TA8585:
Customs Information Common Exchange (ICE) – Progress Update

16th Customs Cooperation Committee Meeting
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- CUSTOMS INFORMATION EXCHANGE EXPERT

Background

ICE objective: An information exchange system that will promote electronic customs-to-customs data and document exchange among the CAREC Member States

Previously, two sets of pilots was proposed:

Simple IE Pilot Level	Complex IE Pilot Level
• Scope: Pre-arrival, e-manifest, transit documents • Point to point synchronous file transfer • Manual review and processing before goods arrive at its destination • Limited to no process automation • Basic user interface • Limited reporting	• Scope: Complex pre-arrival, e-manifest, transit documents • Synchronous file transfer in real time through block chained distributed database servers with security features • Generating an automated event or a set of activities • Integration of customs risk management system, invoking process automation • Dynamic user interface • Data exchanged is aggregated for reporting and business analytics

Background

Due to the time limit and scope consideration, one pilot shall be carried out, combining both the simple and complex information exchange. Pilot shall also align with CATS pilot and take into account Transit information exchange.

The main Goals of **ICE** (for pilot phase) are:

- To establish the protocol, standards and specifications for customs-to-customs information exchange
- To specify and provide the platform for transit information exchange
- To specify and provide the platform for pre-arrival information exchange for risk management

Activities in 2017

Support CATS with visits to the 3 pilot countries in March and July 2017

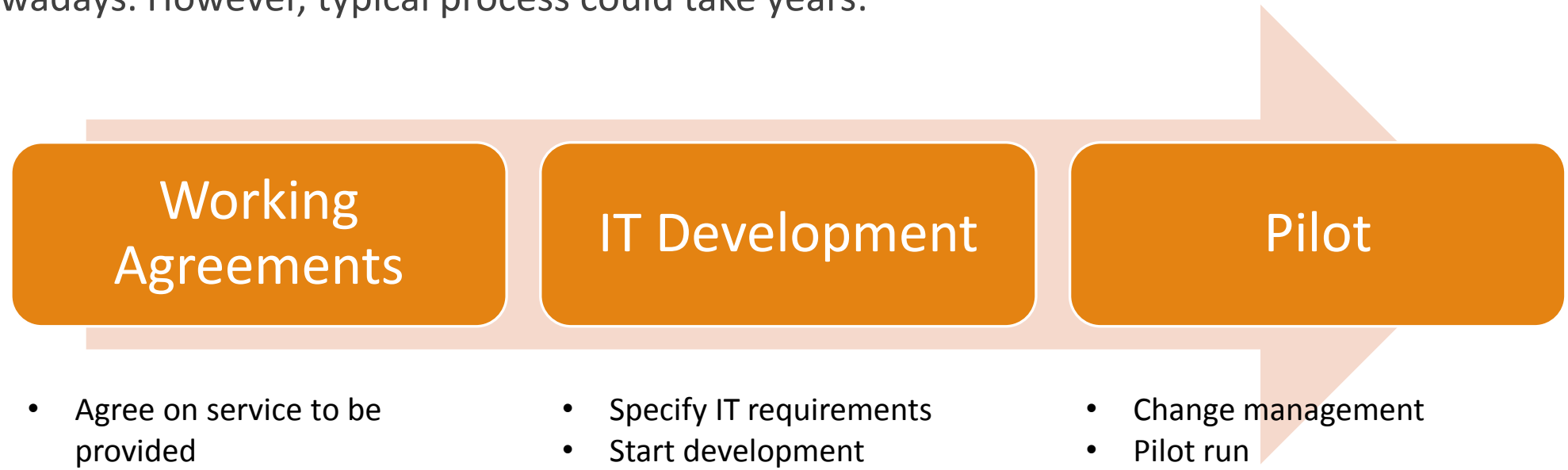
- Assess the Customs Information Systems and the IT infrastructure readiness
  - Focus on transit implementation as pre-arrival information exchange is already on-going between Georgia and Azerbaijan, with Kazakhstan participating soon
- Prepared a prototype system for transit information exchange based on CATS design and workflow
- Prepared the technical specification for ICE

Workshop on the Facilitation of Regional Transit Trade in CAREC (Prototype Phase) in June 2017

- First demonstration of the prototype system

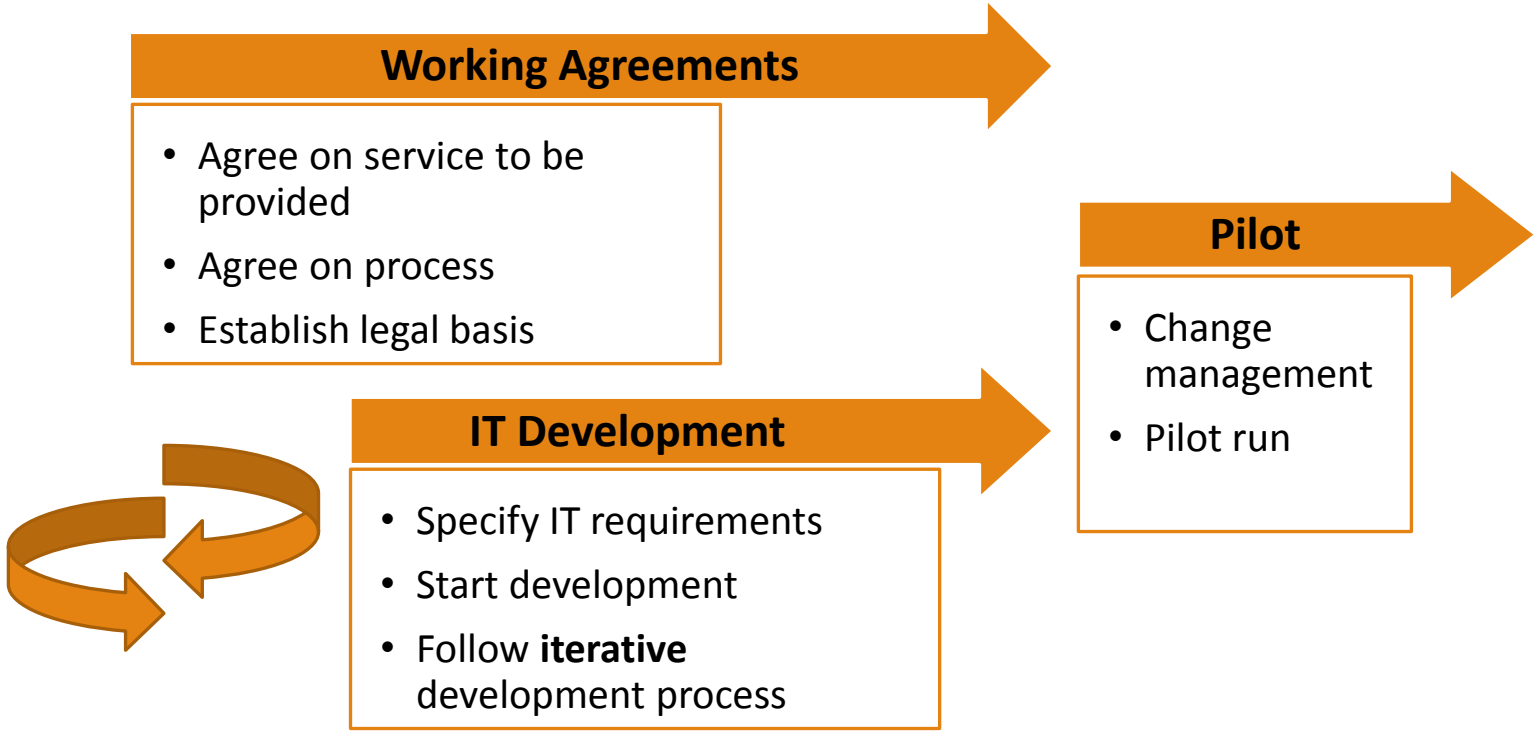
Benefit of Simultaneous Development

Customs modernization and trade facilitation initiatives are highly dependent on technology nowadays. However, typical process could take years:



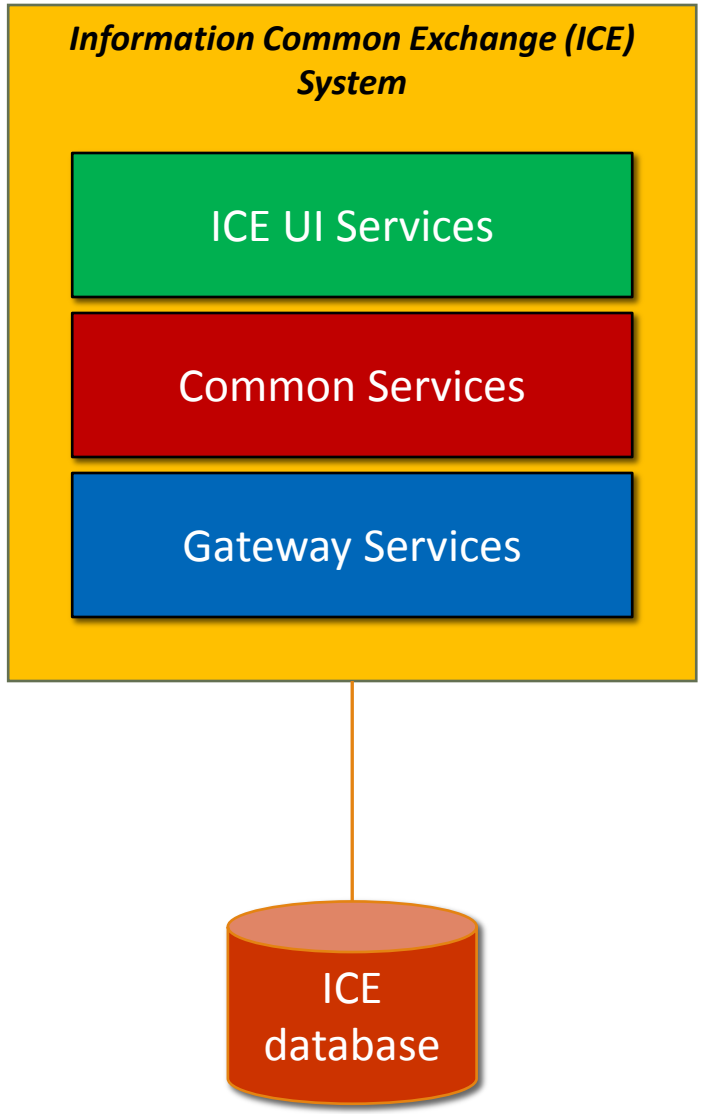
Benefit of Simultaneous Development

CATS and ICE simultaneous development shortens the process:



ICE Project: Software

ICE System Architecture



Trade Community (Traders, Insurers):
- Lodge and View Single Transit Document and Transit Status
- Lodge and View Insurance Policy Details

Customs Officer:
- Approve, View and Update Single Transit Document
- Lodge and View Trusted Traders, AEO and Insurers Details
- Lodge and View Pre-Arrival Document

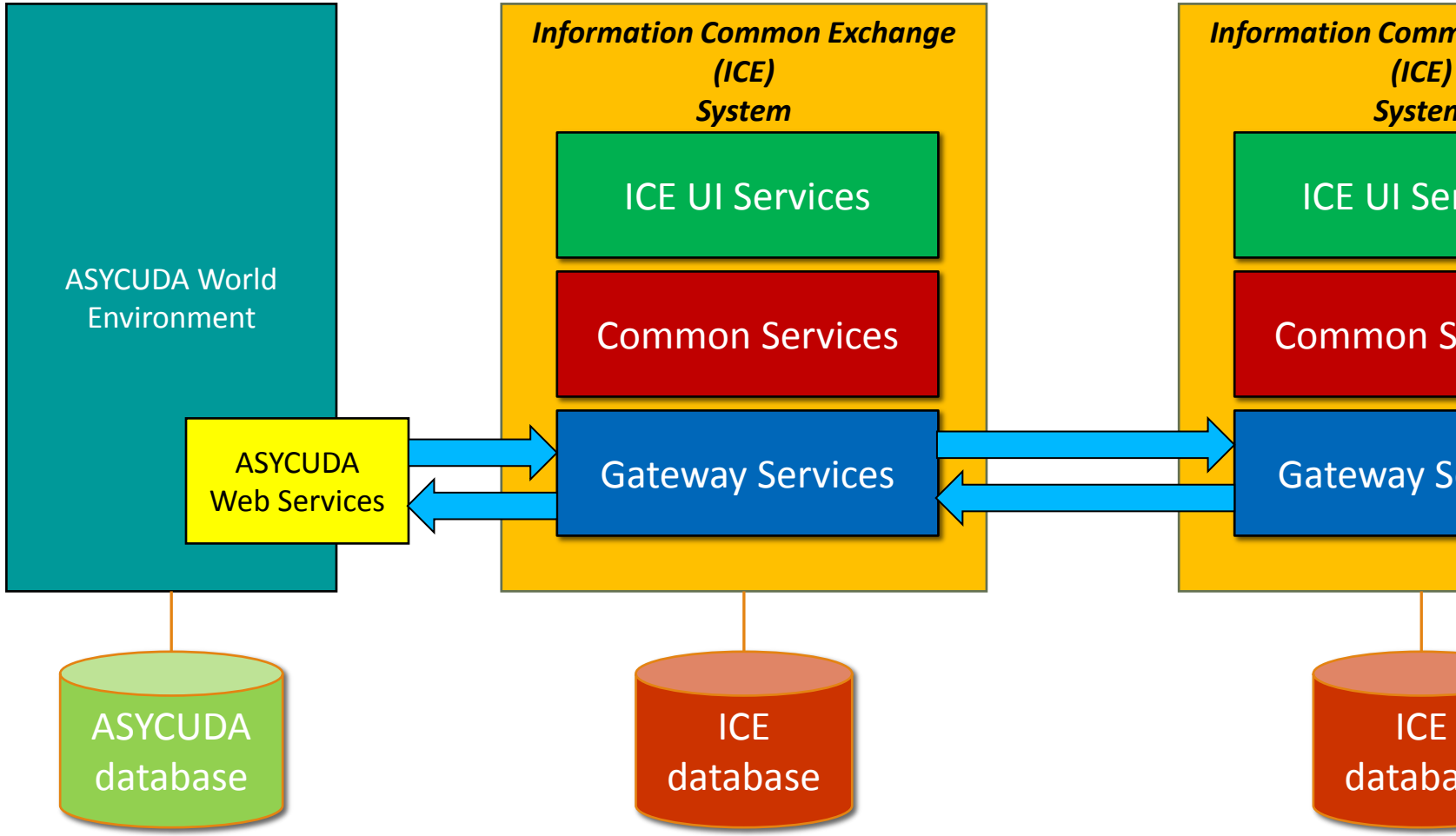
Common Services:
- Login/Logout, Authentication and Authorization
- Accounts and User Administration
- Transformation and Mapping
- Email Notification
- Transaction Audit Logs

Gateway Services:
- Secure Web Service for integration with Customs System as well as with other ICE Systems

Database Schemas:
- Regional Single Transit Document
- Pre-arrival Document
- Reference Codes
- Trusted Traders, AEO and Insurers Details
- Insurance Details

