

**RESTRICTED**  
**TRADE/WP.4/CRP.123**  
18 March 1997

UN/EDIFACT

**REPORT FROM THE CHAIRMAN  
OF THE EDIFACT STEERING COMMITTEE (ESG) TO GE.1**

SOURCE: THE ESG CHAIRMAN  
STATUS: CHAIRMAN'S REPORT  
ACTION: FOR DISCUSSION, March 1997 GE.1 session, agenda item 5

## **Introductory Note**

The EDIFACT Steering Group (ESG) is responsible for management of the process for developing UN/EDIFACT standards. The ESG makes recommendations to the Working Party on the Facilitation of International Trade Procedures (WP.4) and its Groups of Experts on what should be done to produce better UN/EDIFACT standards, in as effective a manner as is possible. Thus, the ESG group only makes recommendations about what could be done. It does, however, make management decisions on how to accomplish what has already been decided.

To encourage the greatest possible openness in the process and input into its recommendations, the ESG encourages wide circulation of its reports.

Since the September 1997 session of GE.1, the ESG has formally convened on two occasions:

Geneva 11-13 December 1996  
Concord 27-31 January 1997

The reports from these meetings have already been published and widely circulated. A copy of the January 1997 meeting report is available to delegates as TRADE/WP.4/CRP.135. Copies of all ESG reports are available from both the regional UN/EDIFACT secretariats and the UN/ECE secretariat.

### **1) Migration to CEFACT and Draft Mandates**

TRADE/WP.4/CRP.135 contains, in Annex A, the details of the ESG's proposals for two draft mandates for the Empowerment of the JRT and the technical and advisory groups. Annex C contains a preliminary draft matrix indicating the relationships between existing GE.1 and JRT Groups and the proposed Permanent Working Groups. The JRT will now be consulted on these proposals at its forthcoming meeting in Singapore and subsequently the final Mandates will be submitted to CEFACT's Steering Group (CSG) for consideration.

Both draft mandates refer to the functional expertise for membership of the proposed new groups and the summaries in the mandates require more explanation because, if accepted, they may have a fundamental impact on the current Regional Rapporteurs structure. Accordingly a detailed explanatory paper is attached at Appendix 1. This will also be submitted to the JRT and to the Regions for comment.

In addition, TRADE/WP.4/CRP.135 contains two other draft mandates which the ESG believes should be carefully considered by the CSG. They relate to a proposal for the establishment of :

- i. a CEFACT Techniques and Methodologies Group (TMF) to integrate the current separate techniques and methods used by WP.4 and its Groups of Experts, and to research and identify potential new techniques and methodologies that could be implemented to assist CEFACT achieve its goals.
- ii. a CEFACT Process Analysis and Design Group (PAD) which could build on the work of the current ITT Group but extend its scope to cover the rationalisation and simplification of relevant aspects of the wider business process. For example, the Purchasing or Payment process. (This proposal should also be read in conjunction with Appendix 2 of this report )

## **2) New work item for CEFACT**

TRADE/WP.4/CRP.135 also contains a proposal for CEFACT to include an additional work item in its high level programme , the text of which follows:

*" To undertake reviews of and consider, in the context of CEFACT's objectives, developments in electronic commerce and edi such as:*

- *the use of UN/EDIFACT over the Internet;*
- *related encryption and security issues;*
- *their impact on business procedures and, in particular, those of SMEs;*
- *related legal requirements and constraints;*
- *their introduction in transition and newly industrialized economies.*

*Based on these reviews, identify relevant issues and recommend appropriate strategies."*

The ESG recommends to GE.1 that they accept and make this proposal to CEFACT.

## **3) A New Strategy for UN/EDIFACT**

Following the AC.1 report of March 1996, the ESG has been working to develop a new strategy for UN/EDIFACT which takes into account the issues identified in the report, the requirements of existing users, the needs of small and medium sized enterprises (SME's) and advances in technology and techniques. The recommended new strategy for UN/EDIFACT, which will now be the subject of consultation with the JRT and Regions, is attached at Appendix 2.

## **4) The BSR and the ISO MOU**

At its December 1996 meeting, the ESG carefully considered, with the assistance of the Chairman and former Chairman of the joint UN - ISO BSR Management Committee, all aspects of the BSR project and in particular, the future participation of the UN/ECE in the Joint Management Committee. They came to the conclusion that it was now appropriate to recommend to ISO the disbandment of the Joint Management Committee and the transfer of the management of the project to the relevant ISO/IEC body. Subsequently, the GE.1 Chairman had an informal meeting with Mr. Smith of the ISO Central Secretariat to inform him of this recommendation and to further suggest that it should come into effect on the 31 December 1996. The meeting was followed up by a formal letter which also stressed that the UN will continue to play a full part in the project at the expert level. Subsequently, a reply was received from Mr. Smith accepting the UN's decision and, therefore, management of the BSR project is now the responsibility of the appropriate ISO/IEC body.

