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118th session

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Item 2(c)(iv) of the provisional agenda

Inland Transport Instruments:

Convention on the Contract for the International Carriage of Goods by Road

Group of Experts on operationalization of the Additional Protocol

Group of Experts on operationalization of eCMR Report Part III: proposed conceptual and functional specifications of the future eCMR system / Use Case Analysis

Submitted by the Group of Experts

I. Background

1. This document forms part III of the report of GE.22 for SC.1's 118th session. It is based on ECE/TRANS/SC.1/GE.22/2023/5 with the revisions and inclusion of specific comments attributed to various participants that were made at the sixth session of GE.22 (which include the concerns raised by IRU and its members) as indicated with indents.

2. SC.1 is invited to consider the Group of Expert's report comprised of parts I, II, III and IV (ECE/TRANS/SC.1/2023/2 to 5) and to make a decision on the request of the Group of Experts (with the exception of Iran (Islamic Republic of)) for an extension of its mandate under its current terms of reference and workplan to complete its tasks and report to SC.1 at its 119th session in October 2023. IRU also requested that the hybrid solution (ie foreseeing an option for the transport operator or driver to present the e-CMR data in different ways so it is humanly readable) is included in the future work of GE.22, should its mandate be renewed.

II. Use cases analysis

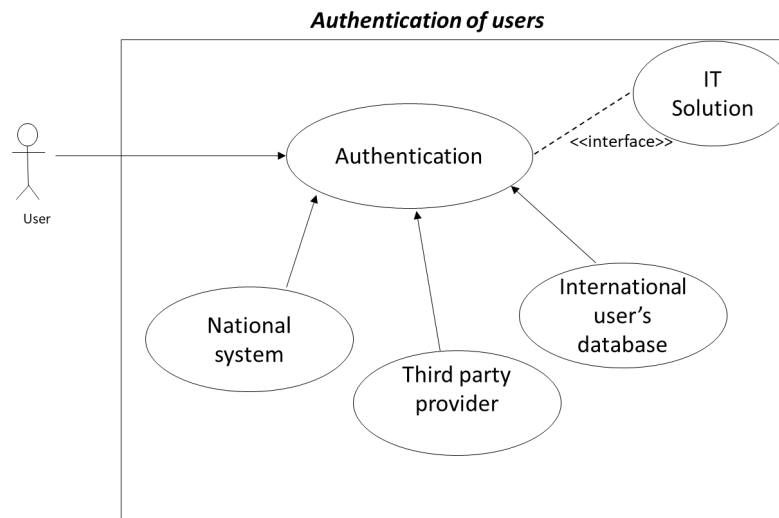
Comments made at the 6th session by IRU and its associations ABADA, BGL and LAA, supported by Iran (Islamic Republic of): The high-level view on the interactions between actors/users will imply changes to the current practices and are not in line with the provisions of the CMR Conventions and its e-CMR Protocol. Notably: a) Additional obligations are imposed on the parties (i.e. authentication of the users). b) The concept limits the use of e-CMR (i.e. only authenticated users can use and access IT solutions). c) The concept adds additional conditions for the e-CMR usage (i.e. as a precondition, the user needs to be first authenticated by its national mechanism). d) Actors which are not party to the contract of carriage are included in the concept (i.e.

customs authorities and IT providers). In view of the above it could be understood that the proposed concept implies several changes in the nature of both CMR Convention and e-CMR Protocol (i.e. change of a private law into a public one). Therefore, the legality of such changes needs to be properly assessed. In case they are made, they need to be in line with the amendments procedures set out respectively in article 49 of the CMR Convention and article 13 of the e- CMR Protocol.

FIATA, the Slovenian Logistics Association, and BIFA as representatives of part of the private sector, and the Swedish Government stated their disagreement with the comments made by IRU and its associations and the government of Iran (Islamic Republic of).