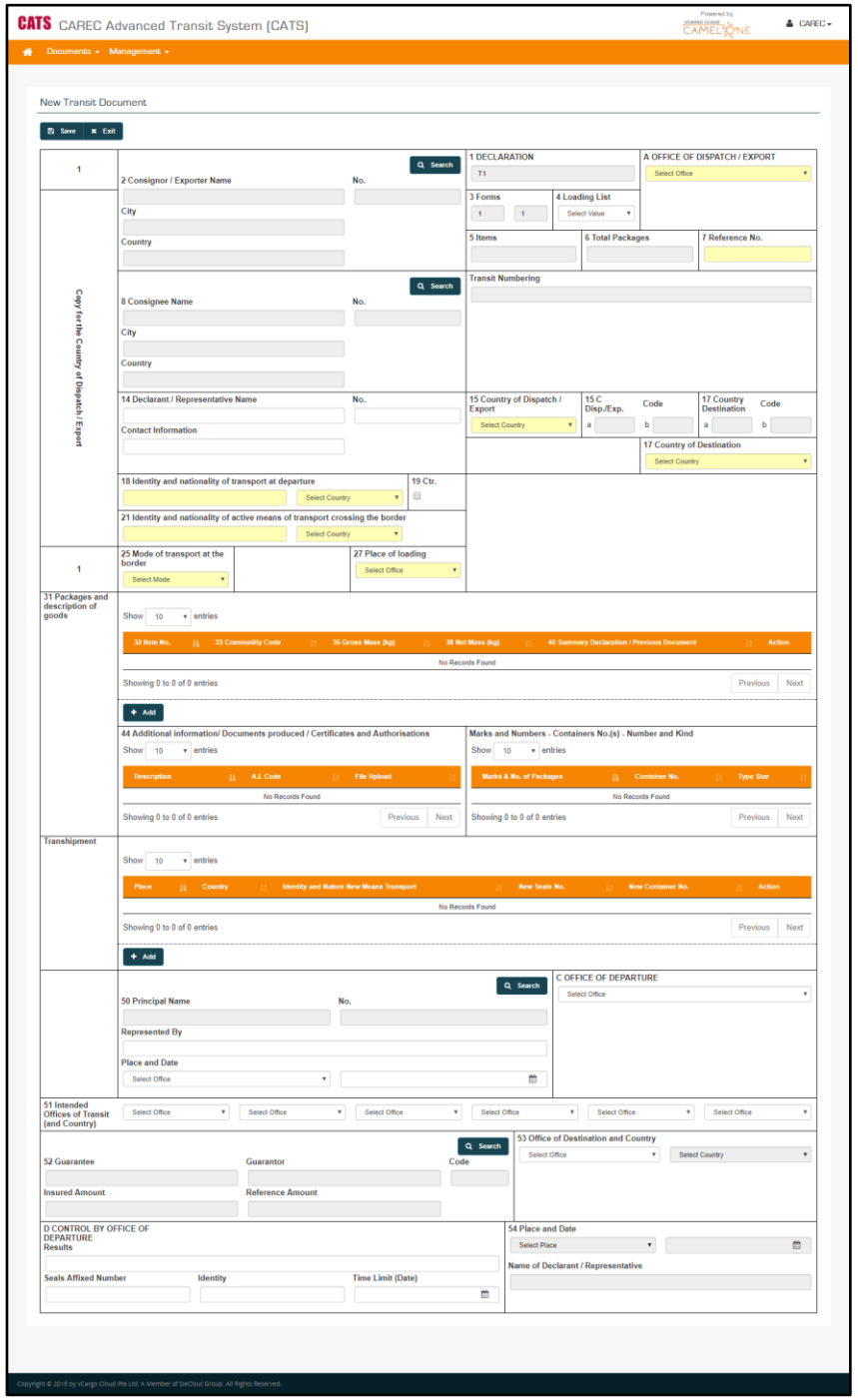
Integration with Customs System

Gateway Services component provides integration with Customs Information System, as well as with other ICE System