Also at the December ESG meeting, the importance of strengthening the UN's involvement in the management of the ISO/IEC/ECE MoU was agreed. The UN team to the MoU management committee will now consist of Mr. Walker, Mr. Bates, Mr. Naujok, Mr. Power, and Mr. Vuilleumier as well as the secretariat. In January, the ISO confirmed its position with regard to this MoU and agreed, in principle, to extend it for further five years. An informal meeting between the UN team and the ISO Central Secretariat to discuss the MoU and how it might be strengthened is being held on the 24 March in Geneva.

## Appendix 1

### **UN/EDIFACT Rapporteurs, EDIFACT Boards and Empowerment.**

One of the most important decisions taken by WP.4 in the early days of UN/EDIFACT was the appointment of Regional Rapporteurs. They were charged with working together internationally, but each had specific responsibilities for the organisation, development, and promotion, of UN/EDIFACT within an defined jurisdiction. A jurisdiction had to encompass at least two countries and became known as a Rapporteur's Region.

The Regional Rapporteurs' role was critical to the early success of the standard. In particular, the development of the concept of Rapporteurs teams and EDIFACT Boards, open to all the countries within a jurisdiction, coupled with the appointment of Regional Rapporteurs for areas outside the member States of the UN/ECE was significant. It led to UN/EDIFACT Boards being developed quickly in Asia and Australasia, and later in Africa. It also allowed countries in Latin America to be directly involved in the work. This approach has been especially successful in Asia where, under the guidance of its Rapporteur, the Asia EDIFACT Board has grown rapidly and now comprises 11 full members and an associate member, with new entrants joining on a regular basis.

However, the regional structure has also occasionally led to unnecessary confrontation and to the "defence" of regional positions which, from an overall perspective, may not always have been helpful. Further, for some countries, the requirement of belonging to a jurisdiction may restrict their ability to participate in the process. Given this and the establishment of CEFACT, with its principle of empowering Working Groups, there is a unique opportunity to review fundamentally the current regional structure of UN/EDIFACT with the objective of maintaining its strengths whilst improving the efficiency of the overall process.

Therefore, the ESG has given considerable thought to this issue and are proposing, for discussion by the JRT and the Regions, a more flexible structure which would take account of the consequences of Empowerment, with its separation of policy and technical expertise, and also allow the retention of current regional organisations where that is preferred by the participants.

The specific proposals are:

- where appropriate, the appointment by the Centre of CEFACT Rapporteurs to represent and promote its interests and activities in a particular country, group of countries, or geographical area. Such CEFACT Rapporteurs might be especially effective in encouraging new participants in areas such as Latin America, Africa, and the Middle East;
- the removal of the restriction that one country cannot, on its own, participate directly in the UN/EDIFACT process once arrangements have been agreed upon for the input and processing of DMRs from that country which do not overburden the UN/EDIFACT system;
- When the empowerment of the new Working groups has been completed, and the new officers are in place, the winding-up of the current role of the Regional Rapporteurs;
- On empowerment, the replacement of regional representatives to Working groups with experts nominated by Heads of Delegations to CEFACT – or organisations appointed by them, which may be national, regional, or international. There would be no restriction on the numbers of experts nominated.

The last proposal above, gives the Heads of Delegations the opportunity to choose a regional or international organisation to represent them, and, therefore, does allow CEFACT Member States to retain their current regional structures if, collectively, they wish to do so.

The other thought behind this proposal is that in an empowered situation, participants should be acting at the expert level and not at a “political “or representational level. Therefore, participants would be nominated for their personal expertise and ability to contribute to the work in hand, be free to choose the best technical solution, and not represent or “defend” a particular viewpoint.

The ESG also felt that it was inappropriate at the working level to limit the number of experts that a Head of Delegation (or organisations appointed by them) could nominate. In so doing they recognised the possibility of meetings being “stacked,” but felt that by following some basic principles, any negative effects of such a possibility could be avoided.

These principles include a requirement, in the terms of reference of the empowered group to:

- 1) use consensus as their preferred method of reaching an agreement;
- 2) make any voting to resolve a particularly contentious issue be taken by a qualified majority, with strict attendance requirements being fulfilled before any voting by an individual expert could take place, and
- 3) include the possibility for an appeal procedure if there was evidence of “stacking”.

The ESG recognises that if these proposals are accepted and developed they must also address the issue of the role of regional secretariats and their current tasks of supporting national and regional message development groups, promoting UN/EDIFACT, and providing vital central points for the evaluation and input of DMR’s into the maintenance process.

