



Economic Commission for Europe**Inland Transport Committee****Working Party on Customs Questions affecting Transport****Group of Experts on Conceptual and
Technical Aspects of Computerization of the TIR Procedure****First session**

Geneva, 27–29 January 2021

Item 7(e) of the provisional agenda

**eTIR conceptual, functional and technical specifications version 4.3:
Amendments****Amendments - Suspension of an eTIR intermodal transport,
procedure for drawing samples, messages exchanged in the
framework of the eTIR specifications and replication of
ITDB****Note by the secretariat****I. Introduction - Mandate**

1. The Inland Transport Committee during its eighty-second session (23–28 February 2020) approved (ECE/TRANS/294, para. 84¹) the establishment of the Group of Experts on Conceptual and Technical Aspects of Computerization of the TIR Procedure (WP.30/GE.1) and endorsed its ToR ² (ECE/TRANS/WP30/2019/9 and ECE/TRANS/WP.30/2019/9/Corr.1) pending approval by UNECE Executive Committee (EXCOM). EXCOM during its Remote informal meeting of members of the Executive Committee (20 May 2020) approved the establishment of the Group of Experts on Conceptual and Technical Aspects of Computerization of the TIR Procedure (WP.30/GE.1) until 2022, based on the terms of reference included in document ECE/TRANS/WP.30/2019/9 and Corr.1, as contained in document ECE/TRANS/294 (ECE/EX/2020/L.2, para. 5(b)).³

¹ Decision of the Inland Transport Committee para. 84 / ECE/TRANS/294
www.unece.org/fileadmin/DAM/trans/doc/2020/itc/ECE-TRANS-294e.pdf

² Terms of reference of the newly established Group approved by the Inland Transport Committee and the Executive Committee (EXCOM) of UNECE
www.unece.org/fileadmin/DAM/trans/bcf/wp30/documents/2019/ECE-TRANS-WP30-2019-09e.pdf
and corrigendum www.unece.org/fileadmin/DAM/trans/bcf/wp30/documents/2019/ECE-TRANS-WP30-2019-09c1e.pdf

³ Decision of EXCOM, ECE/EX/2020/L.2 / para. 5(b)
www.unece.org/fileadmin/DAM/commission/EXCOM/Agenda/2020/Remote_informal_mtg_20_05_2020/Item_4_ECE_EX_2020_L.2_ITC_Sub_bodies_E.pdf



2. The terms of reference of the Group stipulate that the Group should focus its work on preparing a new version of the eTIR specifications, pending the formal establishment of TIB. More specifically the Group should (a) prepare a new version of the technical specifications of the eTIR procedure, and amendments thereto, ensuring their alignment with the functional specifications of the eTIR procedure; (b) prepare a new version of the functional specifications of the eTIR procedure, and amendments thereto, ensuring their alignment with the conceptual specifications of the eTIR procedure; (c) prepare amendments to the conceptual specifications of the eTIR procedure, upon requests by WP.30. This document presents specific amendments to the eTIR conceptual, functional and technical documentation - v.4.2a -with regard to the suspension of an eTIR intermodal transport, the procedure for drawing samples, the messages exchanged in the framework of the eTIR specifications (transmitted by the IRU) and the replication of ITDB TIR Carnet holder and customs office data.

II. Suspension of an eTIR intermodal transport

3. At its thirty first session, the Informal Ad hoc Expert Group on Conceptual and Technical Aspects of Computerization of the TIR Procedure (GE.1) requested the secretariat to prepare a draft proposal to explain how, in practice, an eTIR intermodal transport could be suspended for certain legs. This document presents a draft proposal by the secretariat.

A. Article 26

4. Article 26 of the TIR convention deals with the various aspects related to the suspension of a TIR transport and reads as follows:

"1. When a transport under cover of a TIR Carnet takes place in part in the territory of a State which is not a Contracting Party to this Convention, the TIR transport shall be suspended during that part of the journey. In that case, the Customs authorities of the Contracting Party on whose territory the journey continues shall accept the TIR Carnet for the resumption of the TIR transport, provided that the Customs seals and/or identifying marks have remained intact.

Where the Customs seals have not remained intact, the Customs authorities may accept the TIR Carnet for resumption of the TIR transport under the provisions of Article 25.

2. The same shall apply where for a part of the journey the TIR Carnet is not used by the holder of the Carnet in the territory of a Contracting Party because of the existence of simpler Customs transit procedures or when the use of a Customs transit regime is not necessary.