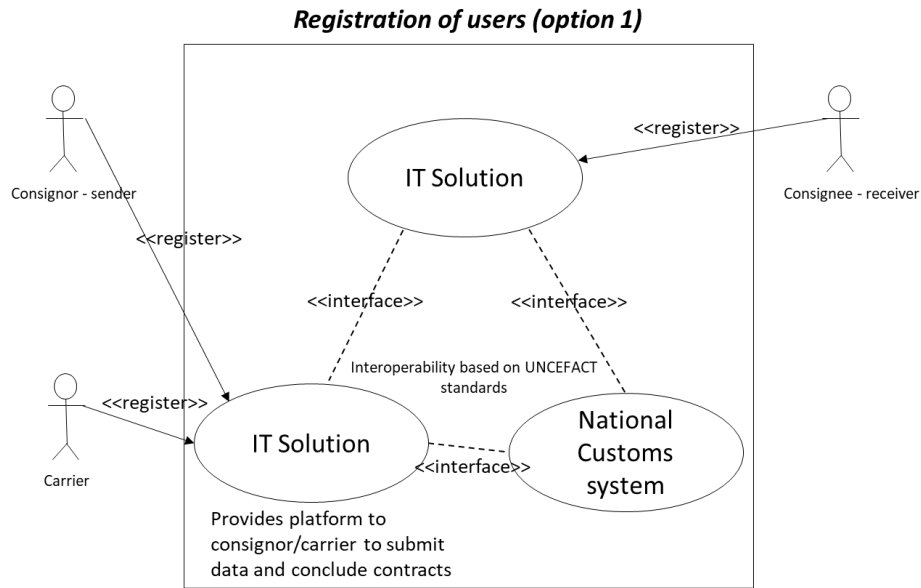
3. The use case analysis provides a high-level view on the interactions (uses) between the actors / users. It is based on the high-level architecture discussed and reflects the main processes described in the conceptual and functional specifications of the future eCMR system.

1. Authentication of users



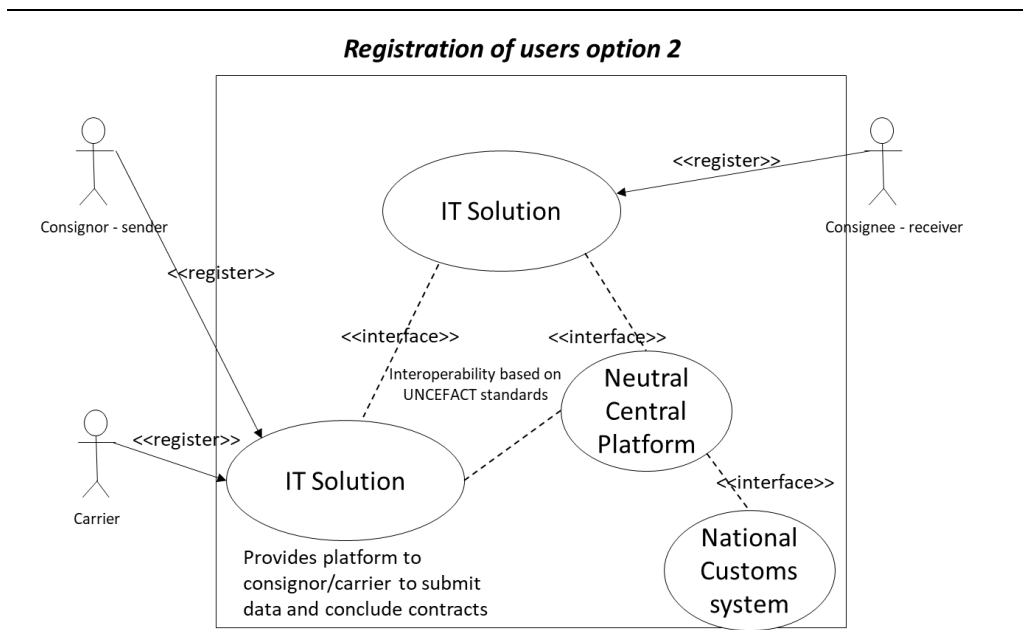
<i>Name</i>	<i>Authentication of users by the National authentication mechanisms use case</i>
Description	Each user should be authenticated and prove this authentication by using their national authentication mechanisms. The proof of authentication (unique code?) should be used in order to register at the IT solutions.
Actors	Consignor, Carrier, Consignee
Performance Goals	Only authenticated users can access and use any IT solution (Proof of authentication might be required).
Preconditions	The user is an authorized / authenticated user.
Postconditions	The user is allowed to gain access to any IT solution.
Scenario	<p>Authentication</p> <p>The IT solutions should be able to check if the information provided by the user is valid and registered in the national authentication mechanism.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>If the authentication fails for any reason, the user will be informed accordingly. Then the user will be required to rectify the information provided for the authentication to be successful. Also, for future reference, the IT solution should be also informed in case a user is not any longer authenticated for several reasons.</p>
Special requirements	Required user information for accessing any IT eCMR solution