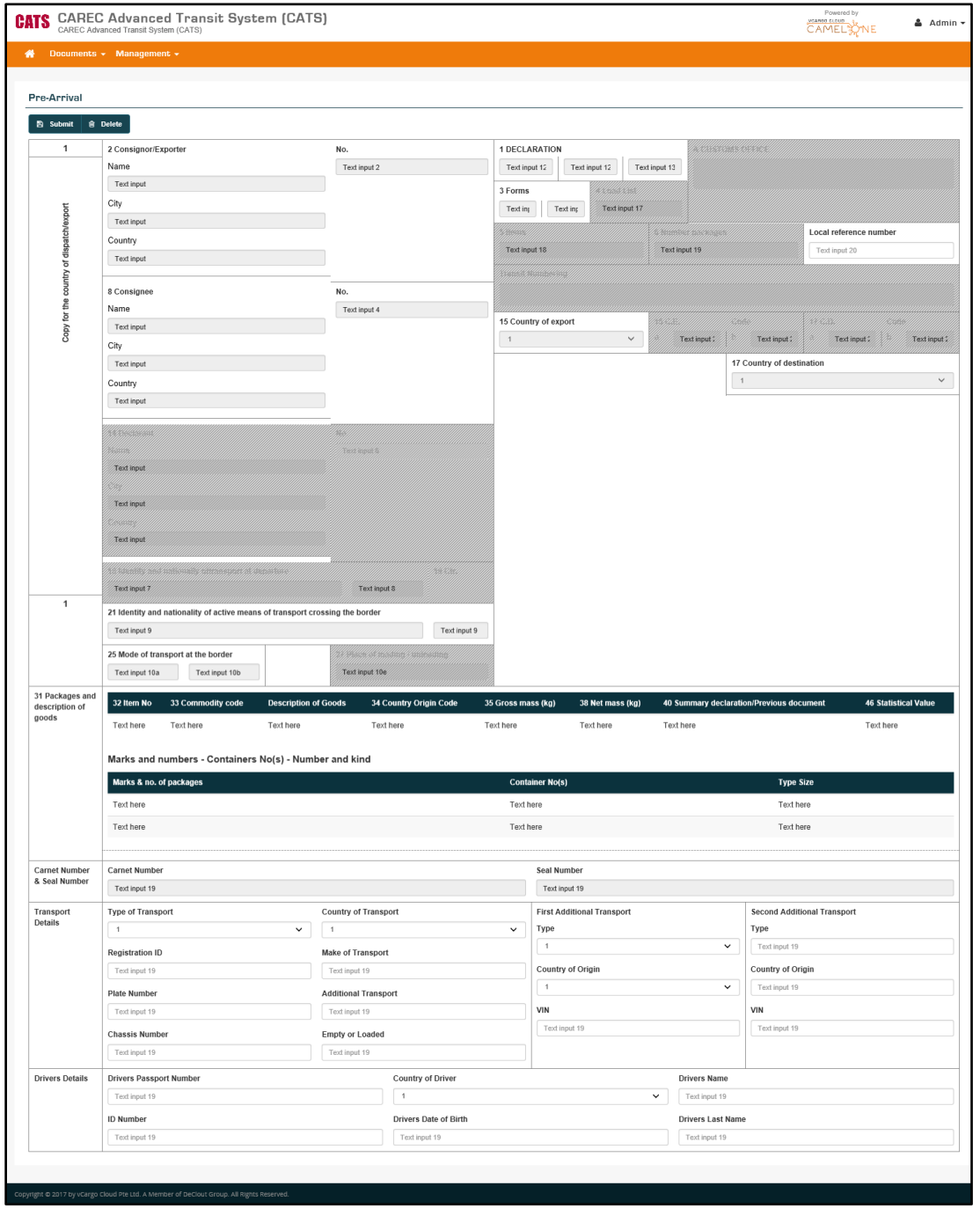
ICE System

Single Transit Document Screen



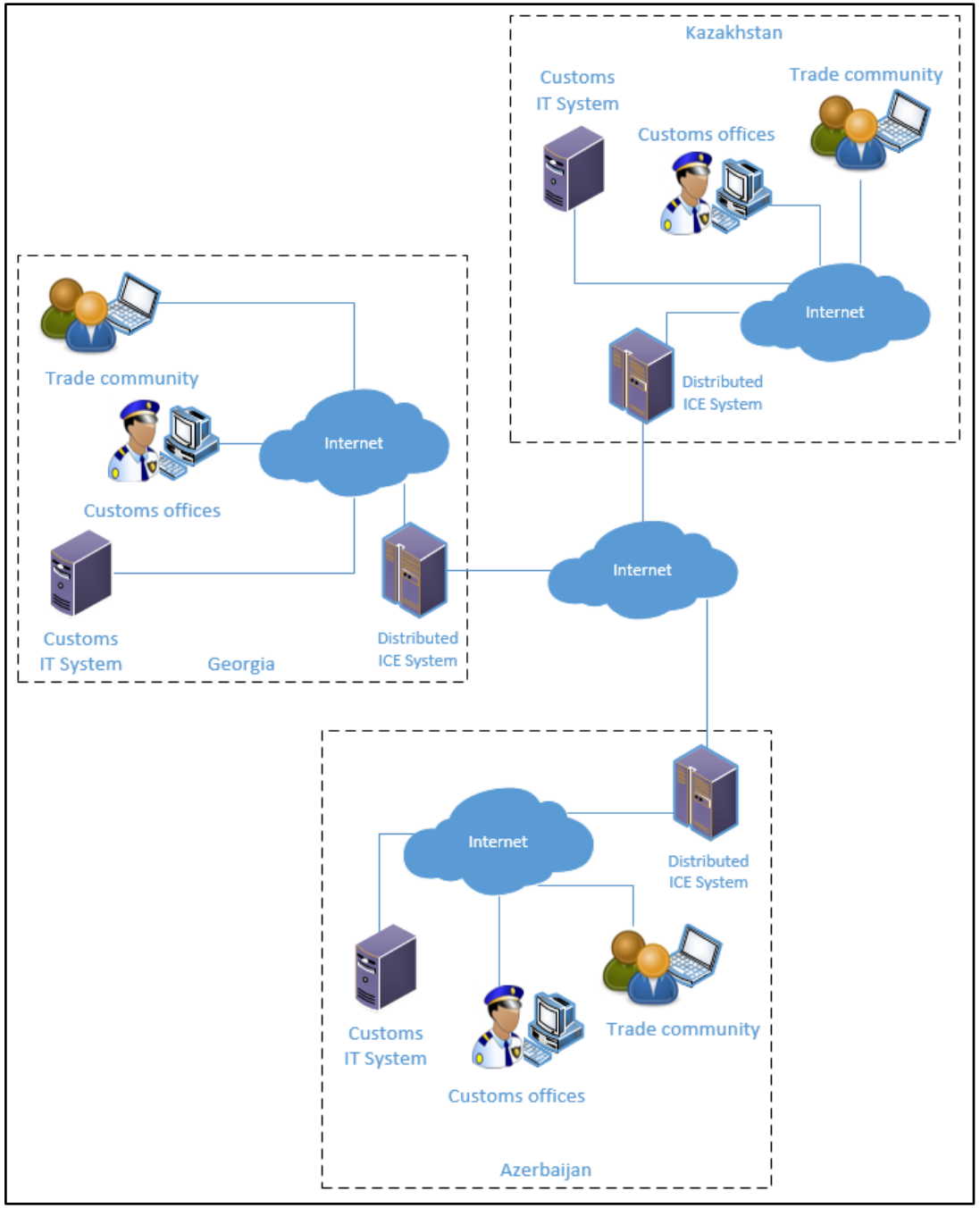
ICE System

Pre-arrival Document Screen



Distributed Model ICE System

- Installation in each country
- Each access his own copy
- The software exchange information with each other



ICE Project: Specifications

Globally Networked Customs

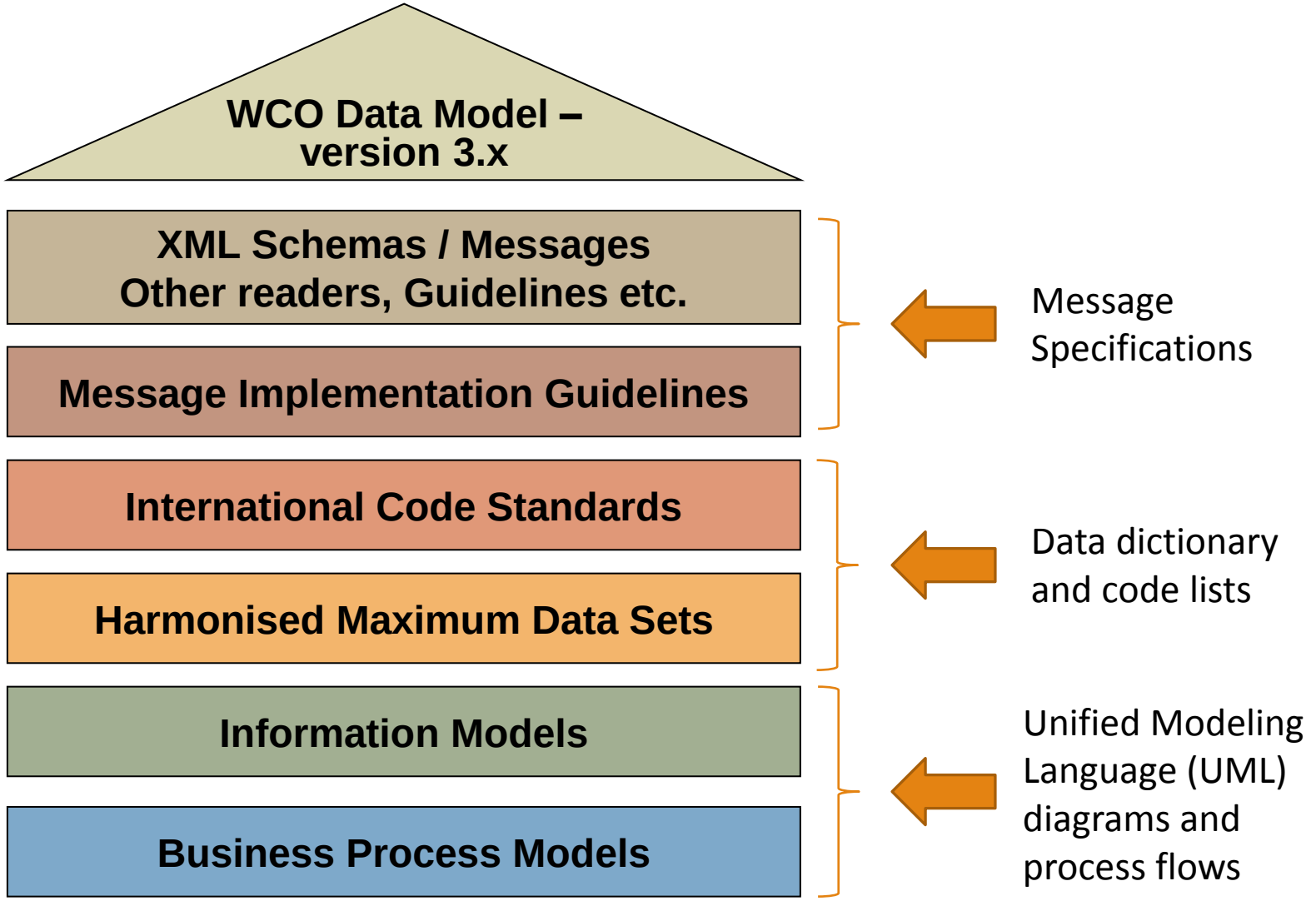
- Globally Networked Customs (GNC) is the 1st building block, out of 10, for Customs in the 21st Century (C21).
- The vision of this network implies the creation of an international “e-Customs” network that will ensure seamless, real-time and paperless flows of information and connectivity.
- Not a single IT system but a systematic approach to Customs-to-Customs information exchange to be based on Protocols, Standards and Guidelines that aligned with existing WCO instruments.
- GNC cannot happen without a common and defined data set and data model.

WCO Data Model v3.5

What is it?

- The WCO Data Model is an initiative of the World Customs Organization to simplify and standardize data requirements of Customs and other Cross-border regulatory agencies.
- The Data Model is a tool for global harmonization of data requirements, and consists of Information Packages which can be used and derive from.
- The Data Model consists of several components which the ICE project conforms to or derives from.

