

INVITATION TO TENDER	REF: TAXUD/2013/AO-01-CUST-DEV3
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<p>ANNEX II.A - TERMS OF REFERENCE</p> <p>INVITATION TO TENDER TAXUD/2013/AO-01</p> <p>Specification, development, maintenance and support of customs IT systems (CUST-DEV3)</p>		

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0.4 ACRONYMS AND DEFINITIONS

In this Invitation To Tender, the Directorate-General for Taxation and Customs Union, which is the contracting authority, will be further referred to as "the Commission" or " DG TAXUD ". References to DG TAXUD are based on its organisational structure at the time of writing the Invitation To Tender and that is subject to possible changes.

An extensive list of abbreviations and definitions can be found in Annex II.C. - List of Abbreviations.

0.5 REFERENCES

Please refer to Annex II.D - List of Reference Documents for a list of all reference documents applicable to this Invitation To Tender and that can be consulted from Annex XI – Baseline.

Throughout this call for tenders, package references are made to:

TEMPO: TAXUD Electronic Management of Project Online (TEMPO) is a Quality Management System (QMS) that has been established in the DG TAXUD IT Unit environment to support the business goals and objectives of DG TAXUD. It is the DG TAXUD methodology to ensure the consistent and efficient management, set-up, development, operation and support of projects and service management.

The tendering parties are invited to access TEMPO through the following URL:

Tenderers should Login on Circabc page:

<https://circabc.europa.eu/w/browse/1f5a5ca0-b797-4d3f-b4bb-8adc9bf48177>

User name : tempo_guest

Password: custdev3ITT

TEMPO + group appears then.

The latest Release of TEMPO is to be used by the CUST-DEV3 tenderer. The list of TEMPO documents referred to in this document is only added in order to make the reading easier. They are neither exhaustive nor legally binding; they are only provided as additional information.

Refer to [chapter 10](#) for more information on TEMPO.

ITIL: IT Infrastructure Library (ITIL) for the implementation of the IT Service Management Processes. The official ITIL website can be accessed following this URL: <http://www.itil-officialsite.com/>

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At the time of writing the Invitation To Tender, DG TAXUD is migrating from ITIL version 2 to ITIL version 3.

ISO standards

Following ISO standards are referred as applicable in this scope document.

- ISO 9001:2008 (Quality management systems – Requirements) or equivalent;
- ISO/IEC 20000-1:2011 (Information technology -- Service management -- Part 1: Service management system requirements) or equivalent;
- ISO/IEC 20000-2:2012 (Information technology -- Service management -- Part 2: Guidance on the application of service management systems) or equivalent;
- ISO/IEC 27002:2005 (Information technology -- Security techniques -- Code of practice for information security management) or equivalent;
- ISO/IEC 27001:2005 (Information technology -- Security techniques -- Information security management systems – Requirements) or equivalent;
- ISO/IEC 27005:2011 (Information technology -- Security techniques -- Information security risk management) or equivalent;
- ISO/IEC 20926:2009 (Software and systems engineering -- Software measurement -- IFPUG functional size measurement method 2009) or equivalent;
- CMMI (Capability Maturity Model Integration) Level 2 or equivalent.

The Baseline (BL): extensive repository of DG TAXUD artefacts ¹ providing detailed information on DG TAXUD activities of relevance for the contract.

The baseline is provided on DVD-ROM, as Annex XI to the Tendering Specifications and available only on written request by e-mail to TAXUD-TENDERS@ec.europa.eu, or by mail to the following address:

European Commission,
 Directorate-General Taxation and Customs Union
 Rue Joseph II 79/Josef II-straat 79
 1000 Bruxelles/Brussel
 Belgium

The information and the documents on the DVD-ROM are the sole property of the Commission (unless otherwise specified), and are provided without prejudice and for the exclusive use of the tenderer.

A Non-disclosure Declaration (Annex IX) will need to be signed by the potential tenderers.

¹ An artefact or deliverable may be, but is not limited to: documents, bespoke applications, a demonstration, a mission report, an e-mail, conformance test planning, an offer, technical meeting minutes, configuration baseline for centrally developed applications, etc.

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The tenderer needs to take into account that the baseline reflects the situation applicable at the time of publication of the Call for Tenders and that it will evolve.

In case of a conflict between the applicable documents and/or source code, the following order of decreasing precedence shall prevail, unless otherwise stated:

- The CUST-DEV3 Invitation To Tender (of which this document is part);
- TEMPO;
- International standards and best practices;
- All documents in the Invitation To Tender baseline.

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1 INTRODUCTION

In the context of the customs policy of the European Union, the single market requires that the national administrations of EU Member States work in ever closer harmony and apply Union regulations with ever greater consistency in order to ensure a uniform level of protection at the external frontiers, to prevent and combat fraud and to avoid diversion of trade.

Computer processing and electronic communication systems are required to play an ever more important role in this context. The Customs 2013 programme (Decision 624/2007/EC² of the European Parliament and of the Council of 23 May 2007 establishing an action programme for customs in the Community (Customs 2013), provides the legal and financial basis for the development, operation, maintenance and improvement of electronic information exchange systems between national administrations and the basis for electronic systems which will allow business to move towards a paperless customs environment. In addition, the eCustoms decision (Decision 70/2008/EC³ of the European Parliament and of the Council of 15 January 2008 on a paperless environment for customs and trade) provides for a common denominator under which the customs systems and applications are developed and operated.

The Commission and the Member States are committed to deliver pan-European e-Government services, providing for efficient, effective and interoperable information and communication systems between public administrations, including between their front and back offices, in order to exchange and process public sector information across Europe in a secure manner. As part of this commitment, they have undertaken to set up and operate secure, integrated, interoperable and accessible electronic customs systems in order to facilitate end-to-end supply chain logistics and customs processes for the movement of goods into and out of the European Union, and to reduce the risks of threats to the safety and security of citizens by minimising the remaining differences between Member States' customs processes. The EU electronic customs systems will in general be built according to international standards as regards data sets/models and message formats, thus allowing future interaction with 3rd countries' systems.

The Commission (represented by the Directorate-General "Taxation and Customs Union" - DG TAXUD) manages a set of activities in the areas of customs. These activities target the needs of users in the Commission services as well as those located in the National Administrations of the Member States, traders and citizens.

The legal perspective is not part of this Invitation To Tender but is the foundation of all related customs processes and IT implementations.

The customs business analysis and modelling activities are the second perspective of the overall implementation and are completely covered by this Invitation to Tender. The proposed business processes must map with the legislation and must be the basis for a correct IT implementation. This perspective covers all customs processes.

² OJ L 154, 14.6.2007, p. 25–31

³ OJ L 23, 26.1.2008, p. 21–26

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The third perspective is the IT implementation according to the functional and non-functional requirements. All related activities are completely covered by this Invitation To Tender.

The IT systems managed by DG TAXUD itself from an operational viewpoint (meaning software is running on infrastructure under direct responsibility of DG TAXUD) are called central IT applications. These applications can serve different user categories, specifically or a combination of them: (1) internal Commission users (2) National Administration users (3) traders or (4) the citizen in general terms.

The distributed IT systems managed by the National Administrations are at the time of writing this Invitation To Tender the New Customs Transit System (NCTS), the Export Control System (ECS) and the Import Control System (ICS). For these systems, DG TAXUD is the guardian of the common functional and technical specifications, it develops and operates supporting applications and it monitors the systems at overall level.

The distributed IT systems and the central applications providing interfaces to the National Administrations are often referred to as "trans-European systems".

To support these trans-European systems, a closed and secure trans-European communication network named CCN/CSI (refer to section 5.8 for more information on CCN/CSI) has been developed by DG TAXUD and for which it has operational responsibility. The activities related to the CCN/CSI network (and its CCN2 successor) are not part of this Invitation To Tender. Nevertheless, the CUST-DEV3 contractor will maintain existing and implement new applications based on the CCN/CSI interface and services.

This Invitation To Tender is to award a framework contract of a duration of eight (8) years to cover the provision of specification, development, maintenance and support of customs IT systems.

The main services and deliverables of the CUST-DEV3 contract are:

- take over all applicable services from the incumbent contractor;
- provide all required services for specification, development, maintenance and support of customs IT systems;
- hand over all applicable services at the end of the contractual period to the Commission or to any specified third parties on its behalf.

The Terms of Reference (ToR) is divided as follows:

- Section 1: introduction;
- Section 2: contractual and administrative background information;
- Section 3: architecture and strategy background information;
- Section 4: customs business analysis and modelling background information;
- Section 5: DG TAXUD IT background information;
- Section 6: the portfolio of customs IT systems and applications;
- Section 7: future perspective information;

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- Section 8: an overview of the technical architecture framework for the customs central applications;
- Section 9: IT statistics;
- Section 10: Tempo information;
- Section 11: Hardware and Software in use.

DG TAXUD invites the reader to take note of all the content of Baseline documentation as it constitutes an information base encompassing all the activities which will eventually have to be taken over by the CUST-DEV3 contractor.

The CUST-DEV3 tenderer must use the latest release of TEMPO⁴.

⁴Release 2010.02.

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CONTRACTUAL AND ADMINISTRATIVE BACKGROUND	

2 CONTRACTUAL AND ADMINISTRATIVE BACKGROUND

2.1 SERVICE ORGANISATION

The relationships between the stakeholders involved in the CUST-DEV3 contract are summarised in Figure 1 below. For reasons of clarity the various Member State Committees and Working Groups are not depicted.

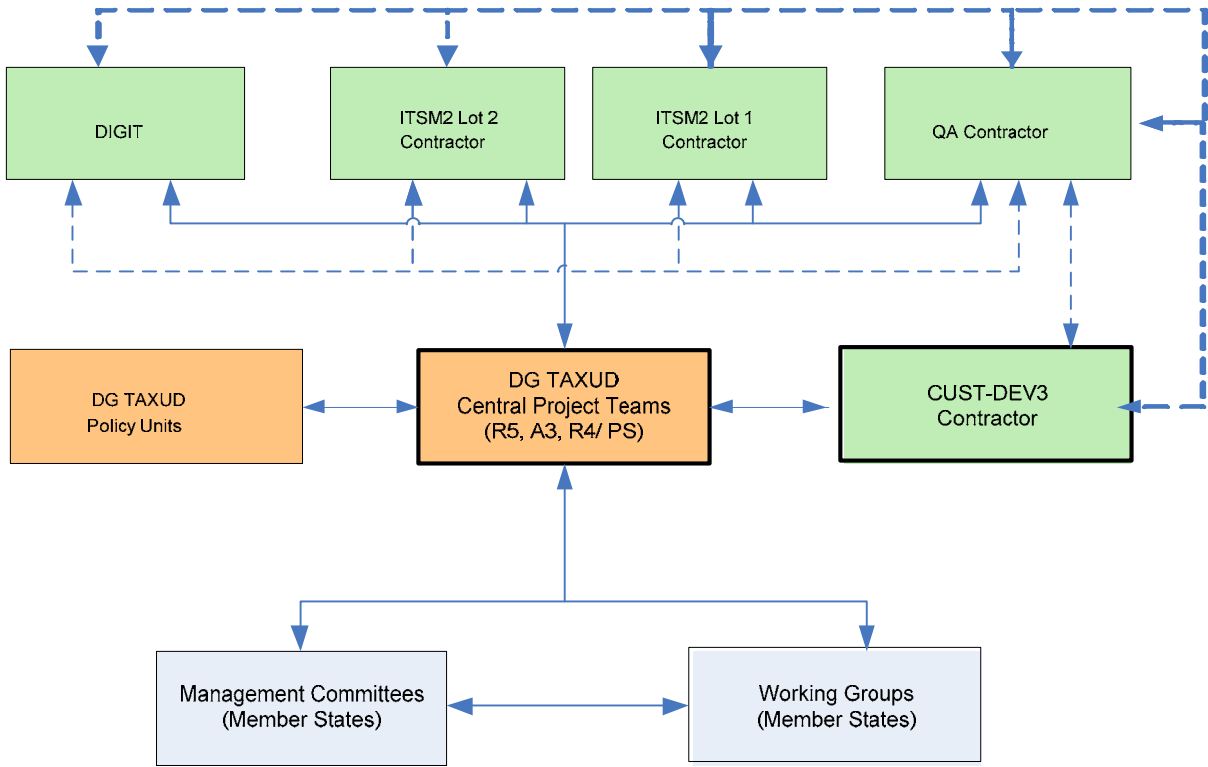


Figure 1 - Service Organisation – involved entities

2.1.1 CENTRAL PROJECT TEAMS (CPT) AND PROJECT SUPPORT (PS)

In the context of the CUST-DEV3 contract, there will be several Central Project Teams (CPT) managed by Units R5 and A3. Each CPT manages and coordinates the various projects that are on-going and those that will be started in their respective areas.

In addition to above CPTs, the R4/Project Support (PS) sector will deal with the contractual and supply management related activities.

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Contractors report to the customs CPTs for technical and business related activities, and to PS sector for contractual and supply management related ones. Furthermore, the contractor interacts with other contractors and entities only through the concerned CPT. In some specific circumstances, the CPT may authorise the establishment of direct working relationships between the contractor and other entities in order to improve the overall efficiency of the central project. However, the Central Project Team will always retain the full control over, and require full traceability of the information exchanged between the contractor and other entities. Please refer to section [2.5](#) for information on the tasks performed by the QA2 external entity.

2.1.2 POLICY UNITS

They are responsible for the policy management and related business process models. They are the main “customers” of Units R5 and A3. The policy units may also be “users” of specific systems that they need to fulfil their mandate (e.g. Tariff Applications).

The organisation chart of DG TAXUD can be found on the EUROPA website. This organisation chart is subject to change:

http://ec.europa.eu/taxation_customs/common/about/structure/index_en.htm

2.1.3 NATIONAL ADMINISTRATIONS (NAS)

The **national administrations**, national project and operation teams, are responsible for the deployment and operation of the national components (national Configuration Items including national applications) of the trans-European systems. The term national administrations encompasses all national administrations which have IT obligations to fulfil EU customs and taxation policies, in all Member States, Candidate and Accession Countries and in third countries, arising from EU customs and taxation policies.

2.1.4 MANAGEMENT COMMITTEES

The **Management Committees**: delegates from the national administrations, EFTA countries, neighbouring countries (Ukraine, for example) and from other third countries (China, Russia, etc.), as appropriate, and the Commission compose these Committees set up by the legal bases.

2.1.5 WORKING GROUPS/ PARTIES AND ECONOMIC OPERATORS

The Working Parties/Groups or Technical Sub-Committees are set up by the Management Committees as needed with specific mandates. The Working Parties/Groups or the Technical Sub-Committees report to their respective Management Committees.

On the other side, **Economic operators** are fast increasing user/consumer base of the IT services provided by DG TAXUD via its presence on the EUROPA site. They are also users of the national administrations interconnected via TES.

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2.2 INTERACTIONS WITH DG TAXUD

2.2.1 UNIT R4

Unit R4 will manage the CUST-DEV3 Framework Contract, including its Specific Contracts.

DG TAXUD will interact with the contractor via five (5) roles with the objective to have the contractor delivering according to contract, plan, budget and quality. More specifically,

- The supply management (alias TESM) is assigned to Unit R4 Project Support(PS) sector: in charge of managing all common supply management issue(s) within the Framework Contract;
- The contract management (alias CM) is assigned to Unit R4 Project Support sector: in charge of managing all common administrative, contractual, quality and performance issue(s) raised within the Framework Contract;
- The quality management (alias QM) is assigned to Unit R4 Project Support Sector: in charge of managing all quality related matters and plans within the Framework Contract, and with whom the CUST-DEV3 contractor will have to interface to address issues regarding the interface between CUST-DEV3 and the Quality Assurance contractor;
- The Human Resources and Finances Unit R1: in charge of contractual, legal and financial/invoicing aspects and issues;
- The LISO (Local Information Security Officer in Unit R4): in charge of all security and continuity aspects and issues.

2.2.2 UNITS R5 AND A3

Daily CUST-DEV3 technical activities, including demand management are managed by units R5 and A3. More specifically, the contractor will interact with the

- Customs IT Systems (R5/CIS) sector mainly for IT development and support services for the customs IT systems and applications;
- Enterprise IT Architecture and Strategy (R5/EAS) sector for all business/technical matters related to architecture, strategy and the SPEED2 platform;
- Infrastructure and IT Service Delivery (R5/ISD) sector in the context of all ITSM2 related activities and the DG TAXUD Data Centre hosting aspect;
- Customs Code project management (A3/CCPM) sector for all matters related to business processing and modelling;
- eCustoms (A3/EC) sector for all matters related to eCustoms.

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For each of the business domains (i.e. system and/or application, architecture, etc.), the sectors concerned of units R5 and A3 will nominate one "coach" to manage and coordinate effort with the CUST-DEV3 contractor for all technical activities, including demand management;

More information on the interaction model between DG TAXUD and CUST-DEV3 contractor is provided in the Annex II.B - Technical Annex.

2.3 INTERACTIONS WITH NAS, BUSINESS UNITS AND OTHER PARTIES IN THE EUROPEAN COMMISSION

The R5 unit is responsible for the overall coordination with the MS and the business units for business and matters related to architecture, strategy and customs IT systems and applications, while Unit A3 is responsible for any matter related to the customs business processes.

2.4 PROJECT STEERING COMMITTEES

The CUST-DEV3 Project Steering Committee will consist of the contractor's appointed person responsible for technical matters, the contractor's Programme Manager, the Heads of the involved Units, and the coaches nominated by DG TAXUD A3 and R5.

Compliance with the service organisation is a permanent requirement for the CUST-DEV3 contractor.

2.5 ROLE OF QA2 CONTRACTOR

DG TAXUD is supported by the QA2 contractor which performs quality assurance and control over the activities of the others IT contractors of DG TAXUD. The QA2 contractor

- Performs (on-site) audit of the CUST-DEV3 contractors (quality/security/ad hoc),
- Coordinates the review by DG TAXUD of the CUST-DEV3 deliverables, and performs technical reviews of these deliverables,
- Monitors the Service Levels provided by the CUST-DEV3 contractor,
- Performs (on-site) quality control of the testing activities (application testing, conformance testing),
- Attends meetings, workshops, training sessions organised by the CUST-DEV3 contractor,
- Performs IFPUG function points counting (on request from the Commission)

The QA2 contractor is also responsible for quality assurance. It maintains the TEMPO methodology, provides technical expertise and assists DG TAXUD for the continuous improvement of its IT maturity and of its contractors.

In this context, the CUST-DEV3 contractor must be ready to collaborate with the QA

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contractor.

2.6 CONTRACT AND DEMAND MANAGEMENT RULES

The CUST-DEV3 contractor has to ensure that sufficient and competent resources are always available to support increased demand for services and meet successfully expectations of DG TAXUD. In doing so, the CUST-DEV3 contractor has to meet regularly with the R5 and A3 sectors to discuss and review with them their future demand needs and plans.

In the context of this call for tenders, services are ordered in accordance with the following:

- The Framework Contract (FWC) identifies the services available and offers a price catalogue: services with a unit price, fixed price services, resource-based services quoted in man/days or Function points together with the unit price of the profiles available, hardware and software acquisition/maintenance provisions, travel provisions and rules for reimbursement of travel expenses;
- Following the FWC, Specific Contracts (SC) can then be signed. Each Specific Contract specifies the list of services concerned and the way these services will be ordered and quoted. Some fixed price services, such as missions, workshops, etc. are ordered by means of a "pool" of RfAs, and need to be authorised by DG TAXUD before they take place. A careful monitoring of the travel budget consumption is required by the contractor.

The tenderers must refer to the Annex III - Price List of the Tendering Specifications to get the pricing strategy to be used in CUST-DEV3.

What follows below is a brief presentation of the rules to be applied and respected along the contract and demand management process.

