The New eCustoms Information and Communication Technology Platform Applied as a Business to Government (B2G) Interface

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Abstract

Trans-European IT services are provided by DG TAXUD in two main ways: either in a distributed way to allow the exchange of information between national administrations, or in a "hub" and "spoke" way concerning the exchange of information.
In parallel, the emergence of the Web and the irresistible push towards eGovernment offers an increasing number of services to the citizen. These services provide the traders with a view of the critical business information which is exchanged between the Commission and the national administrations[1]. DG TAXUD also provides IT services to serve its own internal business needs in the area of customs. It is crucially important to understand that, in order to serve its user base, DG TAXUD manages IT services which rely on a set of "trans-European systems" made up of geographically spread, but tightly interoperating and collaborating as a Business-to-Government service.

Key words: eGovernment, Interoperability, eCustoms, B2G, Service Oriented Architecture, Web Services

1. Introduction

For more than 15 years, the EU customs policy has required the implementation of IT trans-European services. Since 2003, when the Commission issued a Communication on a simple and paperless environment for customs and trade[2] that was subsequently endorsed by the Council,[3] the efforts towards creating increasingly efficient, effective and interoperable information and communication systems have been bundled under the electronic customs initiative. On 15 January 2008, the European Parliament and the Council adopted the so-called E-Customs Decision (70/2008/EC), which foresees that the Commission and the Member States set up secure, integrated, interoperable and accessible electronic customs systems for the exchange of data contained in customs declarations, documents accompanying customs declarations and certificates and the exchange of other relevant information.

1 http://ec.europa.eu/taxation_customs/common/databases/index_en.htm
2 COM (2003) 452, 24.07.2003
3 OJ No C 305, p. 1.

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These electronic customs systems aim to make customs clearance more efficient, to reduce administrative burdens, to combat fraud, organized crime and terrorism, to serve fiscal interests, to protect intellectual property and cultural heritage, to increase the safety of goods and the security of international trade, to enhance health and environmental protection, to allow for a seamless flow of data between export and import countries and to improve clearance times.

The creation of a single, shared computer portal will ensure that Member States' electronic Customs systems are compatible with each other - although all Member States have electronic Customs systems, they are not currently inter-connected. Therefore, the e-Customs Initiative is a significant development for the EU's Customs Union.

Essentially, there are three components of legislation that constitute the Electronic Customs Initiative: Security Amendment to the Customs Code[4]; Electronic Customs Decision (e-Customs Decision)[5]; and Modernised Customs Code (MCC)[6]. They promote the use of modern tools and technology, with the MCC and e-Customs Decision in particular generating a reengineering of procedures through radical simplification and modernisation. This will promote uniform application of the law and reduce costs for business and the risk of error.

2. eCustoms

An example of how governments may help e-commerce transactions by developing new concepts, which also ease governmental tasks, is given by the introduction of electronic customs. In the European Union, national electronic customs declaration systems are already used in many countries, e.g., Atlas in Germany, CHIEF in UK, Aida in Italy or Sagitta Entry in the Netherlands. However, a common standardized electronic customs system is still missing but it is topic of research promoted by the EU. The goal of a common customs system is to overcome interface barriers between national systems.

The EU has already started the implementation of standardized systems (European Commission, 2007a); together with the already existing Community Customs Code, this implementation will facilitate European trade. The implementation is composed of four key stages:

1. The first stage builds on existing work; namely the New Computerized Transit System (NCTS) and risk management tools. It creates the foundation for an electronic customs declaration environment by adding systems for Import (ICS) and Export (ECS), applying the International Road Transport Convention for Transit (NCTS-TIR), and including the Economic Operators Registration and Identification System;
2. The second stage is seen as providing aspects of the electronic customs vision which primarily addresses trader concerns: the Economic Operators Registration and