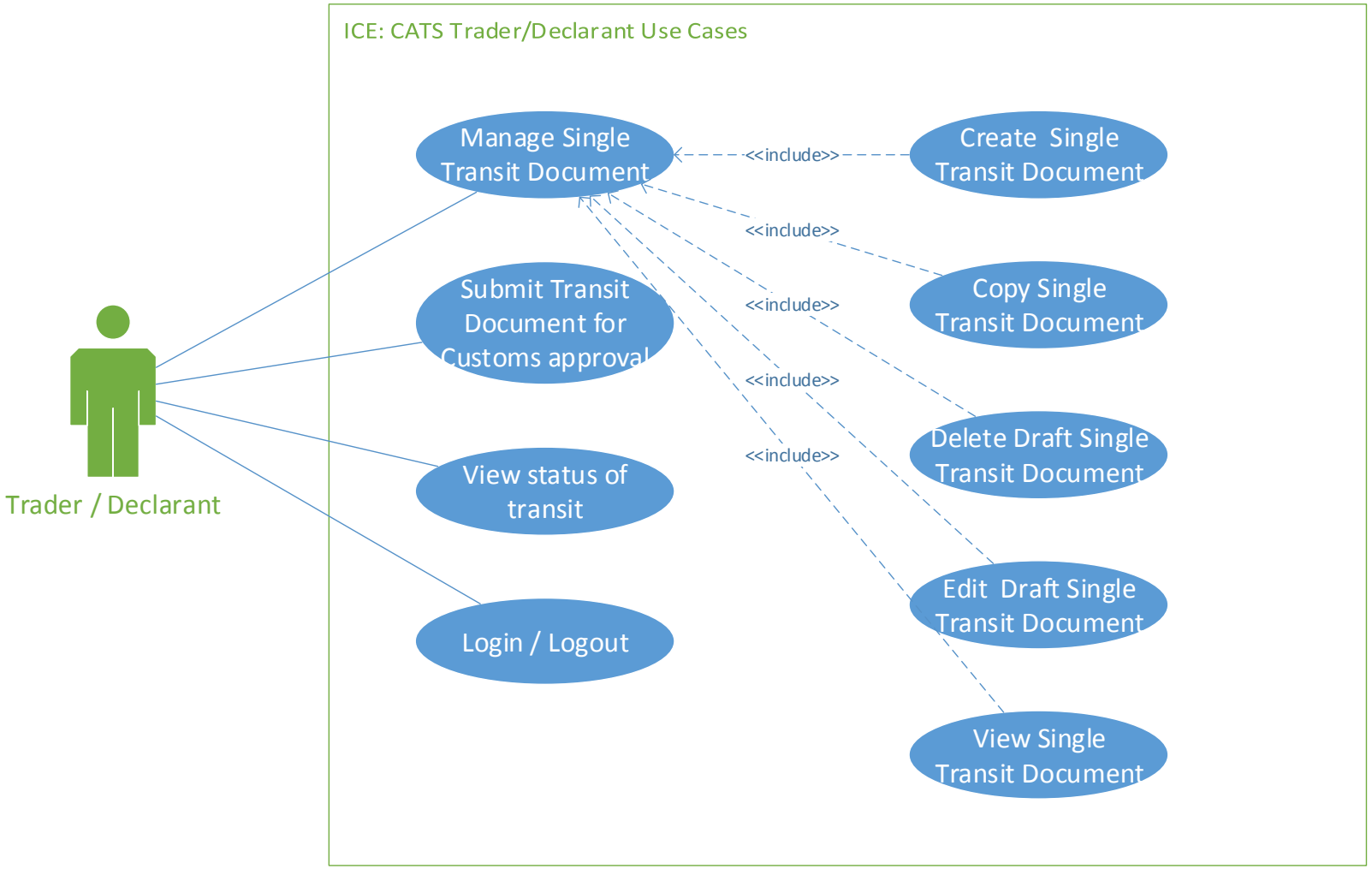
Components of WCO DM 3



* Source: WCO

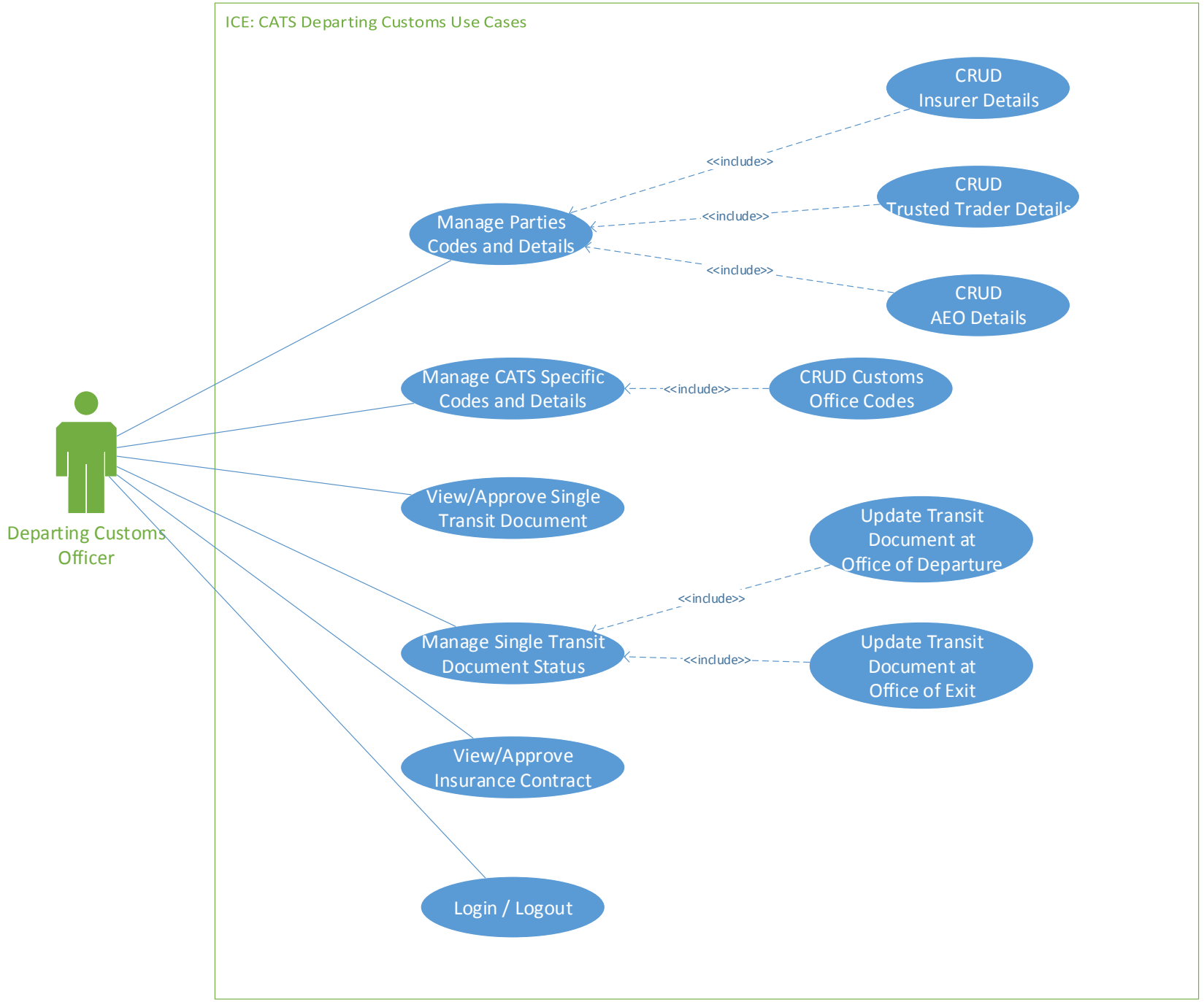
Business Process and Information Model

Use Cases for Trader / Declarant



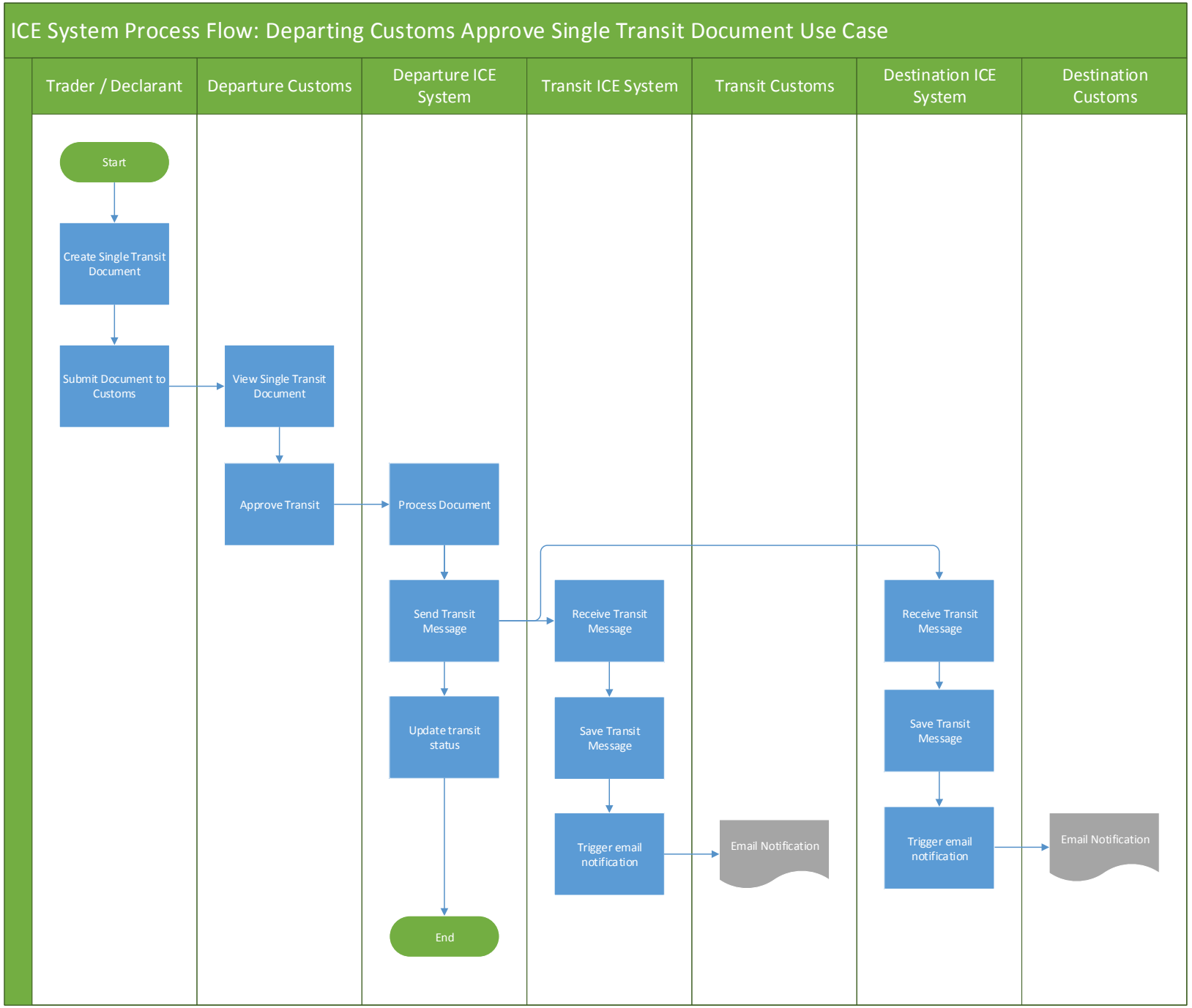
Business Process and Information Model

Use Cases for Departing Customs Officer



Business Process and Information Model

Process flow for Departing Customs Approve Single Transit Document use case



Data Sets and Code Standards

ICE conforms to the Transit data set

Transit

	A	B	C	D	E	F	G	H	I	K	L
1	**Declaration**										
2	**ID**	**Class**	**Attribute**	**Definition**	**IM**	**EX**	**CRI**	**CRE**	**CONV**	**Format**	**Code List**
3	004	Consignment	Reservation number of shipment	Reference number assigned by a carrier or its agent to identify a		X	X	X		an..35	
4	006	ArrivalConveyanceFacility	Sequence number	Number indicating the position in a sequence					X	n..5	
5	006	Bunker	Sequence number	Number indicating the position in a sequence					X	n..5	
6	006	CallPurpose	Sequence number	Number indicating the position in a sequence					X	n..5	
7	006	CarriedTransportEquipment	Sequence number	Number indicating the position in a sequence					X	n..5	
8	006	Commodity	Sequence number	Number indicating the position in a sequence	X	X	X	X	X	n..5	
9	006	Consignment	Sequence number	Number indicating the position in a sequence	X	X	X	X		n..5	
10	006	ConsignmentItem	Sequence number	Number indicating the position in a sequence			X	X		n..5	
11	006	DepartureConveyanceFacility	Sequence number	Number indicating the position in a sequence					X	n..5	
12	006	Effects	Sequence number	Number indicating the position in a sequence					X	n..5	
13	006	EntryOffice	Sequence number	Number indicating the position in a sequence			X	X		n..5	
14	006	GoodsShipment	Sequence number	Number indicating the position in a sequence	X	X				n..5	
15	006	GovernmentAgencyGoodsItem	Sequence number	Number indicating the position in a sequence	X	X	X	X		n..5	
16	006	Invoice	Sequence number	Number indicating the position in a sequence	X	X				n..5	
17	006	InvoiceLine	Sequence number	Number indicating the position in a sequence	X	X				n..5	
