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Informal Ad Hoc Expert Group on the
Computerization of the TIR Procedure
(First session, 19 February 2001,
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TECHNOLOGICAL APPROACHES AND SOLUTIONS

NCTS approach

Transmitted by the European Community

Attached you will find an informal document, submitted by the European Community on the New Computerised Transit System.

The New Computerised Transit System (NCTS)

Introduction

Common transit is used for the movement of goods between the 15 EC Member States, the EFTA countries (Iceland, Norway and Switzerland – including Liechtenstein in as far as it forms a customs union with Switzerland) and the four Visegrad countries (Czech Republic, Hungary, Poland and Slovak Republic). It is based on the Common Transit Convention of 20 May 1987.

Community transit is the customs procedure for movement of goods within the customs territory of EC and is legally based on the Community Customs Code and its Implementing Provisions.

Customs transit is one of the corner stones of European integration and of vital interest to European business. Some 20 million Community and Common Transit transactions are initiated annually and the numbers are still rising.

The New Computerised Transit System (NCTS) is the system to be used for the Community and Common Transit procedures, thus applicable in the European Community and the other Contracting Parties to the Common Transit Convention. This means that 22 countries are involved in the transit computerisation project linking about 3000 European customs offices. The NCTS implementation has already started.

In this presentation we first describe the advantages of the NCTS and the obligations for both trader and customs. We then outline how the system works.

Community/Common Transit - TIR

It should be noted that although Community/Common transit has many similarities to TIR, there are also important differences. Two of these, reflected in this presentation, are as follows:

- A Common transit operation starts at an office of departure and ends at an office of destination and may involve the crossing of borders between Contracting Parties. The border crossing is recorded at the "Office of Transit" at the border but there is no need for one operation to end and another to start at the border.

- Simplified procedures permit authorised consignors and consignees, respectively, to start an operation without presenting the goods at the office of departure and to end an operation without presenting the goods at the office of destination.

What are the advantages of the NCTS for trade?

The system offers traders many advantages, including:

- Improved quality of service:
 - less time spent waiting at customs, because the declaration will have been sent beforehand;
 - greater flexibility in presenting declarations.
- Earlier discharge of the transit procedure because an electronic message is used instead of the return of the paper copy No 5 of the SAD document by mail, leading to a faster release of the guarantee.
- Reduction of the high costs, incurred in relation to the paper based system of declaring goods (lengthy procedures involving much time and effort).
- A greater clarity of the transit operation, for the benefit of trade.
- Reduction of wasted time at customs waiting for a decision since customs will have decided well in advance of the passing through/arrival of the goods at the office of transit/destination whether or not they want to check the consignment.

Apart from these general advantages for trade, there is an additional advantage for authorised consignors and consignees linked to the NCTS system. They no longer have to carry out the cumbersome formalities that nowadays are necessary in a paper-based environment, because all the movements will be directly managed by the system.

What are the advantages of the NCTS for customs?

- Customs activity business oriented.
- Communication and co-ordination between the customs administrations will improve.
- Repetitive activities will only have to be performed once; this saves time and eliminates the risks involved in the duplication of information.
- Creation of a more coherent system, which will speed up the processing of data and at the same time make the system more flexible.
- Harmonisation of operation criteria, which will do away with the plethora of sub-procedures and divergent interpretations of how the rules have to be implemented.

- Availability of a system run directly by customs, which offers greater security and higher tempo in managing transit, provides more reliable data and better monitoring of movements.

It is clear that the trader indirectly benefits from the advantage of the NCTS for customs, and vice versa.

Which trader can use the NCTS?

- In principle all traders can use the NCTS system to carry out their customs transit operations. To gain real benefit from the system in the sense of being able to lodge the transit declaration electronically, it is necessary to apply the EDI/DTI communication procedures that have been established for the communication with customs. Lodging transit declarations electronically requires that the trader is recognisable by customs.

What are the customs' obligations?

Customs will have to:

- Install computer infrastructure, or adjust their existing facilities, to meet the specific needs of the NCTS, including compatibility with the common network used – Common Communication Network / Common System Interface (CCN/CSI).
- Set up an organisation to ensure the proper operation of the computer application (helpdesk).
- Formulate and develop measures to ensure that the NCTS is integrated into the existing procedural and organisational set-up.
- Devise and introduce suitable training for customs staff and traders.

