WebEDI

(Extract from 'Web-forms for Intrastat, Eurostat, March 2000)

Overview

In France, two different systems are being implemented which use web-forms for the collection of Intrastat declarations:

- "DEB sur le Web" (Intrastat declaration on the web). This system is being developed internally by the IT service of French Customs. It is the migration to the internet of the existing French videotex system (Minitel) for Intrastat data collection.
- "WebEDI". This project is the implementation of an internet server for access to local administrative information in the Chalon sur Saône region and the first web-form is for the Intrastat declaration. Unlike "DEB sur le Web", WebEDI is a private initiative where French Customs are in partnership with commercial and local government bodies. The role of French Customs is to provide specifications, validate results and give approval for the system to become operational.

Other projects in this perpetually changing domain are expected in the future. French Customs encourage all initiatives on the development of Intrastat web-forms.

Since 1993, French law has allowed the Intrastat declaration to be sent in electronic format and the French government chose this declaration as the pilot for any trial on Electronic Data Interchange, including the projects on web-forms.

These projects follow a governmental action programme for the entry of France into the information society (PAGSI). The objectives of this programme are to simplify the life of the users and to improve the quality of the transmitted data. This will be done by providing electronic forms on the internet to facilitate electronic commerce and administrative procedures.

Before sending an electronic declaration the declarant is required by French law to sign an interchange agreement with French Customs. This agreement ensures the legal and technical security aspects of the interchange, by the exchange of the following information:

- an agreement number identifying the declarant,
- a personal password for the person responsible for the declaration, to enable authentication,
- an acknowledgement sent by French Customs to the declarant indicating the acceptance or the rejection of the declaration, with the number of lines and the total amount of the invoice values, to ensure the integrity of the data.

In the future, in compliance with the European directive on a common framework for electronic signatures, the declarant will have to present a certificate provided by a certification authority. The certification authorities will first be agreed by the French Ministry of Finance.

WebEDI

This is a private initiative developed by France Telecom/Transpac with the objective of linking large organisations with small enterprises using the internet. The first project is the implementation of an internet server for access to local administrative information in the Chalon sur Saône region (Communauté des Communes de Chalon sur Saône) and the first web-form is for the Intrastat declaration. The role of French Customs in this project is to supply the specifications, validate the results and give approval for the system to become operational. This system, tested by twenty companies from June to December 1999, has to be approved by French Customs before being operational.

