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
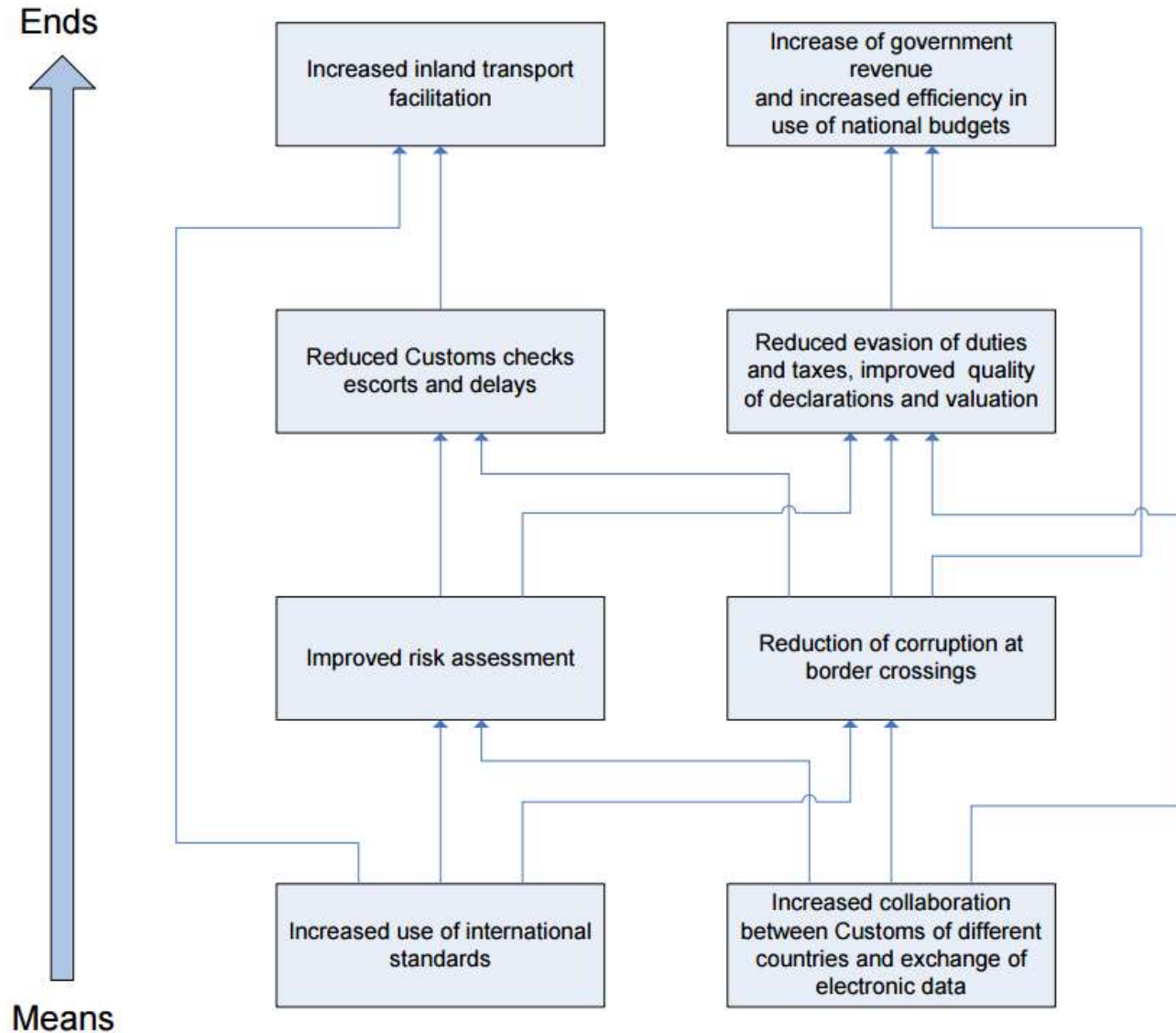
- Advantages for Georgia and Turkey

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

Means

Increased inland transport facilitation

Increase of government revenue and increased efficiency in use of national budgets

Reduced Customs checks escorts and delays

Reduced evasion of duties and taxes, improved quality of declarations and valuation