Procedural aspects of the NCTS system

Operation

Main items and messages used in a NCTS operation

Before going into the details it is useful to mention the main items and messages in a NCTS operation.

- The transit declaration lodged by means of EDI/DTI, discs, magnetic tapes or other similar data media or by means of the Single Administrative Document (SAD).

- The “Movement Reference Number” (MRN), which is a unique registration number, allotted by the system to the declaration and printed on the transit accompanying document to identify the movement.
- The transit accompanying document, including the list of items, which accompanies the goods from departure to destination.

- The “Anticipated Arrival Record” message (AAR), which is sent by the office of departure to the declared office of destination mentioned in the declaration to notify the anticipated arrival of a consignment.
- The “Anticipated Transit Record” message (ATR), which is sent by the office of departure to the declared office(s) of transit to notify the anticipated border passage of a consignment.
- The “Notification Crossing Frontier” message (NCF), which is sent by the actual office(s) of transit to the office of departure after having recorded the passage.
- The “Arrival Advice” message, which is sent by the actual office of destination to the office of departure when the goods arrive.
- The “Destination Control Results” message, which is sent by the actual office of destination to the office of departure after the goods have been checked.

Furthermore it is important to be aware that the system covers all the possible combinations of normal and simplified procedures, at both departure and destination.

Message codes indicated in the diagrams below

- IE 01 - Anticipated Arrival Record - AAR
- IE 06 - Arrival Advice
- IE 07 - Arrival Notification
- IE 15 - Declaration Data
- IE 18 - Destination Control Results
- IE 28 - Movement Reference Number allocated
- IE 29 - Release for Transit
- IE 43 - Unloading Permission
- IE 44 - Unloading Remarks
- IE 50 - Anticipated Transit Record - ATR
- IE 118 - Notification Crossing Frontier – NCF

Lodging the transit declaration in NCTS

The smooth operation of electronic communication between the customs authorities and economic operators is significant in NCTS, where all the required declaration data has to be in the NCTS before the consignment may be released to go to destination. At the same time as the release, the AAR message (IE 01) is sent to the declared office of destination and the ATR message(s) (IE 50) is sent to the declared office(s) of transit.

It will be evident that the preferred method for economic operators to submit transit declarations is the data processing technique. Where data is captured from paper declarations by customs officials, this clearly will have negative organisational consequences. The capture of the data from a declaration presented on paper will inevitably take much longer in comparison with declarations presented via electronic means.

In the simplified procedure (authorised consignors and authorised consignees) the use of a data processing technique is a requirement for the trader when communicating with customs.

Office of departure – normal procedure

The transit declaration is presented at the office of departure, either in paper form, in which case the data is input to the system by the customs office (see Diagram 1 below) or in computerised form (see also Diagram 1 below). Electronic declarations (IE 15) can be made from terminals made available to traders at the customs office or from the trader's own premises. Whatever the form of the presentation, the declaration must contain all the data required to comply with the system specifications, since the system codifies and validates the data automatically. If the declaration is lodged electronically and there is an inconsistency in the data, the system will indicate this and inform the trader, so that he can make the necessary corrections before the declaration is finally accepted.

Once the corrections have been entered and the declaration is accepted, the system will provide the declaration with a unique registration number, the MRN, and communicate this to the trader using the message IE 28.

Then, once any inspections have been carried out, either at the office of departure itself or at the trader's premises, and the guarantees are accepted, the goods will be released for transit. The system will print the transit accompanying document and, where appropriate, the list of items. The list of items will automatically be printed when the consignment consists of more than one goods item. The transit accompanying document and the list of items must travel with the goods and be presented at any office of transit and at the office of destination.