For the moment, the ESG strongly recommends that the current structure be maintained but would wish to encourage the complete automation of the DMR process as soon as possible. Thereafter, they feel that the role of regional secretariats should be reviewed again in light of the opportunities that automation may offer, over time, to make the maintenance process more efficient by reducing administration and related delays, while bearing in mind the need to also ensure broad-based national and/or regional input.

## **UN/EDIFACT - A STRATEGY FOR THE NEXT PHASE**

It is now nearly ten years since the UN/EDIFACT syntax and UNTDED (data elements and codes) became ISO standards and eight years since the UN/ECE approved its first messages. The intervening period has seen;

- a substantial increase in the number of countries and regions participating in the work;
- a rapid growth in the number of messages in the UNTDID directory – there are almost 150 covering many different fields of application;
- a maturing of the development, production and publication process with good quality directories now being produced twice a year;
- large scale implementations based on UN/EDIFACT world wide – mainly by major public and private organisations with consequential significant advances in their performance.

Further, in terms of the technical objectives set for UN/EDIFACT by WP.4 in 1987, all have been successfully met.

UN/EDIFACT, and EDI in general, have been very successful in bringing benefits to those organisations who have implemented it. However, as is true with other EDI standards, UN/EDIFACT at the strategic level has not had the impact that was predicted for it in two significant areas. The first is in the general rationalisation and simplification of the business and administrative process and the second is in the take up and use of the standard by small and medium sized enterprises (SME's).

Whilst the lack of impact in these areas is general to EDI - irrespective of the standard on which it is based - because of UN/EDIFACT's position as the global standard, these issues do need to be fully addressed especially given WP.4's and now, CEFACT's prime objective of Trade Facilitation.

Three years ago, in March 1994, GE.1 established the AC.1 group to act as a research and development group for UN/EDIFACT. In its interim report of March 1996, (TRADE/WP.4/R.1189) AC.1 identified a number of specific reasons which were and, still are, constraining implementation amongst SME's (NB. Although AC.1's comments were specific to UN/EDIFACT they were also broadly applicable to all EDI standards). The report went on to point to a number of emerging technologies and techniques, in particular object technology and process and information modelling, which they felt were especially useful not only to UN/EDIFACT but also to trade facilitation.

AC.1's report also coincided with a number of other developments including:

- the growing understanding of the limits of the "bottom up approach" to message design and the potential value of process and information modelling techniques;
- the moves to simplify UN/EDIFACT messages and the agreement to harmonise implementation guidelines;
- the emergence of other techniques such as supply or value-chain analysis;

- the recognition of the need to radically simplify business and administrative processes, if SME's are to join in the expansion of world trade;
- the use of EDI and UN/EDIFACT over the Internet;
- the evolution of the World Wide Web and the arrival of Java software, and the recognition of their potential for introducing SME's into EDI and Electronic Commerce;

Given the AC.1 report and these developments, the ESG has been working to prepare a coherent forward strategy for UN/EDIFACT which takes these into account and also places the strategy in the context of CEFACT's Mission Statement. Accordingly the ESG now proposes, initially for consultation with the JRT and subsequently for incorporation into CEFACT's Work Programme, the following outline strategy which consists of three inter-linked strands which should be considered as parallel activities or "tracks.

- 1) Continuation of the development and maintenance of UN/EDIFACT as the global message standard based on both batch and interactive syntaxes. (Track 1 - Mainstream UN/EDIFACT)
- 2) Encouragement of the development of simpler UN/EDIFACT messages relevant to the needs of SME's (Track 2 - Simpler UN/EDIFACT )
- 3) Full development of the Object Oriented approach to the design of future messages. (Track 3 - Object Oriented EDI, "OO/EDIFACT")

**Track 1 - Mainstream UN/EDIFACT**, requires no introduction. The current user base is made up of many significant and stable organisations from all the main sectors and regions of the world and implementations are continuing to grow (particularly in Asia). Its growth will accelerate as EDI is incorporated into Electronic Commerce applications. Messages continue to be developed (there are close to 60 new messages at Status 0) and the efficiency of the maintenance process will improve significantly when the DMR process has been automated.

Mainstream UN/EDIFACT is now a mature and stable standard which will continue to evolve for as long as its users wish it to do so. In line with this user support, CEFACT needs to devote resources to the effective maintenance and publication of the standard.

**Track 2, Simpler UN/EDIFACT**, is an interesting and dynamic area. For example, there are initiatives underway in;

- the Message Development Groups of the JRT centred around the Harmonised Implementation Guidelines Group which appear very promising;
- EBES (the successor to the Western European EDIFACT Board) has a project known as EDI-LITE, which, if developed, could provide SME's with a very convenient and comprehensive UN/EDIFACT based Web solution;
- SITPRO on the development of an UN/EDIFACT based aligned forms approach which may be very relevant to the wider international trade arena and, therefore, to CEFACT;
- UKCEDIS on a fundamental proposal to exchange master files before the commencement of trading transactions in order to radically simplify the subsequent message exchange. This is part of an equally radical approach to the simplification of the whole business process based on a combination of simpler UN/EDIFACT messages and "value chain" analysis.