3. In such cases the Customs offices where the TIR transport is suspended or resumed shall be deemed to be Customs offices of exit en route and Customs offices of entry en route respectively."

5. Paragraph 2 of Article 26 clearly refers to two cases that are of relevance for intermodal transport:

- the existence of simpler customs transit procedures;
- when the use of a customs transit regime is not necessary.

6 While the first case is particularly relevant for a TIR intermodal transport involving rail, the second is of use for those transports involving maritime across open seas.

B. Suspension of the eTIR procedure

7. First of all, in the absence of provisions dealing with suspension in Annex 11, Article 26 applies *mutatis mutandis* for the eTIR procedure. Consequently, the office where the change of transport mode, requiring a suspension of the eTIR transport, takes place, should

act as customs office of exit en route for that country and therefore ensure the proper transmission of the “Terminate TIR operation” (I11) message. When the transport is resumed, the customs office should act as customs office of entry en route, for that country and, therefore, ensure the proper transmission of the “Start TIR operation” (I9) message.

8. In order to ensure that the TIR transport can be resumed, the accompanying document should travel with the container or vehicle which is carried by another mean of transport. If required, an indication of suspension could be indicated by customs on the accompanying document.

III. Procedure for drawing samples

9. At its thirty first session, the Informal Ad hoc Expert Group on Conceptual and Technical Aspects of Computerization of the TIR Procedure (GE.1) requested the secretariat to make a proposal to deal with the provision of Explanatory Note 0.21-3 regarding the notification of the drawing of samples of goods by customs authorities in the course of an examination, possibly using the I7 message to correct the declaration data or using the additional information attribute of the start TIR operation message. This document presents draft proposals by the secretariat.

10. Explanatory Note 0.21-3 reads as follows: “If in the course of an examination, Customs authorities draw samples of goods, a note recording full particulars of the goods taken must be made by those authorities on the goods manifest of the TIR Carnet.”

11. For the eTIR procedure, in the absence of a TIR Carnet, an alternative method needs to be identified to ensure that this information is made available to all remaining customs administration along the itinerary.

12. The following three options could be envisaged to ensure that this information is adequately shared with all parties concerned.

A. Amendment of the declaration data

13. The customs office drawing samples could use the “Record declaration data” (I7) message (with a “Message function, coded” value of 4 – Change) to reflect any changes in the good manifest following the draw of samples, i.e. reducing the quantities or the number of packages originally declared.

B. TIR operation related messages

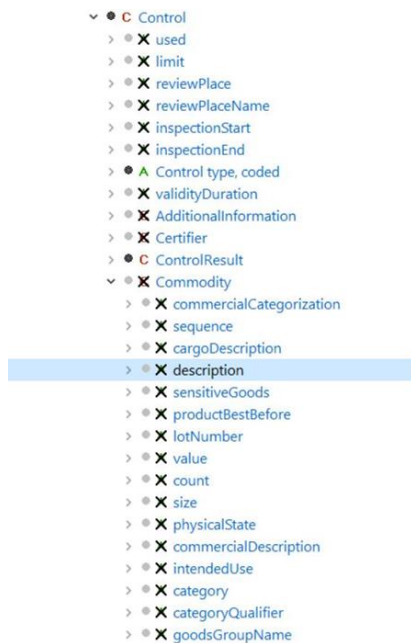
14. If a customs office of departure or entry draws samples, it could use the “Remarks” attribute in the “AdditionalInformation” class of the “Start TIR operation” (I9) message to indicate that the samples have been drawn. However, this attribute is a text field and is already used for other purposes such as the indication of a national itinerary and is maximally 512 characters long.

15. If a sample is drawn at a customs office of destination or exit, it could use the “Reservations” attribute in the “AdditionalInformation” class of the “Terminate TIR operation” (I11) message to indicate that the samples have been drawn. However, this attribute, which is also a text field of maximum 512 characters, is already used to indicate the reservation when a termination is certified with reservations.

16. Alternatively, both the “Start TIR operation” (I9) and “Terminate TIR operation” (I11) messages contain a “Controls” class which currently serves for indicating the results of the checks of the seals. Consequently, the cardinality of this class is limited to 1. However, by increasing the cardinality, including a new control type for the drawing of samples and including a few additional attributes in the class, this class could serve to report on the drawing of samples.

17. The figure below shows the composition of the control class in the WCO data model, including the composition of the included commodity class.

Figure I



18. The commodity class appears to have the necessary fields to indicate the amount of the sample drawn as well as the type of goods that was sampled.