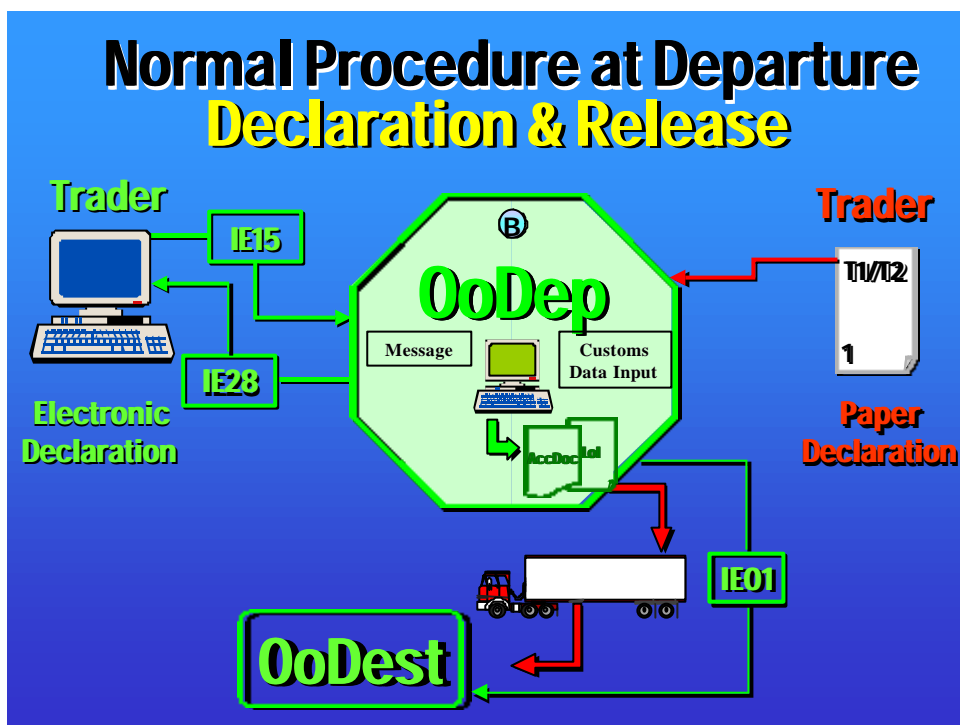


Diagram 1 – Office of Departure – Normal Procedure

When printing the transit accompanying document and the list of items, the office of departure will simultaneously send an AAR message (IE 01) to the declared office of destination. This message, mainly containing information taken from the transit declaration, will enable the office of destination to plan in advance the checks they will carry out. This will be one of the main benefits of the new system, namely that the office of destination will have direct access to reliable information about the transit operation and thus be in a position to take well-founded decisions about what actions to take when the goods arrive. Should the movement have to pass an office of transit, the office of departure will also send it an ATR message (IE 50), so that any office of transit involved in the movement has prior notification of the consignment concerned and can check the passage of the movement.

Office of departure –simplified procedure

In the NCTS simplified procedure for the authorised consignor, the goods may depart directly from the consignor’s premises without being presented to customs, but the complete declaration must still be presented to customs before the goods may be released. As already mentioned, a requirement for the authorised consignor is that he lodges his transit declaration and communicates with the customs using a data processing technique. The electronic link between the trader and customs is used for the transmission of the declaration data, requests for correction of the declaration, notification of the acceptance of the declaration (IE 28) and notification of the release of the goods (IE 29).

The release of the goods (communicated to the trader by IE 29) triggers the printing of the transit accompanying document at the consignors computer system (see Diagram 2 below).