- Initial set-up (and maintenance) of the quantities (alias metrics) to be ordered or allocated in a Specific Contract:
 - The overall quantities for services and/or deliverables such as missions, etc. are estimated by DG TAXUD or the contractor at the time of preparation of the new Specific Contract subject to signature, on the basis of figures experienced from the past and discussion with R5 and A3 sectors about the future perspectives;
 - The provision for resource or function-points based services such as specifications, development and testing is estimated by DG TAXUD on the basis of past consumption and on the future perspectives and plans;
 - The provision for Hardware/Software acquisition/maintenance renewal is estimated by DG TAXUD on the basis of the H/W & S/W acquisition and renewal plan maintained by the contractor;
 - The provision for travelling is estimated by DG TAXUD on the basis of the volume of services where travel is required;

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- The resulting quantities above, once agreed with R4/PS sector, are then split into the specific contract as follows: a percentage of the quantities for services with unit price go to the FP budget, the remaining percentage goes to the OD budget; the 100% of the resource-based or function points services to be quoted go to the QTM budget; a provision is foreseen to cover travel and subsistence costs reimbursement;
- Once the specific contract is signed, services with unit price are available for consumption, the follow-up by the contractor of the corresponding quantities starts (weekly coordination meeting with R4/PS sector), as soon as a specific quantity for a given service will be fully consumed, an RfA may be issued by R4/PS sector to ensure continuity of service, according to revised estimates provided by the contractor;
- Once the specific contract is signed, the RfE/RfA process for QTM services may start;
- Ordering of services, excluding resource-based services
 - R4/PS sector will make service quantities available to CUST-DEV3 for consumption via an On-Demand (OD) Request for Action (RfA);
- Consumption of ordered services:
 - Under R5, A3 and R4/PS sectors responsibility;
- Monitoring consumption of the released service quantities
 - R4/PS sector will monitor the overall quantities consumption and regularly request business sectors to update the forecast of their needs;
 - CUST-DEV3 contractor will send alerts to R4/PS, in due time, in case of a potential shortfall. This risk must be limited by regular meetings between PS sector and CUST-DEV3 contractor. During the BMM the demand will be reviewed by TAXUD and the ITSM2 Lot2 contractor and compared against the actual supply;
- Ordering of IT services (RfE/Offer/RfA process)
 - R4/PS sector will manage the issuing of: Request for Estimation (RfE) in collaboration with the involved R5 and A3 sector;
 - CUST-DEV3 contractor will submit an offer;
 - the concerned sector will be involved in the assessment of the offer (e.g. technical, quoted effort);
 - R4/PS sector will manage the issuing of the Request for Action (RfA) in collaboration with the involved R5 and A3 sector.
- Progress reporting/follow-up: Monthly Progress/Service Report(MPR/MSR)
 - R4/PS sector organises the review of the Monthly Progress/Service Reports (MPR/MSR). The contractor provides the agenda for the progress meeting;

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- R5 and A3 Sectors are invited to review the progress reports dedicated to their business (in particular to verify in the MPR the reported progress, the consumed quantities, the dates of services, the deliverables to be accepted), and sends their comments to the CUST-DEV3 contractor directly and with the functional mailbox of DG TAXUD in copy;
- R4/PS organises the Bilateral Monthly Meeting (BMM) and invites the concerned R5 and A3 sectors as well as CUST-DEV3 contractor to confirm their participation;
- Acceptance letters / acceptance of invoices
 - Acceptance letters: CUST-DEV3 contractor provides to R4 PS the "RFA Acceptance Report" along with the necessary supporting documentation (i.e. e-mails for document sent for acceptance or the "Request for Acceptance Letter" in case the acceptance letter concerns a deliverable and not an RFA. Please refer to Baseline (BL) for the guidelines applicable to RFA/Deliverables acceptance [R028];
 - Invoicing: CUST-DEV3 contractor provides to Unit R1 all necessary supporting documentation along with the invoice; R1 verifies and complete payment. Please refer to Baseline (BL) for the guidelines applicable to the invoicing process [R028].
- Signature of Specific Contracts
 - R4/PS sector will manage the issuing of Request for Offer (RFO) in collaboration with the concerned R5 or A3 sector;
 - CUST-DEV3 contractor will submit an offer in reply to the issued RFO within the indicated deadline;
 - The concerned R5 or A3 sector will assess and accept the offer;
 - R4/PS will prepare and deliver to Unit R1 the Request for Commitment (RfC);
 - Unit R1 in DG TAXUD will be responsible for the Specific Contract signature process.

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2.7 IFPUG FSM METHOD

The CUST-DEV3 contractor will apply the IFPUG FSM method to determine the functional size of IT projects when possible. The resulting number of function points will be the basis to determine the overall cost of a given IT project.

The standard to apply is ISO/IEC 20926:2009 which specifies the set of definitions, rules and steps for applying the IFPUG (International Function Point Users Group) functional size measurement method (FSM).

Function Point Analysis (FPA) is a sizing measure of clear business significance. First made public by Allan Albrecht of IBM in 1979, the FPA technique quantifies the functions contained within software in terms that are meaningful to the software users. The measure relates directly to the business requirements that the software is intended to address. It can therefore be readily applied across a wide range of development environments and throughout the life of a development project, from early requirements definition to full operational use. Other business measures, such as the productivity of the development process and the cost per unit to support the software, can also be readily derived. The function point measure itself is derived in a number of stages. Using a standardised set of basic criteria, each of the business functions is a numeric index according to its type and complexity. The sum of these indices gives an initial measure of size which is then normalised by incorporating a number of factors relating to the software as a whole. The end result is a single number called the Function Point index which measures the size and complexity of the software product.

In summary, the FPA technique provides an objective, comparative measure that assists in the evaluation, planning, management and control of software production.

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3 ARCHITECTURE AND STRATEGY BACKGROUND

3.1 IT STRATEGY & IT MASTER PLAN

The business objectives relevant for IT in the area of Customs Union, concern the implementation of Union Customs Code (UCC) and eCustoms legislations, extended with the Safety and Security policy.

In this framework, the IT Strategy pursues to implement the Customs Union business objectives whilst reducing to the minimum extent the overall IT investment necessary in the Union, cutting down costs necessary for trade and for the Member States. In parallel, the aim of the IT strategy is to gradually achieve convergence in customs IT at the EU level by adopting certain practices so as to streamline customs IT operation and improve the quality of services.

The cornerstones of the IT strategy are the following:

- The future IT systems shall be designed and implemented using a service-oriented architecture, so as to favour the emergence of flexible, modular, easy to change IT systems that benefit from the re-use of existing functionality in another Member State or in the Commission. By adopting a service-oriented approach in the design of new systems, as advocated in the European Interoperability Framework (EIF⁵), we aim at producing modular IT systems that can re-use some pieces of software developed in collaboration.
- A new generation of CCN, called "CCN2", shall be implemented as the interoperability infrastructure which enables the new architecture. By adopting the renovation of CCN, we create in CCN2 an interoperability infrastructure which offers access to services independently of their location and backwards compatible with existing customs systems.
- Where appropriate EIS could be implemented centrally, in view of total cost reduction and subject to a positive business case. For example, in the case of the customs decisions project, the Commission could develop the national domain functionality and the single access point for trade and make them accessible at the appropriate level of availability and performance. Such approach could provide for the Customs Decisions project, savings in the range of 40 to 50 Million € in the EU. In this case, the Member States (MS) would capture the benefits whilst doubling or tripling the cost and effort necessary at the Commission. In order to achieve this objective, DG TAXUD has embarked in the creation of high availability IT infrastructure offering appropriate service levels. However, practice showed in the customs decision project that such central implementation is not welcome by all MS, for various reasons. For example, MS argued that they have also other national decisions to manage and they

⁵ http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf

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wish to so by a single system. This drives the need for the design of modular systems, which allow to plug in national systems the related functionality using the service-oriented architecture capability, whilst at the same time foreseeing specific interfaces for the MS that wish to develop their IT system in full. This hybrid architecture is of course more complex to design and implement by the Commission than in the case of a single central functionality and is less agile to change.

- Collaboration between willing customs national administrations in the design and (if possible) implementation of future systems shall be favoured, so as to avoid repetition and reduce redundancy of effort and total cost in the European Union. Collaboration neither drives to identical systems nor it is considered possible to create a single customs system.
- A reference architecture (enterprise architecture) for Customs IT shall be developed so as to build a common language and planning basis for future systems. A pilot project explores the feasibility of such collaboration in 2012.
- Future systems should offer a single access point for trade, hence, reducing the number of connections of trade to the customs union from 27 to 1: by addressing future trader access systems related to declarations using the above practices and techniques, we could reduce the trade costs significantly. Moreover, such interface could also be hosted at the Commission, hence, reducing de facto the interfaces to trade to one. It is well understood that this delicate matter will be subject to further discussions based on the result of specific feasibility studies and business case analysis generating the necessary level of trust and detailed understanding on a case by case basis.
- If there would be a shift of responsibilities from MS to the Commission following agreements reached at strategic level and reflected in the appropriate legal frameworks, then adequate resources will need to be available to guarantee a correct implementation (also additional human resources would be provided from the Member States using virtual teams and internet collaboration, to employ these resources from their usual assignment and living place, in order to ensure that national requirements are implemented effectively). The Commission has included provisions to support the above strategy in its proposal establishing an action programme for customs in the European Union for the period 2014-2020 (CUSTOMS 2020). This proposal is currently under discussion at Council and Parliament.

The full text of the IT strategy is contained within Annex 6 to the MASP rev 11 v3.0 [R020].

The IT Strategy was defined via a consultation process with the Member States along three parallel activities related to the above principles:

- The definition of an IT Master Plan over the next ten years including costs and effort estimations for the implementation of UCC and eCustoms legislations, extended with the Safety and Security policy. The IT Master plan [R022] was an essential input and

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component for the Multi-Annual Strategic Plan (MASP) [R020] maintained by TAXUD unit A3, which has been formally adopted in December 2012.

- The realisation of a Reference Architecture for eCustoms comprised at this stage of a Reference Enterprise Model and a Reference Service Architecture [R024].
- Support to collaboration initiatives between Member States.

The findings and conclusions of the above activities together with a description of the IT Strategy were consolidated in the IT Master Plan Study Report [R022] which can be consulted in the Baseline.

The CUST-DEV contractor is strongly involved in the above activities by:

- Providing to TAXUD ad hoc technical support and consultancy in the different topics;
- Reporting on and actively participating in bilateral meetings with the Member States and in workshops;
- Compiling and analysing the information and providing assessments, estimations, planning, scenarios and solutions or other conclusions that help manage the IT portfolios and define, maintain and/or implement the IT Strategy;
- Providing support in actions directly related to the implementation of the IT Strategy as Reference or Enterprise Architecture projects; managing an IT Master Plan and related cost and effort estimations, collaboration projects, etc.

In average and in relation to the above activities (IT Strategy, IT Master Plan, IT Architecture or Collaboration projects), during 2011 and 2012, the incumbent contractor has assisted monthly either to bilateral meetings or workshops in Member States premises; assisted weekly or biweekly technical meetings with TAXUD staff; provided quarterly major deliverables or major updates and provided monthly minor updates of these deliverables.

The ARIS tool has been extensively used in the context of the aforementioned works; within the mentioned deliverables approximately 500 ARIS models of various complexities have been realised of which about 220 for the realisation of the Reference Architecture and 280 for support to collaboration.

3.2 IT CUSTOMS ARCHITECTURE

When considering the EU customs systems architectures, a distinction should be made between the EU wide viewpoint where the whole European customs is considered and the more concrete viewpoint of those systems of which TAXUD is responsible for in terms of IT operations.

The EU wide viewpoint can only take the form of a Reference Architecture with the objective of defining a common language, enabling collaboration between the many stakeholders and facilitating interoperability between all EU customs systems.

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An initial Reference Architecture [R024] was realised during 2011 in cooperation with 9 Member States and took shape using two main viewpoints:

- The *Reference Enterprise Model* consisting of an architectural landscape depicting the EU Customs Business and allowing the mapping of business or IT initiatives against the business capabilities and data entities. This model also provides a logical view of the solution building blocks for the entire customs business.
- The *Reference Service Model* providing a framework for the architecting of a customs systems logical services repository in view of the application of a SOA approach and the enabling of Member States collaboration and sharing.

The IT Customs Reference Architecture is today still under development and requires further effort to become a recognised and accepted instrument for the strategic evolution of EU Customs in the benefit of all its stakeholders.

The diagrams and models of the IT Customs Reference Architecture have been realised within the ARIS tool with the objective of maximising the alignment with the UCC Business Process Models.

In the context of TAXUD systems, two important architecture instruments exist today:

- The TATAF [R019] describing the application architecture applied for Customs IT systems developed by TAXUD;
- The TIP [R035] depicting a multilayer operational architecture depicting IT assets and their business footprint and operational deployment.

The challenges facing the architecture activity in TAXUD lie today in the consolidation and alignment of the different architectural descriptions and in making them an efficient instrument in support of the governance and implementation of the EU customs IT systems according to the business objectives and along a well-defined and agreed IT Strategy.

3.3 EU CUSTOMS IT COLLABORATION

Collaboration between Customs Stakeholders and especially between the Member States is an essential part of the IT Strategy as the driver for IT cost reductions.

In view of the interest of Member States in exploring the collaboration a working group was organised for the exploration of this kind of activities. The group was defined with the objective of realising shared specifications in the context of the Customs Core processes mainly involving movement of goods and/or Declaration Management for Customs procedures.

The foreseen difficulties and unknowns lead to the decision by the group to start with a more limited scope realised by a reduced number of Member States, and so was launched the Customs Warehousing Collaboration Pilot project (CWCP). This project group will explore the realisation of reusable functional and technical specification for a Customs Warehousing system (mainly focused on the declaration managements).

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The CWCP project is under the responsibility of three Member States in equal grounds and has the support of DG TAXUD for technical assistance and support for coordination.

The CWCP project deliverables make extensive use of the ARIS platform where at least 70% of the functional and technical specifications are registered.

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4 CUSTOMS BUSINESS ANALYSIS AND MODELLING BACKGROUND

In order to support the mission of customs authorities in the EU, the Commission and the Member States have identified the need to set up and operate secure, integrated, interoperable and accessible customs computerised systems (also referred to as EIS). Their goal is mainly to facilitate customs processes for the movement of goods into and out of the European Union, and to reduce the risks of threats to the safety and security of citizens by minimising the remaining differences between Member States' customs processes. The EIS will in general be built according to international standards⁶, thus allowing future interaction with 3rd countries' systems.

As stated in article 2§1 of the eCustoms decision⁷, the Commission and the Member States will aim to provide the structure and means by which the Commission, customs administrations and other border agencies in the EU can exchange electronic information in order to:

- control and facilitate the movement of goods into and out of the internal market through efficient import and export procedures;
- increase the competitiveness of European trade through a reduction of compliance and administrative costs and an improvement in clearance times;
- facilitate legitimate trade through a coordinated approach relating to the control of goods;
- improve the safety and security of citizens with regard to dangerous and illicit goods;
- offer improved protection of the financial interests of the European Union and its Member States;
- contribute to the fight against international crime and terrorism by providing rapid and relevant information with regard to the international supply chain;
- allow for a seamless flow of data between the authorities of exporting and importing countries on the basis of Regulation (EC) 648/2005 and new legislation to be implemented.

⁶ The international standards used are for instance the WCO data model, ISO and UN norms where applicable, and other standards like International Maritime Organization (IMO), number or European Vessel Identification (ENI), IATA/ICAO flight numbers, IATA structure of numbers of ULD containers.

⁷ Decision No 70/2008/EC of the European Parliament and of the Council of 15 January 2008 on a paperless customs environment for customs and trade, OJ 2008, N° L23, p 21.

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The objectives set out in this Section will be achieved by at least the following means (first 3 bullet point are defined in article 2§2 of the eCustoms decision⁸) :

- the harmonised exchange of information on the basis of internationally accepted data models and message formats;
- the re-engineering of customs and customs-related processes with a view to optimising their efficiency and effectiveness, to their simplification and to reducing the costs of customs compliance;
- the offering to economic operators of a wide range of electronic customs services enabling those operators to interact in the same way with the customs authorities of any Member State;
- the appropriate legal framework to enable the achievement of these objectives.

Furthermore, the Regulation (EC) No 450/2008 of the European Parliament and of the Council of 23 April 2008 laying down the Community Customs Code (Modernised Customs Code- MCC)⁹ aimed at the **adaptation of customs legislation in order to**

- fit, but also to govern, the electronic environment for customs and trade; and
- carry out a major overhaul of the customs rules in order to make them simpler and better structured.

Following technical and procedural considerations, the Commission found it appropriate to proceed to a recast of this Regulation whilst retaining the main policy objectives of the MCC.

The present proposal on the UCC (MCC Recast) must be seen in the context of:

- a) the modernisation of customs legislation and procedures and the use of IT systems for customs clearance and procedures in view of facilitating the way of doing business with customs and ensuring safe and secure trade of goods in the European Union;
- b) the requirements of the Treaty of Lisbon;
- c) the evolution of policies and legislation in other fields that might impact customs legislation such as safety and security in the transport field;
- d) the evolution of business processes that require clarity and coherence in the customs rules.

Besides, in order to allow administrations and economic operators adequate time to undertake the necessary investments and ensure a phased, binding but realistic implementation of

⁸ Decision No 70/2008/EC of the European Parliament and of the Council of 15 January 2008 on a paperless customs environment for customs and trade, OJ 2008, N° L23, p 21.

⁹ OJ L 145, 4.6.2008, p.1.

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electronic processes, the Commission will continue to work with all stakeholders with a view to ensuring that the new electronic processing environment will be operational by the date established in the customs legislation.

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5 IT BACKGROUND OF DG TAXUD

5.1 IT IN SUPPORT TO POLICY

DG TAXUD coordinates and manages a set of operational activities relying on IT systems in support of the European Union (EU) policies for customs, taxation and excise duties. Actually, this comprises direct and indirect taxation, tariff strategy, eCustoms, the future Union Customs Code, risk management, safety and security, the fight against counterfeited goods, as well as international policy objectives.

TAXUD's IT systems are a unique instrument to sustain the continuity of operation of a broad range of customs and taxation procedures within the EU.

The main objectives are:

- To support the uniform management of the Customs Union and to maintain the fluidity of the flow of goods at the border of the EU through the availability of customs trans-European systems, such as the New Computerised Transit System, the Export Control System and the Import Control System. Any unavailability of these systems would have an immediate and highly visible adverse impact on the economic activity of the EU, such as lorry queues at the borders and ports, loss of containers, distortion in the application of legislation, increased risk of fraud and loss in revenue collection etc.
- To contribute to the fight against fraud:
 - o In the area of customs: TAXUD's IT systems support the sharing of risks profile amongst Member States and feed the European Anti-fraud Office (OLAF) with information on sensitive consignments;
 - o In the area of taxation: IT systems also allow for a rapid exchange of secure information and thus for the efficient fight against different types of tax fraud. This is the case in the areas of:
 - VAT, through the VAT Information Exchange System;
 - savings through the Taxation on Savings system;
 - administrative co-operation and mutual assistance;
 or to better control movement of excise goods across the EU.
- To facilitate the handling of tax and customs procedures for citizens and economic operators by enabling the refund of VAT from a Member State (in which an economic operator is not established) and through the publication of the most relevant information (including customs tariff, balances of tariff quotas, VAT number identification, etc.), contained in its IT systems on the Commission's Europa website.

Some traders have integrated the availability of the information in their daily processes. Therefore, they rely heavily on this service. The success of these services is constantly increasing, with the number of queries made by the traders exceeding 120 million requests in 2011.

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5.2 IT SYSTEMS

Most of the IT systems of DG TAXUD are trans-European systems spanning all Member States (MS) of the EU. The users are the National Administrations, the EU traders' and the Commission Services. Other IT systems include systems to manage reference data, test and monitoring applications, and dissemination applications to the wide public (e.g. via the Europa web site).

A Trans-European System (**TES**) performs specific business functions in Customs or Taxation as defined in or in support of Union policies. A trans-European system is a **collection of collaborating systems (orchestrated and choreographed) with responsibilities distributed across the National Administrations and the Commission**. It includes processes, applications, services and infrastructure.

All the IT systems have a legal basis¹⁰ and receive budgetary support from EU programmes, currently Customs 2013 and Fiscalis 2013 for which they represent a significant part of the expenditure. The Customs 2013 and Fiscalis 2013 programmes will be replaced by the Customs 2020/Fiscalis 2020 programmes, which are proposed for the period 2014 – 2020. Information on the Portfolio of the IT systems [R027] is provided in the Annex XI _ Baseline.

The development of an IT system constitutes a major project to be run over several years.

The bidders are invited to read the full description of the trans-European systems lifecycle under TEMPO: *TEMPO:Home -> trans-European System Management -> ... trans-European Systems Management Reference manual*

An extract from this documentation is provided here below to introduce the notion of the lifecycle, the respective phases of the Trans-European System development project and the deliverables.

¹⁰ For example, in 2008 important legal acts for IT systems were the so-called “VAT package”, the future Modernized Customs Code (renamed Union Customs Code since then) and the eCustoms decision on a paperless environment for customs and trade.