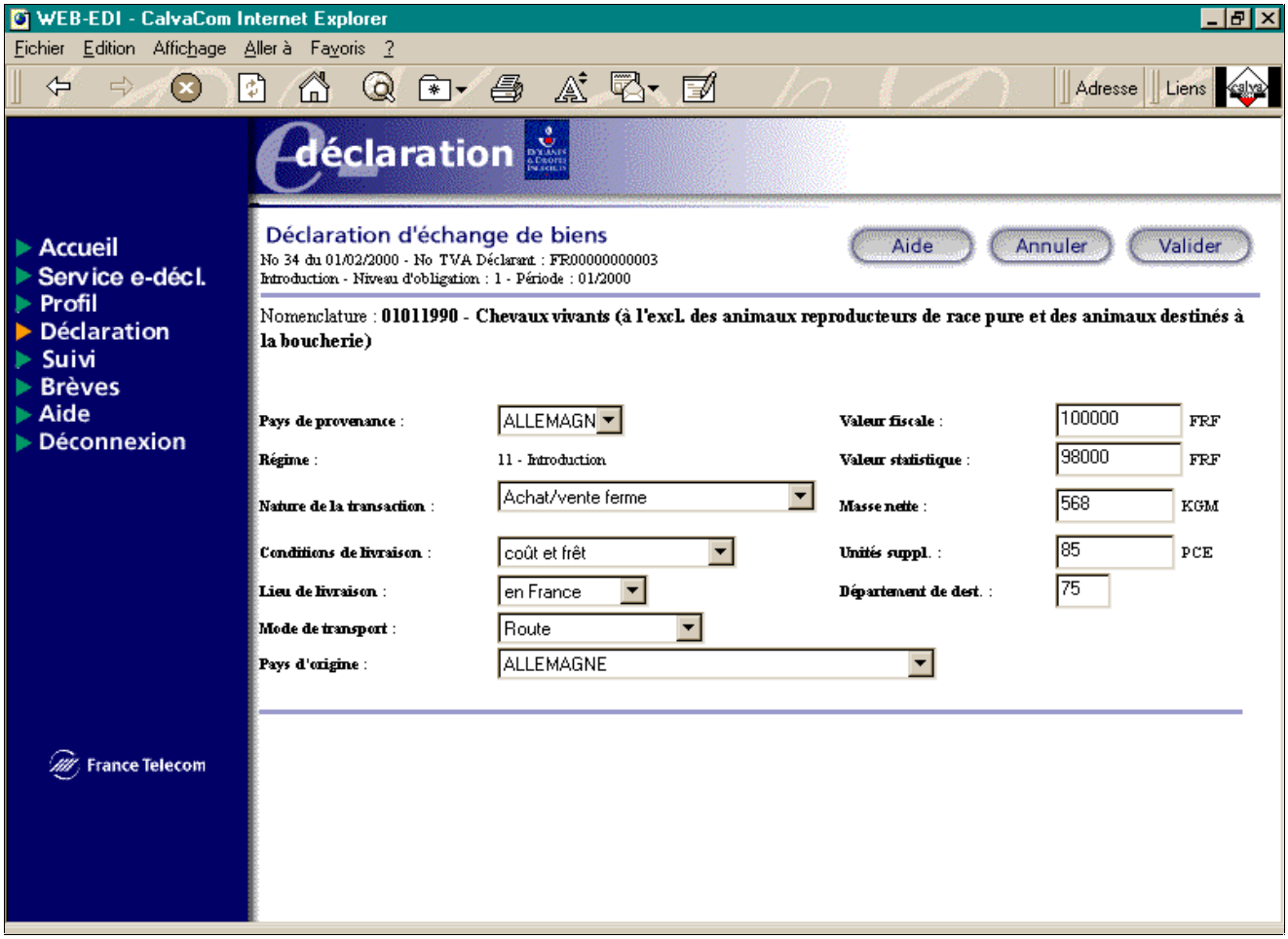

Figure 9: Input page of WebEDI

Functionality

The main functions offered are:

- user authentication,
- creation of a new declaration,

- management of declarations,
- validation of declarations,
- archive of declarations,
- printing of declarations,
- multilingual support (French, English).

A more detailed description is given below.

The user's view

Like the "DEB sur le Web" system, the system is targeted at third declaring parties or companies providing statistical information, who have fewer than ten lines per declaration. These companies already filling in the Intrastat declarations on paper may now use the internet. They must be well trained in these new technologies. At least during the trial period, the use of this system is free of charge.

A company which wants to use this system has to register with the administration. The user has to:

- contact French Customs in order to establish the interchange agreement,
- send a registration form to France Telecom.

When France Telecom receives the form, it creates a user account with a connection on the WebEDI server, updates the user profile database and sends a connection kit to the user. This kit contains information necessary for connection to the WebEDI server, and an instruction booklet.

When the interchange agreement is signed between French Customs and the user, the user receives his identification and password in a security envelope and French Customs ask France Telecom to permit the user to enter his declarations on the WebEDI server.

To use the system the user has to log on giving his identification and password and to choose his working language (French or English). The user authentication control is executed on the WebEDI server and the application is presented in the selected language.

Like the "DEB sur le Web" system, the web-forms are filled in on-line, the user PC remaining connected to the web server during the entire transaction.

When the user creates a declaration, the header of the declaration is partially pre-completed with some information from the user profile database, once the header is complete, the appropriate input form is presented (depending on the flow, threshold, statistical procedure). The user can save the declaration when it is partially complete, and it is stored temporarily in his PC.

The necessary code lists and validation criteria are integrated into the HTML page. The function for looking up a CN8 code includes a key-word search, the functionality of management of CN8 codes is similar to that in IDEP/CN8.

When his declaration is completed, the user can validate, print and archive it. The validation of the declaration implies its submission to the WebEDI server (front office), the automatic generation of the EDIFACT message CUSDEC/INSTAT and the sending of this message to the regional centre of Intrastat data collection of French Customs (back office).

The regional centre of data collection processes the received message and sends an acknowledgement by fax to the declarant. This acknowledgement contains the declaration number, flow, period, threshold, number of lines, total invoiced amount and the certification number.

No function is available for the moment for the correction of previously validated and sent declarations.

As with ‘DEB sur le Web’, the advantages of an internet web-form are the ergonomics of the user interface and the access to other internet services. The user can be connected to other EDI platforms via this WebEDI server without any supplementary equipment. Again, as with "DEB sur le Web", WebEDI still needs promotion, and the SMEs need more education about its use.