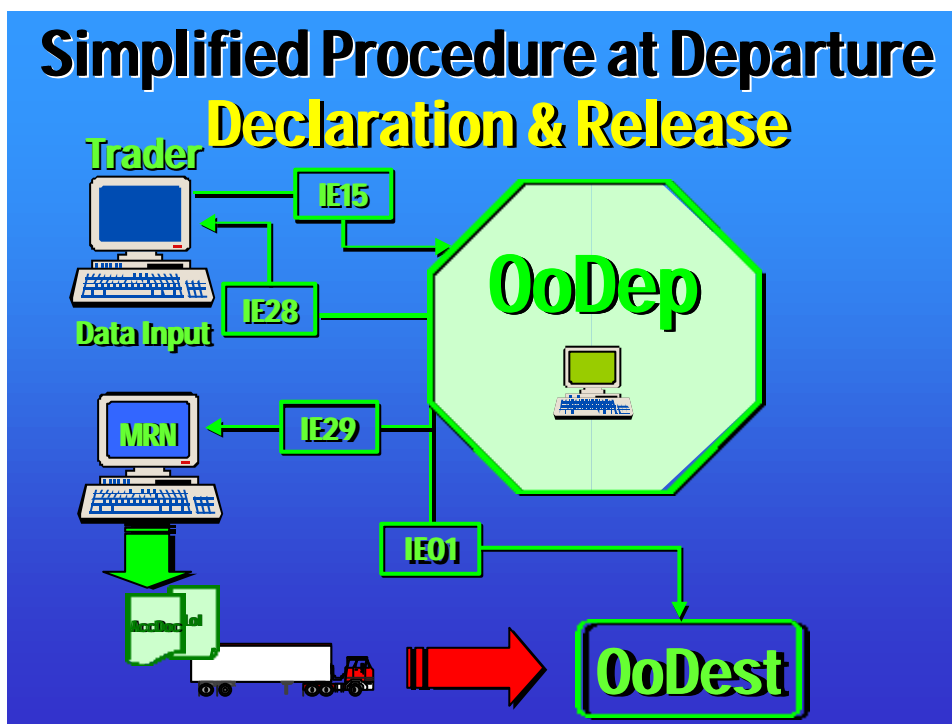


Diagram 2 – Office of Departure – Simplified Procedure

If the customs decide to carry out any checks of the goods or the consignment before releasing the goods, the printing of the transit accompanying document is delayed until the controls have been finalised.

The system allows goods to be released 24 hours a day. It is, however, within the competence of the customs authorities to decide if this should be permitted or not. This decision is normally taken on the basis of an evaluation of each particular consignor.

The use of the simplified procedure represents the optimal use of resources within the framework of NCTS. The possibility of carrying out all the procedures at one's own premises and exchanging information with customs electronically is clearly the most rapid, comfortable, secure and economic way of doing business.

Office of transit

When the consignment passes an office of transit, the goods, the transit accompanying document and, where appropriate, the list of items have to be presented to customs. The ATR message (IE 50), already available in the system, will automatically be located when the movement reference number shown on the transit accompanying document is entered. The customs official records the passage against the electronic consignment data received from the office of departure on the basis of which also any inspection of the goods is to be carried out.

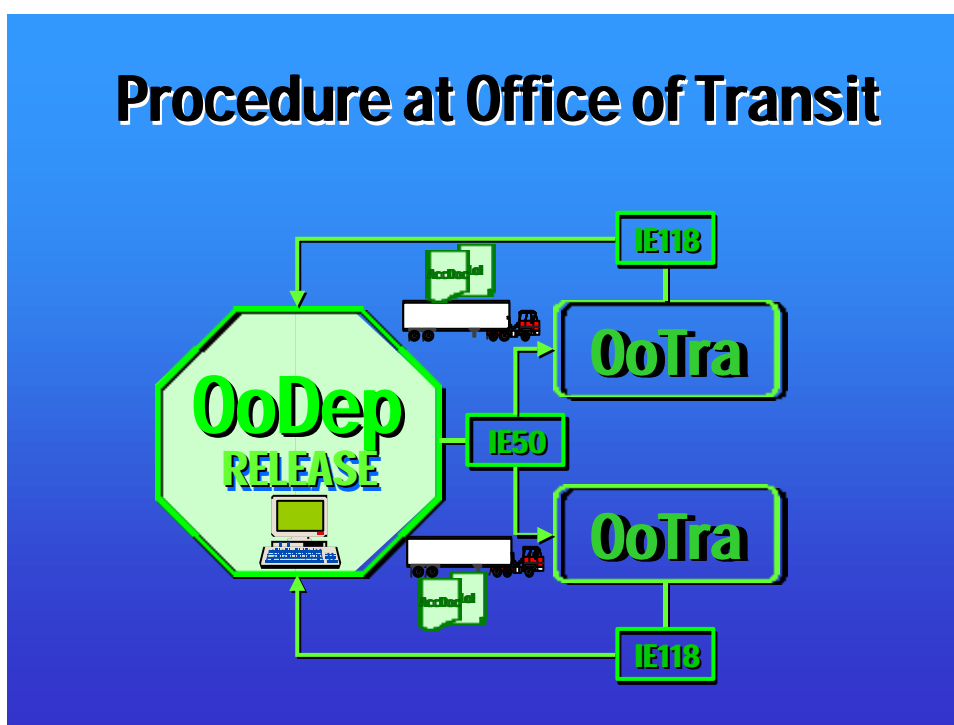


Diagram 3 – Office of Transit

The passing through the frontier is notified to the office of departure using an electronic message created for this purpose, the NCF message (IE 118) (see Diagram 3 above). When a movement has passed through an office of transit, this office will “close” this frontier for this particular consignment.