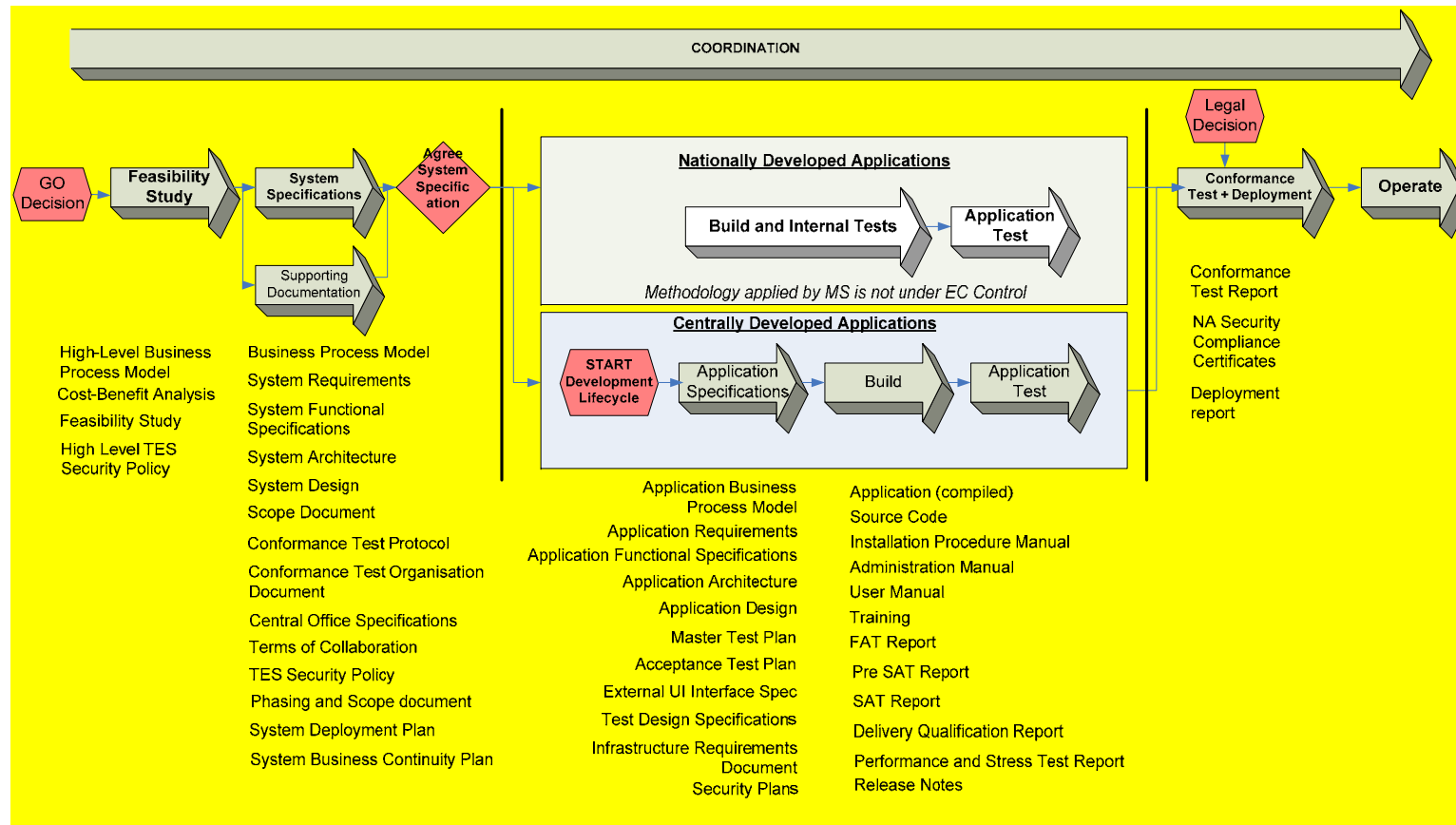


Figure 2 - Trans-European System Development Lifecycle

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As examples of some IT systems, we can mention:

- **In the field of taxation: the VIES network** enables the tax administrations to verify trader's VAT identification numbers and statements of their intra-EU turnover, *the VAT on e-Services system* provides for the management of the VAT revenues in connection with services provided on the internet by non-EU traders, *the VAT refund system* enables traders to obtain the refund of VAT from a Member State in which they are not established, *the Taxation on savings system* enables Member States to exchange information on interest payments by paying agents established in their territories to individuals resident in other Member States;
- **In the field of Customs: the New Computerised Transit System (NCTS)** which provides a fully computerised customs regime for goods which enter into the Common Transit, *the Quota system* enables to publish the tariff quotas and tariff ceiling to the trader community, *the Transit system* enables the customs offices to automatically track and control the movements of goods in transit through the EU, *the Export Control System* provides full control on the conclusion of export operations in particular when different Member States are involved, *the Import Control System* is devoted to the import operations, *the Surveillance System* complements the other customs systems and contributes to the fight against fraud by enabling the surveillance of the movement of goods inside and outside the EU;
- **In the field of Excise: Excise Movement and Control System (EMCS)** allows for the monitoring and control in real-time of the movement of excise goods (alcohol, tobacco and energy products).

DG TAXUD also makes available, through the Commission's Europa website, a wide range of information and services to the citizens and to the traders in order to enable them to consult measures relating to tariff, commercial and agricultural legislation, tariff quotas, to query authorized economic operators, to consult the list of transit customs offices, validate VAT numbers, to consult the main taxes in force in the EU Member States or to query excise numbers.

On 01/01/2009, an electronic connection was launched with Russia to allow for secure data exchange of TIR movement data, in order to address lorry congestion at the EU-Russia border (currently 3,500 movements supported daily). Currently, a new version of SPEED (namely SPEED2) is under development, and is expected to be in production in 2013.

All these activities rely on a secure and reliable interoperability middleware between the Member States and the Commission: the Common Communication Network (CCN) that TAXUD has developed and operated for more than 14 years in the European Union and which allows the exchange of a massive amount of messages and information (1,2 billion of messages have been exchanged in 2011 (18% increase against 2010) and 3,3 terabytes of application data (30% increase against 2010)).

In particular, in the context of EU enlargement, connecting the candidate countries to the network is one of the first IT activities to be started well before the target enlargement date.

The CCN, given its central role, is an important component of the whole IT architecture to ensure the security, availability and continuity of the service. It is managed by the Commission and has evolved over the years in the biggest network linking the Commission and Member States, in terms of number of application data exchanges and probably among the largest administrative networks worldwide. In coming years, this network will move towards an interoperability-enabler interconnecting more services.

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5.3 IT GOVERNANCE

Experience suggests that the time to develop and deliver a trans-European IT system ranges from 2 to 8 years according to the complexity and the level of implication of the Member States. This demands to manage each Trans-European IT project under strict governance, using a proven project management methodology.

The management of Trans-European IT projects involves different levels of governance, involving the Commission and the National Administrations.

- DG TAXUD is assisted by Comitology committees such as the Customs 2013, Fiscalis 2013 committees, and the Standing Committee on Administrative Cooperation. These groups are each supported by a sub-committee dedicated to IT matters. Each IT sub-committee meets several times a year under TAXUD's chairmanship with the participation of heads of IT from National Administrations.
- Technical Experts' groups with the National Administrations to deal with technical related project matters which meet with a frequency from monthly to quarterly according to the pace of development. Each TES and IT Services from the Commission are overseen by such a working group (ex: Electronic Customs Group, Union Customs Code Group, etc.).

DG TAXUD also needs to ensure that any decision on IT matters is taken in full understanding of the context, challenges, impact and associated risks. This is why DG TAXUD applies internally strong IT governance. All the IT systems are managed under the supervision of an IT Steering Committee, chaired by the Director General and composed of the board of Directors and the head of the financial and human resource unit. The IT Steering Committee meets regularly (quarterly on average) and takes decisions on IT working plans, priorities and resource allocation upon proposal from the IT units.

5.4 RECENT ACHIEVEMENTS AND FUTURE DEVELOPMENTS

The capacity demonstrated over the last two decades in the creation of successful IT systems supporting the integration of customs and fiscal administrations in the EU has positioned IT at the heart of the European construction in the areas of customs and taxation.

In particular, for Customs, the eCustoms Decision underlined the central role of DG TAXUD in the creation of systems supporting the Customs Union and generated the need for a number of new trans-European systems successfully deployed over 2009-2011. The Union Customs Code and its implementing provisions added a new challenge for IT since it requires reassessing the whole of the customs procedures and underlying IT systems in order to meet the diversity of expectations from the different stakeholders. Specification work with the Member States has started with the

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definition of the business process models, the development of an IT Master Plan and of a reference enterprise architecture of customs systems.

The perspectives for developing new IT systems under Taxation spanned over 2009 for VAT refund systems and over 2010 for the systems related to Recovery and Direct Taxation. In the longer term (2015), the one-stop-shop IT system will greatly simplify the tax declarations for e-commerce, telecommunication and broadcasting activities throughout the EU.

The years 2009-2011 were unique in terms of the high number of IT systems deployed into operations. A strong commitment and collaboration between the Member States and the Commission was required to respect deadlines:

- A batch of Customs systems were deployed by 01/07/2009: the system for economic operators, the upgrade of the transit system for security, anti-fraud information, enquiry and recovery procedure, and the upgrade of the export control system.
- A batch of Taxation systems were deployed by 01/01/2010 (several improvements of the quality of data under the VAT network, the VAT package, and the upgrade of the Europa services on VAT). The exchange of electronic forms for the recovery of claims, for mutual assistance in the field of direct taxation, and for Council Regulation (EC) No 1798/2003¹¹ and Commission Regulation (EC) No 1925/2004¹² in VAT was deployed as well. Also, common projects were launched concerning e.g. exchange of eForms, self-testing services, statistics and exchange of administrative information. In 2011 a new version of the Taxes in Europe Database (TEDBv2) was deployed as well as a new release of Recovery e-Forms for Council Directive 2010/24/EU¹³.
- The new Import Control System (ICS), the upgrade of the integrated Community tariff management system followed in 2010, together with the entry into operation of the Excise Movement Control System (EMCS), which improves the functioning of the Internal Market and helps fighting fraud.
- Also a new version of CCN was put in production, as well as a new service management tool (Synergia).

DG TAXUD may anticipate an increase of the volume of IT activities and IT operations for the years to come. This is due to the future deployment of additional customs IT systems as a result of the eCustoms Decision and the Union Customs Code, the operation of the EMCS in its full capacity (due to its expansion into Phase 3), of the VAT package, and possible additional systems for exchange of data between the EU and third countries such as Japan, China and US, and the Eastern neighbourhood.

¹¹ OJ L 264/1, 15.10.2003

¹² OJ L 331/13, 05.11.2004

¹³ OJ L84/1, 31.03.2010

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In order to cope with the new IT systems and the expected growth of the traffic, the private Common Communication Network (CCN) will need to be upgraded as well. This concerns not only its capacity but also its security and its overall architecture.

5.5 IT ORGANISATION OF DG TAXUD

The Information Technology Steering Committee (ITSC) of DG TAXUD acts to ensure high-level authorisation for IT projects in line with the principles of good management and financial governance, under the overall supervision of the IT governance bodies of the Commission.

The Stakeholders for DG TAXUD information systems are the Commission, National Administrations, traders or the public in general.

The Information Technology Units (R4 and R5) are responsible for administering the computerisation activities of DG TAXUD in line with the policies of the DG. This includes the provision of business-critical operational services and central information systems necessary for the support of the National Administrations and Commission services.

The mission of the Information Technology Units is to:

- Develop and operate secure Information Systems (IS) and transmission services appropriate to beneficiaries in DG TAXUD, other Commission departments and Member State administrations;
- Maintain and develop a coherent Information Systems Architecture consistent with the Commission standards policy, allowing interoperability of administrations in the EU and partner countries for the benefit of the Customs and Tax policies;
- Provide and support efficient office automation facilities for approximately 550 staff of the DG TAXUD.

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Units R4 and R5 are sub-divided into sectors as follows:

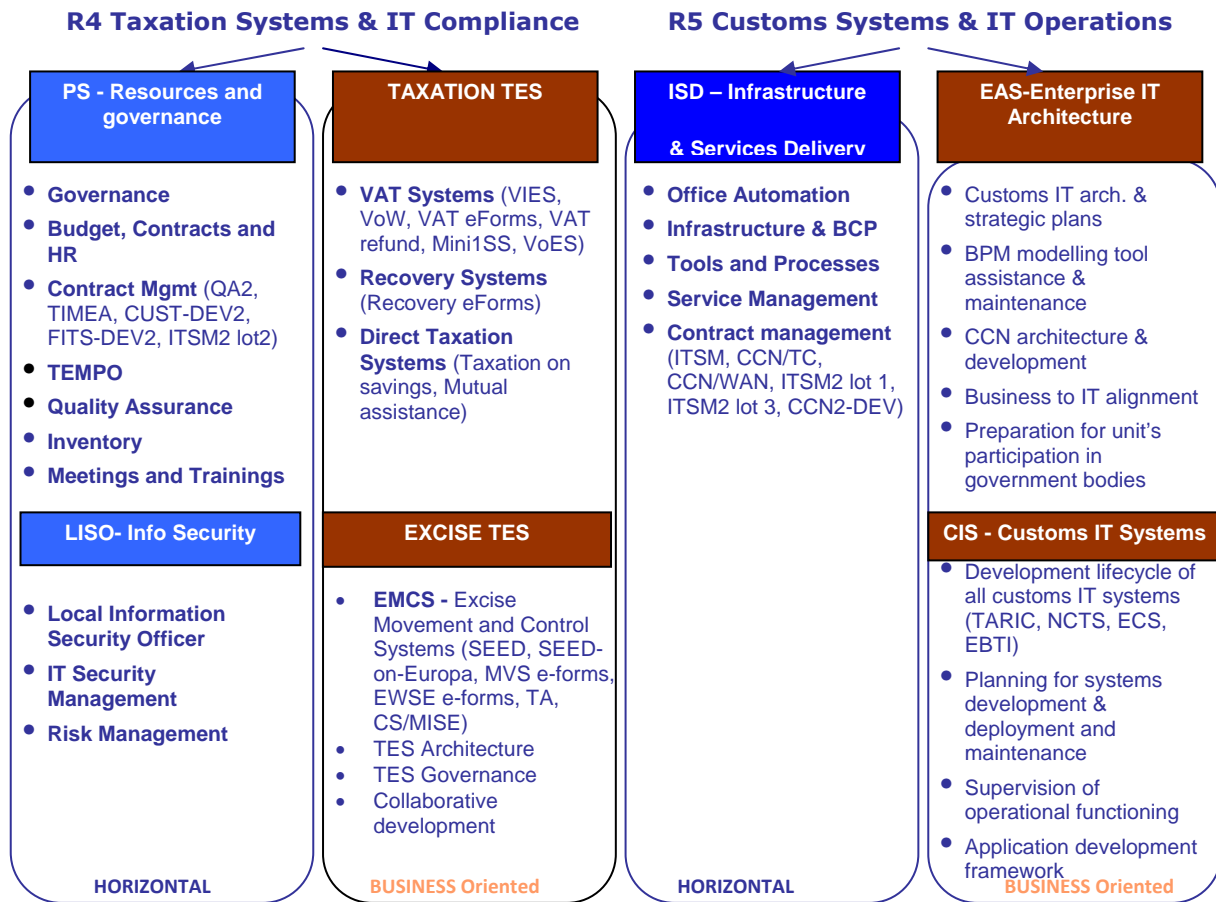


Figure 2: IT organisation in DG TAXUD

The Unit R4 is divided into four sectors:

- **Resources and governance sector (R4/PS):** is a “horizontal” sector involved with governance, budget, contracts and project management, and human resources. R4/PS provides services to all the other sectors of IT units R4 and R5. R4/PS manages the QA2 framework contract, the development contracts (FITS-DEV2 and CUST-DEV2), and the new ITSM2 Lot2 contract. R4/PS will manage also the QA3 framework contract;
- **Excise Trans-European Systems sector (R4/EMCS):** defines, maintains and evolves, in close cooperation with the Member States and on the basis of the EU legislation in place, the IT systems related to monitoring and controlling in real-time the movement of excise goods (alcohol, tobacco and energy products) for which duties still have to be paid. These systems are designed to simplify the administrative procedures for the traders involved in intra-EU movements of excise goods, while securing the fiscal revenue of the Member States. The sector also coordinates with the Member States to ensure the constant level of quality and correct functioning of these trans-European systems while in their operational phase. It is

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responsible for Taxation & Excise TES Architecture and governance and for exploring the potential of collaborative development amongst the Member States;

- **Taxation Trans-European Systems sector (R4/TAX):** defines and creates EU-wide IT systems aiming at supporting the fight against fraud or simplifying the VAT compliance obligations, in close cooperation with the Member States. In the field of VAT the two main systems are VIES and VAT Refund. Part of the functionality of VIES is also used by the general public via the VIES-on-the-Web application. The sector has also developed standardised eForms to smoothen and fasten the administrative cooperation in the field of VAT, Recovery of Claims and mutual assistance for Direct Taxation. The sector has developed and maintains the Taxation on Savings system and the Taxes in Europe database;
- **Local Informatics Security Officer (LISO):** defines the DG TAXUD-specific Information Security Policy compliant with the European Commission Security Policy, oversees the development of security plans approved by DG TAXUD and monitors its implementation, develops information security awareness and training programmes, maintains an inventory of information systems, with a description of security needs, advises and reports on information systems security matters.

The **Unit R5** is divided into three sectors:

- **Infrastructure and Service Delivery (R5/ISD):** The sector is responsible for:
 - Providing office automation services (supply the office automation equipment, user support, helpdesk, management of IT logistics including acquisition, move and decommissioning).
 - Managing the infrastructure used by the Information Systems in support of the Customs and Tax policies, the DG TAXUD specific administrative processes.
 - Assuring continuity of operation of the IT function in case of disaster.
 - Operating the infrastructure allowing interoperability of administrations in the EU and partner countries for the benefit of the Customs and Tax policies (CCN contracts).
 - Managing the IT Operations (ITSM contract).
 - Designing and implementing the IT operation processes in DG TAXUD and all its suppliers.
- **Customs IT Systems (R5/CIS):** The sector is responsible for:
 - The system development lifecycle of all customs IT systems.
 - The maintenance of the operational planning for systems development and deployment.
 - The coordination of the implementation and maintenance of all customs IT systems in EU in collaboration with internal and external stakeholders.
 - The supervision of their operational functioning and the production of related statistics, dashboards, etc.
 - The system development lifecycle methodology for all customs IT systems.
 - The application development framework of all customs applications.
 - The maintenance of a repository of all artefacts of customs IT systems.
- **Enterprise IT Architecture and Strategy (R5/EAS):** The sector is responsible for:
 - The overall customs IT architecture and IT strategic plan.

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- Providing assistance to customs business units for the correct use of the BPM modelling tool.
- Maintaining in the BPM modelling tool, in close cooperation with the customs units and CIS, a coherent view of the enterprise architecture, including its business data, business processes, business rules and technical IT plan.
- Providing advice to customs policy units for the optimal use of IT in reaching their policy objectives; to assure this duty, the section shall represent the unit in coordination groups created either internally or with the participation with MS in view of policy coordination and development.
- The technical studies, architecture and development of the CCN platform.
- The overall coherence of IT architecture of DG TAXUD, which operationally is implemented by the sections ISD and CIS.
- Assuring the secretariat of DG TAXUD's architecture board and through this body promoting business to IT alignment.
- Preparing the unit's participation in governance bodies, such as the ECG IT and legal, the IT steering committee, the High-level group for the UCC, etc.

In addition to the above, DG TAXUD **Unit A3**, in the Customs area, is in charge of **UCC and BPM functional structure** to define, in close cooperation with the Member States, the requirements and business process models of the customs IT systems related to the Union Customs Code and its implementing provisions.

Some changes in this organization may occur during the course of the CUST-DEV3 framework contract.

5.6 IT CONTRACTORS OF DG TAXUD

5.6.1 DG TAXUD IT VALUE CHAIN

DG TAXUD relies on the Commission's DG for Informatics (DIGIT) for hosting part of the IT systems. In parallel, DG TAXUD **outsources the bulk of its IT activities to external service providers**, which are contracted through public procurement procedures in compliance with the Financial Regulation. The products and services supplied are all subject to a systematic quality control and testing as part of the acceptance procedures.

Currently, units **R4** and **R5** rely on several **external contractors** to perform their duties (refer to Figure 3 below for a graphical representation of the current contracts):

- Two development contractors (CUST-DEV2 for Customs, FITS-DEV2 for Taxation);
- One IT service management contract (ITSM2) with the following 3 lots:
 - Lot 1 for IT service management including CCN/CSI operations;
 - Lot 2 for trans-European systems management;
 - Lot 3 for operations integration and control;
- One provider for building infrastructure (Data Centre Building Facilities);
- One common network provider (CCN/WAN2);
- One quality assurance/control contractor (QA2);

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- Several consulting contractors to perform strategic studies and analyses.