4 Regulation (EC) 648/2005
5 Dec No 70/2008/EC
6 Regulation 450/2008

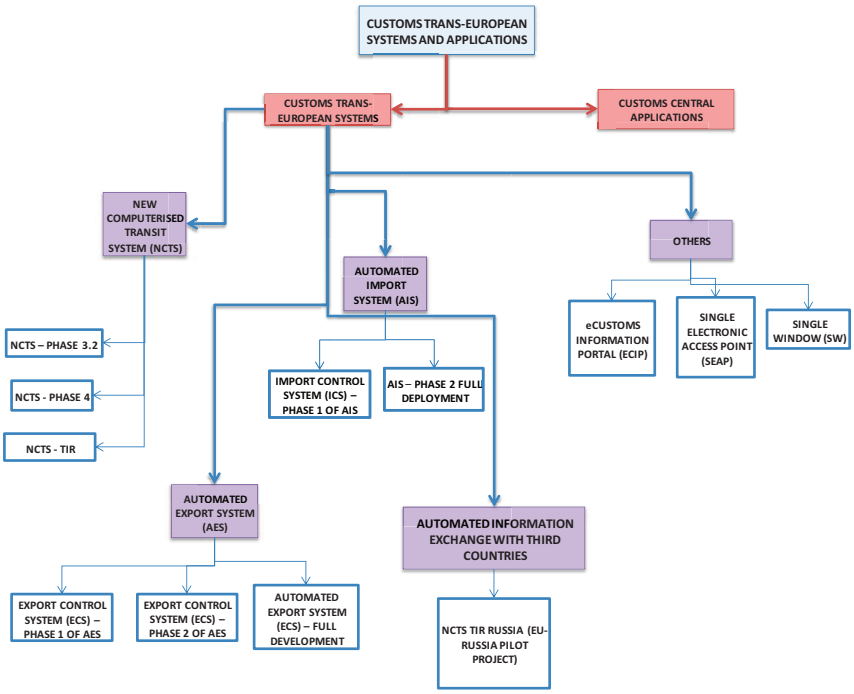
Identification System and the Authorized Economic Operator, together with the Common Customs Information Portal and the Single Electronic Access Point;
3. The third stage is based on the Modernized Customs Code concept, (European Commission, 2007b) and is focused on more ambitious aspects of the electronic environment. These projects would lead to the completion of a fully Automated Export and Import System (AES and AIS), as well as the completion of the Common Customs Tariff and Integrated Tariff of the European Communities (Taric), which came into force in 1987 (European Commission, 1987);
4. The fourth stage is related to the Single Window project as described in the Council's proposal for a paperless environment for customs and trade.

The goal of the EU customs project is to enable a paperless environment for customs and trade, i.e., to develop a common standardized ecustoms system. The envisioned e-customs system will be based on Single Window (SW) and Authorized Economic Operator (AEO).

3. Customs Trans-European Systems

The table and diagram below provide a summary of the customs trans-European Systems developed and operated by DG TAXUD, and their operational status.

Figure 1.1 - Custom Trans – European Systems



Customs Operational Systems (Trans – European Systems)	
The initiatives that fall under Customs Operational Systems can best be described as traditional Customs procedures (import, export and transit). As part of the modernization of Customs these procedures will be conducted, across the Member States, on electronic platforms which aim to ease complexity in Customs procedures and avoid duplication. The necessary data will be processed through the Automated Import System, the Automated Export System and the New Computerized Transit System.	
1 Automated Import System (AIS)	Will ultimately allow for the full computerization of import procedures and thereby support the exchange of information between Customs offices and traders, ensuring that import operations involving Customs authorities of more than one Member State can be completed without the resubmission of the same information. AIS will include the exchange of electronic messages (entry summary declarations, risk information, etc.) related to the different stages of goods moving through and out of the Community. Implementation will occur in two phases - Import Control System (ICS) and full deployment - culminating in a fully interoperable electronic organism (Member State to Member State, Member State to Commission and vice versa). • Phase 1: ICS. Provides the platform for safety and security controls at import • Phase 2: Full deployment of AIS
1.1. Automated Import System Phase 1: Import Control System	ICS is for the safety and security of cargo entering the EU, providing for the handling of entry summary declarations received from carriers or their agreed representative, e.g. freight forwarder or agent. The data collected will be used for risk analysis and appropriate messages relating to the goods (e.g. "do not load") will be issued. Traders will be required to provide information (entry summary declaration) in advance of goods being imported into, or transiting through, the EU.
Business Overview	• It will be the carrier's responsibility to ensure entry summary declarations are presented to Customs (as the person who brings the goods, or who assumes responsibility for the carriage of the goods into the Customs territory of the Community) • There will be the possibility to lodge entry summary declarations at a Customs office other than the Customs office of first entry, in the medium to longer term • The data requirements and time limits for submission vary slightly between modes: o Maritime containerised cargo: 24 hours prior to loading at the port of departure o Maritime bulk and break bulk cargo: at least four hours prior to arrival o Maritime sea voyages of fewer than 24 hours: at least two hours prior to arrival o Short haul flights (i.e. flights of fewer than four hours' duration): at the time of actual take-off o Long haul flights: at least four hours prior to arrival o Rail and inland waterway traffic: at least two hours prior to