Office of destination – normal procedure

Upon arrival, the goods must be presented to the office of destination together with the transit accompanying document and the list of items where appropriate (see Diagram 4 below).

Customs, having received in advance the AAR message (IE 01), containing the necessary movement information, will have had the possibility to decide beforehand if controls are necessary.

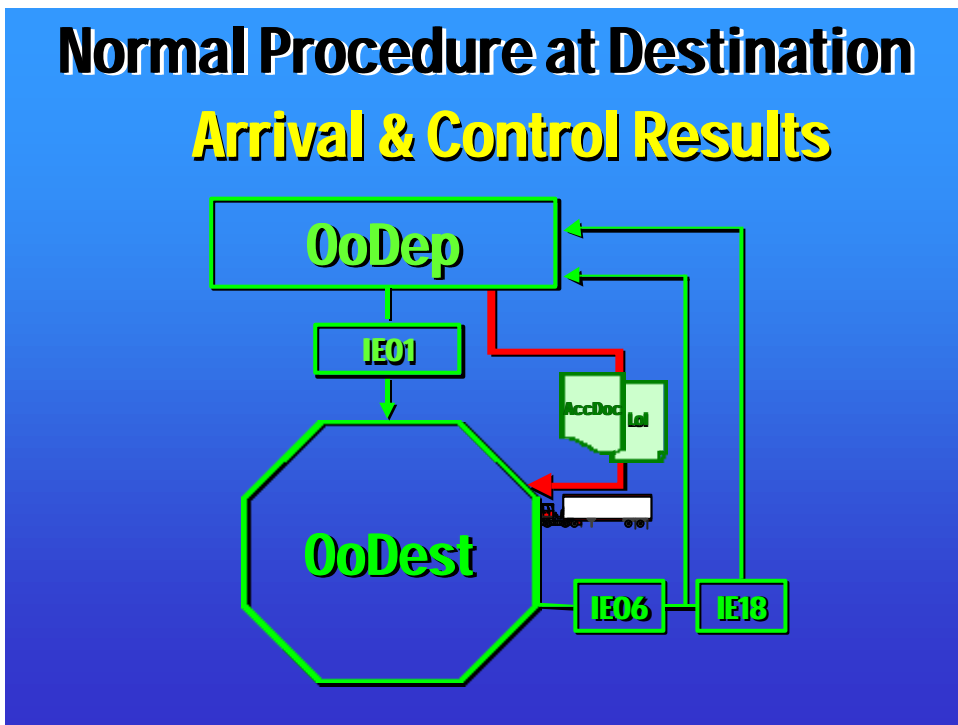


Diagram 4 – Office of Destination – Normal Procedure

When they enter the movement reference number into the system, it will automatically locate the corresponding anticipated arrival record. This information, electronically transmitted directly from the office of departure, must always be used as a basis for any controls decided by the office of destination. An electronic message, the "Arrival Advice" (IE 06), is transmitted to the office of departure, to inform that the movement has arrived and has been presented to the office of destination. The immediate transmission of this message to departure is of vital importance because the enquiry procedure is launched (at departure) immediately after a movement fails to arrive at destination within the time limit given for it.

After the relevant controls have been carried out, the office of destination will notify the office of departure of the control results by sending the electronic message "Destination Control Results" (IE 18), stating which, if any, irregularities have been detected.

Office of destination – simplified procedure

The authorised consignee in NCTS simplified procedure may receive the goods and the transit accompanying document directly at his own premises (see diagram 5 below), but he must be in a position to communicate with the office of destination using a data processing technique.

The arrival notification (IE 07) will be transmitted electronically by the authorised consignee to the relevant office of destination. Also other information will be exchanged by means of computers between the trader and customs, inter alia permission to unload the goods (IE 43) and notification of the results of unloading the goods (IE 44).

