

*Final*  
*February 2018*



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE  
UNITED NATIONS CENTRE FOR TRADE FACILITATION  
AND ELECTRONIC BUSINESS (UN/CEFACT)

**BUSINESS REQUIREMENTS SPECIFICATION  
(BRS)**

**e-CMR**

FINAL DRAFT AFTER PUBLIC REVIEW

**Approved: UN/CEFACT Bureau on 19 February 2018**

**Version: 1.0**

## TABLE OF CONTENTS

<b>1</b>	<b>TABLE OF CONTENTS</b> .....	<b>3</b>
	<i>Change Log</i> .....	3
<b>2</b>	<b>PREAMBLE</b> .....	<b>4</b>
<b>3</b>	<b>REFERENCES</b> .....	<b>4</b>
<b>4</b>	<b>OBJECTIVE</b> .....	<b>5</b>
<b>5</b>	<b>SCOPE</b> .....	<b>5</b>
<b>6</b>	<b>BUSINESS REQUIREMENTS</b> .....	<b>7</b>
6.1	BUSINESS REQUIREMENTS LISTS .....	7
6.2	DEFINITIONS BUSINESS TERMS .....	8
6.3	BUSINESS REQUIREMENTS VIEW .....	9
6.3.1	<i>Use Case: Consignment instructions issuance</i> .....	9
6.3.2	<i>Use Case: e-CMR Issuance and goods handing over to a carrier</i> .....	9
6.3.3	<i>Use Case: Goods delivery to consignee</i> .....	10
6.3.4	<i>Use Case: Consignment status reporting</i> .....	11

## TABLE OF FIGURES

<b>Figure 1</b>	<b>e-CMR Sequence Diagram</b> .....	<b>6</b>
<b>Figure 2</b>	<b>Business requirements and key business information in a numbered list</b> .....	<b>7</b>
<b>Figure 3</b>	<b>Data Requirement Statement</b> .....	<b>8</b>

# 1 Table of Contents

<b>Phase</b>	<b>Status</b>	<b>Date Last Modified</b>
e-CMR BRS	Initial	2017-07-06

## Change Log

<b>Date of Change</b>	<b>Version</b>	<b>Paragraph Changed</b>	<b>Summary of Changes</b>
2017-07-06	1.0	initial	

## 2 Preamble

Rules for transporting goods internationally are covered by the United Nations Convention for the carriage of goods, known as the CMR (Convention on the contract for the international carriage of goods by road). This Convention has been ratified by most European states, as well as several other countries. Goods companies, drivers and those receiving shipments use a CMR consignment note, which presents information about the shipped goods and the transporting and receiving parties. Until recently, CMR notes were only in paper form, and business & governments stakeholders are urging for a move to an electronic format.

## 3 References

The CMR and e-CMR Conventions

- Convention on the contract for the international carriage of goods by road (CMR)
- Additional protocol to the convention on the contract for the international carriage of goods by road (CMR) concerning the electronic consignment note  
<https://www.unece.org/fileadmin/DAM/trans/conventn/e-CMRe.pdf>

The UN/CEFACT MMT Multi Modal Transport Reference Model

- Cross-Border Multi-Modal Transport Project Proposal and BRS
- International Freight Forwarding BRS
- UN/CEFACT Modelling Methodology (UMM) v2.0
- UN/CEFACT Core Component Technical Specification v2.01 (CCS ISO15000-5)
- UN/CEFACT Core Component Library D15B
- United Nations Trade Data Elements Directory (ISO 7372)  
*International Organization for Standardization (ISO TC154)*
- International Supply Chain Model (UN/CEFACT)

## **4 Objective**

The objective of this document is to describe essential business processes, business transactions and information entities, covered by the use of the Electronic Road Consignment Note (e-CMR) for international and national transportation of goods by road. Through a standardized e-CMR model, related solutions will exchange consignment data using a harmonized and common language.

