AVL Software Products

Solutions for Software-Defined Vehicles (SDV) and E/E Architectures

THE CHALLENGE

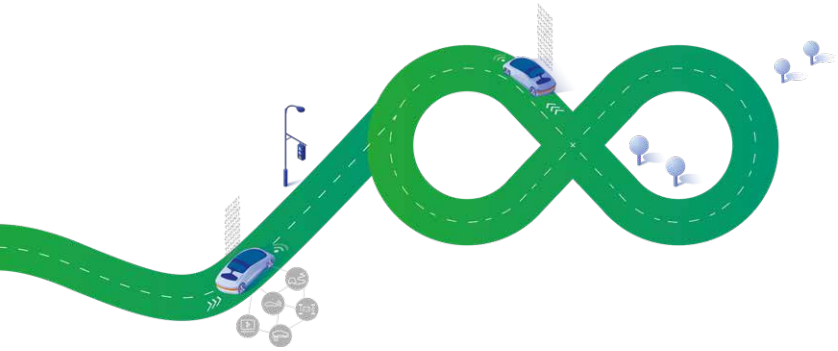
Innovative software-defined vehicle (SDV) architectures require innovative concepts.
Development faces significant challenges due to the complex integration of various technologies such as sensor and control units as well as communication modules that must work together seamlessly. Ensuring safety in real-world traffic scenarios, complying with stringent regulatory requirements, and managing the complex software architecture needed for real-time data processing and safe driving are other major challenges.
In addition, software-defined vehicles must be able to adapt to different and unpredictable traffic situations, which requires sophisticated software architecture designs and extensive testing procedures.

THE SOLUTION

Revolutionize the future driving experience with AVL's advanced software and powerful computing solution for SDVs.

WHY CHOOSE AVL AS YOUR PARTNER?

- **Innovative solutions:** Embracing new perspectives and technologies for advanced and innovative vehicle solutions.
- **Expertise:** Access to know-how and years of experience in developing complex software architectures and design for SDVs.
- **Scalability:** Flexibility in resources and expertise depending on project requirements.
- **Time and cost savings:** Accelerated development through proven processes and efficient use of resources.
- **Risk mitigation:** Reduced risks related to safety, compliance and technology integration.
- **Regulatory compliance:** Ensuring compliance with complex regulatory requirements and standards.
- **Holistic approach:** End-to-end support from concept to SOP.



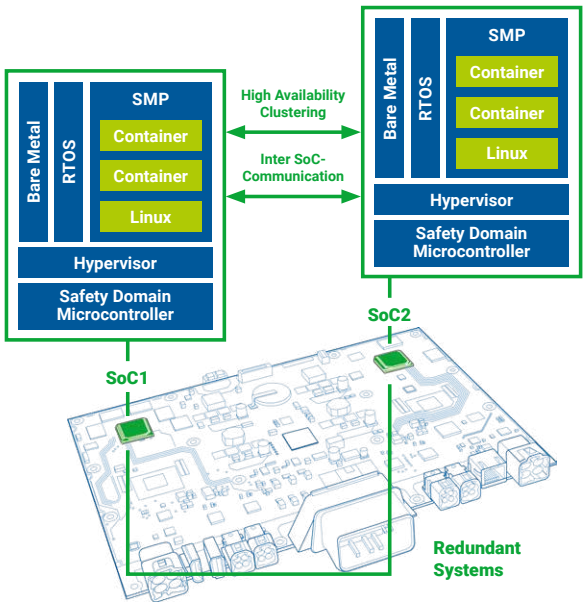
ADDED VALUE

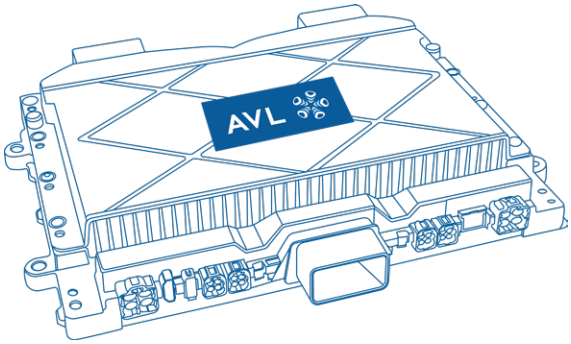
Our state-of-the-art software enables real-time data processing, complex calculations and AI-driven decision making to ensure safe and intelligent autonomy.

The AVL Ajunic®, our high performance controller, provides the computing power required for demanding environments and simulations.

With extensive expertise in ASPICE and AUTOSAR, we stand for the highest quality standards and their seamless integration.

Let's shape the future of mobility together with customized solutions and technical excellence.





PROFICIENCY IN ADVANCED HPC TOPICS

- System partitioning with mixed criticality
- Virtualization (both hypervisor and lightweight)
- Integration of safety domains, real-time controller parts of the SoC and high availability clustering mechanisms
- Cybersecurity solutions (with focus on ISO 21434 and UN-ECE 155)
- Multicore architecture (asymmetrical and symmetrical multi-processing)
- Inter-processor communication
- Edge computing
- Consolidation

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