Submitted by the TF on CS/OTA

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Report on the status of the cyber security and software update process recommendations

11 February 2020

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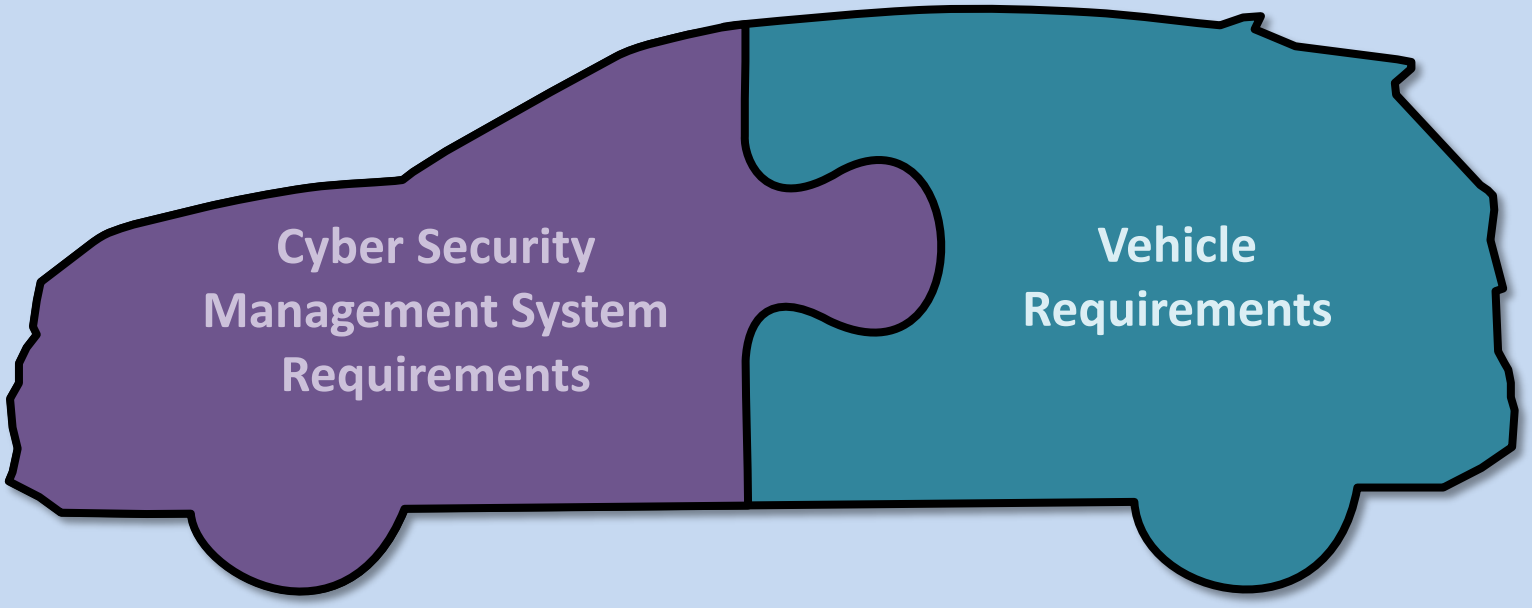
1. Background – how the proposals work

Summary of the cyber security requirements

The group developed a split approach for the cyber security assessment:

i) Assessment of relevant vehicle manufacturer management system

ii) Assessment and certification of vehicles



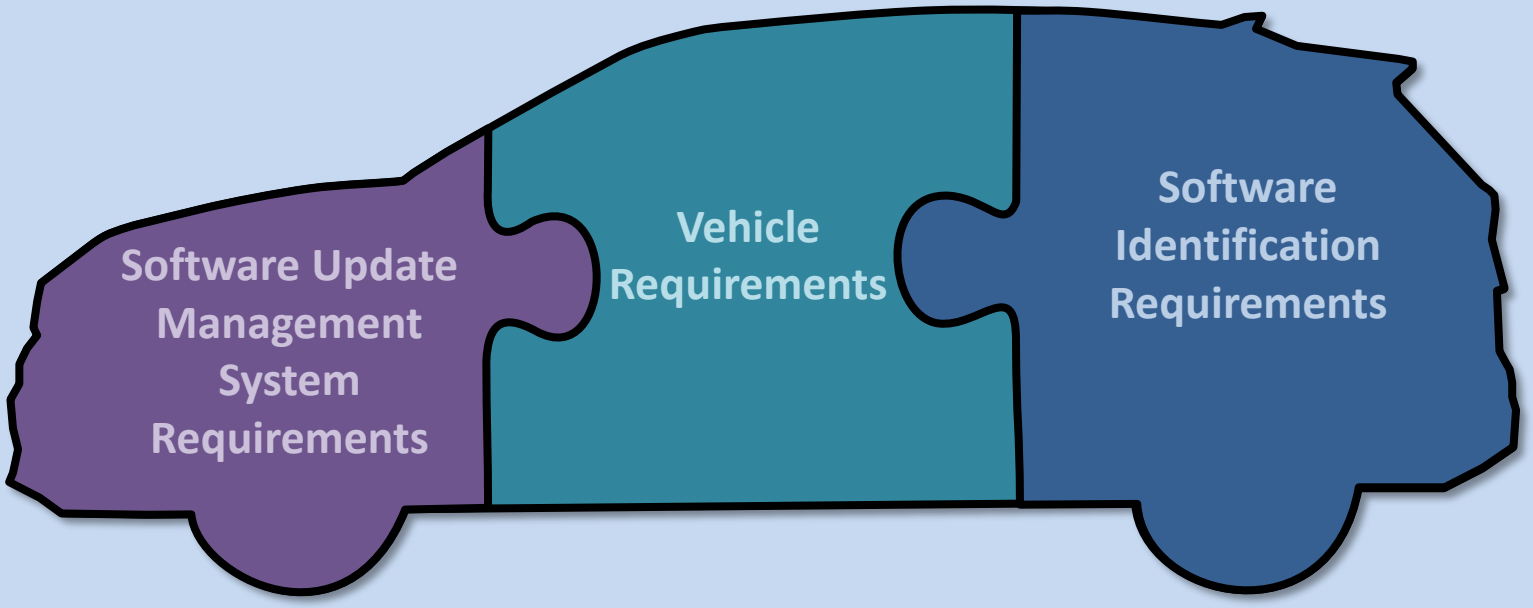
Organizational structure & processes

Design of the vehicle architecture, risk assessment and implementation of mitigations

Summary of the software update requirements

The group developed a split approach:

i) Assessment of relevant vehicle manufacturer management system
ii) Assessment and certification of vehicles
iii) Implementation of a software identification scheme



2. Documents being proposed

Documents being proposed

Cyber Security

⇒ Formal Documents are withdrawn

⇒ ~~ECE/TRANS/WP.29/GRVA/2020/2 (00 Series)~~

⇒ ~~ECE/TRANS/WP.29/GRVA/2020/3 (O1 Series)~~

⇒ Replaced with the informal document

⇒ GRVA-05-05 (TF CS/OTA) Proposal for amendments to ECE/TRANS/WP.29/GRVA/2020/3

Software Update Processes

⇒ Formal documents are kept

⇒ ECE/TRANS/WP.29/GRVA/2020/4 (Software update processes)

⇒ ECE/TRANS/WP.29/GRVA/2020/5 (Introduction of the RXSWIN)

⇒ Software update regulation is amended by the informal document

⇒ GRVA-05-04 (TF CS/OTA) Proposal for amendments to ECE/TRANS/WP.29/GRVA/2020/4

3. Changes from the formal documents

Why the changes?

Cyber Security

- ⇒ Formal Documents supplied after TFCS 16 had two outstanding areas:
  - ⇒ The question of a 00 series
  - ⇒ Actions for the approval authority (7.3.7)
- ⇒ Before TFCS 17 substantial changes were proposed by the EC and DE (combined) as “TFCS 17-14rev1 (EC DE) proposed amendments to ECE-TRANS-WP29-GRVA-2020-03 rev1.docx”
- ⇒ Representatives of the aftermarket also proposed changes.
- ⇒ Due to the scale of the changes agreed the task force proposes a new document

Software Update Processes

- ⇒ The Formal Document supplied after TFCS 16 had one outstanding area of ensuring updates can be completed (7.2.2.5)
- ⇒ Only a few additional amendments were received and discussed
- ⇒ The agreed postion was submitted as an amendment

What are the changes to the cyber security regulation?

Cyber Security

- ⇒ Paragraph 5 – Approval
  - ⇒ Parts from paragraph 7 describing actions for the Approval Authority were moved here
  - ⇒ A high level pass-fail criteria was added (5.1.)
  - ⇒ Testing requirements for the Approval Authority were clarified
  - ⇒ Requirements for information sharing between Approval Authorities before granting approval was proposed (5.3)

What are the changes to the cyber security regulation?

Cyber Security

- ⇒ Paragraph 7 - Specification
  - ⇒ 7.2.2.1 (and corresponding definitions) amended to make it clear the CSMS should cover the lifetime of vehicles (post production)
  - ⇒ 7.2.2. amended to expand on the monitoring and response requirements within the CSMS
  - ⇒ 7.3.1 amended to permit vehicles not to be designed according to the CSMS for a limited period, negating the need for a 00 series as they would be required to meet all other criteria
  - ⇒ Introduction of a list of risks and mitigations to be considered (originating from the resolution paper) as a new Annex 5
  - ⇒ Introduction of requirements for specific functions for the vehicle type (7.3.7)
  - ⇒ Introduction of requirements on cryptographic modules (7.3.8)
  - ⇒ Proposed inclusion of reporting requirements (7.4)

4. Items of note

Items of note

Cyber Security

- ⇒ The task force has not agreed on all the content of GRVA-05-05
  - ⇒ Paragraph 1.1. – scope of vehicle categories
  - ⇒ Paragraph 5.3 - requirements for information sharing between Approval Authorities before the Approval Authority assessing a vehicle type may grant its approval (DE/COM)
  - ⇒ Paragraph 7.3.1 – the timeframe by which vehicle types not designed according to a CSMS may be permitted
  - ⇒ Paragraph 7.4 - introduction of reporting requirements (DE/COM)
- ⇒ The proposed amendments were submitted within one week of the meeting. The Task Force agreed to consider them to aid the work of GRVA.

Software Update processes

- ⇒ The task force has not agreed on all the content of GRVA/2020/4
  - ⇒ Paragraph 1.1. – scope of vehicle categories

Outstanding work items for TFCS 18

What is left for the task force's next meeting

- ⇒ Resolution papers
  - ⇒ Software update resolution is proposed to be withdrawn as most of its content is now in the regulation. What is left can be moved to the interpretation document
  - ⇒ Cyber Security resolution to be reviewed and requirements added for approval of technical services (to aid Approval Authorities)
- ⇒ Interpretation document
  - ⇒ Review has begun for the software update process regulation interpretation document
  - ⇒ Cyber security regulation interpretation document yet to be reviewed and will need updating
- ⇒ Work on technical requirements for a GTR
  - ⇒ Work has started