

Cybersecurity Regulation and standard

~ Requirements to IDS ~

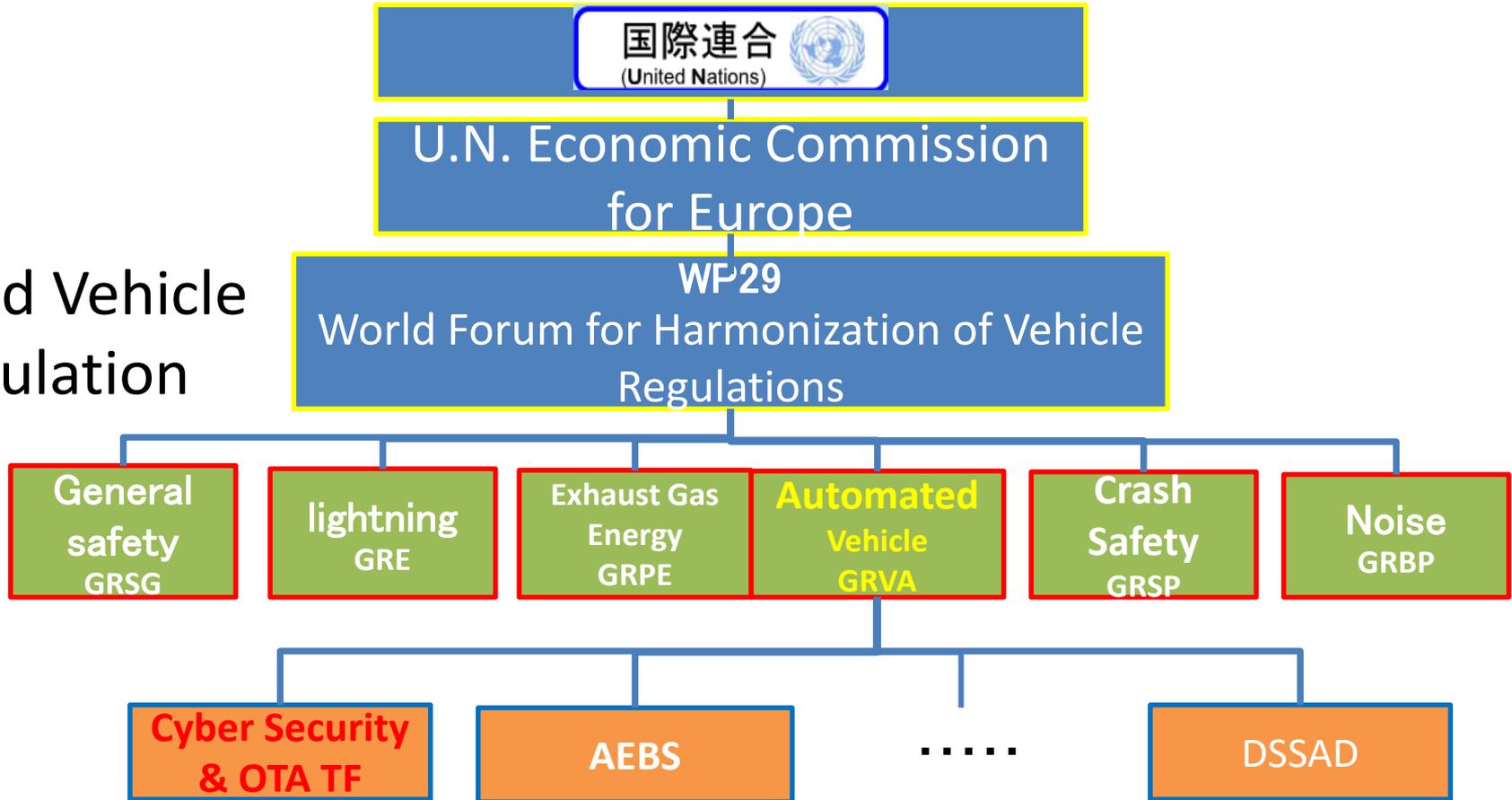


12 , November 2020

Japan Automobile Manufacturers Association, Inc.

1. UN/WP29 Organization

Road Vehicle Regulation



Cybersecurity Scope:

Apply not only automated vehicle but also for the category M(Passenger vehicle) and N(Commercial vehicle).