Improved risk assessment

Reduction of corruption at border crossings

Increased use of international standards

Increased collaboration between Customs of different countries and exchange of electronic data

UNDA 1213AA project

Activities and status

Activities	Status
Gap analyses	Completed in all regions
1st inter-regional Expert Group meeting	8 December 2014: pilot countries selected and objectives defined
Development and deployment of a secure C2C versatile electronic exchange platform	Completed
Provision of technical assistance to undertake actual C2C exchange of transit data or devise action plans.	Completed in all regions
Technical workshops to build capacity in the field of C2C exchange	ECLAC - San José – 16-17 June 2015 UNECE - Tbilisi – 22-23 June 2015 ECLAC - Issyk Kul – 7-8 Sept. 2015 ECA / ESCWA – Casablanca – 2-4 Dec. 2015
2nd inter-regional Expert Group meeting and Seminar: 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	Geneva, 20-22 June 2016

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)

UNECE

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

Central Exchange Platform

Data Exchange
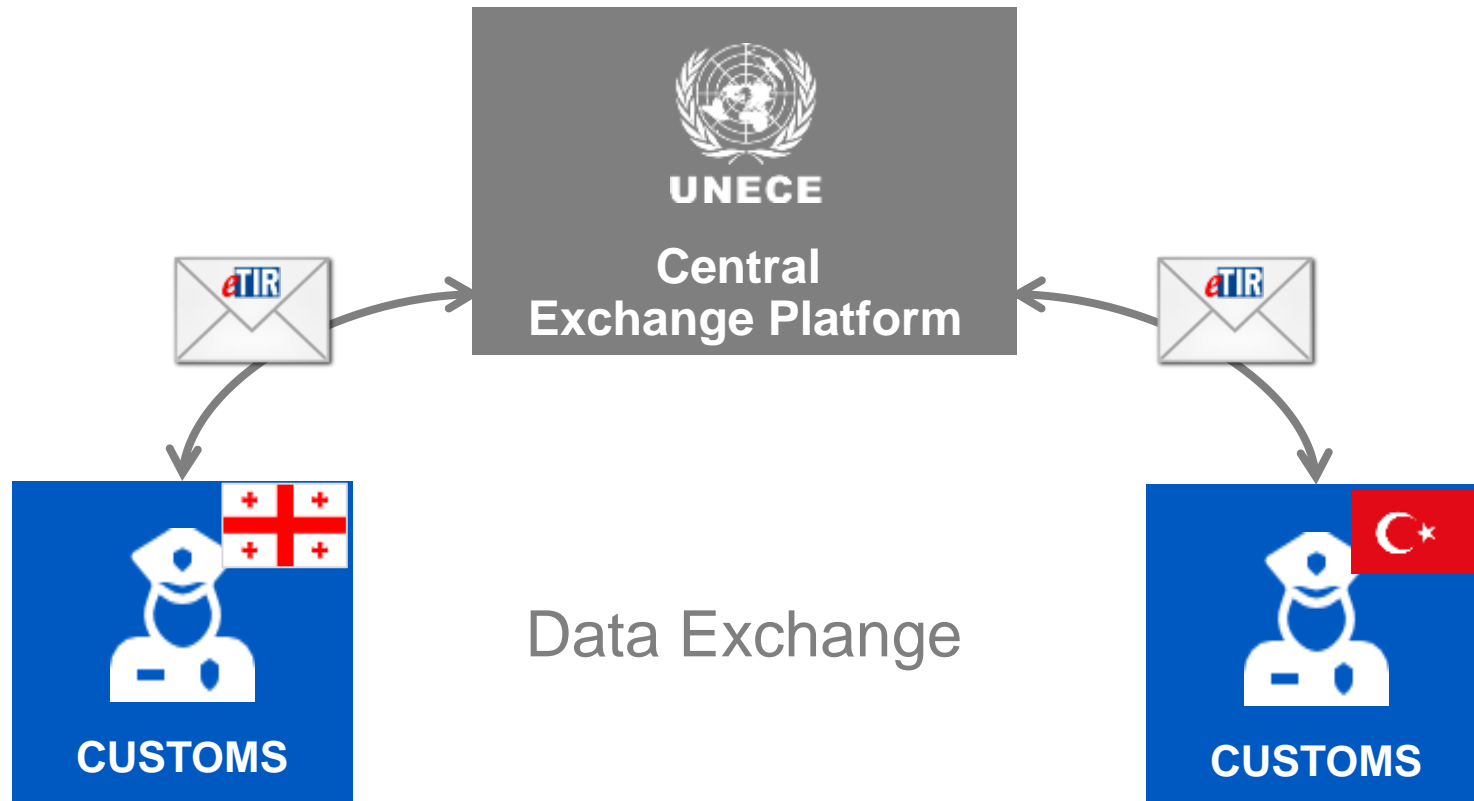
CUSTOMS

CUSTOMS

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
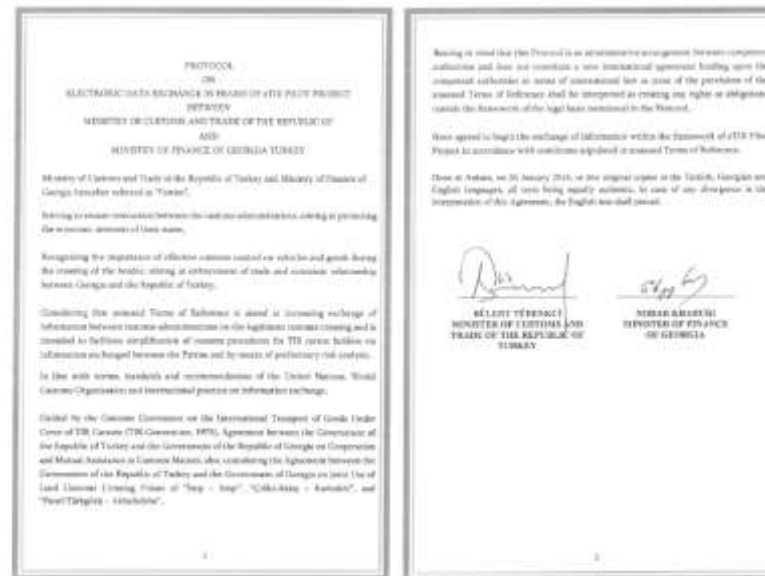
Central Exchange Platform (CEP)

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

ITDB

Messages
(SOAP with WS Security)

