Georgia-Turkey eTIR pilot project
and the UNDA project 1213AA
Informal Ad hoc Expert Group on Conceptual and Technical Aspects of Computerization of the TIR Procedure
Agenda Item 4 (b)
André Sceia / September 19-20, 2016
Overview

• The UNDA project
• The UNECE sub-project
• Georgia Turkey eTIR pilot project
• Central Exchange Platform (CEP)
• Georgian customs system and the CEP
• Advantages for Georgia and Turkey
UNDA 1213AA project

Expected accomplishments

1. Increased capacity to exchange secure electronic C2C transit information by the pilot countries with their neighbouring countries and trade partners.

2. Increased capacity to utilize international standard electronic messages in the field of transit procedures by the pilot countries and their neighbouring countries, in particular B2C information.
UNDA 1213AA project
Objectives

Ends

- Increased inland transport facilitation
  - Reduced Customs checks escorts and delays
  - Improved risk assessment
  - Increased use of international standards

- Increase of government revenue and increased efficiency in use of national budgets
  - Reduced evasion of duties and taxes, improved quality of declarations and valuation
  - Reduction of corruption at border crossings
  - Increased collaboration between Customs of different countries and exchange of electronic data
## UNDA 1213AA project
### Activities and status

<table>
<thead>
<tr>
<th>Activities</th>
<th>Status</th>
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<tbody>
<tr>
<td>Gap analyses</td>
<td>Completed in all regions</td>
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<tr>
<td>1st inter-regional Expert Group meeting</td>
<td>8 December 2014: pilot countries selected and objectives defined</td>
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<tr>
<td>Development and deployment of a secure C2C versatile electronic exchange platform</td>
<td>Completed</td>
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<tr>
<td>Provision of technical assistance to undertake actual C2C exchange of transit data or devise action plans.</td>
<td>Completed in all regions</td>
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<tr>
<td>Technical workshops to build capacity in the field of C2C exchange</td>
<td>ECLAC - San José – 16-17 June 2015</td>
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<td>UNECE - Tbilisi – 22-23 June 2015</td>
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<td></td>
<td>ECLAC - Issyk Kul – 7-8 Sept. 2015</td>
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<td>ECA / ESCWA – Casablanca – 2-4 Dec. 2015</td>
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<td>to evaluate and promote the results of the project and, more generally, the benefits of C2C exchange of transit information and the adoption of standards</td>
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UNECE sub-project
... an eTIR pilot project

• Gap Analysis of Current Legal and Technical Framework for Electronic C2C Exchange of Transit Information between Georgia and Neighboring Countries

• Customs-to-Customs Data Exchange Workshop - Tbilisi - June 22-23, 2015

• Georgia-Turkey eTIR pilot project
  – 2 Technical meetings (March and November 2015)
  – Terms of Reference (ToR)
  – Central Echange Platform
  – Technical assistance to Georgia Customs
  – Project virtual space (Confluence)
Gap analysis - Georgia

Conclusions

• Based on analysis of the existing legal environment, Georgian customs is judged to be ready and able (legally and technically) to participate in the pilot implementation of C2C real-time electronic exchange of transit data.

• However, Georgian customs will require some additional support to ensure the systematization of technical and operational approaches.

• There are no expectations for significant technical and legal obstacles coming from neighbouring countries (Turkey and Azerbaijan), but information security standards, adopted by neighbours, could potentially require additional attention from Georgian customs.
Customs-to-Customs Data Exchange Workshop
Tbilisi - June 22-23, 2015

- **Attendance:** Armenia, Azerbaijan, Georgia, Kazakhstan, Turkey, Ukraine and Uzbekistan
- **Speakers:** Armenia, Azerbaijan, European Commission, GEC, Georgia, IRU, Turkey, Ukraine, UNCTAD, UNECE and Uzbekistan

- **Conclusions and recommendations**
  - C2C for risk assessment
  - eTIR
  - WCO DM
  - ...

- **Overall meeting evaluation:** 4.5
Georgia Turkey eTIR pilot project

Parties

Organization

Customs Administrations

Consultants
Objective

Data Exchange
The legal basis

Protocol on electronic data exchange in the framework of a joint eTIR Pilot Project, signed by Mr. Nodar Khaduri, Minister of Finance of Georgia, and Mr. Bülent Tüfenkci, Minister of Customs and Trade of the Republic of Turkey.