The IT value chain of DG TAXUD is depicted below:

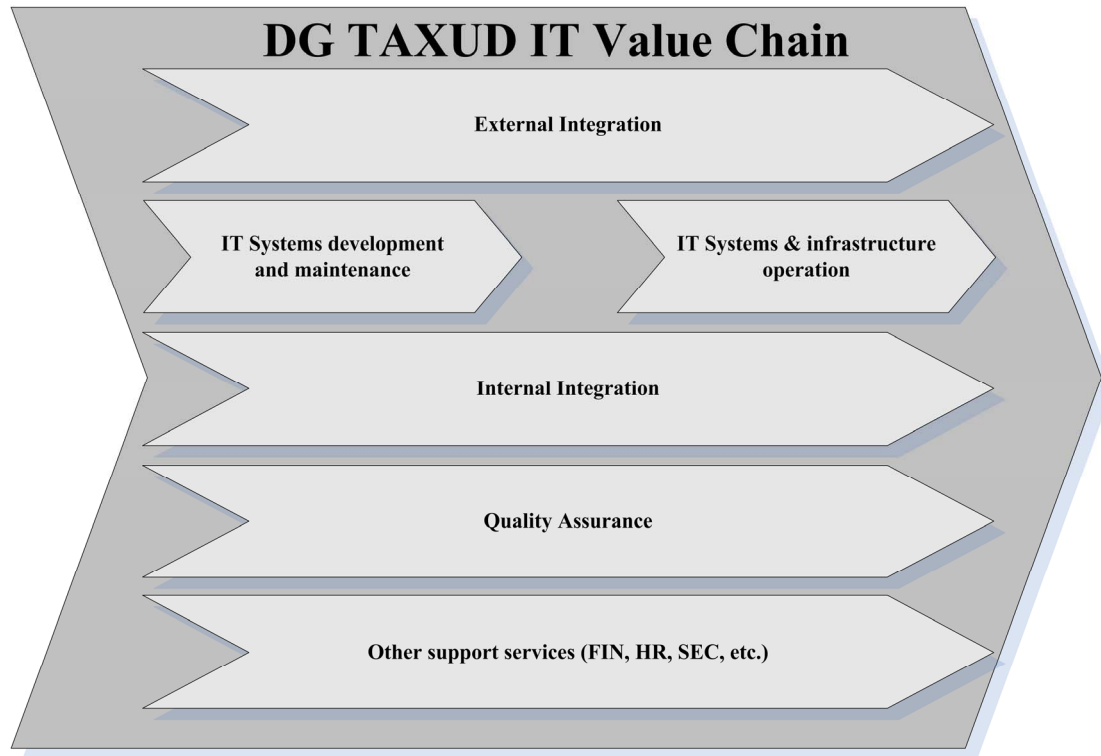


Figure 3 - DG TAXUD IT Value Chain

External Integration is defined as the set of activities that are needed to integrate DG TAXUD's IT systems with those of the National Administrations (NAs) to deliver the expected business solutions. These comprise planning, scope definition, systems definition, and specification; follow up of NA activities, synchronisation, enterprise architecture town plan, and others.

IT systems development and maintenance is one of the two main production activities of the IT units of DG TAXUD, it includes the multitude of development and maintenance activities for all Customs, Taxation, Excise systems as well as for CCN.

IT systems & Infrastructure operation is the second main production activity of the IT units of DG TAXUD, providing:

- The operations of all applications;
- A stable, documented, managed and secure ICT infrastructure;
- The setup and maintenance of harmonised processes and service management tools.

Internal integration is the set of activities that TAXUD/R5 has to do internally to streamline and harmonise its architecture and services delivery. Much of this process is supported by TEMPO, internal governance arrangements, planning, reporting etc.

Quality Assurance and other support services (FIN, HR, SEC, etc.) are activities, processes that are shared activities between TAXUD/R4 and TAXUD/R5 and performed by

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the sector **TAXUD/R4/PS and TAXUD/R4/LISO**. QA is quality assurance and quality control of the IT services and deliverables supplied to DG TAXUD by all its suppliers including conducting regular security and quality audits of them. Other support services concern financial aspects, human resources and secretariat.

5.6.2 AS-IS DG TAXUD CONTRACT ORGANISATION OVERVIEW (JULY 2012)

The existing structure of DG TAXUD contracts is depicted in the diagram below. Development services are delivered by the CCN/TC, CUST-DEV2, FITS-DEV2 and ITSM contracts, the later being restricted to support "Service Management related tools" and facilities necessary for the IT service management and related activities.

Operations rely on ITSM, CCN/TC, CCN/WAN2 contracts, the Data Centre (DC) Building Facilities and the Data Centre service of DIGIT.

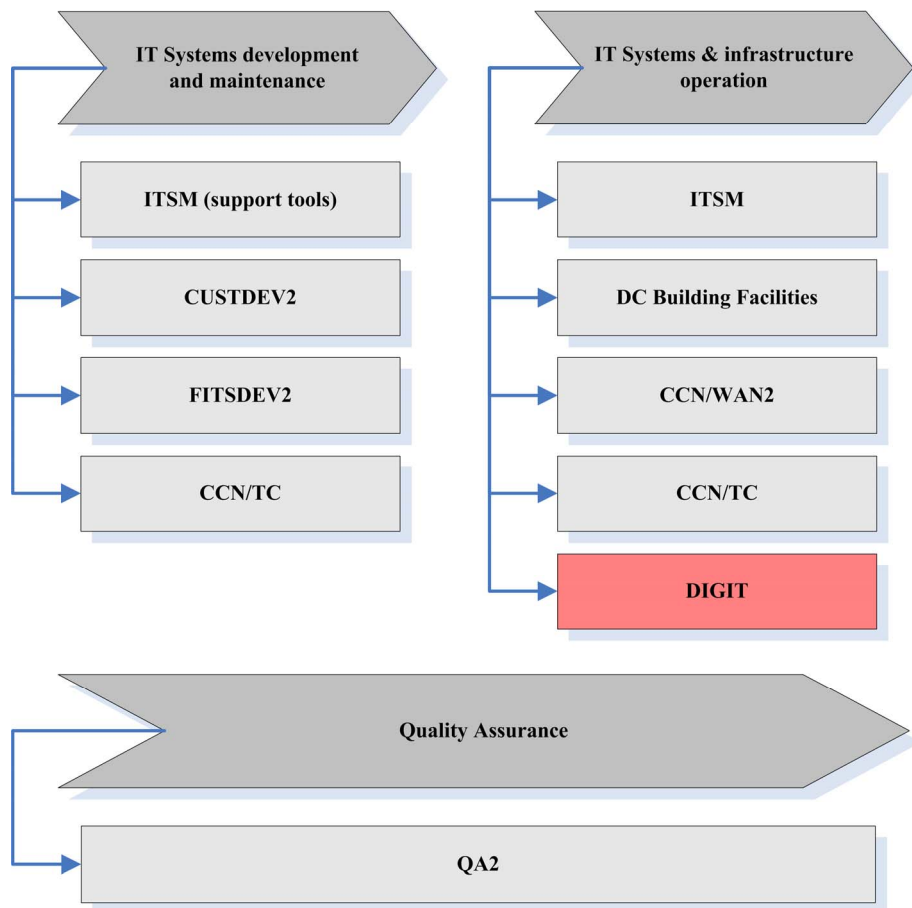


Figure 4: DG TAXUD's Current Contracts

The ITSM contractor is the current provider of IT Service Management on behalf of DG TAXUD for excise, taxation, and customs business threads, except for the CCN/CSI service. The contract includes development and maintenance of its own "Service Management related tools" of which some are also used by other contractors (referred to as Synergia).

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CUST-DEV2 is a development and maintenance contract, which consolidates all customs-related development. The CUST-DEV2 contractor provides specification, development, maintenance and support services for all customs IT systems.

The FITS-DEV2 contractor provides specification, development and maintenance services for the taxation and excise systems and applications as it is currently in operation.

The CCN/TC contractor provides CCN/CSI service management including its service desk for the NAs and various contractors of DG TAXUD, service delivery and support, ICT Infrastructure management, operations management, security management as well as its application development.

DC Building Facilities is the contract that provides the locations for the two Tier IV level Data Centres in Luxembourg that will be used by DG TAXUD. All infrastructure hosted by ITSM and CCN/TC will be regrouped in these Data Centres, and will be operated by the future ITSM2 lot 1 contractor.

The CCN/WAN2 contractor provides the private secured IP network services of CCN including their maintenance.

DIGIT is the IT General Directorate of the Commission. DIGIT has responsibility for the Commission's Data Centre (DIGIT/DC) which hosts part of the DG TAXUD information systems.

The QA2 contractor is responsible for TEMPO maintenance quality assurance and quality control of the IT services and deliverables provided by the others IT contractors of DG TAXUD.

5.6.3 TO-BE DG TAXUD ORGANISATION OVERVIEW

Customs and tax administrations face major challenges that will require continued and improved support of IT. The introduction of the Union Customs Code (UCC) as of 2013 and the eCustoms initiative are examples of these business challenges.

In order to respond to these challenges, it is considered necessary:

- To continue the consolidation of its IT service management, so as to increase the effectiveness and efficiency of the services it supplies to its beneficiaries. In order to do so, the IT service management call for tender TAXUD/2010/AO-13 (ITSM2) that was published in the Official Journal¹⁴, comprised three (3) lots for the execution of services for five (5) years:
 - **ITSM2 Lot 1** - IT service management, covering applications management, operations, hardware infrastructure and building infrastructure for both CCN and central applications; Lot1 integrates IT systems and infrastructure operation, merging the previously repeated CCN/TC operation and ITSM operations.

¹⁴ [Official Journal S 189-308057](#), 01.10.2011,

See also http://ec.europa.eu/taxation_customs/common/tenders_grants/tenders/archives_en.htm

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- **ITSM2 Lot 2** - trans-European systems management. This lot will provide support services for the coordination of implementation of trans-European systems in Member States.
- **ITSM2 Lot 3** - Operations integration and control. This lot aims at providing advice for IT architecture, service management, service control, service improvement, change management and benchmarking.

The various contractors will become operational from April 1st. onwards

- To renovate CCN so as to modernise the existing facilities and create the new facilities necessary for the support of the existing political and operational objectives (**CCN2-DEV**). The CCN2-DEV framework contract shall provide essentially 3rd level support, maintenance services and development services for the existing CCN/CSI and future CCN2 Platform Infrastructure. A call for tenders TAXUD/2011/AO-13 has been published in the Official Journal¹⁵.
- To ensure continuity of the development contracts and plan the current CUST-DEV2 and FITS-DEV2 framework contracts will be replaced by the **FITS-DEV3** and **CUST-DEV3** framework contracts.
- To ensure the continuity of the TEMPO maintenance quality assurance and quality control of the IT services and deliverables provided by the other IT contractors of DG TAXUD the current QA2 framework contract will be replaced by the **QA3** framework contract.

¹⁵ [Official Journal S 112-184877](#), 14/06/2012

See also http://ec.europa.eu/taxation_customs/common/tenders_grants/tenders/index_en.htm

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The target organization to be reached during 2013-2014 represents the current vision of DG TAXUD, without prejudice to further evolution as the need may arise.

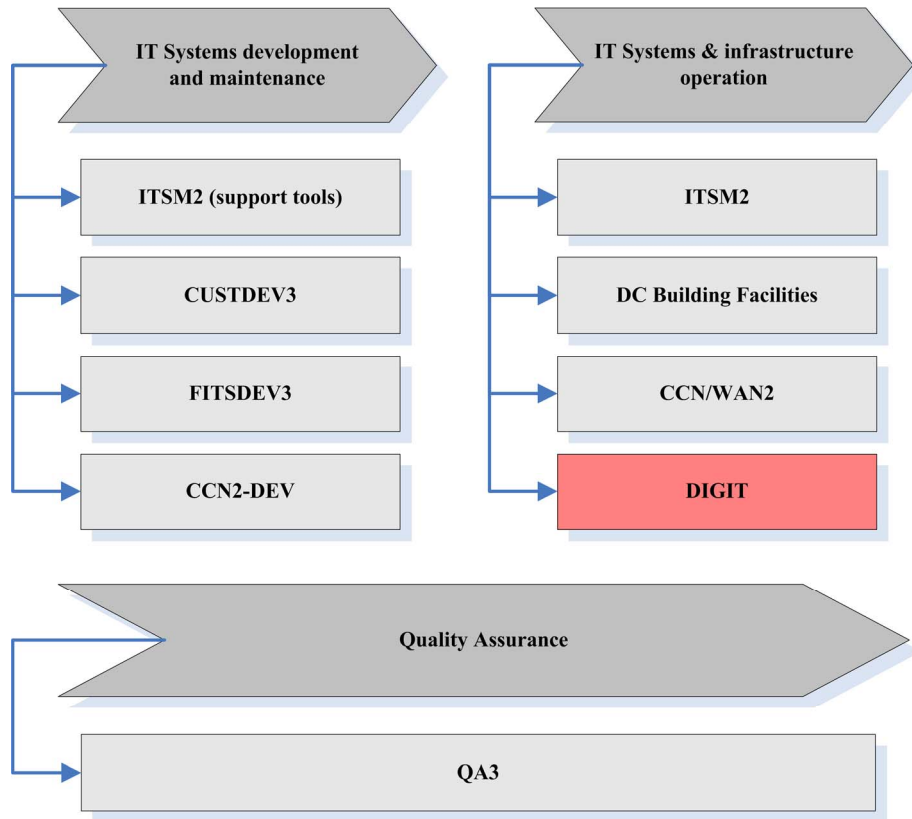


Figure 4 - Support Contracts' Target Situation at DG TAXUD

With regards the other layers of the IT value chain:

- **External integration** will be supported by the ITSM2 Lot 2 contractor
- **Internal integration** will be supported by the ITSM Lot 3 contractor.

5.7 DG TAXUD IT SERVICES

The customs & taxation policies have required, for more than fifteen (15) years, the implementation of IT trans-European services:

- either in a distributed way to allow the exchange of information between national administrations (VIES, NCTS, EMCS, ..), or
- in a "hub" and "spoke" way when the Commission has to fulfil an obligation concerning the exchange of information (mostly for customs applications).

In parallel, the emergence of the Web and the irresistible push towards eGovernment lead DG TAXUD to offer an increasing number of services to the citizen via its presence on EUROPA¹⁶. These services provide the citizen with a view of the critical

¹⁶ The Commission's official web portal.

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business information which is exchanged between the Commission and the national administrations

(http://ec.europa.eu/taxation_customs/common/databases/index_en.htm).

Considering the “multi-agency” customer base of customs, DG TAXUD has an increasing number of automated interactions with other Directorates General of the Commission. The VAT register managed by DG TAXUD is also likely to attract attention from other Directorates General in search of systems of trader registration.

DG TAXUD also provides IT services to serve its own internal business needs, so far mainly in the area of customs.

This “user” base of DG TAXUD is likely to expand in volume in the years to come.

It is crucially important to understand that, in order to serve its user base, DG TAXUD manages IT services which rely:

- on **Centrally Developed Applications** operated by the Commission, and
- on a set of **trans-European systems** made up of geographically spread, but tightly interoperating & collaborating, applications operated by the national administrations and the Commission.¹⁷

While most of the publicly available methodology and best practice frameworks assume that a single organisation is responsible for its ICT services from start to end, DG TAXUD is for most of its IT assignment going well beyond this paradigm as it has to manage, coordinate and facilitate trans-European IT services, of which most of the Configuration Items (CI) are set up, deployed, operated and managed by the national administrations. DG TAXUD has a dual responsibility in IT service management:

- at central application level:
 - deploy and operate all applications required to meet its policy and operational obligations, and operate a Service Desk to support these Community applications. There are applications to serve:
 - the national administrations in several ways: business applications, statistics & monitoring applications, test applications, web servers, call management,
 - the citizen via Europa,
 - the other Directorates General;

¹⁷ For the sake of simplification, the other Directorates General can be considered as being part of the trans-European systems managed by DG TAXUD as they are interconnected via a common network (CCN/CSI).

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- in some cases, develop and support applications that national administrations may want to operate nationally to ease the burden of meeting their operational obligation(s) for a specific trans-European system.
- at trans-European system level:
 - produce the common system specifications, coordinate the deployment of trans-European services as required by the policies to be implemented, perform the Conformance Testing (CT) of each national application before granting it the right to join operations, monitor the Quality of Services (QoS) of the national applications, elaborate business and technical statistics, facilitate the resolution of incidents between national administrations, run continuous improvement programmes, as well as operate a central Service Desk (SD) to support these systems,
 - operate and maintain the Common Communications Network (CCN) which offers a point of presence in each NA to allow all constitutive applications of a system to interoperate via a secure network.

The Central Applications (deployed and operated by DG TAXUD, or third parties on its behalf) serve in general:

- the national applications via CCN,
- officials in the national administrations in most cases via CCN and in some cases via the Internet,
- citizens via the point of presence of the customs & taxation applications on Europa,
- other Directorates General and services of the Commission or inter-institutional bodies such as DG AGRI, Eurostat, DG TRADE, OOPEC, and probably others in the future;
- officials of DG TAXUD.

Additional information on the trans-European systems of DG TAXUD is available from TEMPO (see *TEMPO Home Page -> Trans-European System Management -> Trans-European System Reference Manual*).

5.8 THE CCN/CSI NETWORK

The exchange of information between the national administrations and between the national administrations and the Commission is supported by a closed and secure Trans-European network managed by DG TAXUD, CCN/CSI, which provides:

- synchronous services based on the CSI API;

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- asynchronous services based on the CSI API;
- HTTP(S) services;
- E-mail services (smtp, pop3, IMAP);
- security services;
- limited presentation services;
- statistical and monitoring services.

The CCN network is made up of

1. a set of CCN entry points or DMZ (between the national networks and a secure closed CCN IP network) located in the premises of the Taxation and Customs Administrations of the Member States and some third countries, operated by the Commission and containing:
 - CCN gateways (known as access points) which are currently AIX machines offering HTTPS and CSI services;
 - SMTP servers which are currently Linux machines.
2. a Trans-European IP service interconnecting the CCN DMZ in a closed user group through an encryption box. All information exchanged in operation through CCN/CSI is encrypted while all test and administration exchanges are in clear.
3. the CSI (Common System Interface) is the "driver" (API) which allows a national computer environment to access the CCN. The CSI is available in all IT environments in use in the Taxation and Customs national administrations connected to CCN.

The operational contractor provides support services for the connected parties: remote CCN/CSI gateway configuration & administration via the IP service, training, help desk, technical support, registration agency for all CCN/CSI related configuration parameters.

The Commission operates in-house a set of CCN gateways that its contractors use to access the CCN network remotely, via the Telecom Centre of the Commission. The Commission will provide the necessary CCN gateways, training and support at no cost for the contractors. However, the contractors will have to bear the connection costs:

- either to connect with the Telecom Centre of the Commission in case of remote access to the CCN network, or
- to connect with the CCN IP service including the encryption box.

The contractor is responsible for ensuring that the size of this connection is in accordance with the traffic profile. The contractor will not bear the costs for the CCN traffic beyond the connection point with the CCN IP service.

The contractor is responsible for strictly restricting and monitoring the access to the entry point to the CCN network. This is of high importance considering the operational role of CCN in anti-fraud systems in the areas of Taxation and Customs Union.

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THE PORTFOLIO OF CUSTOMS IT SYSTEMS AND APPLICATIONS	

6 THE PORTFOLIO OF CUSTOMS IT SYSTEMS AND APPLICATIONS

6.1 PORTFOLIO OVERVIEW

Table 1 below provides the entries of the portfolio of the customs IT systems and applications at the time of writing the Invitation To Tender. The table has to be read as Configuration Items (CIs) to be managed in a CMDB. These CIs are in line with the CMDB entries managed by the ITSM contractor.

General information on customs IT systems and applications may be found on the Europa web site:

http://ec.europa.eu/taxation_customs/customs/policy_issues/electronic_customs_initiative/it_projects/index_en.htm

Refer to the IT systems and applications project fiches [R027] for more detailed information. Furthermore, all specifications, source code (if applicable) and documentation for the different IT systems and applications can be found in Annex XI – baseline.

The portfolio is organised by families as follows:

- **Movement systems and supporting applications:** includes the distributed movement systems NCTS, ECS and ICS together with its supporting applications operated centrally;
- **Internal Applications:** includes applications that are used by commission staff to manage the publications (e.g. the Combined Nomenclature), the budget and other deliverables;
- **Risk Analysis and Control Applications:** includes applications that are used in the domain of risk analysis and control;
- **Internet Applications:** is mainly represented by the unique application (DDS2) that permits citizens to consult public information retrieved from other systems and applications;
- **Economic Operators Applications:** includes the applications managing information associated with economic operators;
- **Tariff and Classification:** includes the applications managing customs information concerning goods and more specifically tariff and classification information;
- **TATAF:** include the technical components which are deployed on a more horizontal level and which are part of the Tariff Application Technical Architecture Framework;

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- **SPEED2:** includes software components constituting the Single Portal for Entry and Exit of Data (SPEED).