All of these developments are of significant interest and, in relation to the EDI-LITE and aligned forms initiatives, have obvious potential for Java based Web applications. Here, CEFACT has a direct interest through the previous work of WP.4, which did much to successfully develop and promote the UN aligned documentation system. Therefore, the possibility of Web Java Applets containing a relevant set of UN/EDIFACT based aligned documents is exciting.

It is therefore proposed that one of the tracks of this strategy strongly encourage the development of simpler UN/EDIFACT messages. This proposed work should not duplicate work that is being carried out elsewhere. Accordingly CEFACT could benefit by entering into understandings with organisations such as EBES, so that it could both associate itself with interesting developments being carried out in other organisations and assist in the world wide dissemination of the relevant results.

Equally, the JRT developments should be strongly supported and become an important part of CEFACT's Work Programme under the proposed mandate for a Permanent Working Group to empower the JRT. It is also understood that UKCEDIS may propose a new work item to CEFACT later this year on their proposal for simpler UN/EDIFACT messages based on the prior exchange of Master Files with its linkage to the wider goal of simplifying business processes which best facilitate trade. If this occurs, it will need to be taken into account in the future work programme.

### **Track 3, Object Oriented - OO/EDIFACT**

One of the great strengths of UN/EDIFACT has been the development, over many years, of its semantic content as contained in its data elements and codes. In terms of the investment of world wide business and administrative expertise, it probably represents hundreds of man years. Under no circumstances should that investment be put in jeopardy.

However as noted earlier, one area where UN/EDIFACT (and indeed other EDI standards) has not achieved the impact that was predicted for it ten years ago, is in the rationalisation and simplification of the business and administrative process. There are many reasons for this, but the fundamental one is that EDI and UN/EDIFACT did not start at the business process level. Rather, it was assumed that the considerable benefits of rationalising and automating the transaction data (e.g. a purchase order) which was part of a process, (e.g. purchasing) would stimulate a review of the process itself. In most cases this has not happened because by approaching the issue "bottom-up" the ultimate level, that of the process itself, was not reached.

While business practices from one business organisation to another are highly variable, depending on competitive strategies, experience and management style, they can be decomposed into business processes that are more generic. Indeed many business and administrative processes are much more common than is often thought.

As the emerging work of AC. 1 is showing, the great benefit of the use of the object oriented approach coupled with the rigorous use of modelling techniques is that, by starting at the level of the business process, it is possible to decompose in a number of logical steps down to the semantic level. Object Technology, currently an area of intense activity in major organisations, has already demonstrated its ability to deliver significant advances in business performance.

**For CEFACT, the implications are that it is now possible to begin to confront the high level issue of the rationalisation and simplification of the general business and administrative process and build on the semantic content of UN/EDIFACT.**

This approach if harnessed effectively, and if coupled with the practical experience of business's and the benefits arising from applying other techniques such as value chain analysis, could lead to major advances in the wider area of Trade Facilitation. That is why the ESG has been strongly encouraging the work of AC.1 and why the ESG believes that it extremely important to consolidate

and expand this work. Therefore, they propose a new but parallel track in the strategy - Object Oriented EDIFACT (OO/EDIFACT).

In proposing this strategy with these three parallel tracks, it is important to appreciate that no one track is more relevant than the others to CEFACT's long term goals. In addition under the CEFACT structure, users will be the main contributors to the work. Therefore if this strategy is approved, users will be able to choose which track they wish to follow and when, if ever, they want to switch to a different track. For example, some current users may wish to stay with Track 1 for the foreseeable future; others may wish to move to Track 3 when it becomes a reality. New users, particularly SME's, will probably start on Track 2 and may switch to Track 1 as their requirements grow. Other SME's may seamlessly move to track 3 when products are available and as clear business advantages have been demonstrated. Indeed they may never know that they have moved from one track to the other!

Under CEFACT the inclusion of this proposed strategy into future work items and the resulting establishment of Permanent Working Group will directly depend on users reactions to these ideas and their commitment of resources to achieve the goals. Accordingly apart from Track 1 - Mainstream UN/EDIFACT - there is little chance of any additional Secretariat resource to support these new activities.

In recommending this approach, the ESG believes that the three tracks present a coherent strategy for the next phase of UN/EDIFACT which will take it into the new millennium. The immediate action will be the consultation and further development of these ideas at the Singapore JRT and then, subsequently, the submission of proposed mandates to the CEFACT Steering Group and later to the Plenary for approval.

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