The administration's view

WebEDI is a commercial solution financed by the government and developed by France Telecom. So far, the use of the system is free of charge, the Intrastat declaration being a loss leader. After the test period, when the system works and is mature, the assumption is that somebody will pay for the usage of this server but this has not yet been defined. It will fall to either the Chamber of Commerce, the declarants or French Customs.

French Customs do not finance this project, and have no control on its development but hope to get some benefit, if this system achieves the following objectives:

- decrease the number of paper declarations, and therefore the cost of keypunching or OCR processes,
- reduce the number of errors due to paper declarations, and therefore improve the quality of the data sent by the SMEs.

French Customs are not responsible for the infrastructure implemented for the Intrastat data entry. They work with the EDIFACT CUSDEC/INSTAT message received from the WebEDI system. This data collection system is no different from the existing system in which Intrastat declarations are generated as an EDIFACT CUSDEC/INSTAT message by IDEP/CN8, or by another EDIFACT translator of the user.

During the test period, French Customs did not process these declarations and did not provide any help desk. The trial being finished, French Customs are now working on the approval of the system. Once it is approved, they will grant a conformity label certifying that the EDIFACT message CUSDEC/INSTAT generated is correct and that the used codes are valid. This label does not include any aspects of service quality: user interface, ergonomics, elapsed time, connection security and access controls.

France Telecom is responsible for the promotion of the system and has scheduled media presentations for when the system goes live. Test web-forms are stored via the URL of the Chalon sur Saône Chamber of Commerce.

Technical view

The system architecture has two main parts:

- front office – the part between the user and the WebEDI server, in which the Intrastat web-form is exchanged via the internet. Security is achieved by the HTTPS protocol (SSL v.2).
- back office – the part between the WebEDI server and the regional centre of Intrastat data collection of French Customs, in which for each validated declaration, the web server generates the EDIFACT message CUSDEC/INSTAT and sends it to the regional centre of Intrastat data collection, via X.400. The system does not currently use XML but this format will be considered in the future.

France Telecom supplies the X.400 system called ATLAS400, the WebEDI server and the tele communication infrastructure. It has not been possible to obtain from them precise information about the WebEDI server. The basic architecture is presented in figure 10.