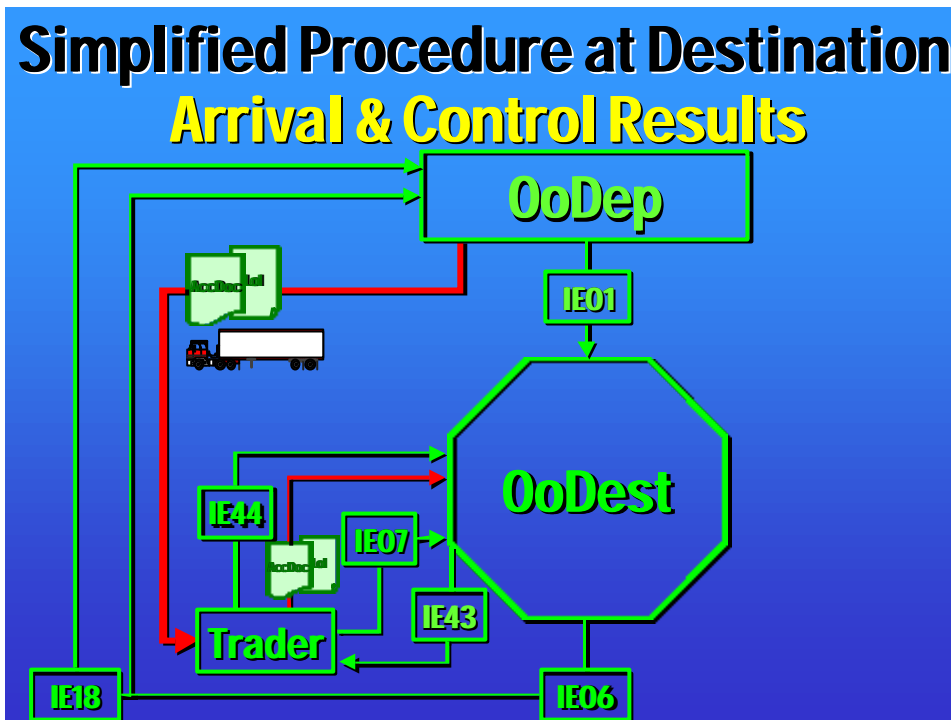


Diagram 5 – Office of Destination – Simplified Procedure

The electronic communication system allows unloading permission to be given 24 hours a day. It is, however, up to the customs authorities to decide if this should be permitted or not based on the reliability of the particular trader.

Change of office of transit or destination – diversion

By “diversion” is understood that goods are presented at an office of transit or at an office of destination other than the declared ones.

When a diversion occurs, the actual office of transit will send an ad hoc message to the office of departure, requesting the ATR message (IE 50), so that it can access the relevant movement information. Having checked the movement, it will send the NCF message (IE 118) to the office of departure. The ATR message received by the declared office of transit will be closed on the basis of a notification from the office of departure in order to avoid any possible abuse.

Likewise, the goods may be presented at an office of destination, other than the declared one. The actual office of destination will request from the office of departure the AAR message (IE 01) in order to obtain the necessary information on the consignment. The AAR message received by the declared office of destination will be closed on the basis of a notification from the office of departure.

Technical aspects of the NCTS system

General technical information

The system is based upon the Electronic Data Interchange (EDI) which is an essential and necessary component of the system. It enables the dematerialised and secured transfer of information between the customs administrations in Europe and with the trading community.

The customs administrations have confirmed their support for the UN/EDIFACT as a world-wide and multi-sector norm. The Commission and the national administrations use it to a maximum and as far as possible within the constraints of the Convention of Common Transit.

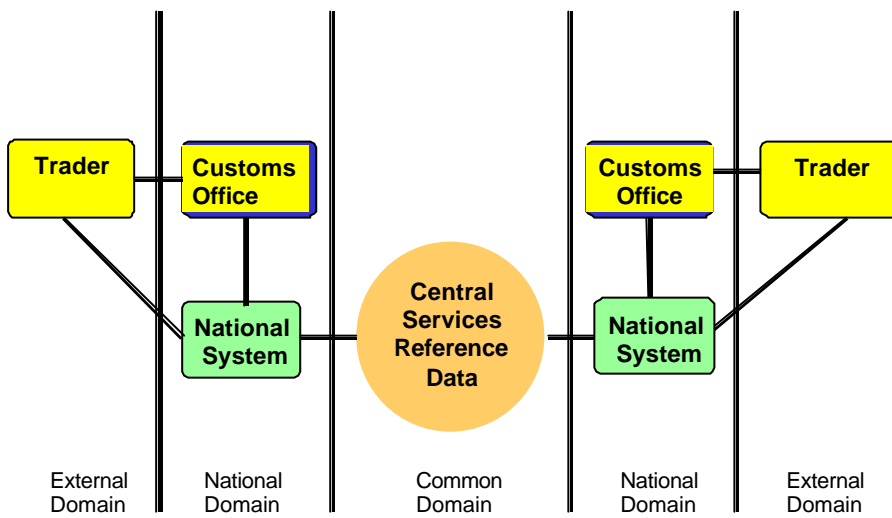
Technical specifications

The NCTS is fully documented. On the technical side there are the Transit Technical System Specifications, the Design Documentation for National transit Applications and several specific documents concerning issues such as security, central operations, reference data, etc.

