TÜV SÜD

**Add value.
Inspire trust.**

Assessment of automotive software update procedures

Ensure regulatory compliance.

Your challenges

The introduction of UN Regulation 156 will make the approval of software updates mandatory for all vehicles with such capabilities. The regulation covers requirements for vehicle and component software updates, but also for a Software Update Management System (SUMS). Automotive manufacturers must therefore maintain a certified SUMS which must be assessed and renewed at least every three years.

For EU type approval, the European Union's framework for vehicle type approval (2018/858) requires software update compliance with the UN Regulation 156. The UN regulation's requirements harmonise with the ISO 24089 standard "Road vehicles – Software update engineering". The UN Regulation 156 requires security and safety to be enforced across the entire automotive software update mechanism.

This will have a significant impact on the automotive industry, including manufacturers and relevant suppliers.

Without the implementation, operation and maintenance of a SUMS, manufacturers cannot gain type approval for software-update enabled vehicles and will not be able to sell them in European markets. Manufacturers and suppliers must therefore provide evidence that the requirements for the vehicle and the components are implemented according to the UN regulation.

Why is the assessment of automotive software update procedures important?

An efficient and systematic assessment by an independent third-party is necessary to identify a manufacturer's level of conformity to the UN Regulation 156. Our assessment verifies your organisation's ability to develop and maintain a safe and secure software update mechanism and associated processes. Additionally, you can ensure that a component, or even the entire vehicle can perform software updates safely and securely – giving you the required evidence to gain EU type approval.

How can we help you?

Our TÜV SÜD experts can help you understand the requirements and how they affect your products and systems. We support you to identify compliance gaps in your processes and how they can be closed. Furthermore, we can assist you in ensuring that your software update processes fulfil UN Regulation 156 requirements, so you can achieve certification of your SUMS, which can be provided by TÜV SÜD's Certification Body.

Our software update assessment services

TÜV SÜD's expert assessment of automotive software updates and SUMS identifies if your organisation's processes provide a suitable and sustainable framework for your software update mechanism. Our assessment determines whether you fulfil the SUMS requirements of UN Regulation 156.

Our assessment ensures that:

- Manufacturers and suppliers implement appropriate organisational governance to produce components or vehicles capable of processing safe and secure software updates.
- The specific requirements for updates and over-the-air updates are implemented correctly.
- Software version identification is possible.
- All required processes and documentation are produced in accordance with the UN Regulation 156.

Our assessments are flexible and can be adapted to fit your organisation's needs, by assessing the entire organisation or covering specific departments. This can also be applied in the early implementation stages and allows for efficient re-assessment, so that changes in your organisation or processes can be reflected quickly. Our detailed technical report includes a performance analysis and recommends how to close existing gaps.

TÜV SÜD'S ASSESSMENT FOR SAFE AND SECURE AUTOMOTIVE SOFTWARE UPDATES

- Is in line with current regulation
- Evaluates your processes or products and identifies gaps
- Shows improvement possibilities to achieve conformity
- Provides evidence for EU type approval

Your business benefits

- **Minimise risk** – by ensuring your processes, vehicles and components fulfil all software update requirements so that they receive type approval and can be sold on the market.
- **Minimise time to market** – by improving the efficiency of your software update and type approval processes.
- **Increase customer trust** – by working with TÜV SÜD's international network of technical experts and demonstrating your dedication to accurately assessing automotive software updates.

Why choose TÜV SÜD?

TÜV SÜD is an independent third-party service provider with over a century of automotive expertise. Our experts are actively involved in the latest automotive software update and cybersecurity engineering standards development activities e.g. ISO 24089, ISO/SAE 21434 and ISO/IEC 5888, providing our clients with the most up-to-date knowledge of current and future requirements.

TÜV SÜD also participates in relevant UNECE committees, developing software updates and cybersecurity regulations (UNECE WP.29 GRVA). Our systematic and holistic assessment reports enable you to verify your capability to produce safe and secure automotive components for connected and automated vehicles with update capabilities.

Add value. Inspire trust.

TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification, auditing and advisory services. Through more than 25,000 employees across over 1,000 locations, it adds value to its customers, inspiring trust in a physical and digital world.

Related services

TÜV SÜD provides the following related services:
- Cybersecurity assessment for automotive components
- Automotive Cybersecurity Management System Assessment
- Cybersecurity assessment for connected and automated vehicles
- Expert assessment to ensure compliance with ISO 24089