ID	IT system/application (CI)	Acronym	IT system/application family
1	New Computerised Transit System (NCTS)	NCTS	Movement systems and supporting applications
2	Export Control System (ECS)	ECS	Movement systems and supporting applications
3	Import Control System (ICS)	ICS	Movement systems and supporting applications
4	Central System for Reference data (CS/RD)	CS/RD	Movement systems and supporting applications
5	Central System MIS (CS/MIS)	CS/MIS	Movement systems and supporting applications
6	Standard Transit Test Application (STTA)	STTA	Movement systems and supporting applications
7	Transit Test Application (TTA)	TTA	Movement systems and supporting applications
8	SPEED-ECN (SPEED-ECN)	SPEED-ECN	Movement systems and supporting applications
9	Standard SPEED Test Application (SSTA)	SSTA	Movement systems and supporting applications
10	Activity Reporting Tool (ART-2)	ART2	Internal
11	Combined Nomenclature (CN)	CN	Internal
12	Suspensions (SUSP)	Suspensions	Internal
13	Community Risk Management System (CRMS)	CRMS	Risk Analysis and Control
14	anti-COUNTERFEIT and anti-Piracy Information System (COPIS)	COPIS	Risk Analysis and Control
15	Specimen Management System (SMS)	SMS	Risk Analysis and Control
16	DDS2-CM	DDS2-CM	Internet
17	DDS2-COL	DDS2-COL	Internet

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18	DDS2-EBTI	DDS2-EBTI	Internet
19	DDS2-EOS	DDS2-EOS	Internet
19	DDS2-ECICS	DDS2-ECICS	Internet
20	DDS2-EXPORT	DDS2-EXPORT-MRN	Internet
21	DDS2-SEED	DDS2-SEED	Internet
22	DDS2-SURV	DDS2-SURV	Internet
23	DDS2-SUSP	DDS2-SUSP	Internet
24	DDS2-TARIC	DDS2-TARIC	Internet
25	DDS2-TRANSIT	DDS2-TRANSIT-MRN	Internet
27	Economic Operators System (EOS)	EOS	Economic Operators
28	Economic Operators System (EOS-MRA)	EOS MRA	Economic Operators
29	Regular Shipping Service (RSS)	RSS	Economic Operators
30	European Binding Tariff Information (EBTI-3)	EBTI3	Tariff and Classification
31	European Customs Inventory of Chemical Substances (ECICS-2)	ECICS2	Tariff and Classification
32	Information System for Processing Procedures (ISPP)	ISPP	Tariff and Classification
33	Quota Management (Quota-2)	Quota2	Tariff and Classification
34	Surveillance management and monitoring (Surveillance-2)	SURV2	Tariff and Classification
35	TARif Intégré Communautaire (TARIC-3)	TARIC3	Tariff and Classification
36	CSI Bridge	CSI Bridge	TATAF
37	HTTP Bridge	HTTP Bridge	TATAF
38	User management (UM)	UM	TATAF
39	SPEED2	SPEED2	SPEED2

Table 1 - Portfolio of customs IT systems and applications

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6.2 NCTS

6.1.1 BUSINESS DESCRIPTION

The NCTS is the New Computerised Transit System, based upon electronic declaration and processing, and designed to provide better management and control of Community and Common Transit. It involves all EU Member States, the EFTA countries, Andorra, San Marino, Croatia and Turkey. More countries will be joining in the future.

NCTS has most likely made the largest contribution to trade facilitation by simplifying and speeding up the transit procedure for both traders and administrations. NCTS allows traders to submit their declarations before departure, so waiting time at the borders is considerably reduced. In addition, the use of electronic messages instead of paper documents enables an earlier end and discharge of the operations. This leads directly to the faster release of the guarantee lodged. Further time gains are achieved when considering physical controls on goods. As customs will have decided well in advance whether or not the goods need to be subject to a control, waiting time at the office of destination is shortened. Finally, as NCTS creates an electronic environment capable of directly managing all the movements of goods, formalities for Authorised Consignors and Consignees have become much less cumbersome. Also, any discrepancies can be sorted out more quickly in the electronic enquiry procedure. All these features lead to an overall reduction of (administrative) costs and burdens for businesses.

The customs authorities of the Member States control each year **10 million trucks** carrying non-EU goods transiting via the Union in real-time customs control (from departure to arrival and clearance) through almost **50 million electronic information exchanges** sent through the New Computerised Transit System (NCTS).

Since 1 July 2009 NCTS includes the electronic handling of transit declarations under the security amendment Regulation 648/2005 which requires additional information to be included in transit declarations for safety and security purposes. The features implemented on 1 July 2009 allow to:

- upgrade the enquiry procedure which can be initiated when either the time allotted for receipt of transit movement arrival at destination, or the time for receipt of the control results from the Office of Destination has expired;
- introduce the recovery procedure which usually starts as a follow up to the Enquiry Procedure but it can also be initiated in any state after the movement release in specific cases like when a Customs Officer in the Competent Authority suspects that a fraud or another abnormal incident took place;
- transmission of information on movements of sensitive goods to OLAF (Anti-Fraud Transit Information System – ATIS) (including the National transit).

Since 1 September 2011 all Community transit declarations are also duplicated and sent to OLAF (also for Common transit declarations, except for Switzerland, Croatia and Turkey).

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The NCTS is continuously expanding from a geographical point of view, with more countries becoming members of the Common Transit Convention in the coming years.

On 01/01/2009, an electronic connection was launched with Russia to allow for secure data exchange of TIR movement data, in order to address lorry congestion at the EU-Russia border (currently 3,500 movements supported daily). This connection has been established through the SPEED platform (using CCN/CSI) on which SPEED-ECN application is running in order to transfer NCTS message to SPEED message.

6.1.2 OPERATIONAL INFORMATION

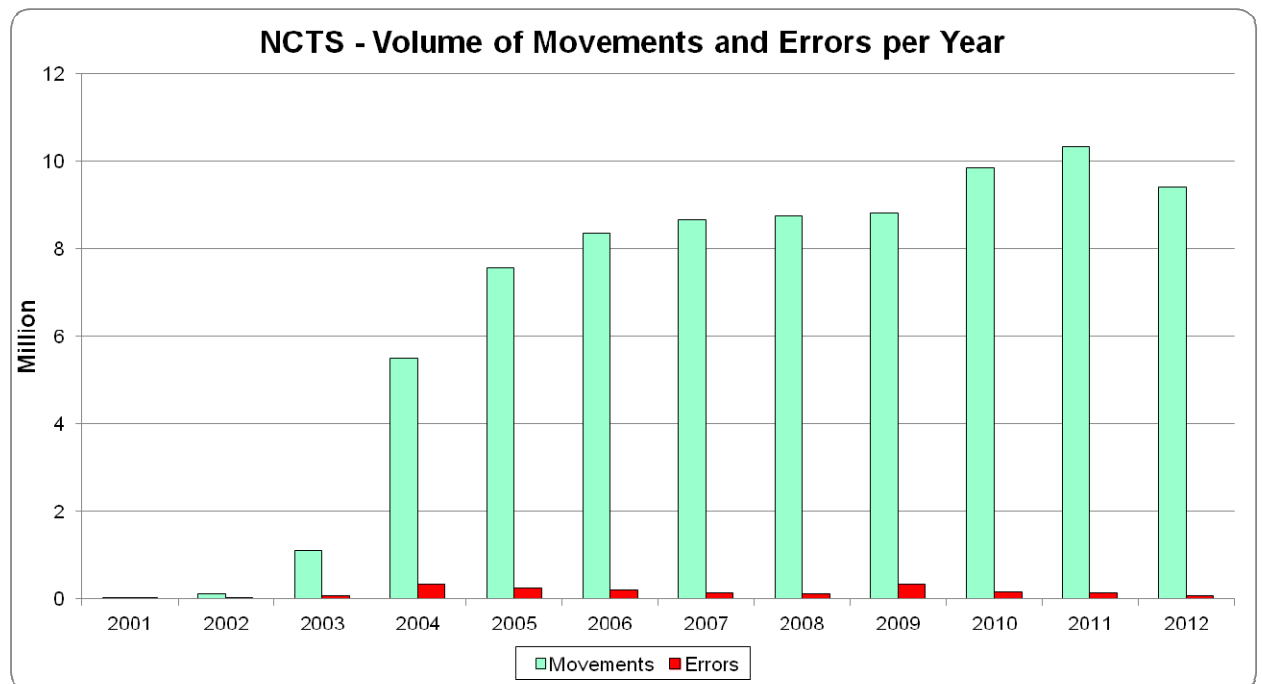
Currently, there are 34 countries (national administrations) interacting with NCTS which supports on average 205,000 movements and 1,100,000 messages per week. The number of released international movements (IE001) recorded for NCTS by the end of November 2012 (since April 2002) was 78.5 Mio with a daily average of about 37,100 movements for business days. The average error rate in November 2012 was 0.17%.

Some key NCTS indicators from the years 2001 to November 2012 are shown below.

Information per year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	up to 30/11/2012	All
Movements (IE001)	4,931	117,894	1,103,057	5,507,064	7,582,264	8,353,265	8,657,387	8,755,333	8,814,395	9,836,609	10,344,076	9,421,013	78,497,288
Errors (IE906 +IE907)	1,417	15,026	77,821	323,627	244,232	208,746	131,024	118,389	332,704	157,140	142,238	76,099	1,828,463
Total Messages	32,889	892,025	6,808,563	27,620,279	40,223,343	40,655,411	41,887,717	42,528,753	42,408,883	46,499,304	51,857,441	52,693,278	394,107,886
Error Rate (% of all messages)	4.31%	1.68%	1.14%	1.17%	0.61%	0.51%	0.31%	0.28%	0.78%	0.34%	0.27%	0.14%	0.46%
Average movements per working day	19	453	4,243	21,181	29,163	32,128	33,298	33,674	33,902	37,833	39,785	39,254	25,322

Table 2 - NCTS - Key indicators per year

In addition, the volume of movements and errors for the same period (2001 – 2012) is shown in the following figure.



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Figure 5 - NCTS: volume of movements per year

NCTS is monitored on a daily basis, and 1 to 3 incidents are created for investigation by national administrations. Please refer to section 9 for more information on the volume of incidents open per system. The number of movements is expected to further increase after 01/12/2012 when Turkey joined the Convention for Common Transit.

6.2 ECS

6.2.1 BUSINESS DESCRIPTION

System to manage electronically the indirect export procedure.

During the Customs 2002 seminar in Vuokatti (December 2002) the Commission, the EU-Member States and the Candidate Countries proposed to set up an Export Control Pilot Project (EPP).

ECS, the forerunner of the **Automated Export System (AES)**, ensures the electronic handling of the export procedure.

ECS Phase 1 applied to the movement of goods released for export and moving as one consignment, exported via another Member State (MS). Since 01 July 2009, ECS Phase 2.0 is applied to satisfy the requirements stipulated in the so-called "security amendment" to the Community Customs Code (Regulation (EC) No 648/2005).

6.2.2 OPERATIONAL INFORMATION

Currently, there are 27 countries (national administrations) interacting with ECS which supports on average 270,000 movements and 750,000 messages per week. The number of released movements (IE501) recorded in ECS for the third quarter 2012 was 3.25 Mio.

Some key ECS indicators from the years 2007 to 2012 are shown below.

Information per year	2007	2008	2009	2010	2011	up to 01/12/2012	Total
Movements (IE501)	1,951,089	4,712,823	7,115,876	10,886,664	12,125,015	11,948,227	48,739,694
Errors (IE906 +IE907)	221,740	168,439	556,367	307,227	263,201	144,936	1,661,910
Total Messages	5,189,194	13,236,290	20,873,568	30,008,497	33,291,926	32,635,582	135,235,057
Error Rate (% of all messages)	4.27%	1.27%	2.67%	1.02%	0.79%	0.44%	10.47%
Average movements per working day	7,504	18,126	27,369	41,872	46,635	49,784	31,649

Table 3 - ECS - Key indicators per year

In November 2012, the volume was stable at about 52,000 movements per business day, while the average error rate was reduced to 0.34% (from 0.57% at the end of 2011), as illustrated on the figure below.

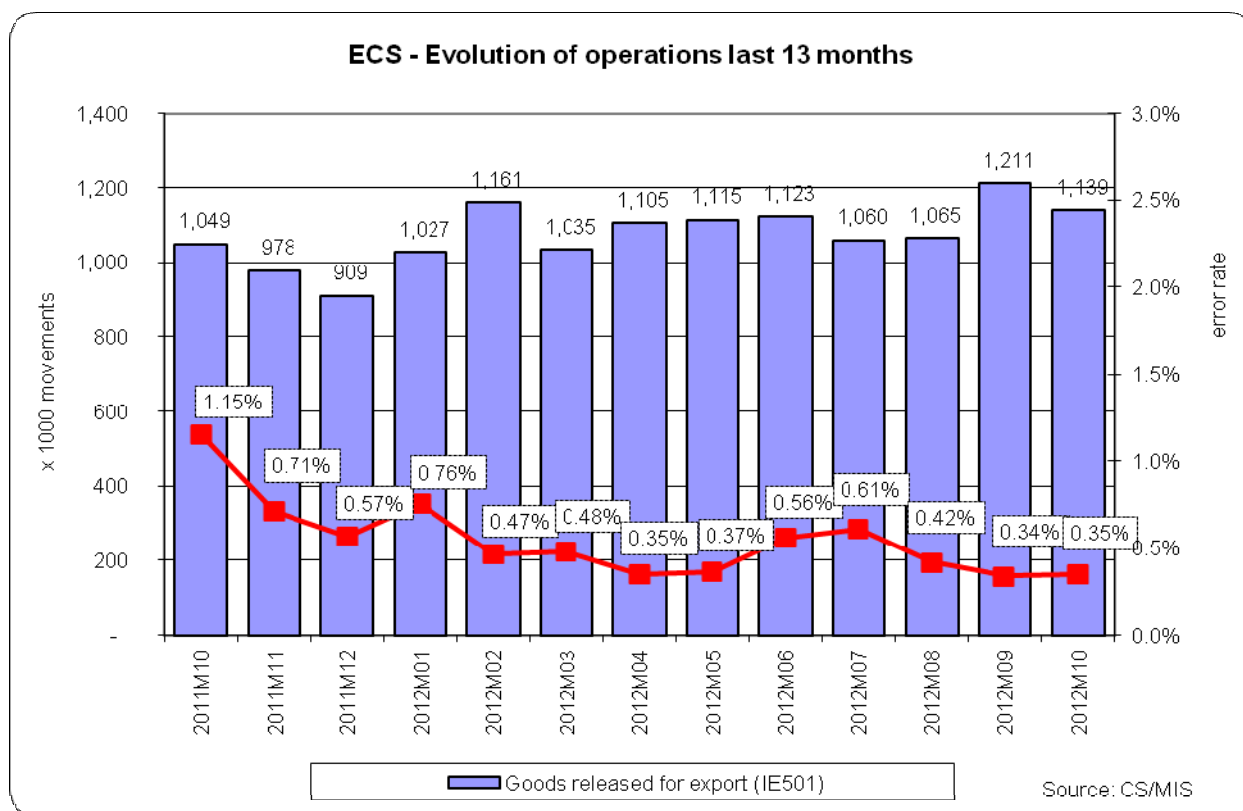


Figure 6 - ECS: Evolution of operations

The system is monitored on a daily basis, and 3 to 5 incidents are created for investigation by national administrations. Please refer to section 9 for more information on the volume of incidents open per system. The number of movements is expected to increase after 01/07/2013 with the accession of Croatia.

6.3 ICS

6.3.1 BUSINESS DESCRIPTION

A system to manage electronically some aspects of the import procedure; it will evolve towards the full Automated Import System (AIS).

The ICS is the result of AIS phase 1, and as such is the first step towards the implementation of a full-blown AIS (Automated Import System). ICS strictly includes what is needed to implement Regulation 648/2005 and its Implementing Provisions (Regulation 1875/2006), and provides a solution to the processing of the Entry Summary Declaration (ENS) at:

- the Office of Lodgement;
- the Office of First Entry (including international diversion);
- any Office of Subsequent Entry, whether or not declared in the ENS.

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6.3.2 OPERATIONAL INFORMATION

The main operational data of this system is summarised below.

Information per year	2011	Up to 30/11/2012	Total
Total ENS lodged by traders	34,381,039	38,949,163	73,330,202
Total messages on the Common Domain	1,513,692	4,881,902	6,395,594
Total ENS lodged by traders	171,555	107,322	278,877
Total messages on the Common Domain	11.33%	2.20%	4.36%

Table 4 - ICS: Messages and errors per year

6.4 CS/RD

6.4.1 BUSINESS DESCRIPTION

CS/RD is a supporting application to the movement systems managed by DG TAXUD R5/APM. This application is critical and supports the trans-European systems already in place between the National Administrations. It offers a central repository for reference data. Reference data means the common reference data (e.g. Country code list, Document type Codelist), but also the Customs Offices and the Sharing Authorities. Each National Administration is responsible for providing and maintaining its Customs Office List in this central database. The CS/RD data are covering various domains: NCTS, ECS, ICS, EOS, COPIS.

6.4.2 OPERATIONAL INFORMATION

Number of users (Approx) : about 200 – not all are active

Number of messages/Year (Approx) : less than 20.000

Order of magnitude of DB Size : 500MB

6.5 CS/MIS

6.5.1 BUSINESS DESCRIPTION

A Central Application which collects the traces of the messages exchanged on the Common Domain, generates statistics and reports, collect the business statistics and the availability details of the National Applications for NCTS, ECS, ICS and SPEED-NCTS TIR Russia.

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The CS/MIS application is used by the Commission and National Administrations and provides them with the facilities needed to monitor and report on the operations of the Central and National NCTS, ECS, ICS and SPEED systems. This is done by collecting and distributing business statistics, technical statistics and information on the availability of NCTS, ECS, ICS and SPEED and/or National Systems.

6.5.2 OPERATIONAL INFORMATION

Number of users (Approx) : about 200

Number of messages/Year (Approx) : About 13 million (99.95 % are audits & stats files)

Order of magnitude of DB Size : 500GB

6.6 STTA

6.6.1 BUSINESS DESCRIPTION

STTA is an application developed by DG TAXUD and used locally by the National Administrations to perform Mode 1 tests before they perform Conformance Testing (mode 2). Mode 1 tests insure the compliance of messages sent/received by National Application with the NCTS, ECS, ICS specifications (for the interfaces with the Common Domain and the External Domain).

6.6.2 OPERATIONAL INFORMATION

Once validated, STTA is published on the CIRCA (CIRCABC) platform. From that moment National Administrations are free to download and install it on their side. No control is done neither on the number of execution nor on the number of messages processed by the installed instances of STTA.

Usually two releases in December and June are provided to the National Administrations for performing the Conformance Testing.

Approximately 100 National Administrations use the application, though they are not all are active at the same time.

6.7 TTA

6.7.1 BUSINESS DESCRIPTION

TTA is a central testing application that must be used by the National Administrations for performing Conformance Testing (mode 2). The Transit Test Application (TTA) provides a means to test a National Application (National Transit Application, National Export Control Application, National Import Control Application) by using scenarios in order to check common domain electronic message exchanges through through CCN/CSI gateways.

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6.7.2 OPERATIONAL INFORMATION

TTA is used by 32 NCTS National Project Teams, 27 ECS National Project Teams and 27 ICS National Project Teams. Two releases are provided annually in December and June in order for to the National Administrations to perform conformance tests.

TTA must be able to process all scenarios included in the three CTP databases to test both three domains NCTS 271 scenarios exchanging 40 different messages, ECS 114 scenarios exchanging 17 different messages, and ICS 97 scenarios exchanging 6 different messages.

6.8 SPEED-ECN

6.8.1 BUSINESS DESCRIPTION

SPEED-ECN is the SPEED component that ensure the secured exchange of messages between the Commission (14 Member States participating) and the third countries (Russia for example) with which the EU has on-going international cooperation. The SPEED-ECN component currently only supports the exchanges of pre-arrival customs NCTS-TIR information.

The need for information exchange is coming either from operational difficulties to perform customs controls in a time frame which responds to expectations from economic operators; or from requirements to achieve secure and safe trade lanes. Indeed the Regulation 1875/2006 introduces such measures from 01/07/2009 onwards in the EU and several of our trading partners have similar measures or plans to introduce such measures.

SPEED-ECN is converting the EDIFACT messages IE012 received from the Member States' application, to produce an XML message (IES01) sent to the Russia application via CCN/CSI.

6.8.2 OPERATIONAL INFORMATION

The main operational data of this system is summarised below. It must be noted that the system is still considered as a pilot from a business perspective.

Information per year	2009	2010	2011	Up to 30/11/2012	Total
Movements (IE012)	558.032	961.823	1.088.248	1.101.833	3.709. 936
Errors (IE907 +IE917)	6.477	2.177	261	323	9.238
Error Rate (% of all messages)	1.16%	0.23%	0.02%	0.03%	0.25%

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Average movements per working day	2.146	3.699	4.186	4.591	3.,637
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Table 5 - NCTS-RU: Messages and movements volumes per year since start in 2009

6.9 SSTA

6.9.1 BUSINESS DESCRIPTION

The Standard SPEED Test Application (SSTA) is a centrally developed test application that supports NCTS and SPEED.