18	006	Itinerary	Sequence number	Number indicating the position in a sequence	X	X	X	X	X	n..5	
19	006	Packaging	Sequence number	Number indicating the position in a sequence	X	X	X	X		n..5	
20	006	PersonOnBoard	Sequence number	Number indicating the position in a sequence					X	n..5	
21	006	Pointer	Sequence number	Number indicating the position in a sequence	X	X	X	X	X	n..5	
22	006	Process	Sequence number	Number indicating the position in a sequence	X	X	X	X		n..5	
23	006	Seal	Sequence number	Number indicating the position in a sequence	X	X	X	X	X	n..5	
24	006	ShipToShipActivity	Sequence number	Number indicating the position in a sequence					X	n..5	
25	006	StoresItem	Sequence number	Number indicating the position in a sequence					X	n..5	
26	006	TransportEquipment	Sequence number	Number indicating the position in a sequence	X	X	X	X	X	n..5	
27	006	WasteItem	Sequence number	Number indicating the position in a sequence						n..5	
28	009	UCR	Trader reference	A number assigned by a declarant such as a trader reference or a	X	X	X	X	X	an..35	
29	010	BorderTransportMeans	Stay reference	An identifier of the stay of a means of transport in a port or airport	X	X		X	X	an..35	
30	011	Consignment	Carrier split consignment code	Code assigned by the carrier for each load of a split consignment			X	X		an..3	EDIFACT codes (7365) subset
31	013	Declaration	Number of loading lists	The number of loading lists, manifests or similar documents	X	X				n..5	
32	014	Payment	Payment reference number	Reference number specifying a payment of a duty or tax	X					an..35	
33	016	UCR	UCR	Unique number assigned to goods being subject to cross border	X	X	X	X		an..35	WCO (ISO15459) or equivalent
34	017	Declaration	Message function, coded	Code indicating the function of a document	X	X	X	X	X	n..2	EDIFACT codes (1225)
35	019	Declaration	Document/message status, coded	Code specifying the status of a document			X	X		an..3	EDIFACT codes (1373)
36	023	Declaration	Document acceptance date	Date on which a document has been or will be accepted in accordance with Governmental legislation	X	X				an..35	

