Advanced Cargo Information and Risk Management with TIR

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Project Coordinator for Africa and The Middle East
Agenda

- Advanced cargo information and risk management
- TIR risk management systems
  - TIR-EPD
  - Real-Time SafeTIR (RTS)
- Implementation
  - Secure Connectivity
  - Messages
  - Key challenges
  - Typical roadmap
- Questions & Answers
Advance Cargo Information and Risk Management

• Concept promoted by WCO Safe Framework
• Model successfully applied in many countries where TIR is operational:
  • European Union
  • Eurasian Customs Union
  • Turkey / Iran
  • and more
• Benefits for Customs:
  • Advance risk assessment and control decision made in advance
  • Increased security of transit movements (focus on “high-risk” transports)
  • Reduced manual data entry and less errors, faster procedure
  • More efficient use of Customs resources
  • Higher border crossing point capacity
TIR RISK MANAGEMENT SYSTEMS
TIR risk management systems
TIR Portal for Customs

- Online control of TIR Carnets’ validity and history
- Direct connection via web services (Real-Time SafeTIR) for:
  - Transmission of SafeTIR termination data
  - Verification of TIR guarantee validity
  - Automatic reconciliation requests
TIR Portal for Carnet Holders

https://tirepd.iri.org
• TIR Holder admission process
• TIR Carnet issuance and return
• Risk management
• Available in national languages (Mandarin coming soon)
IRU TIR-EPD: Context

- Advance cargo information and risk analysis: key elements of WCO SAFE Framework
- Electronic pre-declaration mandatory:
  - In European Union since 2009
  - In Eurasian Customs Union since 2012
  - In Ukraine (electronic data submission) since 2013
  - In Iran since 2014
  - In Turkey – expected soon
- Model progressively expanding to other countries

TIR-EPD satisfies all national laws requirements of all countries connected to TIR-EPD.
IRU TIR-EPD: concept

Authorised holder sends preliminary information on goods to Customs of all countries of his itinerary via IRU TIR-EPD free-of-charge.

Customs authorities receive information on goods for advance risk analysis and send confirmation to holder.

IRU ensures handling and transmission of this information from Holders to Customs and from Customs to Holders.
Value for **Customs**

**Operational**

- Advance cargo information enables advance risk analysis, in line with WCO SAFE Framework
- No need for manual data entry

**Security**

- Only valid TIR Carnets can be submitted with TIR-EPD and only by authorised holders
- Identical information goes to all Customs

**Simplicity**

- Limited impact on Customs systems
- TIR-EPD adjusted by IRU to national Customs requirements, and compatible with WCO reference data model
Advantages for Transport Operators

✓ Free of charge - no need for broker assistance

✓ No access to confidential commercial data by third parties

✓ Exclusively with TIR-EPD:
  ✓ EPD sent simultaneously to all countries of itinerary
  ✓ User interface in all national languages

✓ Accessible via Internet from anywhere

✓ Simpler and faster border crossing procedures

✓ Saves money and increases competitiveness
TIR-EPD Geographic extension

TIR-EPD operational in: Afghanistan, Belgium, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iran, Italy, Kazakhstan, Kirgizstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey, Ukraine and Uzbekistan

On going expansion
REAL-TIME SAFETYR
REAL-TIME RISK MANAGEMENT
Why SafeTIR?

To confirm at any time and in real-time the validity of the Customs stamp (at destination) on the TIR counterfoil

SafeTIR data: electronic equivalent of Customs stamp transmitted in real-time
SafeTIR objectives

- Provide a database of terminated TIR Carnets (TIR Customs Portal) – TIR Carnets are tracked electronically
- Enable early detection of fraud → By providing Customs with up-to-date information on the validity of TIR carnets (TIR Customs Portal, RTS)
- Instil trust in the TIR System

TIR Customs Portal

Real Time SafeTIR

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The Principle of Annex 10

SafeTIR Control System for TIR Carnets:

Annex 10 to the TIR Convention since 12 August 2006
SafeTIR Objectives

Provide a database of terminated TIR Carnets (CUTE-Wise) – TIR Carnets are tracked electronically

Enable early detection of fraud → by providing Customs with up-to-date information on the validity of TIR Carnets (CUTE-Wise, RTS)

Instil trust in the TIR System
With Real-Time SafeTIR:
• Customs can check in real-time the validity of TIR Carnets presented to them
• Infringements are detected early as information confirming the proper termination of TIR operations is made available quickly and electronically to all stakeholders involved

What is the status of the TIR Carnet?

The status of the TIR Carnet is:
• Valid (with the following details: Holder ID, validity date, Issuing Association name)
• Invalid
• Not issued/ false/ other situations
RTS – geographic coverage

20 RTS countries
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Georgia
Iran
Kyrgyzstan
Kazakhstan
Latvia
Macedonia
Moldova
Morocco
Russia
Serbia
Turkey
Ukraine
Uzbekistan
Finland
France

In implementation
Poland
Italy
Croatia

Next priorities
Armenia
Tajikistan
RTS Geographic Extension

RTS operational in: Azerbaijan, Belgium, Belarus, Bulgaria, Bosnia-Herzegovina, Finland, France, Georgia, Iran, Kazakhstan, Kyrgyzstan, Latvia, Macedonia, Morocco, Moldova, Russia, Serbia, Turkey, Ukraine, Uzbekistan
RTS Benefits