Holder Status
(SOAP with WS Security)
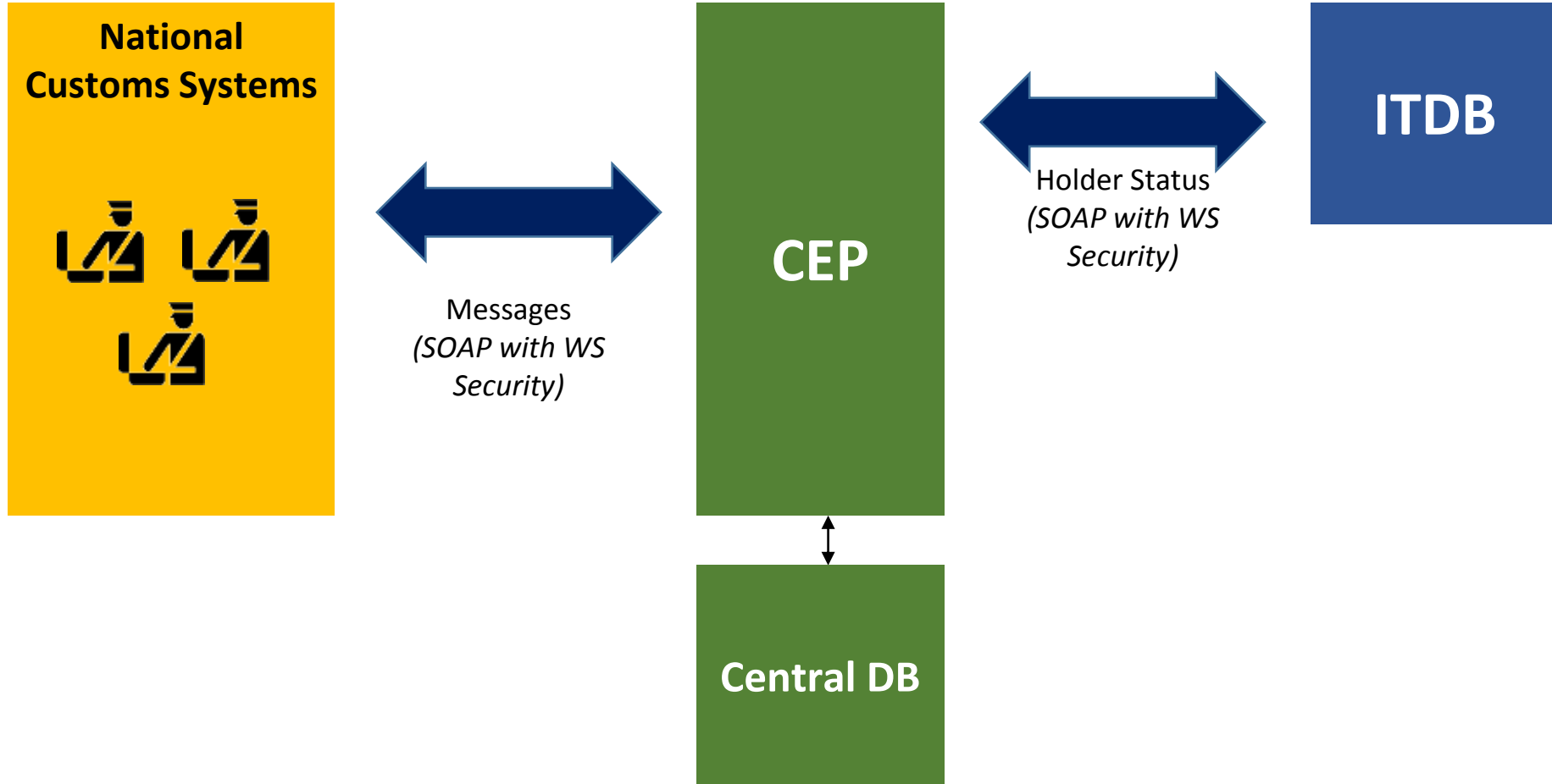
Central DB

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 <u>each type of incoming XML message</u>

- Possibility to configure different validation rules for <u>each specific National Customs Authority system agent</u> in case of necessity