2. Registration of users (option 1)



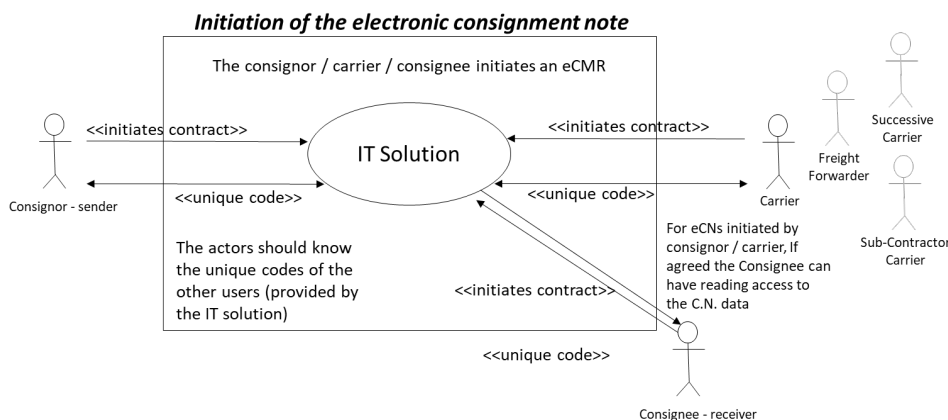
Name	Registration of users in the IT solutions
Description	Each user should register themselves in the IT solutions of their choice in order to be able to submit, validate, and receive data. This also includes the customs authorities.
Actors	Consignor – sender, Carrier, Consignee – receiver, Customs authority
Performance Goals	-
Preconditions	The user who registers in any IT solution should have been first authenticated by its national authentication mechanism and this unique authentication id should be provided for the registration
Postconditions	The details of the user are stored in the IT solution with the status “authorized”
Scenario	Registration The system registers the users and notifies them with results of the registration.
Alternative Scenario	Fallback scenario If the registration fails for any reason, the user will be informed accordingly. Then the user will be required to rectify the information provided for the registration to be successful.
Special requirements	The users will be able to update their information in the IT solution and keep all relevant to their work files, statistics etc.

3. Registration of users (option 2)



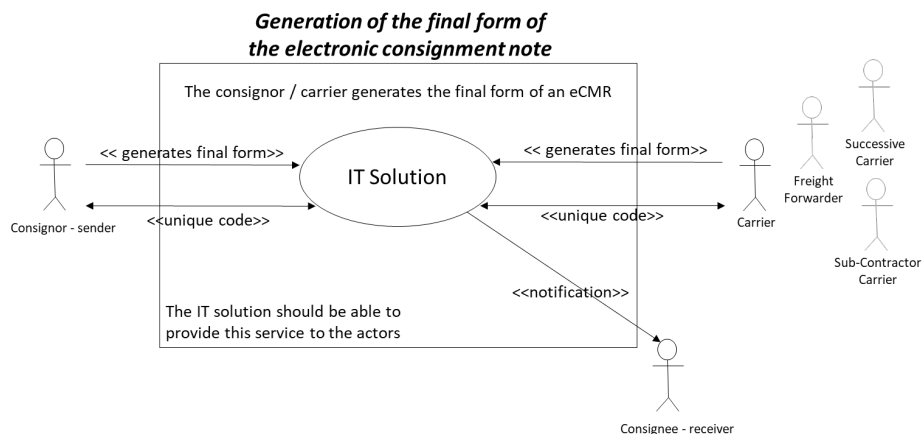
Name	Registration of users in the IT solutions
Description	Each user should register themselves in the IT solutions of their choice in order to be able to submit, validate and receive data. This option does not include registration of the customs authorities as the option of a central platform have been chosen. The customs systems will be connected in order to receive data with the central platform.
Actors	Consignor – sender, Carrier, Consignee - receiver
Performance Goals	Actors should be registered once in a system and then to be recognised.
Preconditions	The user who registers in any IT solution should have been first authenticated by its national authentication mechanism and this unique authentication id should be provided for the registration
Postconditions	The details of the user are stored in the IT solution with the status “authorized”
Scenario	<p>Registration</p> <p>The system registers the users and notifies them with results of the registration.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>If the registration fails for any reason, the user will be informed accordingly. Then the user will be required to rectify the information provided for the registration to be successful.</p>
Special requirements	The users will be able to update their information in the IT solution and keep all relevant to their work files, statistics etc.