For Customs:
- Automatic electronic entry and exchange of SafeTIR data, facilitating the work of Customs officers
- Confirmation in real-time of the validity of TIR Carnets
- Effective risk management tool
- Simplifies SafeTIR reconciliation procedure
- Allows for early detection of possible infringements

For the Guarantee chain:
- Effective risk management tool
- Data on the termination of TIR operations available to associations in real-time
- Simplifies SafeTIR reconciliation procedure
- Allows for early detection of possible infringements

Real-Time SafeTIR brochure
IMPLEMENTATION
IRU adapts to national technical specifications

TIR-EPD connected to 31 Customs systems as of November 2015
SOAP web services (XML) over HTTPS connection

Highest level of security and robustness to network outages

Encryption and signature using certificate and private keys

Example code available in Java and C# for key services (free of charge)
Customs-IRU Secure Connection – Others Options

VPN
- Hard to maintain (requires highly available network technical specialist). Some solutions even require expensive extra-hardware.
- Not more secure than HTTPS (new types of VPNs are based on HTTPS or SSL).
  - Only needed for persistent connections or unsecure protocols (HTTPS is none of these).

File Exchanges
- FTP or shared volumes
  - Not secure, requires a VPN

Email
- No message delivery guarantee
- Not secure, unless high cost solutions are put in place

Others
- Other options possible, in alignment with Customs requirements
Customs-IRU Secure connection - examples

**HTTPS:** Turkey *, Iran, Morocco *, Serbia, Croatia, Macedonia

**HTTP over VPN:** Russia, Belarus, Ukraine,

**FTP:** Italy, Finland

**SMTP:** Belgium

*) Previously using VPN
Message Flow
<table>
<thead>
<tr>
<th>Message</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPD Notification</td>
<td>Submission of advance cargo information</td>
</tr>
<tr>
<td>Customs Reference</td>
<td>Customs confirmation, including Customs unique reference</td>
</tr>
<tr>
<td>Release for Transit</td>
<td>Transit operation refused (at Customs of departure or Customs of entry), usually because of a control or declarations documents issue</td>
</tr>
<tr>
<td>No Release for Transit</td>
<td>Transit operation refused (at Customs of departure or Customs of entry), usually because of a control or declarations documents issue</td>
</tr>
<tr>
<td>Cancellation Decision</td>
<td>If a Customs Reference was allocated and not used by the Customs office of entry at the border (for import or transit) or at the Customs office of departure in the country (for export) during determined period of time (generally 1 month), a Cancellation Decision message is generated automatically by the Customs system</td>
</tr>
</tbody>
</table>
### TIR Messages (2/2)

<table>
<thead>
<tr>
<th>Message</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPD Rejection</td>
<td>Rejection of submitted advance cargo declaration</td>
</tr>
<tr>
<td>Discharge Notification</td>
<td>Confirmation of clearance of transit procedure</td>
</tr>
<tr>
<td>Exit /Termination Notification *</td>
<td>Notification of end of TIR Operation (the transport has left the Customs territory, or reached the Customs of destination)</td>
</tr>
<tr>
<td>TIR Carnet Holder Query *</td>
<td>Control of validity of TIR guarantee in TIR System</td>
</tr>
<tr>
<td>EPD Confirmation</td>
<td>Technical confirmation of message reception</td>
</tr>
<tr>
<td>Control Decision Notification</td>
<td>Customs may optionally inform the Holder that the vehicle will be physically controlled</td>
</tr>
</tbody>
</table>

* RTS messages
Key Technical Challenges

Communication issues

- Change of technical point of contact at Customs IT
- More than one departments or external supplier involved in IT
- Change of HS codes or codes of Customs offices
- Service interruptions

Absence of TIR focal point at Customs

Tax numbers of consignors/ees, transport operators

VPN instabilities

Exchanges of certificates

- Certificate expirations and renewals

Lack of understanding of transit specificities

Absence of fallback procedures

IRU registration when required
<table>
<thead>
<tr>
<th>Stage / Activity</th>
<th>Deliverables</th>
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<tbody>
<tr>
<td>Preparation and signing a <strong>framework Cooperation Agreement</strong> for implementation of the IRU TIR-EPD application</td>
<td>Cooperation Agreement</td>
</tr>
</tbody>
</table>
| Harmonisation of **technical requirements** for the electronic data exchange between the IRU TIR-EPD application and the Customs IT system | **Web Services Interface specification between IRU TIR-EPD application and the Customs IT system.**  
Catalogue of the message formats, Code Lists and XSD schemas |
| **IRU developments** of software module | Programme Code and Documentation |
| **Customs development** of TIR-EPD module or adjustments to the Customs IT system | Programme Code and Documentation |
| Definition of joint **testing procedures** | Test protocol agreement |
| Preparation for testing | Exchange of the **certificates** and test systems addresses |
| **Testing**, debugging and pilot running of the TIR-EPD system at Customs | **Report on tests and pilot exploitation of the system** |
| **Acceptance testing** | **Acceptance testing report** |
| Preparation for production of the TIR-EPD system | Exchange of the production **certificates** and production systems’ addresses |
| Definition of joint **production support procedures** | Exchange of the IT Support contact details |
| **Deployment to the production** environment | **Agreement on Production Start** |
| Project closure and **go live** | Monitoring and reporting on Production System |
QUESTIONS & ANSWERS