	arrival o Road traffic: at least one hour prior to arrival
1.2. AIS – Phase 2 Full Deployment (Centralised Clearance and Simplifications)	The objective is to allow the full computerisation, based on the national IT systems, of the import procedure in cases where the customs authorities of more than one MS are involved, enabling electronic exchange of information between customs offices and traders. It will keep and expand the functions of ICS, and in particular it will add the notification of arrival and the presentation of goods, and the centralised clearance approach.
Business overview	• Easier connection with Customs authorities • The avoidance of the transit procedure
2. New Computerized Transit System - NCTS	NCTS will, with the support of electronic declarations and processing, streamline and harmonize the core transit process whilst incorporating the data required for security purposes. NCTS facilitates the management and control of Community transit thereby enabling non-Community goods (those that are not in free circulation) to move between two points within the Community without being subject to import duties and other charges. • Phase 1: NCTS. Covering Community/common transit • Phase 2: NCTS-TIR. Control of the Community leg of TIR movements • Phase 3: NCTS-Safety and Security. Incorporation of security data elements • Phase 4: NCTS-Enquiry/Recovery. Upgraded enquiry procedure and introducing the recovery procedure The objective of NCTS is to enable full control of the "core" transit procedure including the guarantee management and enquiry procedures, with the support of IT facilities.
2.1. NCTS – Safety and Security Aspects (including the ATIS amendments)	This enhancement to NCTS will incorporate into the system the additional features arising from the Security Amendment to the Customs Code and its implementing provisions. Customs will thereby be able to obtain information for risk analysis on transit shipments. In addition, a development in the Anti-Fraud Transit Information System (ATIS) will enable the system to forward a copy of transit movements to DG OLAF (the European Anti-Fraud Office) for movements including sensitive goods.
Business Overview	• for the administrations: faster and more effective control/discharge of transactions involving goods in transit in the customs territory of the Community; more efficient handling at the offices of transit; With the "security amendment": possibility of reusing the already existing transit declaration for another purpose. • for the economic operators: time and cost savings arising from more effective functioning of the transit procedure; with the "security amendment": possibility of using a single declaration for 2 purposes.
3 Automated Export System (AES)	The objective of the AES is to ensure that operations started in one MS can be finalised in another MS. This includes the exchange of electronic messages related to the different stages of the operations amongst the various actors (customs, traders and other governmental

	administrations). development of this project has been divided into 3 phases: **a.** ECS Phase 1 – exit "fiscal" control: operation started in January 2007 in several MS, with full application agreed from 1 July 2007; **b.** ECS Phase 2 – exit "security" control linked to the implementation of Regulation (EC) No 648/2005; **c.** AES – full deployment.
3.1. Export Control System (ECS) Phase 1	ECS Phase 1, as the initial step of the AES, is to provide for the full control of the conclusion of export operations through the electronic exchange of export/exit information between customs offices of export and customs offices of exit, in particular where different MS are involved. ECS is built according to the NCTS logic, but re-adapted for the export procedure. It starts when a Trader submits an export declaration to the proper Customs Office of Export. Then, after the acceptance of the export declaration, he/she receives the Export Accompanying Document (EAD) with a unique Movement Reference Number (MRN) which identifies the movement. Then the means of transport carrying the consignment covered by this document goes to the Office of Exit. Normally, the consignment arrives at the Office of Exit. The goods are presented to the Actual Office of Exit which processes the exit of the goods. Once the exit process is completed, the Office of Export finalizes the export operation. The core element of the ECS is the information exchange between the office of export and the office of exit: • to inform the office of exit of the anticipated arrival of goods for which export formalities have been completed at the office of export; • to handle diversions; • to inform the office of export of confirmation of exit and/or control results including the date of exit from the customs territory of the European Union; and • to handle partial and consolidated shipments.
Business Overview	• Early confirmation of export operations • Faster accounting of VAT deductions, export refunds, etc. • The ability to chase up problem movements at the earliest opportunity
3.2. Export Control System (ECS) Phase 2	ECS Phase 2 provides for the electronic handling of combined export declarations/exit summary declarations under the Security Amendment. It will require additional information to be included in export declarations for safety and security purposes, amongst other things. This provides Customs administrations with the infrastructure for fast reception and treatment (particularly risk analysis) of the pre-departure declarations. This Phase preserves and builds upon the functionalities delivered in ECS Phase 1 giving better control of movements and a more rational use of resources.
Business Overview	• for the administrations: fast reception and treatment (notably, risk analysis) of the pre-departure declarations; better control of movements, and a more rational use of resources for control; • for the economic operators: flexibility in their connection with the