4. Initiation of the electronic consignment note



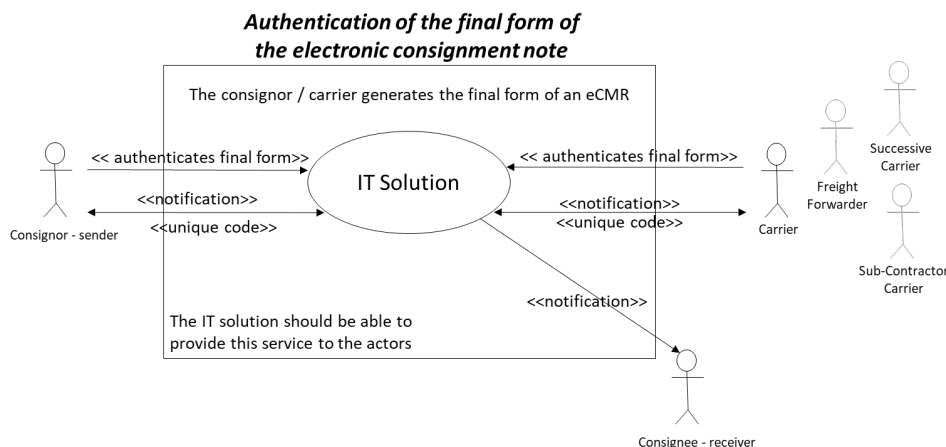
Name	<i>Initiation of the electronic consignment note use case</i>
Description	The consignor, the carrier or the consignee can initiate an electronic consignment note in the selected IT solution by inserting all relevant information. The party initiating the electronic consignment note should know and use the unique code of the other partners. In some cases, the consignee will be informed for a new electronic consignment note issued, if agreed by the carrier and consignor.
Actors	Consignor, Carrier, Consignee
Performance Goals	Any electronic consignment note initiated by a consignor, carrier, or consignee, shall be registered in the IT solution.
Preconditions	The holders of the contract of carriage must be authenticated and registered in the IT solution first before initiating an electronic consignment note.
Postconditions	The electronic consignment note initiated is stored in the IT solution with the status “initiated” until the consignor or the carrier will generate the final form of the electronic consignment note.
Scenario	<p>Initiation</p> <p>Once the electronic consignment note has been initiated between the consignor and the carrier or the consignee, the other party will receive an electronic notification that the new electronic consignment note has been initiated requesting their confirmation on the data while providing all the information required by the eCMR consignment note. The consignee, in cases where the carrier or the consignor have initiated the eCN, might not be notified if either of the two do not wish to notify the consignee.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>If the eCMR consignment note cannot be sent to the IT solution by mean of any electronic means or web services, no functional fallback is foreseen, and the same information can be sent as soon as it is possible by the party declaring the eCMR consignment note. If the problem persists then either a another platform should be used or a paper consignment note will be prepared.</p>
Special requirements	-