* Source: WCO DM 3.5

Code Standards

ICE recommends to use the recommended international codes

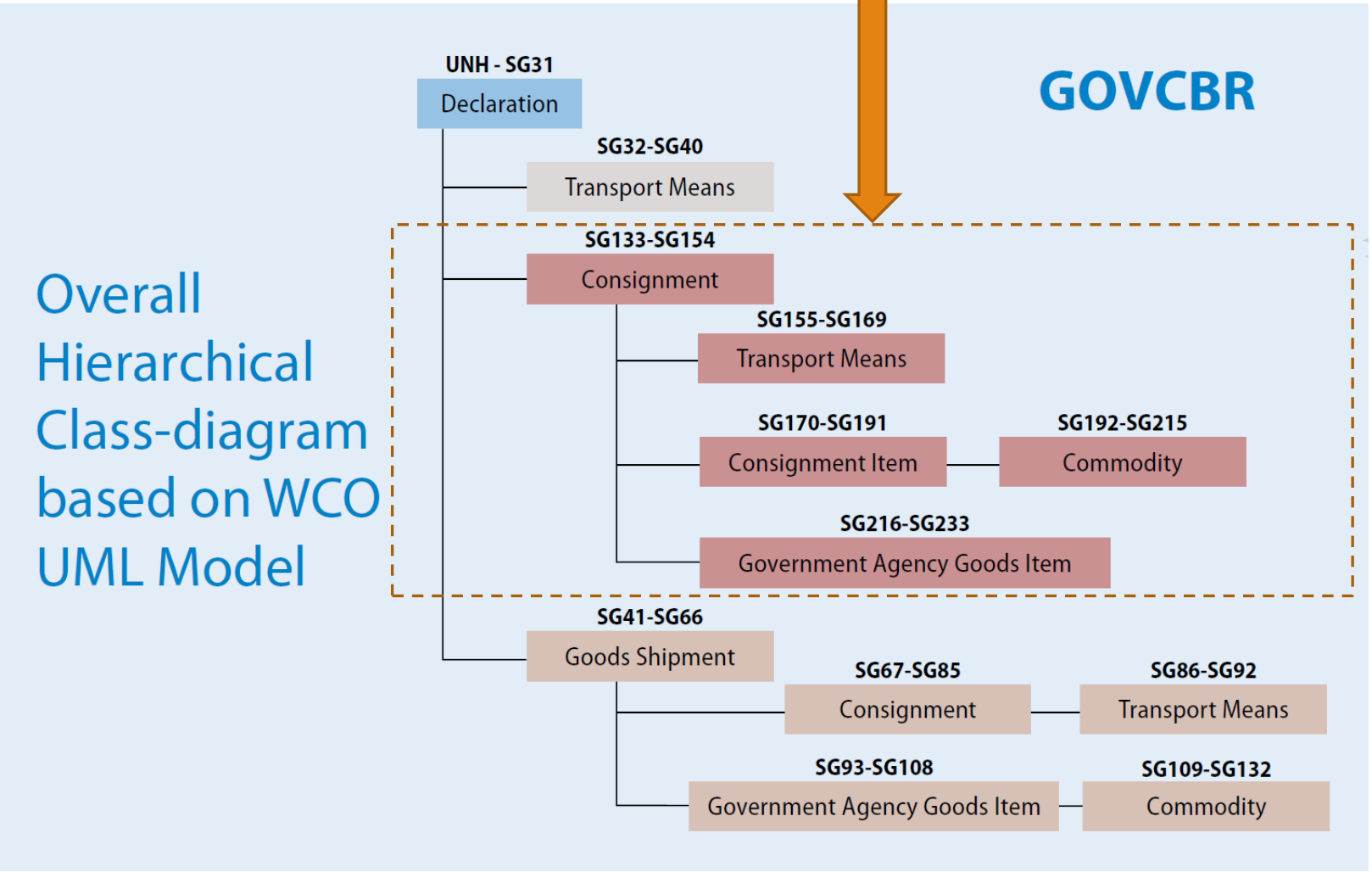
The WCO Data Model recommends the use of UN/CEFACT Recommendations such as:

- Rec. No.3 Use of ISO Country code - code for representation of names of countries
- Rec. No.5 Abbreviations of INCOTERMS
- Rec. No.9 Alphabetic code for the representation of currencies
- Rec. No.16 LOCODE - Code for ports and other locations
- Rec. No.17 PAYTERMS - Abbreviations for terms of payment
- Rec. No.19 Code for Modes of Transport
- Rec. No.20 Code for Units of Measurement used in international trade
- Rec. No.21 Codes for types of cargo, packages and packaging materials

Message Specifications

ICE implements the Transit Message Exchange with GOVCBR subset

Transit Declaration blocks which will be used for Regional Transit Message



* Source: WCO

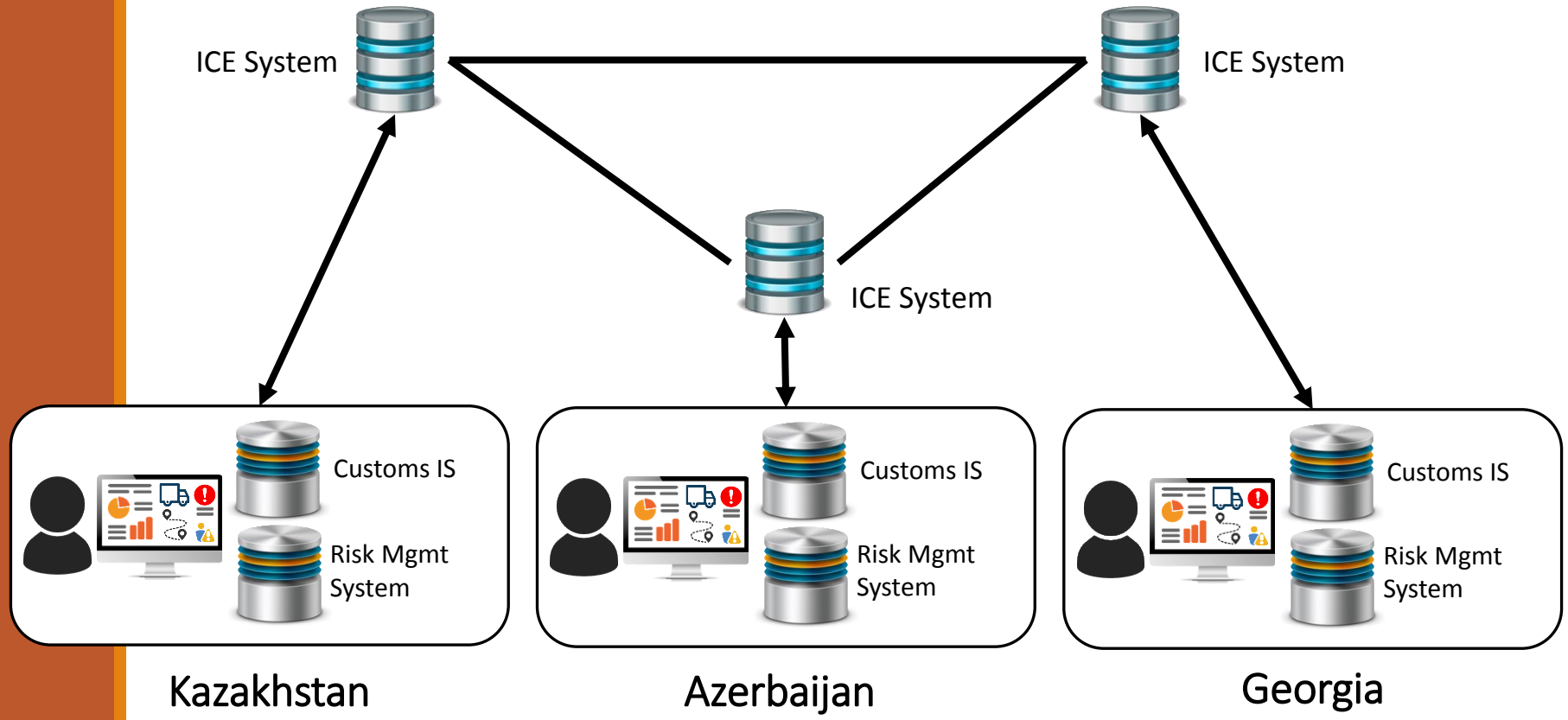
Next Steps

Installation and pilot plans

1. To work with the CATS IT Working Group to establish a beta version of the software in the next few months.
2. To install ICE software in the pilot countries.
3. To carry out pilot runs with actual cargo movement with participation from Customs and the private sector.
4. To finalise the ICE System specification.