C. Accompanying document

19. Considering that drawing samples is not a regular procedure, the necessary information could also be manually written on the accompanying document, stamped and signed by the responsible customs officer.

IV. Messages exchanged in the framework of the eTIR specifications (transmitted by the IRU)

A. Background

20. An analysis has been carried out regarding the holders' authorisation in the framework of eTIR specifications.

B. Legal provisions applicable

(a) Article 6.3 of the TIR Convention states: "An association shall issue TIR carnets only to persons, whose access to the TIR procedure has not been refused by the competent authorities of Contracting Parties in which the person is resident or established".

(b) Part II of Annex 9 sets out the minimum criteria that must be met by either natural or legal persons before they can be authorised to use TIR carnets, as well as the criteria that must be met by authorised TIR carnet holders. According to its paragraph 6: "The authorization for access to the TIR procedure does not constitute in itself a right to obtain TIR Carnets from the associations". This statement implies that a number of checks are to be performed by the issuing association before a TIR carnet/eGuarantee is issued (e.g. exclusion, quota, response to claim records etc.).

(c) Article 6.2bis-1 of the TIR Convention states: "The relationship between an international organization and its member associations shall be defined in written agreements on the functioning of the international guarantee system". Such a relationship is currently reflected in IRU's contractual rules.

21. eTIR procedure (Annex 11) is applicable mutatis mutandis.

C. The procedure for the issuance of TIR carnets is the same as the one for the issuance of eGuarantees

22. The current procedure for the issuance of TIR carnets is the same as for the issuance of eGuarantees (Annex 11 mutatis mutandis).

23. Admission to the TIR procedure is a two-stage process. One stage involves an initial application to the issuing association (which will apply IRU's contractual rules + the national association's own rules) and carry out its own checks to ensure that it considers the applicant to be suitable to join the TIR procedure. The other stage involves obtaining the approval of the competent authorities (usually customs authorities). The order in which these stages are completed and the exact procedure for obtaining the approval of the competent authorities will be determined at national level.

24. The following step by step procedure for the issuance of TIR carnets will also be used for the issuance of eGuarantees (Article 6.3):

- The holder requests the issuance of the eGuarantee to the national association
- The national association performs the necessary checks (authorisation, quota, etc.)
- If the holder fulfils the necessary requirements, the eGuarantee will be issued
- The eGuarantee can be used for the holder from then onwards.

25. Conclusion: The assessment of the holders' authorisation will be performed BEFORE the issuance of an eGuarantee.

D. Procedure for registering an eGuarantee as per the eTIR technical specifications (item 1.1.1.2 – p. 9 – “Register guarantee”)

26. After the issuance of the eGuarantee by the association, it needs to be registered in the eTIR system (by the association). IRU does this registration on behalf of the association.

27. During the process of registering an eGuarantee in the eTIR international system, the system itself will verify whether or not the person is an authorised holder.

28. Conclusions:

(a) The checking of the holders' compliance with the requirements for obtaining an eGuarantee is not foreseen in the eTIR specifications, nor in ITDB, but is in fact performed by the national association each time a guarantee is issued. It is therefore impossible for national associations and/or IRU (as guarantors) to query the status of a TIR holder in ITDB prior to issuing an eGuarantee.

(b) The checking of the holders' authorisation via ITDB will be performed AFTER the issuance of an eGuarantee (during the process of registering an eGuarantee).

E. Messages exchanged in the framework of eTIR specifications

29. I3/I4 messages which are set in the eTIR technical specifications (item 1.1.1.5 – p. 11 – “Get Holder Information”) contain the information available to the customs authorities (authorisation in the country, exclusions in others) and is exchanged only between the actors of the public sector.

30. The I4 message contains the status of the holder in ITDB.

31. These messages are exchanged AFTER the issuance of the eGuarantee by the association (during the process of the eGuarantee registration)

F. Issues identified

32. The checking of the holders' authorisation needs to be performed BEFORE the issuance of the eGuarantee, as per Article 6.3 of the TIR Convention.

33. If there is a discrepancy between the checks performed by the national association and the one performed by the eTIR international system, the registration of the e-Guarantee will fail.

G. Proposal to solve the issues identified

34. Add messages I-3/I-4 to the list of messages exchanged between the public and private sectors, for instance as E11/E12 (note: such a duplication of messages already exists for query guarantee message I5/I6 and E5/E6). In this case, the holders' authorisation would be checked BEFORE the issuance of the guarantee, and such a check will be in line with Article 6.3 of the TIR Convention.