- PUSH and PULL methods are also subject of configuration for each <u>agent</u>

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
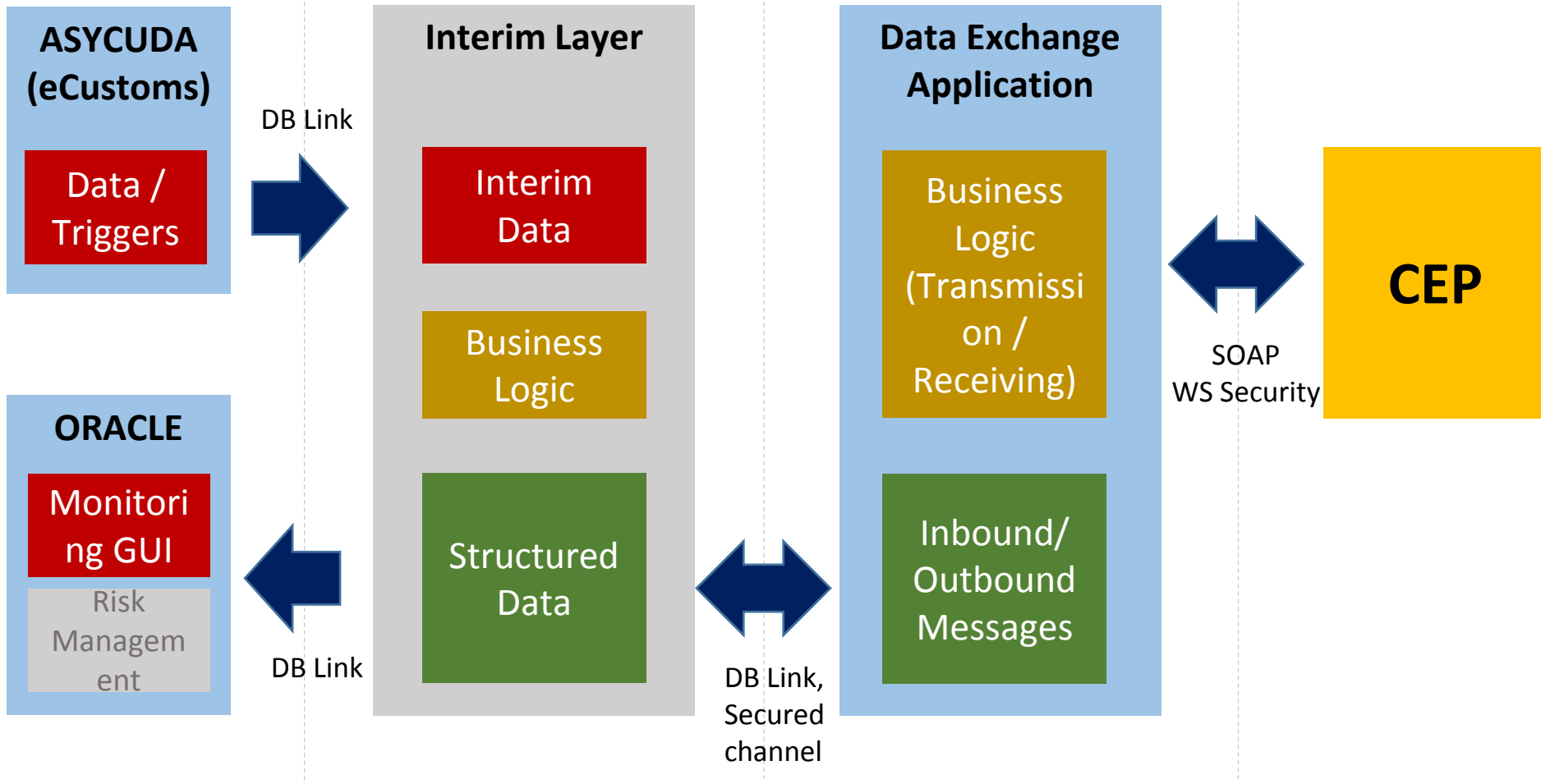
WS-Security is a member of the Web service specifications and was published by OASIS. Its main focus is the use of XML Signature and XML Encryption to provide end-to-end security
To maximally simplify agents integration process WS-SecurityPolicy specification is used to define WS-Security requirements, which are directly embedded into WSDL

Georgian customs system and the CEP

High Level Architecture

ASYCUDA (eCustoms)

Data / Triggers

DB Link

Interim Layer

Interim Data

Business Logic

Structured Data

ORACLE

Monitoring GUI

Risk Management

DB Link

DB Link, Secured channel

Data Exchange Application

Business Logic (Transmission / Receiving)

Inbound/ Outbound Messages

SOAP WS Security

CEP

UNECE

UNECE

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**

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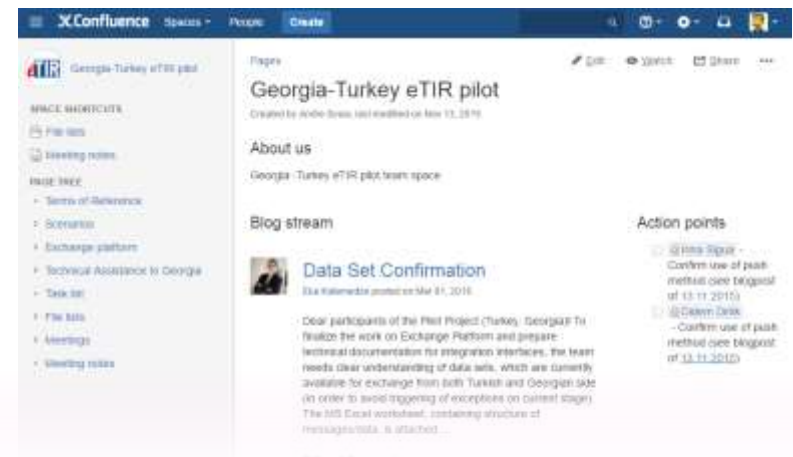
Advantages for Georgia and Turkey

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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