	customs authorities.
3.3. Automated Export System (ECS) - Full development (Centralised Clearance and Simplifications)	Full deployment of AES will allow for the full computerisation of export procedures and ensure full integration of all export-related requirements (e.g. T5, sanitary controls). It builds upon and includes the functionalities of ECS Phases 1, 2 and the addition of the centralised clearance approach is planned. Customs administrations across the EU will have a completely automated procedure for the reception and treatment of all information linked to export declarations.
Business Overview	The AES is a further evolution of the ECS (phase 1 of the AES) and the first implementation of the *eCustoms* initiative. At the same time, ECS is the second customs procedure, after the New Computerised Transit System (NCTS), for which a Europe-wide IT-solution is applicable. AES will allow for the full computerisation, based on the national IT systems, of the export procedure, ensuring full integration of all export-related requirements (e.g. T5, sanitary controls). AES will build upon and include the functionalities of ECS Phases 1 and 2. In particular, it will add the central clearance approach. The advantages brought by this system are: • for the administrations: a completely automated procedure for the reception and treatment of all information linked to export declarations, including subsequent input to other national administrations and agencies where necessary; • for the economic operators: an easier connection with all the customs authorities via the "centralised" clearance at export, avoiding, inter alia, the cumbersome procedures currently in force in "triangular" traffic.
4. Others	
4.1. EU Customs Information Portal (ECIP)	To enable economic operators to access information related to import/export requirements, as well as information on the operational status of movements through a customs information portal. Such a portal would mainly contain all relevant information about rules on the movement of goods across borders, and also relevant information from domains other than pure customs (e.g. agricultural, environmental and other legislation). This approach is in line with the e-Government roadmap. Links will be provided to more detailed and/or national information featuring on the customs information portals of the national customs administrations. Also national administrations will be provided with an opportunity to feed info to the EU customs information portal.
Business Overview	• for Commission and national administrations: reduced enquiries, leading to costsa vings; it will ensure a further evolution of the Data Dissemination System and its integration into the ECIP. • for economic operators: facilitated access to any information pertaining to customs transactions; it will also simplify the task of traders and allow them to save on training and expertise costs. Can be used as a basic tool to prepare electronic declarations.
4.2 Single Electronic Access Points (SEAPs)	The development of SEAPs will mean that the lodging of electronic entry/exit summary declarations, summary and Customs declarations will be able to be done through a single interface of the trader's choice – irrespective of which Member State's Customs authority is concerned with an individual movement. The data inputed through SEAP will be

	available to any Customs office responsible for the location where the goods have been, or are to be, presented. The role of access point providers (Member State's Customs services or authorised private companies) will initially be limited to the passing on of the required data for processing by the competent Customs administration.
Business Overview	• Only need one access point to lodge Customs declarations • Existing electronic connections could be maintained
4.3. Single Window (SW)	The *eCustoms* "Single Window" is the most challenging integration project of *eCustoms* as it will require eventually achieving both business processes and technical interoperability amongst some 150+ governmental agencies across the Community and possibly other parties in third countries. Its deployment will be a major co-ordination challenge, before being a technical one. The objective of SW is to enable economic operators to lodge electronically, and once only, all the information required by customs and non-customs legislation for EU cross-border movements of goods. The initiative is currently presided over by DG TAXUD. There will be (at least) one SW per Member State. These SW will be supported by the SEAP functions for lodging of declarations (if available). The handling of certificates and licences needed for the declaration will be based on the Community tariff and supplementary information specific to the MS concerned. Certificates and licences from other MS will be transferred via the connection between the MS, the Commission and 3rd countries (SPEED platform), as well as between Commission systems, where required. SW shall also make information available on how to request certificates and licences from competent bodies.
Business Overview	• for the administrations: efficient risk management, increased streamlining, simplification and security of the customs operations, easier cooperation with other government authorities, even those in different member states; • for the economic operators: streamlining the lodging of supporting documents resulting in time and money savings; ability to request licences and certificates from competent bodies.

4. Conclusions

The proper functioning of the customs union, and the achievement of its different objectives, depends in the first instance on the applicable customs legislation. The strategic decisions (e.g. on the Modernized Customs Code, the Safety and Security Amendment, or the E-Customs Decision) are taken in the relevant political decision-making fora, and are thus largely an external variable as far as the Customs 2013 programme is concerned. However, the C2013 plays a very significant role in ensuring that customs legislation is implemented, interpreted and applied uniformly across the entire EU, and in a way that is effective and strikes an appropriate balance between combating fraud and tackling safety and security-related risks on the one hand, and minimizing the burden for legitimate trade on the other.

It can be suggested that the contribution of C2013 is greatest towards the harmonization of the working methods of national customs administrations, since this results, to a greater or lesser extent, from nearly all joint actions and IT systems that standardize approaches, bring together national customs officials and facilitate the exchange of information and best practices. At the other end of the spectrum, there are indications that the ongoing focus on the implementation of the Safety and Security Amendment means that trade facilitation often continues to play a somewhat secondary role in many programme activities; therefore, while progress has been made in this field, it has tended to be slower than in the others.

C2013 has been able to make a significant contribution to the proper functioning of the customs union (and to the objectives that form the basis for this) through a wide array of interventions, including both joint actions and IT systems. The broad and flexible nature of the toolkit available to the programme is one of its greatest strengths.

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