SSTA offers the NA a light PC application to execute, in a cost effective manner, the mandatory National (Mode 1) Tests before applying for conformance Testing (Mode 2). Mode 1 tests assure the compliance of the NTA with the SPEED specifications for the interface with the Common Domain and the External Domain.

6.9.2 OPERATIONAL INFORMATION

6.10 ART2

6.10.1 BUSINESS DESCRIPTION

The Activity Reporting Tool (ART2) supports the management of the large number of joint action activities under the Customs 2013 and Fiscalis 2013 Programmes (the Programmes) supporting the functioning of the Customs Union and taxation systems in Europe.

ART2 enables the decentralised implementation of the Programmes, where the stakeholders of the programme, national customs and tax administrations, implement the Programmes managed and led by the Commission. The application covers the full lifecycle of programme management from proposal management and action/event management up to participant management, monitoring and evaluation. ART2 accommodates the specific implementation structures of the Programmes and serves as a single point of reference for all stakeholders situated in the Commission and in the Member States.

Each activity under the Programmes needs to be initiated via ART2. Stakeholders can follow the approval procedure through ART and may be consulted when appropriate. All event (meeting) and participant information is connected to the approved activities. The action fiche describes the background and context, the set objectives and expected results as well as the link to the Annual Work Programme. It also identifies the specific area within customs and taxation to which the activity relates. The programme managers in Member States manage their participation in the different programme events through ART2 and register participants for events through ART2.

Member States also use the system to enter financial data related to the costs reimbursed to participants or for the organisation of programme events. The on-time

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availability of financial data allows the Commission to assess the financial state-of-play at any given time. ART2 is used as the official reporting tool on expenditures carried out by the Member States and is recognised as the means of providing financial information for the annual closure of pre-financing assigned to the Member States in the form of grants. The validation rules provide the Commission with the power of budgetary and management control.

The data in ART are essential for the monitoring and evaluation of the Programmes and their impact. The system provides search functions and preset queries that support the filtering of information according to the specific/targeted needs.

6.10.2 OPERATIONAL INFORMATION

The current size of the ART2 database is 10 GB. There are approximately 1000 events per year and 15000 participants per year.

6.11 CN

6.11.1 BUSINESS DESCRIPTION

CN is a system to draw up and publish the Combined Nomenclature for tariff classification and statistical purposes.

In order to monitor the flow of goods into and out of the European Union, the goods are identified with reference to a nomenclature for tariff and statistical purposes, the Combined Nomenclature. The CN consists of a table of goods descriptions with related codes together with rules and notes for its interpretation.

In the past, the CN regulation and the CN Explanatory Notes (CNENs) were prepared manually on paper, i.e. without any kind of electronic support (+/- 1000 pages in each official language for the CN). The CN management system supports the publication process of the CN regulation from 2005 onwards (for the publication applicable on 1/1/2006) and solves potential inconsistencies between linguistic versions.

As it is possible to provide the Publications Office with the manuscript in electronic form, the system also helps reducing delays in the publication process.

6.11.2 OPERATIONAL INFORMATION

Number of users: approximately 3 DG TAXUD internal users (internal application).

Order of magnitude of DB Table Space Size:

- Production environment: 7 GB;
- Conformance environment: 7GB;
- Test environment (PSAT or SAT): 2 GB;
- Performance test environment (if required): 2 GB.

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Disk Space:

- CN application source archive (needed during installation): 200 MB
- CN runtime archive building (needed during installation): 200 MB + 100 MB in /tmp.
- CN application runtime environment (needed during installation and operation): 100 MB

6.12 SUSP

6.12.1 BUSINESS DESCRIPTION

Allows the creation of a dossier on the suspension of import duties for certain goods; constitutes a back-up to the publication of suspension regulations in the Official Journal.

The suspensions system supports the legislative work for regulations covering the following measures:

- temporarily suspending the autonomous Common Customs Tariff duties on certain industrial, agricultural and fishery products;
- temporarily suspending the autonomous Common Customs Tariff duties on a number of products intended for the construction, maintenance and repair of aircraft;
- autonomous Community Tariff quotas for certain agricultural and industrial products.

For the autonomous suspensions and quotas there are usually 2 publication cycles or rounds started per year, although this is not a fixed rule.

6.12.2 OPERATIONAL INFORMATION

The business unit manages about 1.200 suspension dossiers and about 100 quota dossiers.

Regulations are published twice a year after a proposal/decision cycle which takes about 9 months.

Number of users: ca. 3 DG TAXUD internal users (internal application).

Order of magnitude of DB Table Space Size:

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- Production environment: 80 GB;
- Conformance environment: 80 GB;
- Test environment (PSAT or SAT): 2 GB;

Disk Space:

- Suspensions application source archive (needed during installation): 200 MB;
- Suspensions runtime archive building (needed during installation): 300 MB + 100 MB in /tmp;
- Suspensions application runtime environment (needed during installation and operation): 150 MB.

6.13 CRMS

6.13.1 BUSINESS DESCRIPTION

The latest amendments to the Community Customs Code (Council Regulation 648/05, CCC) and its Implementing Provisions (Commission Regulation 1875/06, CCIP) introduced a legal basis for the establishment of the Community Risk Management Framework which shall be implemented through an electronic Community (Customs) Risk Management System (CRMS). CRMS includes three essential elements for which an electronic solution has to be or has already been developed:

- Exchange of risk information (RIF system already operational);
- Community (Customs) Priority Control Areas and Common Risk Criteria (in operation since September 2009);
- Comprehensive set of security risk rules to be used for continuous screening of electronic entry and exit summary declarations for the security and safety purpose (not yet developed).

6.13.2 OPERATIONAL INFORMATION

More than 5000 users are connected to CRMS. The number of RIFs created per year is approximately 2.000. The database contains currently more than 7.000 RIFs.

Order of magnitude of DB Table Space Size:

- Production environment: 100 GB;
- Conformance environment: 100 GB;
- Test environment (PSAT or SAT): 600 MB;
- Performance test environment: 10 GB.

Disk Space:

- CRMS application source archive (needed during installation): 200 MB;

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- CRMS runtime archive building (needed during installation): 300 MB + 100 MB in /tmp;
- CRMS application runtime environment (needed during installation and operation): 100 MB;
- CRMS performance test files: 40 GB max.

6.14 COPIS

6.14.1 BUSINESS DESCRIPTION

COPIS is a system to exchange Applications for Action to protect goods subject to intellectual property rights against counterfeiting and piracy.

The purpose of the anti-COunterfeit and anti-Piracy Information System (COPIS) is to protect the Intellectual Property Rights as set down in the Council Regulation (EC) No 1383/2003 and Commission Regulation (EC) No 1891/2004. To protect themselves from counterfeiting and piracy, right holders can ask the intervention of Customs in order to take measures against goods infringing certain intellectual property rights at the border. COPIS will simplify and reduce the work in MS and COM and improve the cooperation in the area of IPR protection.

6.14.2 OPERATIONAL INFORMATION

The COPIS system will be operational on 1/04/2013. Estimated usage figures are as follows:

- Number of AFAs¹⁸ = 10 000 per year;
- Number of INFs¹⁹ = 70 000 per year;
- Increase in database size = 1TB per year.

6.15 SMS

6.15.1 BUSINESS DESCRIPTION

SMS is a system to collect and disseminate the specimens of stamps, seals and certificates used for goods presented at the Community border for importation or transit; the Member States may then perform probes of the shipments and documents.

The Commission provides the Member States and other co-operating countries with the specimens of stamps, seals and certificates in the context of several administrative

¹⁸ AFA – Application For Action

¹⁹ INF - Infringement

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co-operation procedures. With these they can perform probes of shipments and documents.

The issuing bodies of the stamps, seals and certificates in the various countries must provide the Commission with the specimen information. The Commission is responsible for the dissemination of it.

When goods are presented at the Community border, for importation or transit, they are accompanied by documents and/or authentication attributes such as stamps, seals, signatures, etc. These may be subject to forgery, usually with the aim of obtaining a more advantageous tariff regime. In order to fight fraud, the Commission co-operates with the competent government authorities in partner and third countries. Partner countries are those which are closely involved in implementing the co-operation procedure.

6.15.2 OPERATIONAL INFORMATION

The database contains more than 2.300 specimen definitions. Every attachment can contain further details in terms of stamps, signatures, etc.

On average, the system registers about 300 data-capture actions per year.

6.16 DDS2

The DDS2 system is a collection of various applications composed of one common module and applications disseminating information for a given information domain.

6.16.1 DDS2-CM

The DDS2-CM is a restricted domain used for translation and statistics purposes. It permits to:

- Consults/Browses the data imports following transfer for the production applications (TARIC3, CS/MIS, EBTI3, CS/RD, etc.);
- Gets statistics over the number of requests done following several criteria (year, month, week; application; functions, etc.);
- Manages translations in all official languages related to the screens of this domain.

6.16.2 DDS2-COL

The DDS2-COL domain covers/disseminates public information coming from the CS/RD application with the following services:

- Queries/displays information concerning the Customs Offices involved in Transit/Export/Import/Excise/EOS/RSS: name, address, phone number, opening hours, holidays, etc.;
- Allows downloading of the XML files;

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- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.3 DDS2-EBTI

The DDS2-EBTI domain covers/disseminates public information coming from the EBTI3 application with the following services:

- Queries/displays all non-confidential European Binding Tariff Information (with images)
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

The operations management of this application falls under the responsibility of the IT Service Management contractor.

6.16.4 DDS2-EOS

The DDS2-EOS domain covers/disseminates public information coming from the EOS application with the following services:

- Permits to validate AEO certificates;
- Obtains detailed information about authorised economic operators (when given prior agreement);
- Obtains detailed information about sharing authorities;
- Obtains detailed information about registering authorities (see DDS2-COL);
- Obtains detailed information about competent customs authorities (see DDS2-COL);
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.5 DDS2-ECICS

The DDS2-ECICS domain covers/disseminates public information coming from the ECICS application with the following services:

- Queries/Displays a repository of 300.000 chemical substances in all Community languages along with their tariff classification in the Combined Nomenclature;
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.6 DDS2-EXPORT

The DDS2-EXPORT domain covers/disseminates public information coming from the CS/MIS application with the following services:

- Allows retrieval of the status of an Export movement based on its Movement

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Reference Number (MRN);

- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.7 DDS2-SEED

The DDS2-SEED domain covers/disseminates public information coming from the SEED application with the following services:

- Allows the internet user to verify online the Excise Number and if the response is positive, the system also permits to know which kind of excise product the Economic Operator is permitted to handle;
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.8 DDS2-SURV

The DDS2-Surveillance domain covers/disseminates information coming from the Surveillance application with the following services:

- Allows to consult the public surveillance information based on the origin and/or surveillance types;
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.9 DDS2-SUSP

The DDS2-Suspensions domain covers/disseminates public information coming from the Suspensions application with the following services:

- Publishes public information on autonomous tariff suspensions, in preparation or in force;
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.10 DDS2-TARIC

The DDS2-TARIC domain covers/disseminates public information coming from the TARIC3 application with the following services:

- Allows to browse the nomenclature in all Community languages and all Community measures relating to imports and exports;
- Allows search for geographical areas;
- Allows search for regulations;
- Provides the facility to retrieve/get reports on relevant information such as duty rates and regulations;

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- Includes Quota information;
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.11 DDS2-TRANSIT-MRN

The DDS2-TRANSIT domain covers/disseminates public information coming from the CS/MIS application with the following services:

- Allows retrieval of the status of a Transit movement based on its Movement Reference Number (MRN);
- Provides the EMAP (Transit Movements Electronic Map);
- Manages the translations in all official languages related to the screens of this domain through a specific restricted access URL.

6.16.12 DDS2 OPERATIONAL INFORMATION

The following table details the number of hits per DDS2 domain for a period of 12 months between 01/09/2011 and 31/08/2012:

DDS2- Domain	Hits for the period between 01/09/2011 and 31/08/2012
DDS2-COL	2.553.116
DDS2-EBTI	15.259.395
DDS2-ECICS	1.541.229
DDS2-EXPORT	28.895
DDS2-EOS	4.529.469
DDS2-SEED	8.161.804
DDS2-SURV	558.068
DDS2-SUSP	174.983

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DDS2-TARIC (incl. DDS2-QUOTA)	18.540.878
DDS2-TRANSIT	26.581

Table 6 – DDS2 operational figures for 01/09/2011- 31/08/2012 period

6.17 EOS

6.17.1 BUSINESS DESCRIPTION

The main business function of the EOS system is to support a safer and more secure end-to-end supply chain while facilitating legitimate trade. The Community Customs Code requires that traders provide the customs authorities with information on goods prior to import and export to/from the European Union.

The EOS IT system is a central repository of all the EORI records and of all the AEO applications and certificates of the EU. Member State can check in real time the EORI and AEO data with the objective to process properly the customs declarations.

EOS stores information on 3.3 million legal entities registered in the 27 EU Member States that come into contact with customs administrations. Sharing this information between MS avoids the need for economic operators to register in each member state to perform customs operations, significantly reducing red tape and the costs for doing business.

6.17.2 OPERATIONAL INFORMATION

Active number of registered Economic Operators: **3378419**

Active issued AEO certificates grouped by type:

AEOC (applicable for simplified procedures)	5603
AEOS (applicable to security)	321
AEOF (applicable to both simplified procedures and security)	5681

6.18 EOS-MRA

6.18.1 BUSINESS DESCRIPTION

The Authorised Economic Operator Mutual Recognition project aims to provide a system to exchange AEO data between the EU and its partner countries (i.e. Japan, USA, Norway, Switzerland, China, Russia, Australia, etc.).

AEO MR objectives:

- Customs processes facilitation and harmonisation through computerisation of declarations and data exchanged. Access to the AEO data will be made more widely and easily available;

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- Trade facilitation granting benefits to partner country's AEO;
- Recognition of AEO status in a larger number of non-EU partner countries.

AEO MR benefits:

- control and facilitate the movement of goods into and out of the internal market through efficient import and export procedures;
- increase the competitiveness of European trade through a reduction of compliance and administrative costs and an improvement in clearance times;
- facilitate legitimate trade through a coordinated approach relating to the control of goods;
- improve the safety and security of citizens with regard to dangerous and illicit goods.

There are for the moment Mutual Recognition Agreements with Japan, Switzerland, Norway, and with USA. Discussions have started with China and Canada.

AEO Mutual recognition with Japan

On June 24, 2010, EU and Japan signed the Decision establishing mutual recognition of AEO between them. This mutual recognition offers enhanced trade facilitation opportunities to certified AEO traders on both sides who have invested in the security of their supply chains.

This means that certified companies in both the EU and Japan can expect fewer controls on their shipments. This advantage is granted to holders of a European AEO certificate upon the Import procedure which possess the AEO certificate Safety (AEO-S) or the certificate simplified customs procedures/safety (AEO-F) and which gave consent regarding the exchange of AEO-data between the EU and partner countries.

A temporary solution has been found to identify the Japanese certified companies in the customs systems. The Entry Summary Declaration should mention the code Y031 together with the data element 'Transport document' and the unique identifier of the Japanese holder of the AEO-certificate.

The 'temporary solution' with Japan is operational.

AEO Mutual recognition with USA

On 18 December 2010, EU and USA agreed on establishing mutual recognition of AEO between the EU and USA. The related implementation plan foresaw to split the operational IT implementation of the exchanges of information on AEOs from EU to the USA to two phases:

- 1) phase 1 (transmitting of EU exporter data)- by 01/06/2012;
- 2) phase 2 –by January 2013.

AEO Mutual recognition with Switzerland and Norway

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Implementation following an agreed solution between the system owner and the Member States. Operational target date by 2013.

Globally Networked Customs (GNC)

The GNC concept is an initiative of several members of the World Customs Organisation (WCO). The objective of the GNC concept and initiative is to standardize the way Customs authorities exchange information. The arrangements will be Customs-to-Customs and stay on a voluntary basis. The GNC approach will consist of providing elements such as protocols, standards and guidelines.

The different GNC initiatives are organised in 'utility blocks'. A utility block is a specific part of the Customs business process, explained in simple yet comprehensive terms that everyone can understand.

One of the utility blocks in which the EU was active was the "AEO mutual recognition" utility block (refer to 'GNC Utility Block – AEO Mutual Recognition Proposed by EU and US' [R021]) with the following purpose:

- To specify the process that regulates the information interaction between partner countries, and involved traders, that subscribe to an AEO Mutual Recognition Arrangement/Agreement (MRA);
- To enable each of the partner countries to grant benefits to AEO programme members of all other partner countries;
- To provide future partner countries negotiating a Bilateral AEO MRA with a template (this UB) for completing the technical annex of the Bilateral AEO MRA.

The Mutual Recognition Agreement implementation that was developed by the EU and USA was the basis of this utility block and consequently can be taken as a reference implementation.

6.18.2 OPERATIONAL INFORMATION

The number of EU Economic Operators with an AEO certificate that have given their consent to provide the relevant information to third countries: **5103**

The exchange with Japan is currently performed on a monthly basis.

The exchange with USA is performed on a daily basis.

6.19 RSS

6.19.1 BUSINESS DESCRIPTION

Goods carried on a ship sailing from an EU port for another EU port in the Customs territory of the Union normally leave the Customs territory to enter it again when the ship arrives at the other port. This means in general terms that the Customs status of all goods has to be proven to the Customs (as if the ship entered the Community from a

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third country). This includes those goods that were in free circulation until they left the port of departure since union goods lose their status when they are removed from the Customs territory of the Community.

For this reason, all goods that are carried by sea are deemed to have non-union status at the time of introduction into the Customs territory of the Union.

However, shipping services that operate exclusively between two or more EU ports can apply for the status of an authorised 'Regular Shipping Service' (RSS). Once this status is granted, the Customs authorities consider that the goods carried on those services do not leave the Union Customs territory and the status of union goods does not need to be proven. Such services can operate as bridges between two or more points in the Customs territory of the Union where there are no Customs checks on either end of the bridge. However, non-union goods carried by these services must be placed under the Customs transit procedure⁵.

RSS is, thus, a simplification offered for vessels that ply only between ports situated in the customs territory of the Union and may not come from, go to or call at any points outside that territory or in a free zone of control type I within the meaning of Article 799 IP of a port in that territory (Article 313a IP). The goods that are carried by these vessels are presumed to be union goods and are not subject to customs formalities.

It is subject to prior authorisation by the customs authorities (Article 313b IP). The application must be submitted to the customs authorities of the Member State in whose territory that company is established or, failing this, in whose territory it has a regional office. The authorising customs authority seeks the agreement of the customs authorities of the other MS concerned.

Such companies must, inter alia:

- determine the vessel(s) to be used for the RSS and specify the ports of call once the authorisation is issued;
- undertake that on the routes of RSS, no calls will be made at any port in a territory outside the customs territory of the Union or at any free zone of control type I in a port in the customs territory of the Union, and that no transshipments of goods will be made at sea;
- undertake to register the names of the vessels assigned to regular shipping services and the ports of call with the authorising customs authority.

In 2010, the authorisations for Regular Shipping Services (RSS) were updated, as established by Commission Regulation (EC) No 177/2010 of 2 March 2010 (OJ L 52, 3.3.2010, p. 28), which stated that RSS authorisations must be stored and processed in the 'electronic information and communication system referred to in Article 14x of Regulation (EEC) No 2454/93'. The RSS application is a centrally developed centrally operated IT system (light client) which consolidates all RSS applications and authorisations in a single repository accessible by all MS in order to satisfy this legislation. The RSS light client allows customs officers to retrieve all information

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pertaining to RSS applications and RSS authorisations. It also provides a facility for the consultations between the National Administrations, ensuring that the same procedure is universally and correctly applied for all.

6.19.2 OPERATIONAL INFORMATION

RSS is still in its uptake phase with Member States still in the process of entering their authorisations. Most Member States have very few authorisations (less than 20), with even the more frequent users having less than 100 authorisations. The system is not heavily used on a daily basis as new applications are not submitted frequently and changes are of a light nature, e.g. vessel names and ports. Most Member States have one or two users accessing the system.

An estimation of the system usage can be found below. Actual figures can only be provided once the Member States have completed their initial data entry which is planned for the end of 2012.

Activity	Count per day
New RSS applications	100
New consultations	100
New RSS authorisations	100
New re-assessment activities	100
Search activities	1000
View activities	500
PDF files produced	500

Table 7 – RSS count

6.20 EBTI3

6.20.1 BUSINESS DESCRIPTION

EBTI is a system for exchanging and consulting Member States' goods classification decisions and, therefore, their tariff treatment and application of trade policy measures.

The Commission has a procedure in place for information on the tariff classification of goods, provided by the European customs authorities, in order to achieve the following objectives:

- to ensure the uniform application of the tariff classification rules within the European Union;
- to eliminate the differences in the application of tariff classification rules amongst different traders within the Community;

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- to ensure the equality and the legal protection of the operator in terms of decisions taken by the different customs authorities.