2. Regulations enacted this time

	(UNECE/WP29) 
Cybersecurity and Cybersecurity management system	UNR155 : Proposal for a new UN Regulation on uniform provisions concerning the approval of vehicles with regards to cyber security and cyber security management system
Over The Air Software update and Software update management system	UNR156 : Proposal for a new UN Regulation on uniform provisions concerning the approval of vehicles with regards to software update and software updates management system

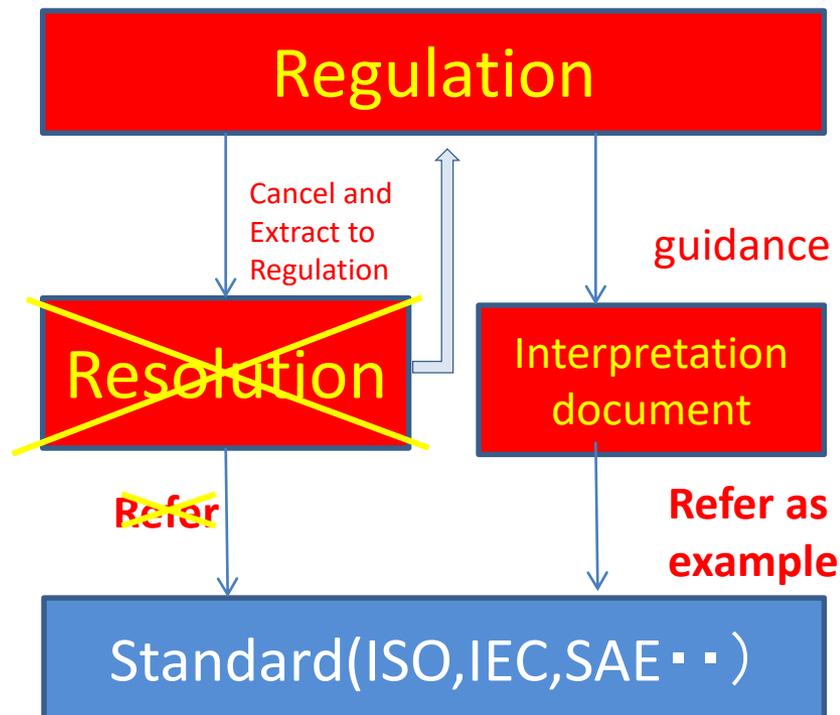
3. Cybersecurity Regulation and Standard

- 2 documents developed and ready for release
 - Cybersecurity (UNR155)
 - Software Update (UNR156)
- (There are also CS requirements here)