## **5 Scope**

The additional protocol to the convention on the contract for the international carriage of goods by road (CMR) concerning the electronic consignment note was added to the CMR Convention, which requested that CMR could be managed electronically, via 'e-CMR'.

This protocol entered into force on 5 June 2011, and as per October 2017, twelve countries have ratified this new electronic system. These include Bulgaria, Czech Republic, Denmark, Estonia, France, Latvia, Lithuania, Netherlands, Slovakia, Slovenia, Spain and Switzerland. Several other countries initiated the process to ratify the e-CMR Convention.

Several countries have started operations and pilots of potential e-CMR solutions without having a common approach on the data content of potential e-CMR message.

The project scope is to standardize and harmonize messages related to electronic road consignment note (e-CMR) to be exchanged between the actors of a supply chain. An electronic message representing the e-CMR will have the same evidentiary value and produce the same effects as that consignment note foreseen by the CMR Convention.

Furthermore, the implementation of standardized electronic consignment note messages may facilitate further interactions with other modes of transport and with national public administrations.

The following diagram shows in detail the various parties, involved in in the transportation of goods by road and the interactivity between them with regards to the messages which need to be exchanged. Other scenarios are covered as well by the e-CMR data model:

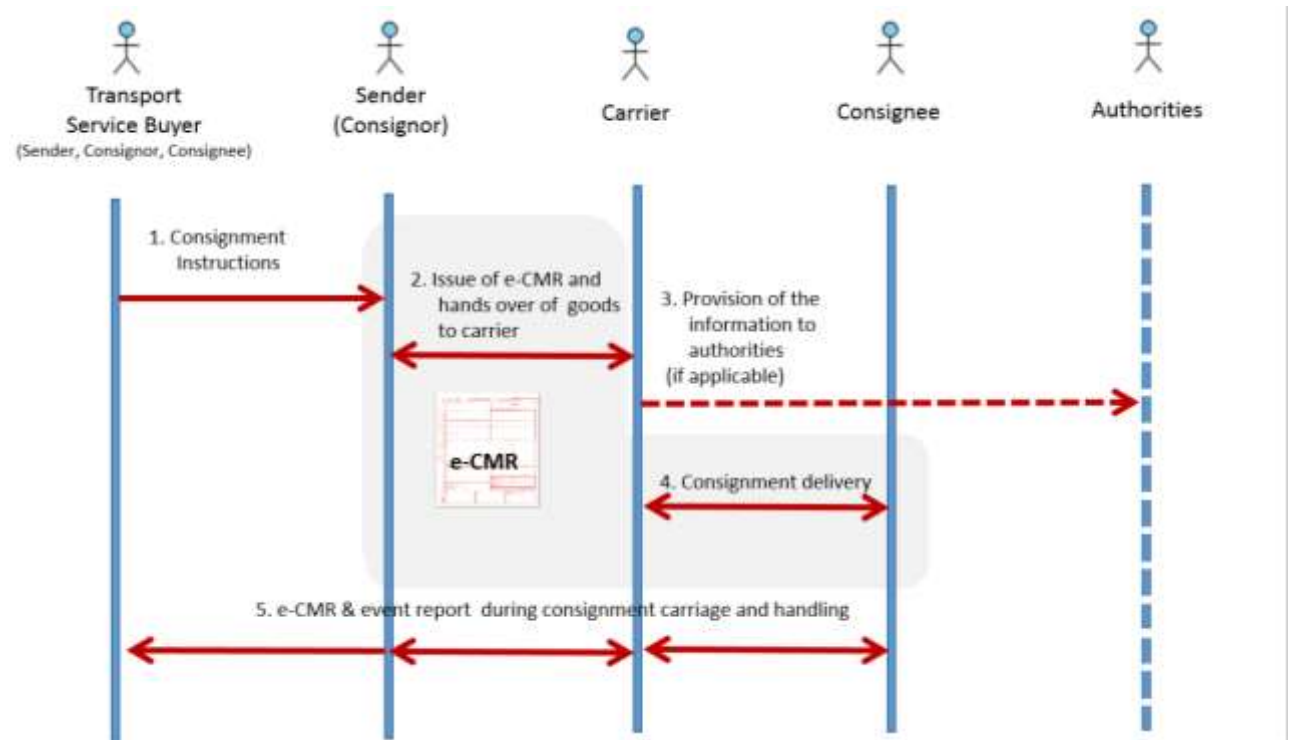


Figure 1 – e-CMR Sequence Diagram

## 6 Business Requirements

### 6.1 Business Requirements Lists

Number	Business Requirement	Use Case
A1	The Consignment Instructions is consignment information provided by the Transport Service Buyer to the Transport Service Provider	Consignment instructions issuance
A2	The e-CMR is a proof of contract existence between the sender/consignor and the carrier that has the same legal binding, foreseen by the CMR Convention.	e-CMR note issuance;
A3	The e-CMR includes up to 3 different signatures as specified in the Geneva CMR convention, (the sender/consignor, the carrier, and the consignee)	e-CMR note authentication;
A4	The e-CMR must enable the recording of the receipt of the goods by the carrier from the sender/consignor, including the reporting of any discrepancies between the goods received versus the consignment instruction that were received	Handing over of the consignment to a carrier
A5	The e-CMR must enable to record the proof of the delivery of the goods by the carrier to the consignee and report any damages or discrepancies between the goods delivered versus the consignment instruction	Goods delivery to consignee