5. Generation of the final form of the electronic consignment note



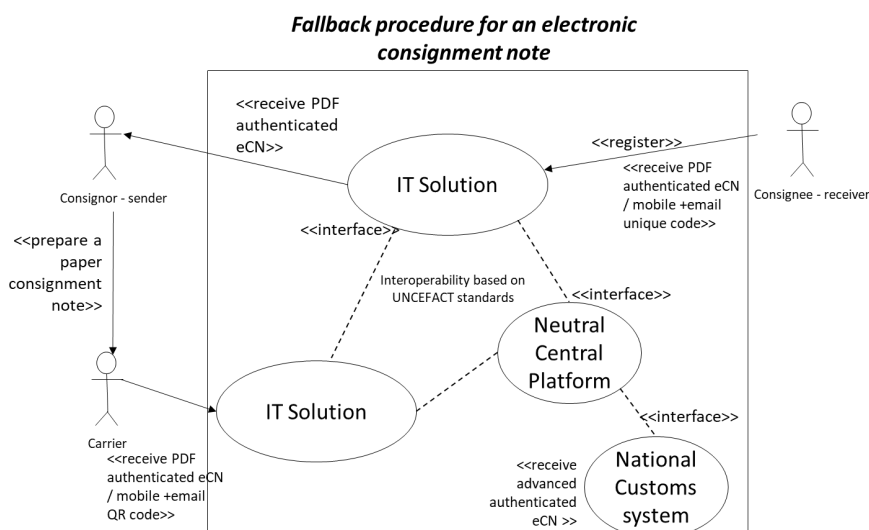
Name	<i>Generation of the final form of the electronic consignment note use case</i>
Description	The consignor and the carrier can generate the final form of the electronic consignment note in the selected IT solution. The party generating the final form of the electronic consignment note should be sure that the data is correct, it has been corrected / agreed by all other parties and that the final form should be generated. The other parties will be informed when the final form has been generated.
Actors	Consignor, Carrier
Performance Goals	Generation and registration of the final form of the electronic consignment note.
Preconditions	The electronic consignment note should have been initiated by any actors and all data has been inserted and corrected.
Postconditions	The final form of the electronic consignment note generated is stored in the IT solution with the status “final form” until the consignor and the consignee will authenticate it.
Scenario	<p>Initiation</p> <p>Once the electronic consignment note has been initiated and corrected by the different parties, either the consignor or the carrier – independently who has initiated the electronic consignment note – should generate the final form of the electronic consignment note. The other parties (consignor and consignee if agreed) will be notified for the generation of the final form of the electronic consignment note.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>If the final form of the eCMR consignment note cannot be generated the system should notify the users of the reasons and direct them on how to fix them. If it is a technical problem, then users should be able to electronically address this problem to the administration of the IT solution seeking for an immediate solution.</p>
Special requirements	-

6. Authentication of the final form of the electronic consignment note



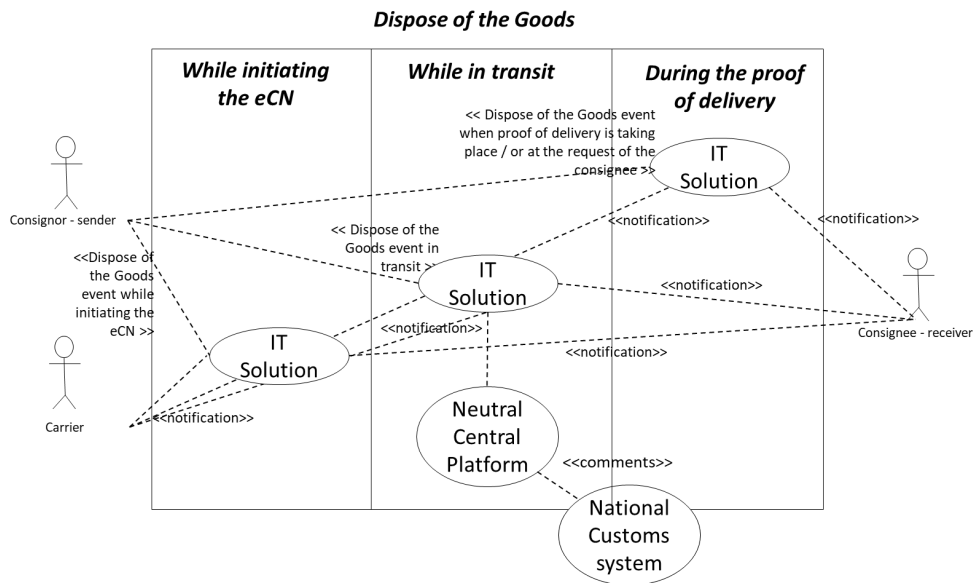
Name	Authentication of the final form of the electronic consignment note use case
Description	Both the consignor and the carrier should authenticate the final form of the electronic consignment note in the selected IT solution. The authentication of the final form is the last step in the issuance of an electronic consignment note and then the journey should start. All users should receive a copy of the authenticated final form of the electronic consignment note
Actors	Consignor, Carrier
Performance Goals	Authentication, registration, and storage of the authenticated final form of the electronic consignment note.
Preconditions	The final form of the electronic consignment note should have been generated.
Postconditions	The final form of the electronic consignment note generated is stored in the IT solution with the status “authenticated”. This file constitutes the original file of the electronic consignment note and the system should safe store it for X years.
Scenario	<p>Initiation</p> <p>Once the final form of the electronic consignment note has been generated both the consignor and the carrier – independent of who generated the final form of the electronic consignment note – should authenticate the final form of the electronic consignment note. The other party (consignee if agreed) will be notified for the authentication of the final form of the electronic consignment note.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>If the final form of the eCMR consignment note cannot be authenticated the system should notify the users for the reasons and direct them on how to fix them. If it is a technical problem, then the users should be able to electronically address this problem to the administration of the IT solution seeking for an immediate solution.</p>
Special requirements	-

