The United Nations electronic Trade Documents (UNeDocs) Project

A Synopsis

International trade feels pressure of paper document system

In today’s global economy, trade depends on the rapid exchange of goods, money and services; which in turn depend on information. Goods can move no faster than the documents that describe them. Every year goods of the value of more than USD 5,500 billion are sold on international markets. They are managed through increasingly specialized supply-chain processes that rely on sophisticated logistics, and information and communication technologies. Although one might expect traders to be using these technologies to exchange the core information, this is not the case. Instead, the core information exchange is still being carried out through traditional paper documents. And this system is costing trade between 5 and 10 per cent of the value of the traded goods every year.

The strain that paper is putting on the international supply chain becomes greater every day:

- the movement of goods is accelerating and modern containerized traffic “outruns” the documents, even when sent by fast courier services;
- the fight against terrorism requires concepts for secure supply chains, automated analysis of trade data and risk assessment;
- new Internet technologies and business models are becoming available which will further automate supply chains and challenge paper documents and manual documentary procedures.

Governments and trade are now beginning to look for strategies to move to electronic document processes.

Trade document facilitation by UNECE

The 55 member States of the United Nations Economic Commission for Europe (UNECE) include many of the most advanced trading countries and account for more than two thirds of world trade. Already in the 1960s, UNECE recognized the importance of harmonized trade documents and set up a working party to develop the United Nations Layout Key (UNLK, later endorsed as ISO 6422), an internationally accepted standard for such documents.

The Layout Key improved the efficiency of trade and allowed an aligned series of trade documents to be designed, such as the Single Administrative Document (SAD), the IATA airway bills, FIATA standard freight forwarders documents or ICC standard documentary credit forms.
Focusing on automated data-processing technologies, UNECE subsequently developed UN/EDIFACT, which provided a crucial component in developing the electronic business sector. However, electronic business increasingly focused on the automation of selected and very advanced areas of the supply chain. By the end of the 1990s it became apparent that electronic business had failed to provide a global solution to the paper challenge of the supply chain.

**United Nations electronic Trade Documents (UNeDocs) concept**

In response to the UN Millennium Declaration and the demands of both Governments and trade for increased use of information and communication technologies, UNECE in 2000 set up the United Nations electronic Trade Documents (UNeDocs) project to analyse the documentary issues of the supply chain and to develop solutions.

Supported by Governments, industry associations and research institutes, the project developed an integrated concept for the global trade documentation system: The concept recognizes that paper documents will continue to be used for a long time and that countries or trade will not be adopting electronic trade documents at the same speed.

**Integrated approach**

Thus an approach was needed that would integrate electronic and paper documents and allow traders and Governments to choose the type of document they could best support. By combining the existing trade document standards for paper with data modelling techniques, electronic tools and XML (extended Markup Language, a new Internet standard to describe documents), UNeDocs developed a framework for digital paper for trade. In this concept the trade document is defined through document data definitions and the applicable standards and best trading practice. The document can be used in either paper or electronic (UN/EDIFACT or XML) form. An example of a UNeDocs digital document can be found on the UNeDocs Web Site (www.UNeDocs.org).

**Electronic documents for efficient and secure trade**

Since UNeDocs makes full use of the latest Internet technologies and standards, the electronic documents can be processed with the latest standard office software. Small and medium-sized enterprises and transition economies can therefore now use electronic documents for trading. Based on standard software UNeDocs also provides a fallback option to paper. This allows a trader to convert at any time the electronic document into a valid paper trade document should one be required.

The automation of trade procedures significantly reduces costs and increases the speed of the supply chain. Automated data entry procedures and the possibility of computerized methods for risk analysis reduce both administrative costs and clearing time at the border and increases revenues. In addition the electronic documents open the way to use new technologies for data security, authentication of signatures and mobile access to secured information.

The automation of trading procedures and the use of common trading practice, standards and data structures simplify cross-border procedures and make them more efficient. The implementation of UNeDocs provides a common basis for regional integration based on trade and transport facilitation. To this end the participating countries approved UNeDocs as a component in a joint capacity building programme for trade in the Mediterranean region, a joint project of UNECE, the Economic and Social Commission for Western Asia and the Economic Commission for Africa.

The recent threats of global terrorism have shown the vulnerability of international trade. The new security concepts for trade rely heavily on the exchange of advance information of trade data and electronic analysis. UNeDocs are fully compatible with the data requirements for such advance information exchange, and also provide the technical means for trade and Governments to comply with the security requirements.
The publication of the UNeDocs Web Services attracted the interest of leading software providers for standard office systems, including Microsoft and Adobe. These companies are currently developing the next generation technologies for office software, based on Web Services. If their new products could integrate UNeDocs documents, trade standards and value-added services, this would significantly increase the value of their products for traders.

For UNeDocs the office software addresses a crucial problem, which reflects an aspect of the Digital Divide: How can UNeDocs make available simple and cost efficient software for electronic trade documents to SMEs, transition economies and developing countries? Joint research projects with Microsoft and Adobe led to two software prototypes for UNeDocs electronic trade documents being developed, which were presented at the UNECE International Trade Facilitation Forum in May 2003. The prototypes showed that the new generation of office platforms can provide native support to UNeDocs trade documents. The products also provide ubiquitous access to UNeDocs Web Services, which will deliver UNECE trade facilitation standards such as code lists for trade data to user groups that do not yet have access to these standards.

The Web Services also provide a technical platform for implementing national and global strategies for information-based economies and can stimulate the development of an information-based service sector. Adobe and Microsoft have now approached UNECE to discuss broad support of UNeDocs documents through their products. A possible cooperation could lead to the development of downloadable electronic forms that provide traders with instant UNeDocs document functionality, enabling over one billion PCs worldwide to process UNeDocs documents.