A6	The e-CMR specification should standardise the status reporting between all parties involved	Consignment status reporting

Figure 2 – Business requirements and key business information in a numbered list

Number	Data Requirement Statement
--------	----------------------------

D1	The e-CMR specification should provide interoperability with the UN/CEFACT multi-modal transport reference model (MMT)
D2	The e-CMR specification should provide interoperability with the IATA e-Freight specification
D3	The e-CMR specification should provide generic data interoperability with standard ERP and TMS (Transport Management Systems)

**Figure 3 – Data Requirement Statement**

## ***6.2 Definitions Business Terms***

<b>Transport Service Contract</b>	<b>Definition</b>
Transport Services Buyer (Sender/Consignor or Consignee)	The buyer of transport services.
Transport Services Provider (Carrier)	The provider of transport services.
Sender/Consignor	The party consigning goods as stipulated in a contract of carriage by road (e-CMR) and referred as Sender in the CMR Convention
Consignee	The party receiving a consignment of goods as stipulated in a contract of carriage by road (e-CMR).
Carrier / subsequent carrier	The party which provides transport services as stipulated in a contract of carriage by road (e-CMR).
Despatch place	The party where goods are collected or taken over by the carrier. Operational term is 'Pick-up Place' or 'Ship-from'.
Delivery Party	The party to which goods should be delivered by the carrier. Operational term is 'Place of Positioning' or 'Ship to'.
Contract of carriage by road (e-CMR)	Means a contract in which a transport company, against the payment of freight, undertakes to carry goods from one place to another. In the CMR Convention, a contract of carriage is confirmed by the making out of a consignment note.
Consignment	A consignment is a separately identifiable collection of Consignment Items (available to be) transported from one Consignor to one Consignee as specified in one single transport contract (e-CMR).
Consignment Item	A separately identifiable quantity of products grouped together by Customs tariff code or packaging for transport purposes. A Consignment Item is the lowest level of information within a Consignment. In the case of cross-border consignments each



	Consignment Item must have only one associated Customs tariff code in order to satisfy Customs requirements
--	---

### 6.3 Business Requirements View

The BRS for Electronic Road Consignment Note (e-CMR) is included in the ‘Ship’ part of the International Supply Chain Model.