complete

complete

International standards



「UNR155」

Scope

Category M,N



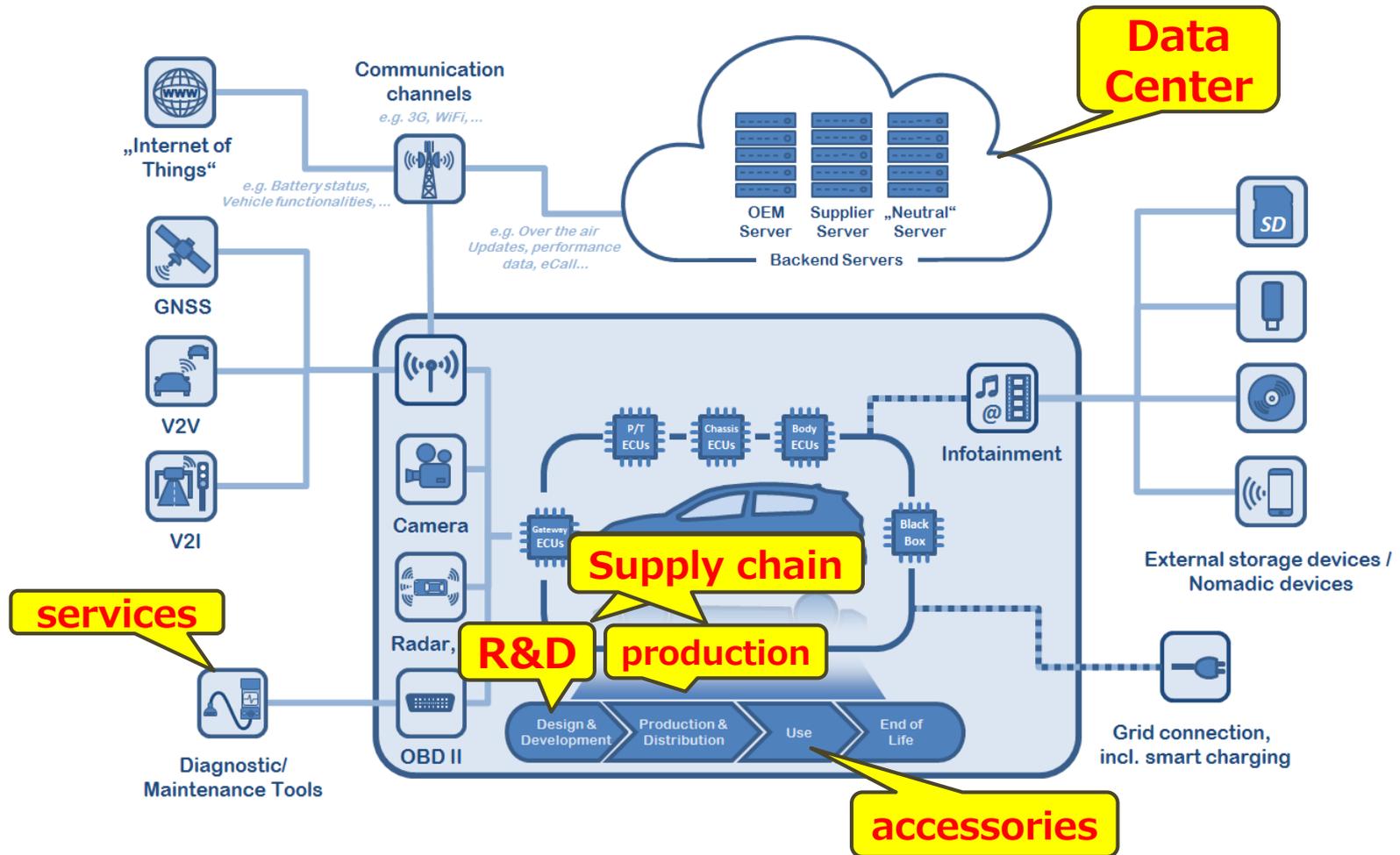
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- Annex 1. Information document
Annex 2. communication
Annex 3. Arrangement of approval mark
Annex 4. Model of certificate of Compliance for CSMS
Annex 5. List of threats and corresponding mitigations

5. Scope of the Regulation

Management system Certification

Examine **the risk assessment includes out of vehicle** of the stages through the lifecycle to secure effectiveness of the **cybersecurity** measures.

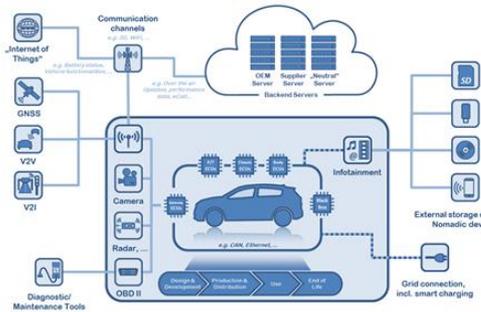


6. CS、SU regulation

Need both CSMS/SUMS Certification (management system) and Type approval

※CSMS: Cyber Security Management System
SUMS: Software Update Management System

CSMS/SUMS certification



- **Acquired as an organization**
- **Valid for 3 years**
- Related servers, factories, services, etc. are also subject to risk analysis
- Business management system implemented and practiced?

Type approval



Acquired for each vehicle type

- Are there any development results according to the process?
- Results of implementation of type requirements for target vehicles, countermeasures, and evaluation
- Verification of effectiveness of measures (vehicle test)

Overview

Ensure the following processes and mitigations

- The process to identify , assess , classify the risk and to treat/manage the identified risks appropriately
- The process to perform appropriate and sufficient testing
- :
- :
- :

