Bolero

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DIGITAL DOCUMENTS: The burdensome paperwork of trade could be alleviated with e-transport standards

By ANNE QUEREE

If you are shocked by the amount of packaging surrounding those air freighted vegetables in your local supermarket, spare a thought also for the paper trail left by their short trip from sunnier climes.

In the worst case, shipping a consignment of goods will generate a sheaf of documents covering all the commercial, transport and customs requirements. For example, a standard airway bill, the contract of carriage between a freight forwarder and airline, is an eight-part document which may be filled out by hand or produced on a special printer.

While larger freight organisations have automated the documentation and many customs and other authorities will accept submissions via electronic data interchange (EDI), smaller businesses still rely on paper and fax. This is because implementing EDI is costly.

The internet provides the opportunity for smaller organisations to remove paper from the processes of international trade.

Sitpro (The Simpler Trade Procedures Board), funded by the UK's Department of Trade and Industry, controls the so-called Topform, including such items as export cargo shipping instructions, which UK exporters must complete.

In a public/private partnership with software developer TNL, Sitpro has developed WebElectra, a service which allows exporters to access the Topform via the net or their intranet, complete the forms and, where appropriate, deliver them online. WebElectra will convert the forms into EDI or XML (eXtensible Mark-up Language) messages for transmission. The option to print the forms is also available.

This may sound like an obvious and somewhat parochial development, but, as David Turner, Sitpro's e-commerce director, explains, the UN's Economic Commission for Europe is considering the system underlying WebElectra for adoption as an international standard. One reason is that the Topform is the outcome of earlier UN-based standards work, as are the Edifact (EDI for administration, commerce and transport) format standard messages.

International standards making is an iterative process of information gathering, simplification and political consensus that requires great patience and a huge investment of time before ever anyone starts to use the results.

For example, a working group of the G7 has created harmonised data sets for import and export documents between the customs authorities of the G7 countries. Part of the process was reducing a maximum of 800 data elements to just 126. Edifact standard messages will continue to be supported while XML-based messages will also be developed.

In the UK, HM Customs and Excise hopes to have a prototype system for exchanging these messages with another country in the near future.

It is a similar story with the airway bill, where the Montreal Protocol 4 has reduced to four the binding elements and allowed some flexibility around the remaining data elements required.

Now, the Cargo Paperless Transportation Project (a cross-industry group with representation from the airlines, freight forwarders and customs organisations) is working to eliminate the paper airway bill and move to an information record that the International Air Transport Association (Iata) estimates could save carriers up to Dollars 6 for every master airway bill issued.

Here again, standard messages for electronic data interchange have been available since the 1980s, but the high costs of implementing such systems means take-up has been slow. Developing XML-based messages is an important aspect of the group's work.

Another important initiative has its roots in the trade finance instruments guaranteeing many cross-border transactions. Bolero.net was set up by Swift, the bank-owned network, and The Through Transport Club, the transport insurance mutual, to provide a means for companies and their bankers and shippers to exchange the documents in a trade transaction.

Among these, the bill of lading is a contract of carriage, but also the title to the goods themselves and, as such, a document which is always required in the original. Bolero.net has solved this problem by making it possible to exchange ownership of goods online by means of an internationally-agreed rule book, a title registry and the use of digital signatures to secure the transfer.

In addition, users of bolero.net (which include Otto Versand, the German mail order group, and Japanese trading house Mitsui) have access to some 65 different XML-based document messages.

It is in UN/Cefact, the UN body that developed and maintains the Edifact standard messages, that these separate national and industry initiatives are beginning to come together. In May, UN/Cefact approved ebXML, a suite of specifications for the exchange of data over the internet, developed in co-operation with a consortium of mainly software developers and consultants called Oasis.

The specifications offer a way for organisations and industries to package their earlier work and make it fully interoperable.

But legal, economic and cultural obstacles remain. Electronic signatures are not yet accepted in all jurisdictions, meaning that, even when documents are sent electronically, the paperwork may still have to follow on behind. (For example, the UK's HM Customs and Excise has accepted electronic input since the 1970s, but only now is a paperless entry scheme being introduced which will allow goods to clear on an e-message, with paperwork only being required in specified cases.)

Another challenge is the digital divide between the lesser and more developed countries. The World Customs Organisation, which is involved in many of the international standards initiatives, represents a diverse group of 156 member

countries. In June 1999 its council approved the Kyoto Convention, one aspect of which would require customs administrations to use information technology wherever possible.

But progress towards ratification is slow. One advantage of WebElectra's core system is that it could effectively form a bridge between the paper-based and digital worlds since the same underlying documents could be accessed and used in both.

Everywhere, the good intentions of international standards makers will have to percolate down to the quaysides and warehouses where the goods get shifted, requiring a considerable educational effort, as Sam Okpro, Iata's assistant director, for cargo procedures and automation, recognises. "People" he says, "love progress, but hate change."