Informal document GRSG-114-34
(114th GRSG, 9-13 April 2018, agenda item 11.)
eCall for Heavy Goods Vehicles

11 April 2018, Geneva
UNECE
iru.org
FIRST CAR ACCIDENT: 1891
Today: accident every 4 sec
eCall device ("IVS")
eCall working principle
eCall deployment (1)

- Mandatory for new vehicles 31.3.2018 M1,N1
- Existing custom implementations (TPSP)
eCall deployment (2)

- Retrofitting NOT required
- NOT required for motorcycles and commercial vehicles (HGV, buses and coaches)
- CEN TS16405: standard for HGV
Why eCall for Commercial Vehicles?
HIGHLY DISRUPTIVE!
eCall for HGV working principle
Handling eCall from a Commercial Vehicle

- Operator receives an emergency call
- GPS location, vehicle type, license nr.

- **CARGO INFORMATION**
Benefits for emergency services

- Information on the cargo helps operator make decisions on dispatching actions
- Special tools, protective gear, deviations...
Useful cargo information

- Consignor
- Carrier
- Phone numbers
- Type of Cargo, quantity
Dangerous goods (ADR)
Access to cargo information (1)*

- HGV accident, PSAP receives the eCall
- Decodes MSD (VIN, cargo data...)

* According to CEN TS16405 ‘Schema A’
Cargo data
Access to cargo information (2)*

- HGV accident, PSAP receives the eCall
- Decodes MSD (VIN, Key, CargoInfoURL …)
- Retrieves cargo data using webservices

* According to CEN TS16405 ‘Schema B’
Cargo Databases in different countries
Interoperability
Connectivity Everywhere
Consignment note: (e)CMR
e-CMR in use

- 17 countries* acceded
- Russia: 2nd February 2018
- Several commercial services

To date 17 countries have acceded the e-CMR protocol: Bulgaria, Czech Republic, Denmark, Estonia, France, Iran, Latvia, Lithuania, Luxembourg, Moldavia, Netherlands, Russia, Slovakia, Slovenia, Spain, Switzerland and Turkey.
e-CMR Data format

- UN/CEFACT data model for standardised electronic consignment note and appropriate message schemas
- Published 19.2.2018 [www.unece.org/cefact/brs/brs_index.html](http://www.unece.org/cefact/brs/brs_index.html)
- Not (yet) ADR compliant
eCall for HGV Architecture (1): PKI
eCall for HGV Architecture (2): e-CMR Proxy
eCall for buses and coaches
Differences
eCall for Buses and Coaches

- Number of Passengers
Cross-border eCall
Cross-border eCall

- EU trucks entering Russia
- Russian trucks entering EU
- Near-border scenario: mobile signal picked up by foreign network, emergency call answered by operator across the border
- Need to exchange accident info between EU/Russia emergency services
Interoperability among PSAPs

- Emergency call to 112
- Call taker qualifies the call and locates the caller
- Dispatcher sends the most appropriate type of resources
The concept of “Incident form”

<table>
<thead>
<tr>
<th>Incident form</th>
<th>Other data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caller number</td>
<td>Names</td>
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The concept of "Incident form"

Incident form

- Caller number
- Caller location
- Call qualification

Other data
- Names
- Notes
- Etc.
MSD-to-PSAP-to-PSAP: today

- The MSD is received by PSAP A
- Incident form is transmitted to PSAP B
- “Incident form” (if existing) is built using a proprietary format
  - this prevents interoperability in multi-PSAP cooperation environments
  - each receiving PSAP should know and interpret many different formats
The MSD is received by **PSAP A**

Incident form is transmitted to **PSAP B**

Different, proprietary Incident forms are replaced by a common, standard format: **CAP**

- **interoperability is much easier**, as only MSD and CAP knowledge is required
- “**future-proof**” solution, thanks to the **extensibility** and **flexibility** of the CAP structure
MSD-to-PSAP-to-PSAP: cross-border
CAP – Common Alerting Protocol

- Format for exchanging all-hazard emergency alerts and public warnings over all kinds of networks

https://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2-os.html
Current status

- eCall/GLONASS interoperability testing starting in April (with VTT Finland)
- 26th Feb (Moscow) Presented the eCall for HGV concept to ERA-GLONASS
- Discussed the options to exchange information in case of accident
Next steps

- Discuss the options to exchange information in a wider context
- Define the needs and requirements
- Design an architecture
- Develop a reference model – pilot/test
- Standards and regulation
eCall for HGV:
Demonstration of prototypes
ITS Strasbourg

- 19 - 22 June 2017
Demo tour: Torino, Italy

- SmartMobilityWorld 10-11 October 2017
Demo tour: Lisbon, Portugal

- 10 October 2017
Demo tour: Ljubljana, Slovenia

- 16 October 2017
Demo tour: Athens, Greece

- 24 October 2017
Demo tour: Ostrava, Czech republic

- 30-31 October 2017
eCall Testfest

- 9-13 October in Kranj, Slovenia
- > 80 registered participants
- Implementation of eCall for HGV
- Instructions for IVS and PSAP developers
Survey on eCall for buses and coaches
I_HeERO project partners