#### 6.3.1 Use Case: Consignment instructions issuance (A1)

<b>Actors</b>	Transport Service Buyer Transport Service Provider
<b>Description</b>	The Transport Service Buyer or Transport Service Provider prepares and issues consignment instructions.
<b>Pre-condition</b>	The Transport Service Buyer has a consignment to be transported by road and knows the type of means of transport required for its transportation. The consignment has been or will be loaded into one or more specific pieces of transport equipment. The Transport Service Provider has space available on a specific means of transport. The Transport Service Buyer and the Transport Service Provider have a relationship. The Transport Service Buyer has ordered transportation from the Transport Service Provider.
<b>Post-conditions</b>	Consignment instructions issued by the Transport Service Buyer or by the Transport Service Provider.
<b>Scenario</b>	The Transport Service Buyer provides the detailed instructions and either the Transport Service Provider or the Transport Service Buyer issues a consignment instruction for the transport of a consignment.
<b>Remarks</b>	The consignment instructions will be used as a basis for e-CMR issuance upon agreement on consignment details by carrier and by consignor (i.e. prior or at the moment of handing over the goods).

#### 6.3.2 Use Case: e-CMR contract issuance, authentication and handing over the consignment to a carrier (A2, A3 and A4)

<b>Actors</b>	Carrier, Consignor
<b>Description</b>	The carrier picks up or receives the consignment from the contracted Despatch Place. Sender/Consignor (or his representative) and Carrier validate the correctness of the information in the previously issued Consignment Instructions, complete the information as necessary, state remarks on consignment condition if applicable and issue the e-CMR. The carrier and sender/consignor sign the e-CMR. Then, the carrier moves consignment and delivers it to the Place of Delivery.
<b>Pre-conditions</b>	The consignment is available to be transported from the Sender/Consignor.
<b>Post-conditions</b>	The consignment is picked up by carrier and is on its way to be delivered.
<b>Scenario</b>	The Carrier picks-up or receives the consignment from the Sender/Consignor, takes over the consignment from the Consignor and if necessary receives additional documentation to be transported with the consignment. The Sender/Consignor may inform the Consignee of the despatch of the consignment.
<b>Remarks</b>	Pick-up means when a consignment is collected or taken over by the carrier.

### 6.3.3 Use Case: Consignment delivery to consignee (A5)

<b>Actors</b>	Carrier, Consignee
<b>Description</b>	Carrier moves consignment and delivers it to the Consignee. Consignee receives consignment, checks its condition and provides the proof of delivery.
<b>Pre-conditions</b>	The e-CMR has been issued. The consignment is delivered to the Consignee.
<b>Post-conditions</b>	The Proof of Delivery is provided by the Consignee to the Carrier.
<b>Scenario</b>	The carrier moves the consignment, delivers it to the Consignee and collects the Proof of Delivery from the Consignee.
<b>Remarks</b>	The Consignor receives electronic confirmation of the receipt of the consignment by consignee.

### 6.3.4 Use Case: Consignment status reporting (A6)

<b>Actors</b>	<p>Transport Service Buyer          Transport Service Provider          Consignor          Consignee          Notify party (not being the Transport Service Buyer)</p>
<b>Description</b>	<p>Upon each consignment status event, the Transport Service Buyer, Sender/Consignor, Consignee or the Notify party is informed.</p>
<b>Pre-condition</b>	<p>A Consignment Instructions or e-CMR exists between the actors.          The Transport Service Provider has picked-up or received the consignment in preparation for moving and delivering the consignment.          There is an agreement that the status of the consignment during its movement will be reported to all actors.</p>
<b>Post-conditions</b>	<p>The consignment has been delivered.          All events of the consignment during its movement have been reported.</p>
<b>Scenario</b>	<p>The Consignment Instructions or e-CMR with events report is sent upon the following events:</p> <ul style="list-style-type: none"> <li>• Issuance of Consignment Instructions</li> <li>• e-CMR contract issuance at the moment of handing over the consignment to the carrier</li> <li>• Consignment delivery to consignee</li> <li>• Transfer of consignment to successive carrier</li> <li>• Any reportable event during consignment carriage and handling</li> </ul>
<b>Remarks</b>	<p>An event report is sent automatically via e-CMR solution.          The Notify Party may be an importer, authority, etc.</p>