup will collect and analyse business requirements and then transition those requirements into business and information models. If comparable business process and information models are submitted by different participants, the subgroup will be responsible for harmonising these, where possible. The subgroup will also be responsible for maintenance of existing models over time, ensuring that modifications and updates are incorporated and that the models remain usable in all instances.

The project teams will utilise the new *"UN/CEFACT's Open Development Process for Technical Specifications"*.[4] This methodology provides for an open process and five goals that will drive it: openness, world-wide participation, speed, compatibility, and technical excellence.

UN/EDIFACT Subgroup

The UN/EDIFACT Subgroup would be responsible for maintaining and publishing the UN/EDIFACT directories. It will regularly publish a UN/EDIFACT code list. It may be responsible for developing and publishing EDI-based XML DTDs and Schemas.

Current UN/EDIFACT procedures require the modeling of all new messages submitted for approval. This modeling and development activity should take place in the BPI Modeling Subgroup.   However, should an organisation desire to produce and publish a new UN/EDIFACT message derived from this modeling activity, it would be the responsibility of the UN/EDIFACT Subgroup to publish and maintain this standard. It should be noted that the outcome of the modeling activity may result in structures that do not follow existing design rules. Therefore, new directories may result, thus forming additional maintenance responsibilities for the subgroup.

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[4] TRADE/CEFACT/2000/22 of 16 February 2000.

Incorporating the UN/EDIFACT organisation into the new working group reflects UN/CEFACT's unwavering commitment to maintain this international EDI standard as well as other mechanisms supporting the streamlining/standarisation of international trade facilitation. Practical experience, however, reflects that the level of new UN/EDIFACT development has declined dramatically over the past several years and that the standard is now principally in a maintenance mode. Nevertheless, the investment and infrastructure now in place throughout the existing user community will likely not be replaced by alternative technologies in the foreseeable future. Rather, existing infrastructure may be augmented by alternative capabilities. In anticipation of this, UN/CEFACT clearly recognises that UN/EDIFACT must be maintained for some extensive period into the future.

The organisational structure and level of participation may change dramatically, with the majority of experts now involved with the EWG aligning with the BPI Modeling Subgroup. Thus, the UN/EDIFACT Subgroup is likely to be smaller than the existing group focusing on the maintenance of the standard.

Syntax and Production Rules Subgroup

The Syntax and Production Rules Subgroup would be responsible for assuming UN/CEFACT's responsibilities attributable to the Joint Syntax Working Group (JSWG) sponsored jointly by ISO and UN/CEFACT. Thus, the subgroup would be responsible for preparing all appropriate change proposals arising from UN/CEFACT requirements for the maintenance of the ISO 9735 syntax rules. The subgroup would also be responsible for creating and maintaining "production rules"[5] that would form the basis for converting UML models and byproducts into other syntaxes, e.g., UN/EDIFACT, XML, etc. This work includes driving the alignment with production rules established by other standards organisations.

The production rule maintenance process would require periodic verification and validation to ensure that the transformation process is consistently applied. Also, it is conceivable that the existing UN/EDIFACT technical assessment process could migrate to this subgroup.

It should be emphasised that this subgroup would be responsible for developing production rules. The actual transformation would take place as an automated function within the repository[6] where the various data structures would be stored.

The workload of this subgroup would involve considerable "new development" initially, but would transition to primarily a maintenance mode unless or until new transformation requirements emerged.

Support Libraries Subgroup

The Support Libraries Subgroup would be responsible for creating and maintaining the reusable base elements (e.g., Business Information Objects (BIOs), core components, etc.)

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[5] "Production rules" is a term of art understood in the Information Technology community as the methodology for transforming a Uniform Modeling Language (UML) data representation into another representation (e.g., EDI, XML, etc.).

[6] The matter of a repository is discussed later in the paper as part of a discussion on support services provided to the e-Business Working Group.

identified during the BPI modeling efforts. This Subgroup could also assume the previous responsibilities of the CDWG in maintaining UN Recommendations and Code Lists.

The subgroup would initially provide guidance to the BPI Modeling Subgroup efforts to permit the reuse of as many base information elements as possible. However, following the conclusion of the analysis modeling phase the subgroup would receive models from the various modeling teams and attempt to harmonise and normalise all base elements across the business domain and/or geographic sectors involved in developing the models. Where normalisation could not be applied, the subgroup may create new base elements.

It is also possible that this subgroup would be responsible for working with the UN/EDIFACT Subgroup to develop and maintain the linkages between the UN/EDIFACT business concepts (as identified in the UN/TDID) and the BIOs developed through the modeling process.

All work produced by the subgroup will be maintained within the Working Group repository.

Architecture Subgroup

The Architecture Subgroup would be responsible for developing and maintaining the UN/CEFACT e-Business architecture[7] as well as the security model, an integral component of the architecture. The subgroup will also be responsible for identifying and resolving inconsistencies, overlaps and gaps that might exist between the UN/CEFACT e-Business architecture and other organisational specifications, particularly those maintained by OASIS, W3C, and ISO.

The subgroup would also perform a series of advisory functions by providing technical support to the UN/CEFACT teams (1) working with the ebXML agreement management team and IEC/ISO/ITU/UN-CEFACT/MoU/MT, (2) developing and implementing the UN/CEFACT repository, and (3) advising OASIS technical committees on any inconsistencies in the jointly developed architecture.

Support Services Provider

The e-Business Team recognises that the magnitude of the work to be conducted in the collective subgroups cannot be accomplished within a time scale considered responsive by the user community nor within the current resources available within UN/CEFACT to the various groups. Thus, substantial extra resources will be required. Therefore, a new approach needs to be adopted to provide the necessary administrative, management, planning, marketing, and technical support. Accordingly, a support and service supplier will be sought to augment the existing support received by UN/CEFACT from the UN Secretariat. In taking this new approach, special care will need to be taken to ensure that the UN principles of transparency and inclusivity are maintained. In addition, the identification and selection of a support services provider will be conducted on a fair and open basis. The e-Business Team will work in close cooperation with the UN Secretariat to achieve this within UN guidelines.

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[7] The e-Business architecture defines the business, the information necessary to operate the business, the technologies necessary to support the business operations, and the transitional process necessary for implementing new technologies in response to the changing needs of business.

The Support Services Provider will augment available e-Business Working Group resources. The organisation will provide appropriate specialist staff, under the direction of a general manager, to conduct the following types of professional and administrative services:

♦ Organise and conduct working group meetings and events,

♦ Arrange seminars and vendor exhibits

♦ Collect and disseminate meeting information,

♦ Develop and conduct professional training sessions,

♦ Identify and seek out new membership and involvement in e-Business Working Group activities,

♦ Establish and maintain the e-Business Working Group repository based on ebXML specifications,

♦ Market, under agreed UN guidelines, approved products and services,

♦ Collect, disburse and administer operating funds supporting e-Business Working Group operations,

♦ Develop and maintain an active e-Business Working Group web portal, and

♦ Produce an e-Business Working Group annual report.

The Support Services Provider performance and accountability requirements will be subjected to an assessment by an independent audit.

A complete description of all duties and responsibilities will evolve with time and experience. However, the primary intent is to provide, within UN guidelines, for a support infrastructure that is capable of meeting the requirements for promoting e-Business Working Group initiatives and attracting the ongoing participation of business and government experts.

Summary

The preceding discussion is intended to establish a baseline and context within which meaningful discussion regarding the creation of an e-Business Working Group can be developed. All aspects of the organisation, including its functions, relationships with other organisations, and deliverables, will be confirmed through the approval of Mandates and Terms of Reference for each group.