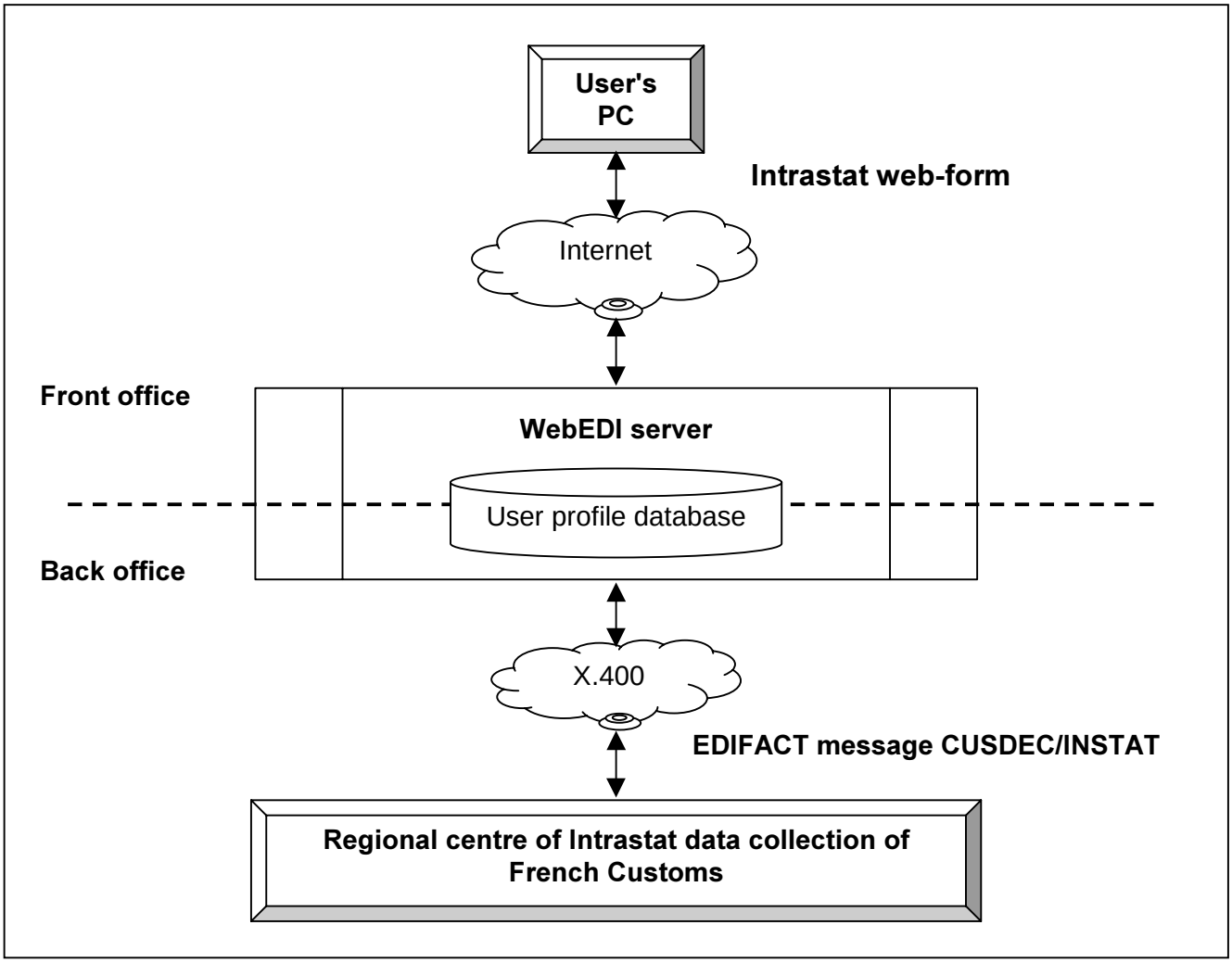

Figure 10: Technical architecture of WebEDI

The minimum system requirements for the user are:

- 32-bit PC,
- Windows 95 (or above) or Windows NT,
- Internet access,
- Netscape Navigator version 4 (or above) or Internet Explorer version 3 (or above),
- screen resolution of 800 x 600 (recommended minimum).

The user interface or client side is composed of HTML pages associated with programs in Javascript for the input of data and the validation of the data against the lists of acceptable codes. Inputs and some validations are executed in the user's browser; more complex functions, like looking up a CN8 code, are executed on the server side.

Project view

The companies in charge of the development did not provide information about the size, the resources and the skills required for the project.

The only available plan covers the period of tests and trials, as shown in table 5.

Project milestone	Date
Beginning of tests of Intrastat data entry by 20 declarants	July 1999
Beginning of tests with real declarations (*)	End of August 1999
End of tests with real declarations (*)	January 2000

(*) During these periods a real declaration is submitted electronically, but the declarant has also to provide a paper declaration in parallel.

Table 5: WebEDI milestones

Now that the tests are finished, French Customs are working on the approval of the system.

As being the contracting authority, France Telecom is in charge of the co-ordination of this project with other software houses. The different partners taking part in this project are:

- Prime contractor: Communauté des Communes de Chalon sur Saône and the Chamber of Commerce.
- Contracting authority: France Telecom.
- Financing: From PAGSI programme (Governmental action).
- Specification, validation and certification of the system: French Customs.

Take-up

Twenty companies used the system up to 10 January 2000, the end of the test period. The tests showed that connexion times are long and losses of connexion are frequent. This will need to be improved before usage of the system is extended. Nevertheless, the Intrastat declarations generated as EDIFACT messages CUSDEC/INSTAT have been found to be valid and the pilot companies will continue to use WebEDI without having to wait for the approval of the system by French Customs.

Lessons learnt

Perhaps the most interesting feature of this project is the use of a third party. By not managing the development themselves but instead entering into a partnership with a telecoms service provider, French Customs have been able to take advantage of the new facilities the World Wide Web has to offer, but at the cost of only a small investment for the administration.

Future plans

For France Telecom, the future plans are to generalise the usage of web-forms for the Intrastat declaration, and to extend the concept to cover every administrative or private web-form.

For French Customs, this system is regarded as the same as any other system providing Intrastat declarations to be collected in the EDIFACT message CUSDEC/INSTAT. If this pilot is successful, they will approve the system with a view to extend this service to every company in the region. The technical problems regarding service quality will need to be addressed by the service provider, but do not prevent the approval of the system.