The specifications are confidential and available only to authorised persons. They are the common specification which is mandatory for the development of the applications which are active in the common domain (=international). For the applications and connections in the national and external domain, the contracting parties to Common transit have also agreed upon specifications, but these specifications are to be seen as mainly recommendations to the countries concerned.

Architecture of NCTS

The EDI messages are exchanged between the national administrations by using a secured network called 'CCN/CSI': Common Communication Network/Common Systems Interface. This network is secured and access can only be made by a gateway (1 or 2 per country). This means that every country that joins NCTS must have access to the CCN/CSI and therefore the installation of at least one gateway



per country is necessary.

Diagram 6 – Transit System Architecture

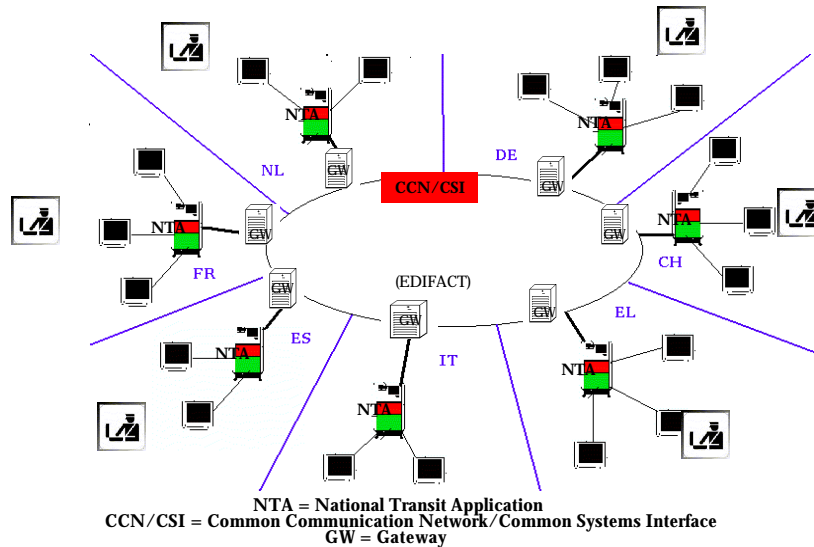


Diagram 7 – NCTS Network

Architecture of the secured network used for NCTS.

All messages sent over the Common Domain in the framework of NCTS are therefore using the CCN/CSI network. The messages used in the national domain are using the national network of each of the national customs administration. Messages exchanged with the traders are using the external domain and are subject to an authorisation by each of the national administrations. This authorisation stipulates the technical conditions of these connections.