In order to assure effective management of the procedure, a computerised system has been created to hold all BTI-related information. This system, named EBTI (European Binding Tariff Information), has the following business requirements:

- to ensure the transparency of customs information and to provide a guarantee of equality of treatment for the operators of the Union;
- to allow customs authorities to verify, when they have to classify specific goods, whether a classification decision has already been taken for similar goods by another European customs authority;
- to facilitate the classification of goods by allowing investigation of whether there are any classifications for goods with a similar designation;
- to allow the services of the Commission to ensure coherence of classification by the different national authorities, by searching for divergent or incorrect classifications;
- to look for attempted fraudulent practice and misuse of the procedure by operators (e.g. multiple requests by the same operator);
- to follow the effective application of the invalidation of BTIs.

6.20.2 OPERATIONAL INFORMATION

Total number of BTIs in database	712,901
Total number of active BTIs in database	459,859
Number of BTIs created in 2011	51,496
Number of BTIs created in 2012 (status of 10/12/2012)	50,201

6.21 ECICS2

6.21.1 BUSINESS DESCRIPTION

The ECICS2 system is a tool for all parties concerned with chemicals in international trade (legislators, economic operators, customs, tax or statistical authorities), as well as specialists (chemists, translators and scientific editors) and the general public all over the world (via the DDS-2 on the Europa Web portal).

It makes it possible to identify internationally marketed chemicals in an unambiguous manner for customs, legal and statistical purposes. It contains about 35 400 names for approximately 28 600 chemicals in the European Union (EU) official languages, with their Combined Nomenclature (CN) customs classification, the industry-standard CAS

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Registry Number (CAS RN) and the Customs Union and Statistics Number (CUS) assigned by DG TAXUD.

The chemical names are internationally recognized names and they are the simplest and the most systematic ones such as the ISO, INN (International Non-proprietary Names for Pharmaceutical Substances), and IUPAC nomenclature names.

Moreover, ECICS2 has an IUPAC name translation module in 9 languages of the EU-27 which is unique in the world. The ECICS2 system helps to avoid divergences and fraud, and consequently assists in the smooth operation of the internal market. For example, some information is available but classified as confidential, such as synonyms of chemical names commonly used by smugglers or other dishonest operators to avoid detection by the customs authorities.

In the near future, ECICS2 will include the ILIADe application which is a shared directory of the analytical methods developed by the Italian Customs Agency. The Italian administration is not able to continue to maintain and support the ILIADe application. Therefore the Customs Laboratories Steering Group requested DG TAXUD to take over this application in order to secure its maintenance and operational continuity. The integration of ILIADe in the ECICS2 application is scheduled to be available by February 2013.

6.21.2 OPERATIONAL INFORMATION

The database contains information for 119.388 chemical substances. It is planned to extend this database up to 300.000 chemical substances.

At the moment the database is quite small but it is expected that the size of the database will grow rapidly because of the large amount of attachments which will be included in the database.

ECICS2 has currently 193 users which is close to the estimated growth reported previous years (about 200).

6.22 ISPP

6.22.1 BUSINESS DESCRIPTION

ISPP (IPR) is a system currently used to manage information on inward processing authorisations.

The inward processing arrangements allow Community operators to be relieved from import duties for components imported from third countries with a view to being processed in the Community and subsequently re-exported. Inward processing is categorised as a customs procedure with economic impact. Therefore the use of this regime is conditional upon granting an authorisation by the customs authorities. This authorisation contains all particulars and conditions in relation to the use of the procedure.

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The main objective of the application is to manage information concerning the IPR (Inward Processing Relief) authorisations. The system facilities allow registering applications for import with a view to being processed and re-exported (inward processing) and decisions regarding granting, rejection, annulment, revocation.

6.22.2 OPERATIONAL INFORMATION

In 2012, the database increased by 883 cases to reach a total of 13.898 cases with information about inward processing.

6.23 QUOTA2

6.23.1 BUSINESS DESCRIPTION

Quota-2 is a system allowing the direct communication between Member States concerning tariff quotas.

The Quota-2 system is an evolution of the TQS for the management of tariff quotas.

For a number of products, a reduction of the customs duty payable is allowed for limited quantities of imports. This limitation takes the form of tariff quotas. Tariff quotas may apply to imports of a specified origin, normally within the framework of preferential tariff arrangements, or to imports of all origins.

As the Community is a customs union, tariff quotas are managed centrally by the Commission. The Taxation and Customs Union DG performs this management in the name of the Commission via the Quota-2 database (except in the case of tariff quotas managed by import licence, where the management is normally the responsibility of the Agriculture DG).

6.23.2 OPERATIONAL INFORMATION

quotas active in 2011	1,915
quotas active in 2012	1,260
drawing requests in 2011	196,860
drawing requests in 2012	183,937
returns received in 2011	1,526
returns received in 2012	1,968
number of allocations in 2011	238

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number of allocations in 2012 (taken on 10/12/2012)	223
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6.24 SURV2

6.24.1 BUSINESS DESCRIPTION

Surveillance of both imported and exported quantities for economic or anti-fraud reasons.

This application satisfies the requirement for the surveillance of the movement of goods inside and outside the Community. These requirements are motivated by the fight against fraud or the need for urgent data in connection with the possible application of tariff safeguard clauses. Free-trade arrangements concluded since 2000 between the EC and certain third countries (e.g. Mexico) include a requirement for the Community to monitor the quantities of Community goods for which proof of origin is issued with a view to obtaining the benefit of a tariff quota in that third country.

6.24.2 OPERATIONAL INFORMATION

The database contains about 676,655,455 surveillance data records and approximately 1,992 different report-definitions have been established.

Number of surveillances in 2011	113
Number of surveillances in 2012	357
Number of surveillance numbers	2235
SDRs received in 2011	175,852,835
SDRs received in 2012	667,006,759

6.25 TARIC3

6.25.1 BUSINESS DESCRIPTION

On the basis of the Combined Nomenclature, TARIC sets the relevant rates of duty, other Community levies and other specific Community measures for each type of goods.

The aim of the TARIC is to be a compilation of the community tariff, commercial and agricultural legislation, codified in a unique and consistent way. It is implemented by a central database managed by DG Taxation and Customs Union.

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By integrating and coding these measures, the TARIC secures their uniform application and gives all economic operators a clear view of all measures to be undertaken when importing or exporting goods. It also makes it possible to collect Community-wide statistics for the measures concerned.

It should be noted that the TARIC contains tariff measures (third country duty, suspension of duties, tariff quotas and tariff preferences), agricultural measures (agricultural components, additional duties on sugar and flour contents, countervailing charges and refunds for export of basic agricultural goods), commercial measures (antidumping measures, countervailing duties, safeguard measures, retaliation measures), measures relating to restriction of movements (import and export prohibitions, import and export restrictions and quantitative limits) and measures for gathering of statistical data (import and export surveillances).

All **tariff rates and associated trade policy measures** and information (quotas, anti-dumping duties, etc.) are controlled via a central database managed by the Commission. Some **500 000** changes annually have to be made to this database. Member States replicate this database via daily updates into their national systems so that customs officers can use this information for customs treatment of goods entering and leaving the union, which is much more efficient than every Member State building their own database. The central database prevents delays in applying tariff measures and potential discrepancies between different countries related to encoding errors and interpretation of the legislation. Equal treatment of traders and trade facilitation is also reinforced. Since 2007 the Customs Programme has spent 3.7 million euro on the tariff database, avoiding the need for every Member State duplicate this effort.

6.25.2 OPERATIONAL INFORMATION

Statistics concerning the TARIC database are as follows:

- 25,821 active regulations;
- 23,074 active nomenclature codes;
- 85,150 active measures. More than 71,000 data-capture actions for measures were registered in 2008.

All changes are extracted from the system every day and transmitted to the Member States in order to update the tariff systems at national level.

It should be noted that the TARIC system has been operational since September 1994, implying several millions of historical rows contained in the database.

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6.26 TATAF

6.26.1 CSI BRIDGE

CCN\CSI plays a main role in the DG TAXUD technical architecture, as it provides secure message exchange among Taxud Domain applications and National Domain applications of different national administrations.

For example between the Directorate General and the Member State administrations, the CCN/CSI Bridge is the link between CCN network queues and the BEA Weblogic application servers, where different applications used by DG TAXUD or MSA are deployed. CCN/CSI Bridge is a J2EE application, which contains two Message Driven EJB (Enterprise Java Bean). Each of them is triggered when one of the incoming queues contains new messages. When this happens a simple mapping is made, and the messages are forwarded to the outgoing queue.

6.26.2 HTTP BRIDGE

The HTTP CCN Proxy Bridge ensures the integration between the CCN network and the web-logic environment with respect to HTTP communication. It provides a seamless integration between both environments without the introduction of any constraint on the applications deployed in the web-logic environment.

An important concept implemented by the CCN network is the concept of delegated authentication and authorisation. A user proves his identity versus the local CCN gateway. All other gateways have a “trust relationship” with the local CCN gateway and therefore trust the identity embedded in each request originating from the local gateway.

6.26.3 UM

The User Management Module (UM) provides management services on the WebLogic security infrastructure and enables an administrator to manage the security policies of an application and its users. The User Management Module operates at the functional level. This means it encapsulates the Weblogic security infrastructure with its groups and group memberships. The User Management Module also enforces a password policy to the individual users.

6.27 SPEED2

6.27.1 BUSINESS DESCRIPTION

SPEED2 is designed to be an Enterprise Service Bus for data exchange within DG TAXUD and it provides the following features:

- Message transformation, filtering, routing and validation;

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- Multiple transport channels: JMS (planned for Q3 2012), MQ, AS2 (HTTP), AS3 (FTP), Web Services (planned for Q3 2012), Oracle direct database access (planned for Q3 2012);
- CSI-based interoperability through CCN/CSI;
- Other services: XML/EDIFACT conversion, monitoring, logging, and statistics.

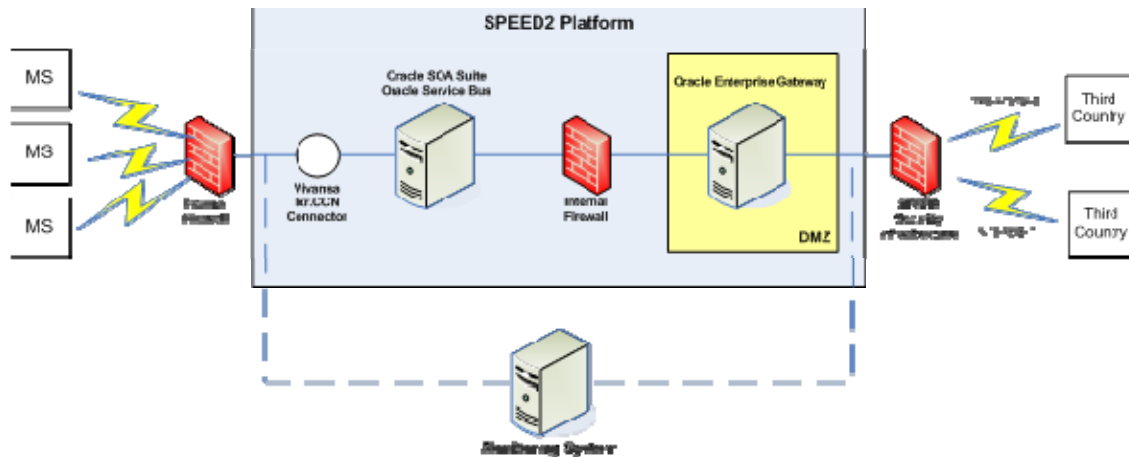


Figure 7 – SPEED2

SPEED2 is based on the combined usage of the following main products:

- Vivansa Ixr.CCN – CCN/CSI connector;
- Oracle BPEL – BPM engine;
- Oracle Business Rules – Business Rules engine;
- Oracle B2B - Exchange of business documents between trading partners;
- Oracle Service Bus – Enterprise Service Bus;
- Oracle Enterprise Gateway - First line of defence in the DMZ designed to secure, accelerate, and integrate all types of traffic;
- Oracle Enterprise Manager Grid Control - centralised monitoring, administration and lifecycle management for the entire platform.

The main benefits brought by the SPEED2 platform are:

- One single platform performing the message transformation as well the communication towards the external (non-CCN) world;
- Support for multiple business processes;
- Increased scalability, to cope with a forecasted growth in number of users and volumes of data;
- Reduced cost, due to usage of standard products (no specific developments) and rationalisation of the maintenance process;
- Enhanced monitoring and error detection facilities;

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- Enhanced configurability, flexibility and maintainability;
- Enhanced reliability, in particular through active clustering and fail-over mechanism;
- Enhanced security through the Oracle Enterprise Gateway and secure protocols.

6.27.2 OPERATIONAL INFORMATION

SPEED2 is currently in testing phase and will become operational in Q1/2013.

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7 FUTURE PERSPECTIVES

7.1 PERSPECTIVE 2020

The IT master Plan study [R022] realised in 2011-12 [see [chapter 3](#)] analysed the necessary IT Strategy and Plan together with the required resources in view of the 2020 perspectives.

The report of this study was the main IT input for the realisation of the Multi Annual Strategic Plan (MASP [R020]). This document updated annually serves the purpose of consolidating the planning and projects for the implementation of the UCC and eCustoms legislations, extended with the Safety and Security policy in the perspective of 2020.

The MASP document consists of a main body providing the vision and objectives of electronic Customs plus covering the aspects of Governance and management and six annexes of which we should underline annex 1 that provides the overall implementation timeline in the form of a Gantt chart and annex 2 with the scope and overall description and scheduling of each of the projects to be realised

The MASP document is reviewed annually and as it contains a long term and high level view the projects and plans contained on it may suffer variations on this annual review.

The projects planned for the next 10 years in the area of EU Customs as described in the current version of annex 2 of the MASP are grouped in the following manner:

- A first group '**Customs European information Systems**' lists the project fiches procedures and projects on which common agreement exists on the scope and time plan and progress can be made.

- A second group '**Customs European initiatives needing further study and agreement**' contains projects, as, the title indicates, where further discussion will be required before it can find its final concrete place in the IT plan.

- A third group '**Customs International Information Systems**' concerns the projects managed by international organisations, where the EU and its Member States play an active role, but are not the project organisers or owners.

- A fourth group '**Customs Cooperation initiatives and technological developments**' concerns efforts to strengthen cooperation between Member States and to make progress in the field of technology in order to create new functions in the planned EIS.

The CUST-DEV3 contract is essential in supporting DG TAXUD in the management and follow up of the aforementioned plan providing knowledgeable consultancy for the evolution and implementation of the IT Strategy in a coherent and realistic manner,

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applying and making available the right instruments and methods for this realisation and delivering the projects under its responsibility in due time and quality.

7.2 SOA IMPLEMENTATION

As referred in chapter 3 one of the principles of the IT Strategy for EU Customs is:

The future IT systems shall be designed and implemented using service oriented architecture to favour the emergence of flexible, modular, easy to change, IT systems that benefit from the reuse of existing functionality in another MS or in the Commission.

The impact of SOA implementation is hard to assess, however it is easy to identify that this impact strongly relates to almost all areas of IT activity as for example: architecture viewpoints and methods; system design and patterns; development methods; technical platforms and services; operations; organisational aspects; business process modelling; etc..

Therefore in the context of DG TAXUD and EU Customs systems and in relation to this contract the impact of an eventual SOA implementation would affect almost all work packages.

While SOA implementation is a strategic objective for DG TAXUD, it will in all cases stay secondary to other objectives as operations and IT delivery. Therefore the SOA implementation requires a calculated and measured implementation taking into account its numerous aspects, so that the organisation can still assume its obligations with no negative impact on operational or delivery processes.

While the implementation of SOA is understood to imply a learning process and an extra effort, the impact on resources needs to be limited and has to relate proportionality to the realistically expected benefits of SOA.

The strategic principle above proposes a gradual implementation by applying SOA only to future new systems which will coexist with legacy systems; furthermore the implementation of the SOA methods and technologies also implies a coexistence of traditional methods with the newly introduced SOA and a gradual evolution.

The gradual implementation and the priority on operations and delivery imply that the implementation of the SOA must guarantee a continuous state of operational stability whenever an organisational, methodological, architectural or technical evolution takes place.

For DG TAXUD SOA implementation is not black and white, the implementation should also be accompanied by a proper set of indicators that measure not only the degree of implementation but also the benefits reported by that implementation. DG TAXUD shall require at all times to be aware of the level of SOA implementation and its benefits, so as to determine the best balance between effort and benefits of SOA principles application to our systems.

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7.3 CS/RD2

The CS/RD application is considered legacy and DG TAXUD decided to re-develop it. At the time of writing the Invitation To Tender the project is on hold waiting for a decision to start the IT build, integrate and test phase. Annex XI – baseline contains the different artefacts already produced during the different analysis and design phases.

7.4 CUSTOMS DECISIONS

This project is one of the new systems to implement in the context of the UCC. So far the project is still in its inception phase. A pilot has been conducted by the incumbent contractor during 2012. The different artefacts produced during this pilot can be found in Annex XI – baseline.

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CUSTOMS CENTRAL APPLICATIONS – ARCHITECTURAL ASPECTS	

8 CUSTOMS CENTRAL APPLICATIONS – ARCHITECTURAL ASPECTS

Most of the customs central applications are developed based on a DG TAXUD home-made framework called TATAF. This is not to be considered as a standard off-the-shelf framework but a combination of code which is available to be integrated in the application to be developed, autonomous components such as the CsiBridge and HTTPBridge and a set of principles to be followed.

The following applications have not been developed according this framework as they were developed in their initial version before the development of TATAF: CS/RD, CS/MIS, STTA, SSTA, TTA. These applications are subject to be re-developed in the future.

Furthermore, DDS2 can be considered as a specific implementation although several TATAF elements have been used.

8.1 OVERVIEW OF THE TARIFF APPLICATION TECHNICAL ARCHITECTURE FRAMEWORK (TATAF)

In 2001, DG TAXUD started to develop most of its applications following a new technical framework based on the J2EE standards.

The following figure gives an overview of the various components of the architecture:

Error! Objects cannot be created from editing field codes.

Figure 8 - Overview of the TARIFF Application Technical Architecture

The BEA WebLogic Server (WLS) application server supports the whole system. WLS is an implementation of Java 2 Enterprise Edition (J2EE). Notably, the system relies on WLS for deployment, security, and transaction management.

The applications have as a common requirement to keep information in a persistent storage. All persistent data is stored in the Oracle RDBMS. Note that the different databases depicted in the figure only represent logical data separation. It does not suppose physical separation of data in different database instances.

Whenever messages have to be exchanged asynchronously, the Java Messaging Service (JMS) queuing mechanism provided by WLS is used. Two important properties of those queues are the following:

- They can participate in transactions. This means messages can be put into or removed from such queues within a transaction and the operation will be committed or rolled back according to the results of other operations in the same transaction.

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- A message can be automatically removed from such a queue if it cannot be read or processed for any reason. This message is then put into an exception queue that can be managed by an administrator.

There are two types of usage of the systems by the national administrations. The national administration can access the Commission systems from system-to-system, meaning direct communication between server applications without the direct intervention of an end user. System-to-system usage communicates through CCN queues. The CsiBridge layer maps CCN concepts on WLS concepts. As a result, the other layers do not depend on CCN.

The second type of usage uses the HTTP protocol to connect interactive end users to the Commission systems. In this type of usage, the interactive user has to connect to the CCN network in order to authenticate himself. Once the user is authenticated, he has the option to continue using the CCN network or to redirect to a HTTPS connection over the public Internet (please note that this last option is not operational anymore but is still part of the framework) . The HttpBridge layer handles all HTTP communication originating from national administrations.

The 'tariff applications system' is subdivided into several logical layers that interact with each other.

The business layer hosts all the application logic. This includes the implementation of the business logic specific to each tariff application, and the implementation of some management services (e.g. statistical inquiries, etc). This layer also provides services to manage the reference data.

The tariff applications system provides two different access paths. The first is a portal, which is actually the entry point for each tariff application. This portal provides links to the different interactive applications. The second access path is a JMS queue, which is actually the entry point for system-to-system asynchronous applications.

The synchronous layer supports the interactive applications. It is mainly composed of presentation logic. The asynchronous layer supports the system-to-system interface. Both layers interact with the business layer to process the messages coming from the users.

The utility layer provides a set of common services shared by the applications and by the different layers (e.g. document storage).

Finally, as explained above, the CsiBridge and HttpBridge layer is responsible for the mapping between the CCN system and the WLS system.

For more information please refer to the baseline documentation and more specifically to the

- Tariff Applications Technical Architecture [R019];

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- Technical notes explaining in more detail specific architectural elements ([R036] for CSIBridge, [R037] for HttpBridge).