7. Fallback procedure



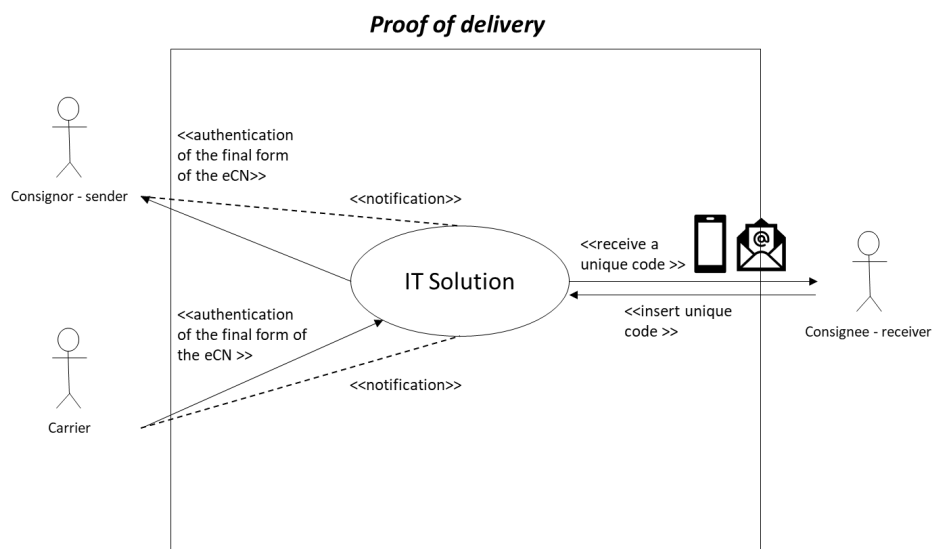
Name	Fallback procedure use case
Description	The fallback procedure is of paramount importance for the operations of the future eCMR system when for some reasons the system does not work as designed.
Actors	Consignor, Carrier, Consignee, IT Solution, Customs Authorities
Performance Goals	Ensure that the market will continue to operate by using the CMR Convention and independently if the consignment note is electronic or not.
Preconditions	The fallback procedures are well defined and accepted by all actors. Paper consignment notes can be still used and accepted when the conditions are imposing to.
Postconditions	All solutions described are accepted as equivalent to a paper consignment note
Scenario	<p>Initiation</p> <p>When the processes for initiating an eCN / generating a final form of eCN / authenticating the final form of eCN do not function or generate errors or there is no access to internet. Also, when en route there are electricity cuts / no access to internet and authorities cannot check online the consignment note.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>Paper consignment note could be used anytime is required or imposed to. The system should provide an online assistance is required but also will generate PDF files / QR codes / advance CMR information that include all data of eCN to be disseminated to different users in cases of implementation of fallback procedures agreed.</p>
Special requirements	-