V. Replication of ITDB TIR Carnet holder and customs office data

A. Introduction

35. At its thirty-first session, while discussing the approved amendments contained in Informal document GE.1 No. 5 (2020), the Ad hoc Expert Group on Conceptual and Technical Aspects of Computerization of the TIR Procedure (GE.1) considered the fallback scenario for message of the "Get holder information" use case (messages I3/I4) and, in particular, was of the opinion that more information was required on how a "local replica" of the ITDB would be managed and how customs would be informed of its usage.

36. Consequently, the GE.1 requested the secretariat to prepare a document for its next session presenting technical details of the replication, such as the replications frequency and how customs administrations would be notified that the ITDB replica is used (ECE/TRANS/WP.30/2020/5, para. 18).

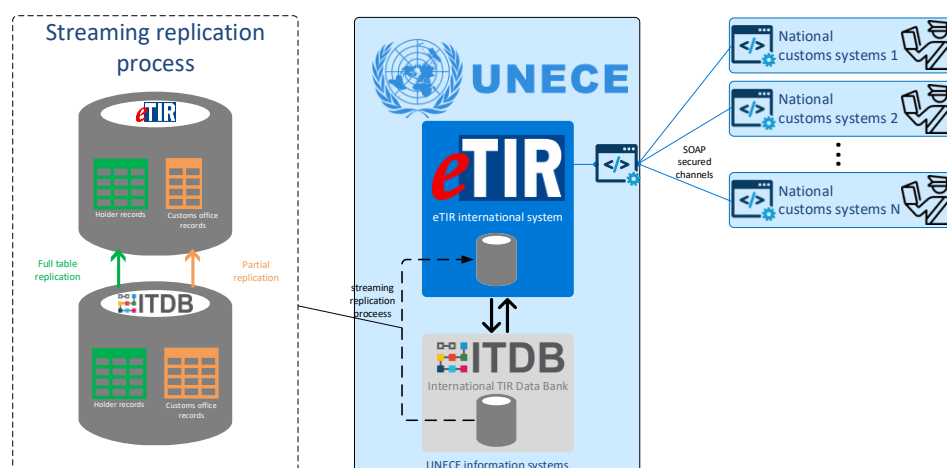
B. Replication mechanism

1. General principle

37. It is important to note that the need of replication relies, in parts, on the fact that ITDB and the eTIR international system are hosted in two separate environments and will most likely be financed from separate budgets.

38. Beyond the initial database table copy, the replication could rely on real-time replication mechanism (also referred to as "streaming replication") to copy any update records of the database table, which contain the relevant TIR Carnet holder and customs offices data, from the ITDB to the eTIR international system. This mechanism shall ensure that the database replica of the ITDB hosted in the eTIR international database to be as current as possible. The Figure II provides a visual representation of the replication mechanism.

Figure II
Replication schema



2. TIR Carnet holder and customs office data

39. The data replication method will be “incremental”, i.e. only the differences between the original database and the replica will be applied. Such a process relies on the continuous communication of the Write-Ahead Logging (WAL) logs to both the master database (ITDB) and the replica one (eTIR international system local ITDB replica). However, the asynchronous replication approach will be preferred in order to minimize impact on ITDB database performance upon each commit. This method will reduce the amount of data to be exchanged and ensure the least burden on both systems.

40. For the holder data, the replication scheme will be “full data” because most data stored in the columns of the “holder” table is used in eTIR. The replication will also include other tables, such as the “Exclusions” and “Withdrawal”, since they also contain information required for the validation or generation of eTIR messages.

41. For the customs offices data, the replication scheme will be “partial” as the “customs offices” table contains numerous information that are not used by the eTIR international system (such as address, email contact, ...).

3. Practical use

42. The eTIR international system needs the ITDB to generate the following messages: E6-Query results, I4-Holder information, I6-Query results, I10-Start results, I12-Termination results and I20-Customs offices validation. If the ITDB is not available, the local ITDB replica contained in the eTIR international system will be used.

C. Notifications

43. When data from the replica is used by the eTIR international system, the secretariat can consider 3 approaches:

- (a) No notification;
- (b) A warning/notification embedded in a dedicated part of the eTIR messages;
- (c) An email notification sent to the TIR or eTIR focal points when the replica is used longer than a period to be specified (e.g. 24 hours).

44. Note that if option b. is selected, it would require further clarification and, possibly, an update of the eTIR specifications (see ECE/TRANS/WP.30/GE.1/2021/19, chapter (m)).

VI. Considerations

45. The Group of Experts may wish to consider the above proposals and instruct the secretariat accordingly.