8.2 DDS2 FRAMEWORK

The DDS2 system is a collection of different applications and only used for dissemination purposes. The architecture of the DDS2 system can be depicted as follows:

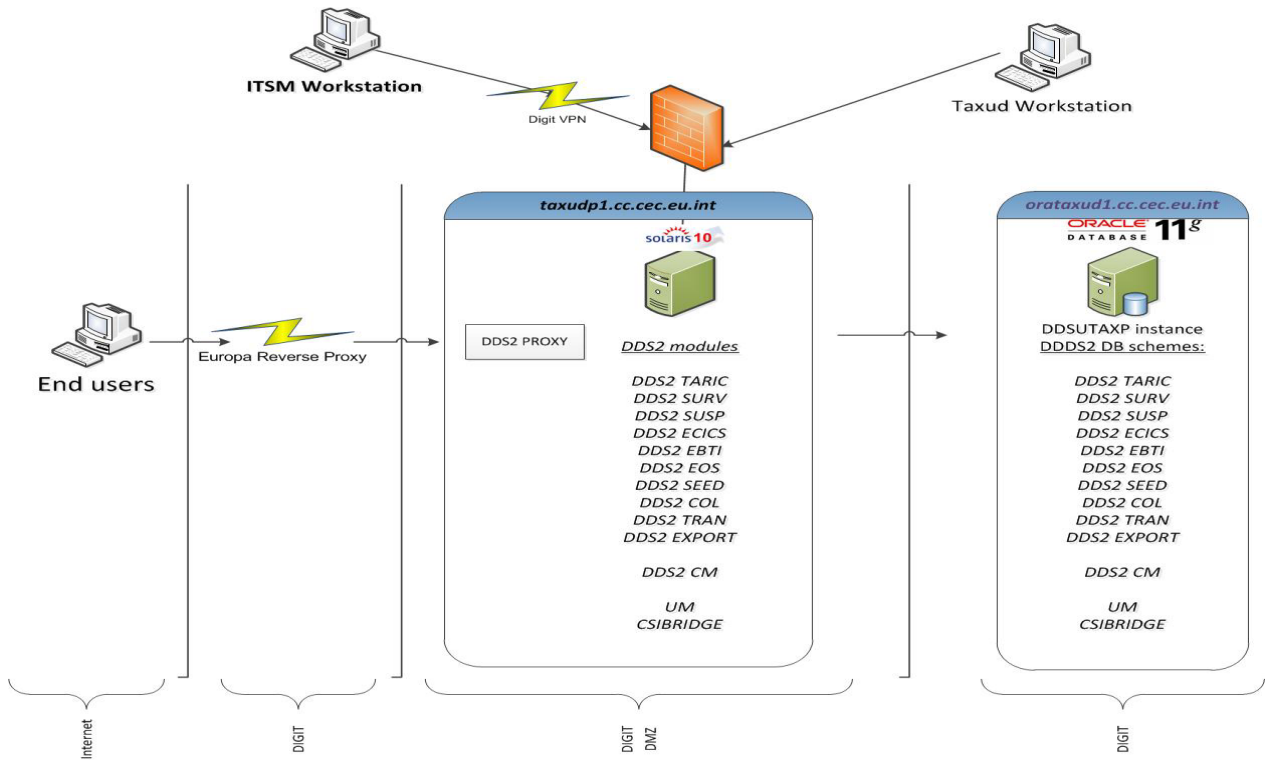


Figure 9 - Overview of the DDS2 Architecture Framework

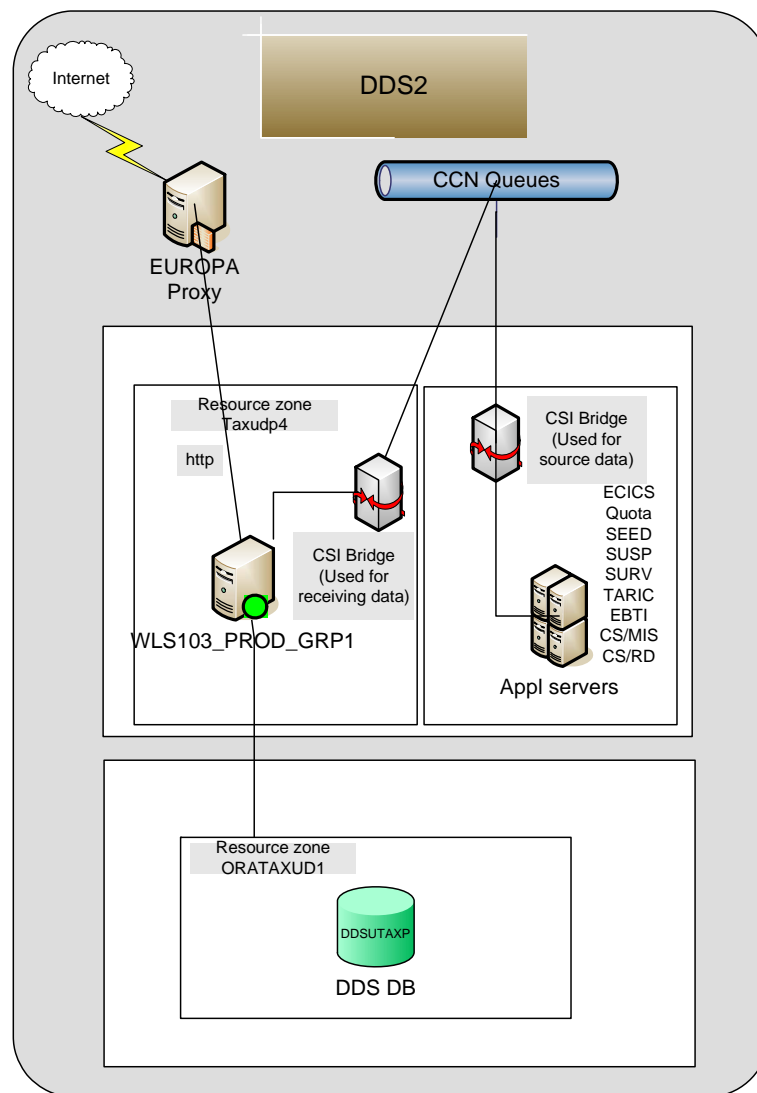


Figure 10 – DDS2 Network Diagram

The Oracle component contains the data to be disseminated and is updated via import modules processing data coming from various production systems (TARIC3, EBTI3, CS/RD, etc.). The data is stored following the UTF-8 character set encoding scheme (an implementation of the UNICODE character set).

The production systems send the update files via the CCN network. The CCN interface module manages the CCN queues and activates the various import modules.

The DDS modules are implemented based on the standard J2EE platform (Weblogic Server). Those are built and deployed following the classic three-tier architecture (JSP, Java Beans, Oracle RDBMS) by re-using some TATAF architecture principles (such as xml exchange between client and server).

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9 IT STATISTICS

The statistics in this chapter are provided for a reference period of 1 year (01/09/2011-31/08/2012).

9.1 BUSINESS/OPERATIONS SUPPORT

9.1.1 INCIDENT MANAGEMENT

9.1.1.1 Specification and Software Incidents

A total of **258** production/conformance incidents were **opened**.

By priority and application:

Application	Critical	High	Medium	Low	Total
ART2		1	2	3	6
CN		2	4		6
CRMS	1	2	14	4	21
CSIBRIDGE			1		1
CS-MIS		1	5	4	10
CS-RD				1	1
DDS2-CM			1		1
DDS2-COL			4	2	6
DDS2-EBTI			8	3	11
DDS2-ECICS			7	2	9
DDS2-EOS			4		4
DDS2-EXPORT			1		1
DDS2-SEED			2		2
DDS2-SURV			1	4	5
DDS2-SUSP		1	3	1	5
DDS2-TARIC			8	2	10
DDS2-TRANSIT			4		4
EBTI3		1	8	2	11
ECICS2				1	1
EOS(AEO/EORI)		14	19	7	40
ISPP	1				1
NCTS		1			1
QUOTA2		3	6	7	16
RSS		3	1	1	5
STTA			1		1
SURVEILLANCE2		1	5	2	8
SUSP			2	1	3
TARIC3		3	52	9	64
TTA		2	1	1	4
Total	2	35	164	57	258

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A total of **242** production/conformance incidents were **closed**.

By priority and application:

Application	Critical	High	Medium	Low	Total
ART2			2	1	3
CN		2	3		5
CRMS	1		16	9	26
CSIBRIDGE			1		1
CS-MIS		2	6	3	11
CS-RD			3		3
DDS2-COL			3		3
DDS2-EBTI			1		1
DDS2-EOS			2		2
DDS2-SEED			2		2
DDS2-SURV				3	3
DDS2-SUSP			2		2
EBTI3		1	9	2	12
EOS(AEO/EORI)		13	9	8	30
ISPP	1				1
NCTS		1	1		2
QUOTA2		3	13	2	18
RSS		3			3
SMS			2	2	4
STTA			1		1
SURVEILLANCE2		1	7	2	10
SUSP			6	4	10
TARIC3		3	80	2	85
TTA		2	1	1	4
Total	2	31	170	39	242

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9.1.1.2 Requests for information

A total of **1845 RfIs** (Request for Information) related to production/conformance were **opened**.

By priority and application:

Application	Critical	High	Medium	Low	Total
ART2		1	2	3	6
ART2		1	32	4	37
CN		10	22	1	33
COPIS			1	1	2
CRMS		3	28	5	36
CSIBRIDGE			6	2	8
CS-MIS		23	71	29	123
CS-RD		22	61	90	173
DDS2-CM		2	4	9	15
DDS2-COL		1	13	8	22
DDS2-EBTI		3	14	11	28
DDS2-ECICS			10	3	13
DDS2-EOS		2	15	2	19
DDS2-EXPORT			1	2	3
DDS2-SEED			3	2	5
DDS2-SURV			2	2	4
DDS2-SUSP		2	7	2	11
DDS2-TARIC		13	30	11	54
DDS2-TRANSIT			2	3	5
EBTI3		2	22	7	31
ECICS2			3	1	4
ECS		44	77	34	155
EOS(AEO/EORI)		2	71	20	93
HTTP Bridge			1		1
ICS		8	66	55	129
ISPP			4	1	5
NCTS	4	281	181	86	552
QUOTA2		3	19	2	24
RSS		2	6	5	13
SMS		2	1	3	6
SPEED/ECN			3	2	5
SPEED2			1	1	2
STTA		1	2	2	5
SURVEILLANCE2		3	22	7	32
SUSP		8	16	3	27
TARIC3		30	106	21	157
TTA		1	3	3	7
Total	4	470	928	443	1845

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A total of **1858 RfIs** related to production/conformance were **closed**.

By priority and application:

Application	Critical	High	Medium	Low	Total
ART2		1	34	4	39
CN		10	23	1	34
COPIS			1	1	2
CRMS		4	28	6	38
CSIBRIDGE			6	2	8
CS-MIS		24	73	28	125
CS-RD		21	62	90	173
DDS2-CM		2	4	8	14
DDS2-COL		1	14	7	22
DDS2-EBTI		3	14	11	28
DDS2-ECICS			10	3	13
DDS2-EOS		2	15	2	19
DDS2-EXPORT			1	2	3
DDS2-SEED			3	1	4
DDS2-SURV			2	2	4
DDS2-SUSP		2	6	1	9
DDS2-TARIC		12	28	11	51
DDS2-TRANSIT			2	3	5
EBTI3		2	22	7	31
ECICS2			3	1	4
ECS		44	78	36	158
EOS(AEO/EORI)		2	74	21	97
HTTP Bridge			1		1
ICS		8	68	58	134
ISPP			4	1	5
NCTS	4	281	181	91	557
QUOTA2		3	19	2	24
RSS		2	6	4	12
SMS		2	1	3	6
SPEED/ECN			3	2	5
SPEED2			1	1	2
STTA		1	3	3	7
SURVEILLANCE2		3	22	7	32
SUSP		8	16	3	27
TARIC3		30	106	22	158
TTA		1	3	3	7
Total	4	469	937	448	1858

9.1.1.3 Service requests

A Request for Service can refer to any service which is part of the CUST-DEV3 service catalogue. Please note that this is mainly an administrative activity and does not link to the real execution of the requested service.

Examples are user management, setting up conference calls, content management, maintenance of distribution lists, etc.

The CUST-DEV2 was not registering these requests, therefore no statistics are available.

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The CUST-DEV3 contractor will be expected to register and track these service requests. The type of request should be clearly indicated for each service request.

9.1.2 PROBLEM MANAGEMENT

A problem can be assigned to the CUST-DEV3 contractor as the result of

- an incident for which the root cause has not been determined or
- any other activity such as preventive maintenance.

It is to be understood that the number of problems are not that many in number but most of the time critical for the correct functioning of a given IT system or application in production or conformance. Problems such as performance issues, wrong results of complex functions, errors in data extraction to Member State systems, etc. can be given as possible examples.

The CUST-DEV3 contractor was not registering problems as such, only the incidents and defects (corrective change requests) related to a problem were logged. Therefore no problem statistics are available.

The CUST-DEV3 contractor will be expected to register and track all problems.

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9.1.3 CHANGE MANAGEMENT

A total of **483 change requests** were opened.

By priority and application:

Application	High	Medium	Low	Total
ART2	1	61		62
CN		7	2	9
CRMS		42		42
CS-MIS		35		35
CS-RD		1		1
CS-RD2		18		18
DDS2-CM		1		1
DDS2-COL		4	1	5
DDS2-EBTI		8		8
DDS2-ECICS		2		2
DDS2-EOS		6		6
DDS2-EXPORT		1		1
DDS2-SEED		1		1
DDS2-SURV		2		2
DDS2-SUSP	1	11		12
DDS2-TARIC		5		5
DDS2-TRANSIT		3		3
EBTI3	1	22		23
ECICS2		19		19
ECS		9		9
EOS(AEO/EORI)	6	40	23	69
HTTP Bridge		1		1
ICS		11		11
ISPP		1		1
NCTS		5		5
QUOTA2		5	1	6
RSS	1	29	12	42
RSS Phase2		3		3
SMS		5		5
SPEED/ECN		2		2
SSTA		1		1
STTA		3		3
SURVEILLANCE2		3		3
SUSP		24		24
TARIC3		33	4	37
TTA		6		6
Total	10	430	43	483

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A total of **152 change requests** were closed.

By priority and application:

Application	High	Medium	Low	Total
ART2	1	5		6
CN		2		2
CRMS		28		28
DDS2-SUSP	1	6		7
EBTI3	1	3		4
ECS		6		6
EOS(AEO/EORI)		12	1	13
ICS		8		8
ISPP		1		1
NCTS		3		3
SMS		7	1	8
SPEED/ECN		2		2
SSTA		1		1
STTA		4		4
SURVEILLANCE2		13		13
SUSP		10		10
TARIC3	5	26		31
TTA		5		5
Total	8	142	2	152

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9.1.4 RELEASE MANAGEMENT

In total **49 full releases** (implementing change requests) and **80 patches and hotfixes** (corrective and/or evolutive maintenance) have been delivered.

By application:

Application	Number of full releases	Number of patches/hotfixes
ART2	1	2
CN	2	7
COPIs	1	0
CRMS	1	4
CS/MIS	1	6
CS/RD	1	4
CSI-BRIDGE	1	0
DDS2-CM	1	1
DDS2-COL	1	1
DDS2-EBTI	1	1
DDS2-ECICS	1	0
DDS2-EOS	1	1
DDS2-EXPORT	1	1
DDS2-SEED	1	2
DDS2-SURV	1	1
DDS2-SUSP	1	0
DDS2-TARIC	1	0
DDS2-TRANSIT	1	0
DDSPPEED	1	0
EBTI3	4	5
ECICS2	3	0
EOS	3	6
ISPP	1	0
QUOTA2	2	6
RSS	1	4
SMS	1	0
SPEED2	2	0
SPEED-ECN	1	0
STTA	1	2
SURV2	1	5
SUSP	1	4
TARIC3	3	12
TTA	4	5
UM	1	0
Total	49	80

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9.2 TRAININGS PROVIDED BY CUST-DEV1 TO CUST-DEV2 DURING TAKEOVER

In total **150 days of training** were provided during the takeover.

The presentations used during these trainings can be found in the baseline (BL) [R034].

9.3 FUTURE ESTIMATES

The statistics in section 9.1 are provided as indication of the volume of incidents, changes and releases to be expected within a period of one year. Future estimates can be based on these figures with a possible variation of 10%.

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TEMPO	

10 TEMPO

DG TAXUD wants to ensure that the different projects are well managed with deliverables on time and within budget and high-level Quality Assurance and Quality Control, and that cooperation between DG TAXUD and its service providers is optimal. To do so, DG TAXUD has created, develops and maintains the **TAXUD Electronic Management of Project Online (TEMPO)** quality management system. This methodology is fully part of the technical specifications. The tenderer must ensure that the Application lifecycle development is compatible with TEMPO Security Management guidelines – Security Software Development Lifecycle Reference Manual.

The **TEMPO** documentation is hosted on Europa web site (CIRCA pages) and is available for members of the TEMPO Interest Group. Account registration can be requested via the Project Support TEMPO mailbox. A specific account has been set-up for the tenderers to access the documentation. See section [0.5](#) “References” for the details of this account.

The tenderers are invited in particular to read the following TEMPO documentation:

- General documentation:
- Introduction to TEMPO
- Project Management reference manual
- Quality Management reference manual and Quality Policy
- Information Security reference manual and Information Security Policy
- Specific Contract management reference manual and Deliverables acceptance reference manual, and procedures
- Trans-European systems:
 - Trans-European Systems (TES) reference manual
 - TES high-level security policy, and TES Security Plan reference manual
- Application Management reference manual
- Application Development reference manual
- Business Perspective reference manual
- IT Strategic and Tactical Planning reference manual

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- Planning to Implement Service Management reference manual
- Testing reference manual
- Conformance Test procedure
- Service Delivery reference manuals (Service Level, Availability, Continuity, Financial and Capacity management)
- Service Support reference manuals (Service Desk, Incident, Release, Change, Configuration, and Problem management), and related procedures
- Risk management reference manual
- ICT Infrastructure reference manual

Additionally, TEMPO provides for supporting documentation such as fact sheets, procedures, guides and templates.

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HARDWARE AND SOFTWARE IN USE	

11 HARDWARE AND SOFTWARE IN USE

The following list the hardware and software items currently in use by the incumbent contractor to perform the required services. Refer to 'Annex II.A – Technical Annex, section 6 Infrastructure and Tools Requirements' for more information on this topic.

Hardware

Item	Quantity
SUN SPARC Enterprise M5000 Server	2
SUN SPARC Enterprise M5000 Server + motherboard upgrade 2012	1
SUN Fire X4170 Server	2
SUN Fire X2270 Server	1
Storage SAN 2540 - rack ready controller tray	1
Storage SAN 2540 - 600 GB SAS HDD expansion	1
Storage SAN 2540 - 1 TB GB SATA HDD expansion	5
Storage tek SL24 tape library + Storagetek 2540 M2 Array: dual FC Controller with four 8 GB/s	1
Cisco MDS 9124 SAN switch	1
Catalyst switch 3750	1
Server Rack	2

Table 8 – Hardware items

Software

Item	Quantity
SYMC NETBACKUP SERVER AND 5 STD CLIENT STARTER PACK 7.5 WIN/LNX/SOLX64 TIER 2 MULTI PROD BNDL	1
VMWare vSphere 4 essentials plus bundle for 3 hosts	1
RenderX XEP Server Test/QA/Development 4x Server Quad-Core License	1

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Redix Network Server Based Any ToAny XML Format converter Engine for Windows 2003 srv	1
Redix Any ToAny XML Format converter Engine - CAL for Windows 2003 srv	2
Redix Any ToAny XML Format converter Engine for 4 CPU SUN 10 Unix Dev/Test System	3
REDIX XML GUI MAPPER ON WINDOWS PLATFORM	2
Toad for Oracle Professional	1
Toad for Oracle Standard	20
Exceed for Windows	2
RenderX XEP Server Test/QA/Development 4x Server Quad-Core License	1
InstallShield 2011 professional licence (Flexera)	1
Adobe Robohelp office 9	1
IBM Rational Clearcase Change Management Solution Enterprise Edition Floating User	24
IBM Rational Test Real Time floating User	1
IBM Rational performance Tester Floating User	1
IBM Rational Performance Test Pack Virtual Testers 50 Floating Users	1
IBM Rational Purify Plus Enterprise Edition Floating User	1
IBM Rational RequisitePro Floating User	1
IBM Rational Functional Tester Floating User	1
IBM Rational Software Architect floating user	1
IBM Rational Software Architect Extension for Integrated Architecture Frameworks Floating User	1
Java Service Wrapper - professional Edition 32 Bit - Development license	1
VisiBroker v 7.0.00 for Itanium running Red Hat Enterprise Linux 4.0 64 bit for 1 Named User License	1
DeltaXML Development Licence	1

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Table 9 – Software items