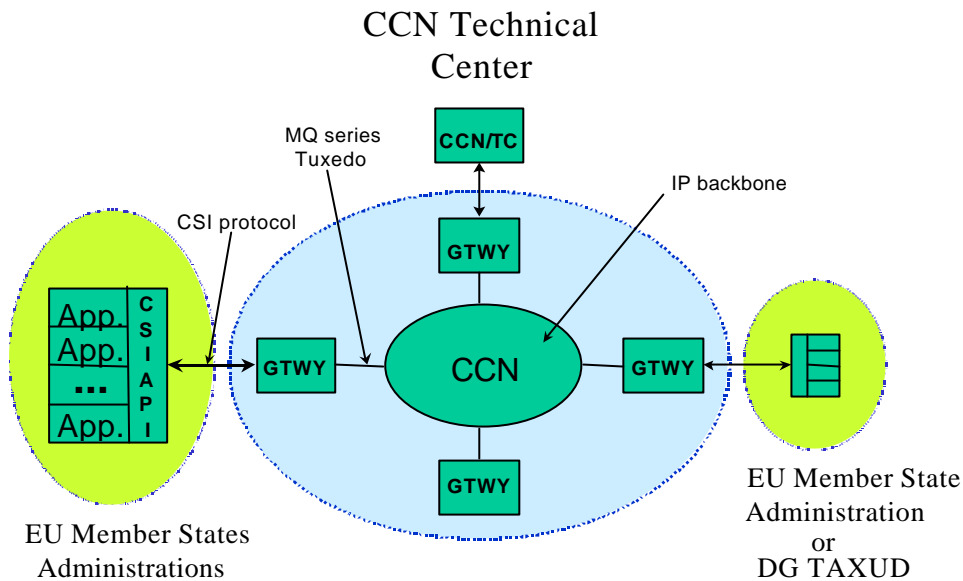


Diagram 8 – CCN/CSI Infrastructure

National transit applications

The countries have the option either to develop their own national NCTS application or the use the 'Minimal Common Core' (MCC) developed by the European Commission. The MCC includes most of the functions of a national transit application, but must still be customised to meet the national needs and needs to be integrated in the national information technology environment.

Central Systems

The most important central system is for the reference data (CS/RD). This system contains the list of customs offices and other data, which needs to be available centrally, such as the list of packages, country codes, etc.

The information relating to its own country can be updated 'on-line' by each of the contracting parties to the Convention on Common Transit. The complete set of information is available to all contracting parties and can be downloaded at any moment. The list of customs offices is available to the public on the 'Europa' server on the Internet.

Furthermore the central services provide management information and technical statistics on the NCTS. Later on, functional (customs) statistics will also become available.

Central services

The Commission central project offers a number of basic services needed to guarantee the correct functioning of NCTS.

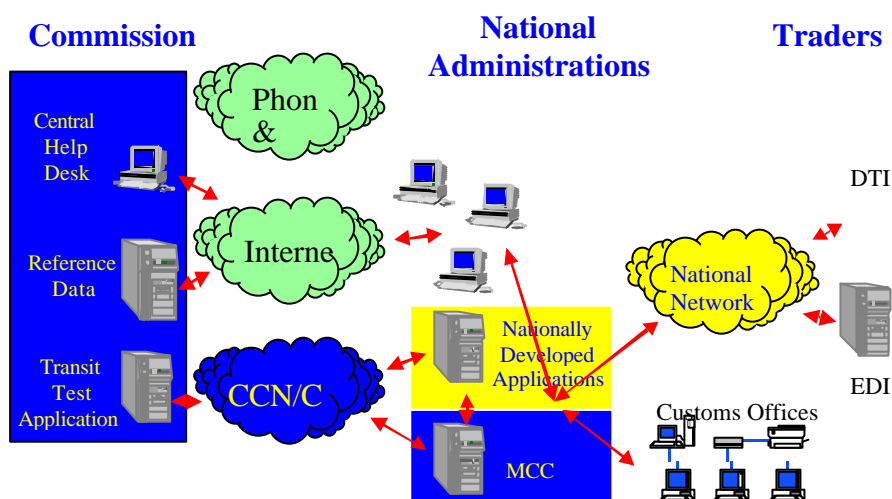


Diagram 9 – NCTS Architecture

There is a central helpdesk which is the contact point for the national administrations to report problems or to obtain information on the project. The central helpdesk is supported by a technical service whose main task is to solve possible technical problems related to the specifications or applications made available by the Commission. Furthermore there is a secured web-site which provides detailed information on the project documentation, the operations, applications, meetings, training, etc.

Furthermore, the central project organises monthly meetings of the Transit Computerisation Working Party, which is the main instrument of co-operation between the parties involved.

Conclusion

This presentation describes the computerised system that will eventually be used for Community and Common Transit by the 22 participating countries.

The system will not become fully operational in one go. It will be introduced step by step with countries and functions being added gradually to an agreed timetable. The initial implementation phase which includes a limited number of countries (7) and a limited number of customs offices within each of these countries has already started and will last until November this year. This will be followed by the next phase, which will include further functional expansion and full geographical coverage.

Moreover the number of participating countries will increase in a few years time. Six Central and Eastern European countries (Estonia, Latvia, Lithuania, Slovenia, Romania, Bulgaria) and Turkey have begun preparation to join the Convention. As a consequence, it is expected that the NCTS system will soon be applied by 29 of the 64 Contracting Parties to the TIR Convention.