Annex : many examples and mitigation of threats and vulnerabilities methods

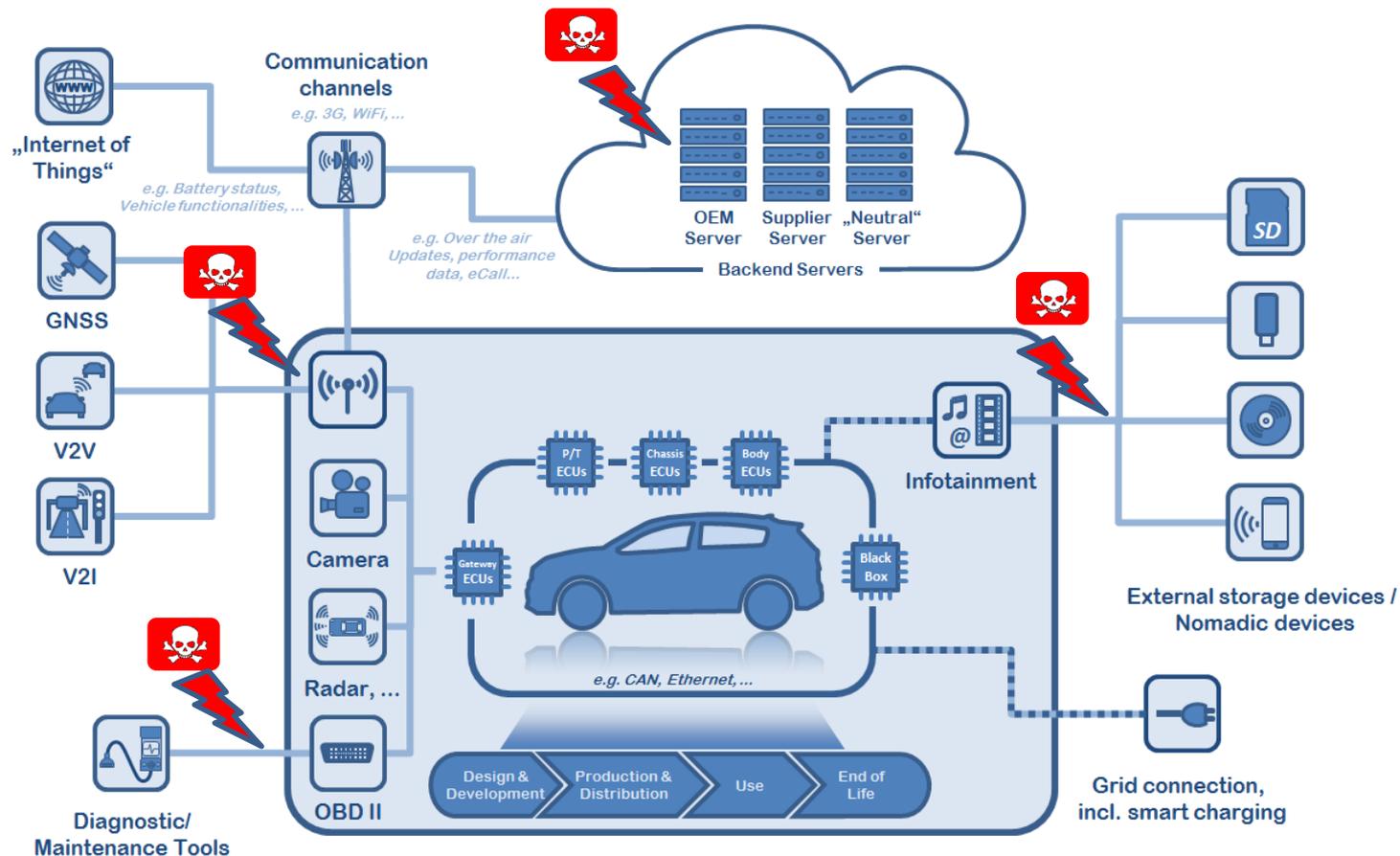
8. Type approval requirements

Overview

- shall have a valid CoC for CSMS
 - Prior to 1 July 2024, can demonstrate alternative
- Perform risk assessment considering Annex5 ,treat/manage appropriately
- prior to 1 July 2024, can ensure the another appropriate mitigation
- to secure dedicated environments for the storage and execution of aftermarket software, services, applications or data.
- perform appropriate and sufficient testing
- **Detect and prevent cyber-attacks against vehicles**
 - Provide data forensic capability to analyze the cyber attacks
- Use a consensus cryptographic module

9. Assumed case of cyber attack

- Mobility services progress
- Cyber attacks by exploiting vulnerabilities in vehicles, networks, and centers
- **Important to detect and prevent intrusions in the entire system**



Overview

- For the requirements of Sections 5 and 7
 - 1) Explanation of the requirements
 - 2) Example of documents/evidence that could be provided guided by above
- Introduce link to the requirements of ISO/SAE21434 DIS in Annex In ISO/SAE21434 (DIS), requirements for Prevention and Detection 9.5.2 [RQ-09-10] CS requirements are specified
 - Example1
 - to protect assets, combining prevention, mitigation, detection, correction, etc.



Embedded technology of each company is expected