Pilot

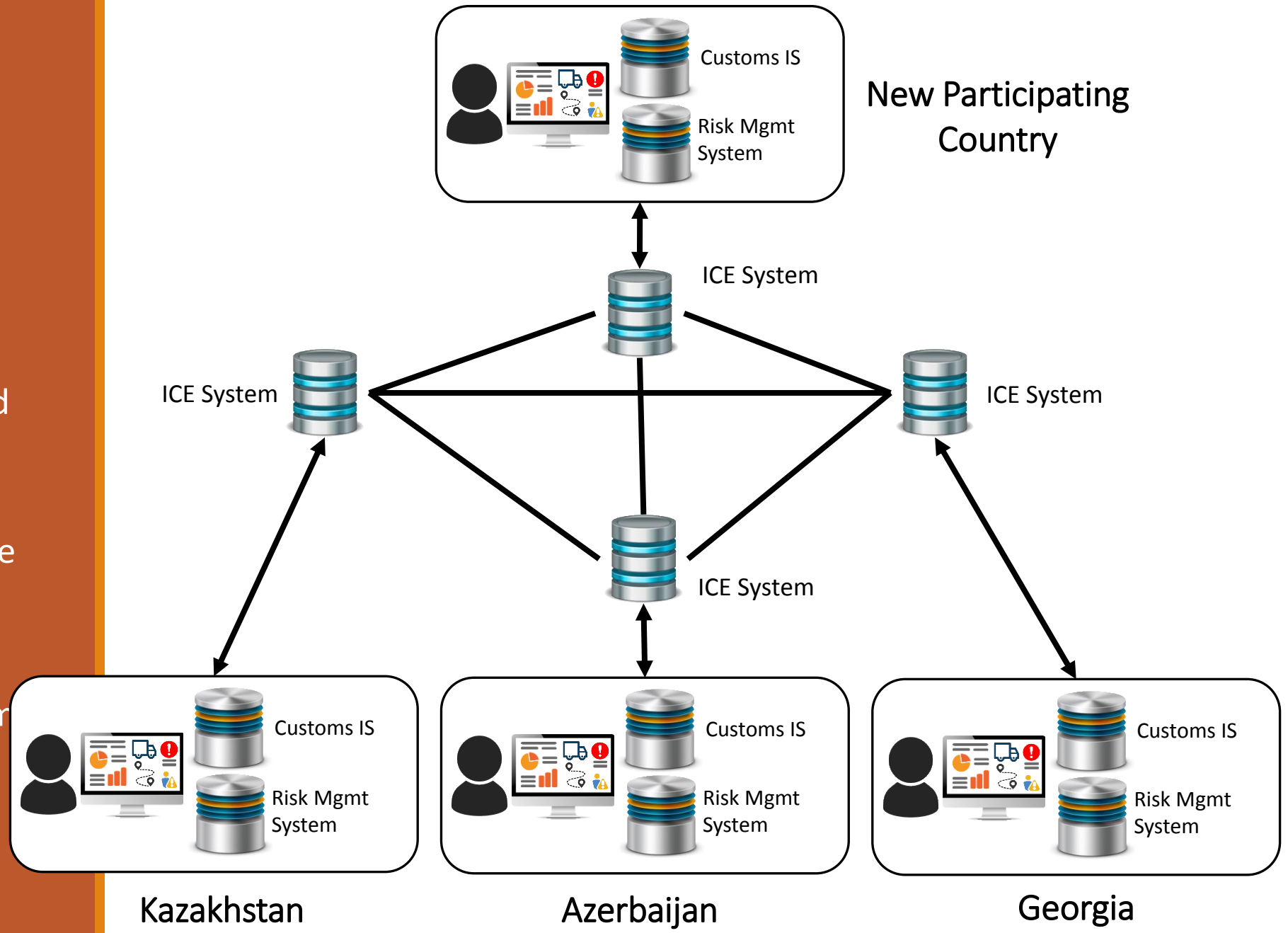
System diagram for pilot



Expanding to other countries

Initial pilot can be expanded easily by adding a new ICE System.

With the published Software Specification, Customs can implement its own ICE system, or enhance the Customs Information System to implement the regional transit and the pre-arrival features.



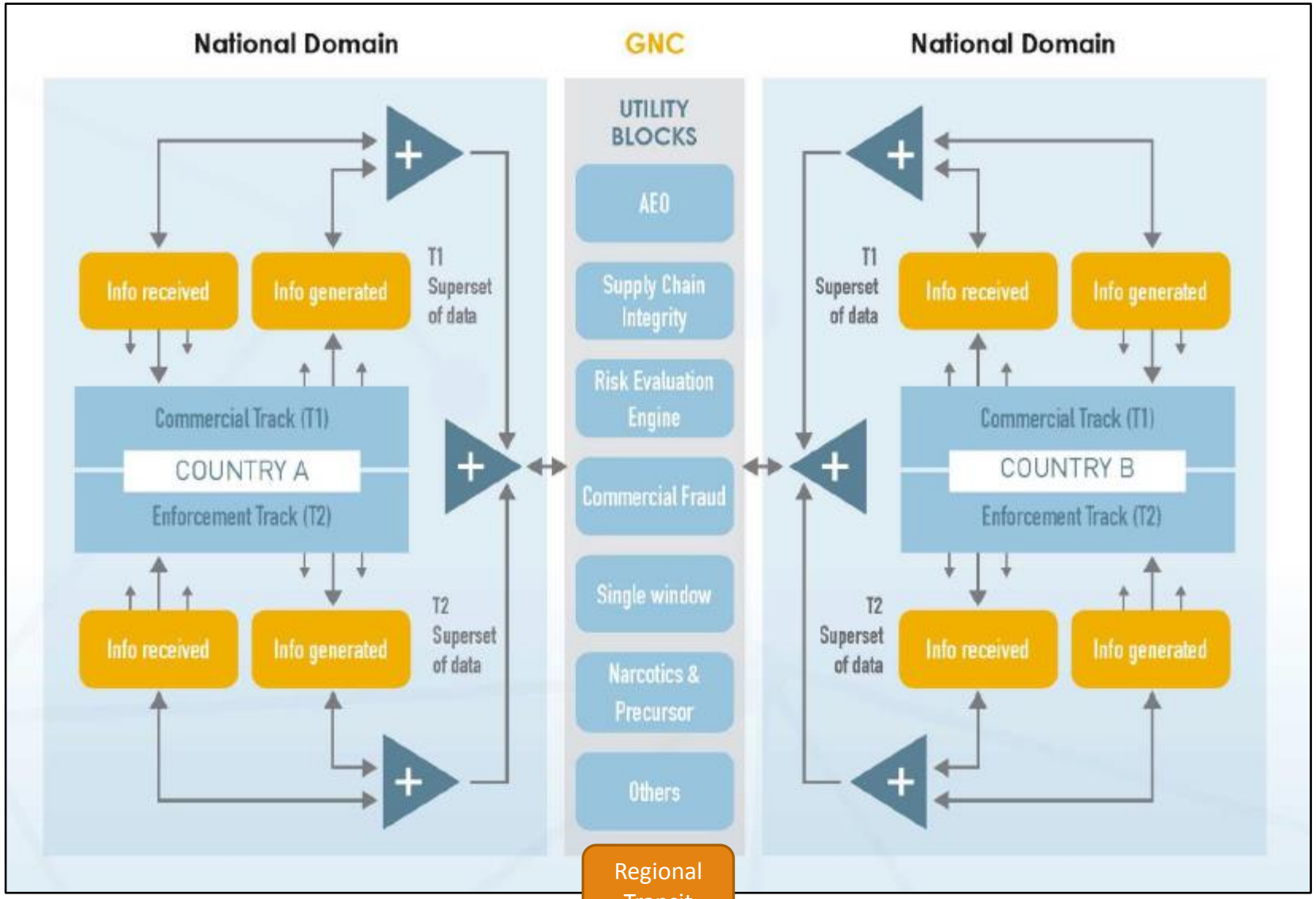
Post-Pilot

GNC has the concept of Utility Blocks (UB)

- WCO describes a Utility Block as “a functional subset of GNC offering a tangible value proposition to Customs administrations by meeting specific needs through the sharing of information.”
- It can be defined using business rules, protocols, standards and guidelines.
- The CATS and ICE project can contribute Utility Blocks to the GNC.

Existing Utility Blocks in GNC

Utility Blocks allows faster Customs-to-Customs communication through knowledge sharing.



* Source: WCO

Utility Block

Information needed to define the UB - we have got them!

Name of Block	e.g. Regional Transit, Pre-arrival
Purpose	What the block is supposed to do.
Legal Framework	The law, including the instrument providing the legal gateway.
Entities	Those who can send/receive information, and the methods of identifying them.
Business Rules	The specific rules for the UB. If not described elsewhere, includes relevant Protocols, Standards and Guidelines.
Data Cluster	The list of data elements for the UB
Triggers	Events that either start the data flow, or respond to data receipt
Interface	How the parties in a GNC relationship are connected
Integration	How a GNC partner connects to its own systems
Communication	The electronic means of exchanging information
Advantages	Benefits delivered to: Customs, Business and Other Agencies

* Source: WCO

Thank You