8. Dispose of the goods



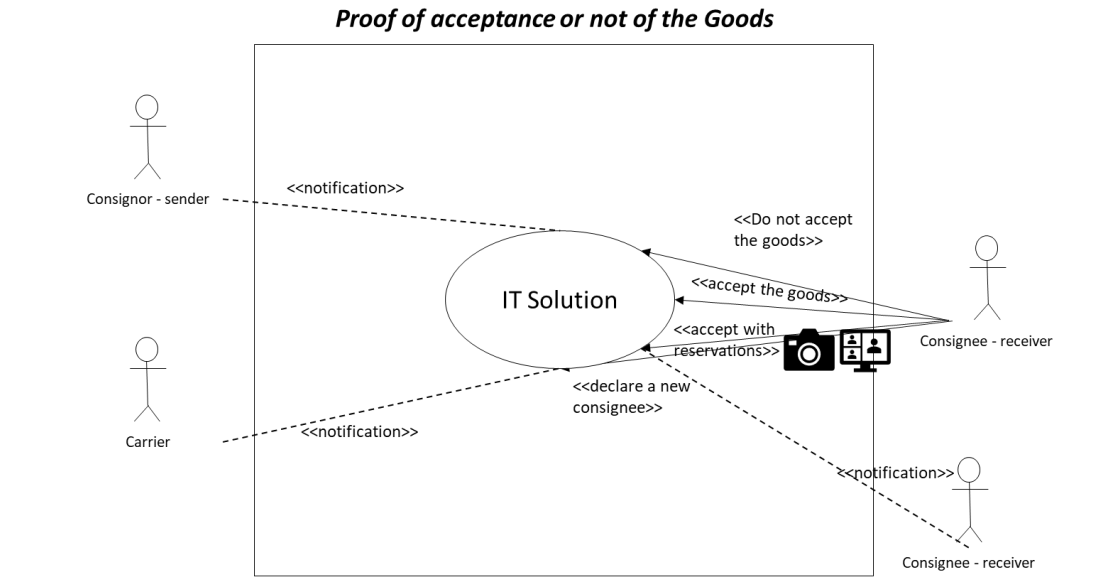
Name	Dispose of the goods use case
Description	The consignor has the right to dispose of the goods while initiating the electronic consignment note, while the cargo is in transit and when the cargo arrived at its destination. In all cases the carrier and the consignee should be informed, and the disposal of the goods process should be always initiated with an authentication of the consignor.
Actors	Consignor, Carrier, Consignee,
Performance Goals	Ensure that the carrier knows at any time who has the right to dispose of the goods and from whom has to take orders.
Preconditions	The right of disposal of the goods belongs to the consignor and the consignor is the only one that can initiate this process.
Postconditions	The Consignee will have the right to dispose the goods and declare a new consignee if required
Scenario	<p>Initiation</p> <p>The consignor should decide when he/she wants to transfer the right of dispose of the goods to the consignee. The system provides the option the procedure to be initiated at any stage of the journey.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>If the disposal of the goods remains with the consignor, then the Convention foresees different ways for the consignee and the carrier to react and request instructions from the consignor.</p>
Special requirements	-

9. Proof of delivery



Name	Proof of delivery use case
Description	At the time the consignment note is concluded online, the consignees receives in their mobile phone / email address a unique code. This code will be asked by the carrier during the delivery of goods to the consignee to be inserted in the system in order to receive delivery of the goods. This will be at the time where the consignee gets the right of disposal of the goods, thereby replacing the receipt of the second copy of the consignment note. This action would trigger notifications to the relevant users that the goods have arrived at their destination.
Actors	Consignor, Carrier, Consignee,
Performance Goals	Ensure that the carrier delivers the good to the right consignee. The consignee gets the right of disposal of the goods.
Preconditions	The right consignee should have been declared while initiating the electronic consignment note with correct mobile phone and email address in order to be able to receive the unique code.
Postconditions	The Consignee should then execute then the process of proof of acceptance or not of the goods.
Scenario	<p>Initiation</p> <p>The truck arrives at the premises of the consignee and the drivers requests the unique code to be inserted in the system in order to be notified that this is the correct consignee and the proof of delivery process to be completed.</p>
Alternative Scenario	<p>Fallback scenario</p> <p>If the consignee do not have the unique code then the administration of the IT solution should be addressed in case of system failure. The consignor should be able – since this is connected with the disposal of the goods therefore not the carrier- to check in the system again the contact details of the consignee, correct them if wrong and trigger a “send unique code to consignee event” in order for the system to send another unique code to consignee.</p>
Special requirements	-

10. Proof of acceptance or not of the goods



<i>Name</i>	<i>Proof of acceptance or not of the goods use case</i>
Description	The consignee has the right to check the goods and accept them or not or even to declare a new consignee. Therefore, the consignee should enter in the system and either accept the delivery online finalizing the consignment note or making reservations / remarks / comments (also uploading photos / videos that justify those reservations. The carrier in that moment will have the opportunity to read those comments without being able to delete them but be able to provide replies if needed.
Actors	Consignor, Carrier, Consignee,
Performance Goals	Ensure that the consignee checks the goods and provides comments if needed.
Preconditions	The consignee should have first finalised the proof of delivery process.
Postconditions	Depending on the action of the consignee (no acceptance, acceptance, acceptance with reservations, new consignee) the carrier and the consignor should act accordingly.
Scenario	Initiation The consignee checks the goods, the condition, packaging etc..
Alternative Scenario	Fallback scenario Depending which scenario will be selected then the Convention applies.
Special requirements	-