Annex: ToR
Central Exchange Platform (CEP)

CEP is a secure C2C electronic exchange platform, taking due account of the specific challenges faced by developing countries and countries with economies in transition.

- Can exchange messages based on the eTIR Reference Model v.4.1a, WCO data model v.3.5 and more.
- Taking into account the availability of data that pilot countries will be exchanging and National procedures.
- Hosted and managed by the IT centre of the UN Office at Geneva.
Central Exchange Platform (CEP)

High Level Architecture

- National Customs Systems
- CEP
- Central DB
- ITDB

Messages (SOAP with WS Security)

Holder Status (SOAP with WS Security)
Central Exchange Platform (CEP)
Implemented Messages

Six C2C messages are available (in accordance with requirements of the eTIR Reference Model v.4.1a)

1. I5 – I6: Query Guarantee
2. I7 - I8: Record Advance Cargo Information
3. I9 - I10: Start TIR Operation
4. I11 – I12: Terminate TIR Operation
5. I13 – I14: Discharge TIR Operation
6. I15 – I16: Notify Customs
Central Exchange Platform (CEP)

Validation of Messages

• Transit information is stored around the guarantee reference
• Only guarantee reference and the structure of messages are strictly validated
• Possibility to configure separate incoming messages validation rules for each type of incoming XML message
• Possibility to configure different validation rules for each specific National Customs Authority system agent in case of necessity
• PUSH and PULL methods are also subject of configuration for each agent

Message validation rules are configured via special XML document called Message Descriptor. Message descriptor defines entire structure of the incoming message (document) and can define validation rule(s) for any node. The flexible validation architecture of the CEP gives the possibility to extend a list of already available types of validations with any number of new types. This can be achieved without changing Message Descriptor format or validation architecture core.
Central Exchange Platform (CEP)

Security

- Messages transmitted between CEP and System Agents of National Customs Authorities integrated with the CEP are signed and encrypted to ensure messages integrity and confidentiality.
- Web Services Security (WS-Security, WSS) SOAP extension was chosen for that purpose.
- CEP and participating Agents have their own pair of public and private keys.
- All public keys (certificated) will be available to all parties of the system in order to verify message signatures and to perform data encryption.

WS-Security is a member of the Web service specifications and was published by OASIS. Its main focus is the use of XML Signature and XML Encryption to provide end-to-end security.

To maximally simplify agents integration process, WS-SecurityPolicy specification is used to define WS-Security requirements, which are directly embedded into WSDL.
Georgian customs system and the CEP

High Level Architecture

ASYNUDA (eCustoms)
- Data / Triggers

Interim Layer
- Interim Data
- Business Logic
- Structured Data

Data Exchange Application
- Business Logic (Transmission / Receiving)
- Inbound/Outbound Messages

ORACLE
- Monitoring GUI
- Risk Management

CEP
- SOAP WS Security

DB Link

DB Link

DB Link, Secured channel
Georgian customs system and the CEP

Limitations/Further improvements

- Messages are completed on the basis of the data available in the Georgian customs system.
- Data sets, structure of information and sequence of underlying operations/documents partially differ from the sequence as required by eTIR, but sufficient to justify the information exchange.
- Secondary sources of information are also used (export declaration, T1).
- The data exchange module is designed to allow a gradual improvement (switch to other sources of information) without interventions on the data exchange interfaces.
- Transition to full eTIR Model.
Project virtual space

• **Team Collaboration space**
  - Restricted to the project team members (secured)
  - Central repository of documentation
  - Collaboration on document preparation
  - Issue tracking
  - Tasks management
  - Communication (avoids emails)
  - ...  

• Hosted at UNOG
Advantages for Georgia and Turkey

First step towards the technical integration of the eTIR international system before it is fully developed and implemented:

- Early adoption and use of eTIR messages based on the eTIR Reference Model (and tested by means of the exchange platform)
- **C2C communication channel** established via the exchange platform (improved cooperation between participating countries)
- An important step toward the integration of eTIR with risk assessment procedures.
Thank you

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