

Technology that drives Tomorrow

Automotive Linux Expertise 🙏

Building secure and scalable vehicles, faster and cheaper.

A s automotive technology continues to evolve into a key component of mainstream digital experiences, there is an opportunity to explore new ways of building software for the automobile of tomorrow. Developers and stakeholders need a more user-friendly and secure software development

framework centred around open-source principles and easily adaptable to evolving IoT standards. Automotive Linux is a viable alternative for the development of entry-to-mid-level infotainment systems. With the addition of a Safety Island, digital clusters can also be implemented with Linux.

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How Acsia Can Help?

Linux Platform Experience

Deep expertise in ensuring robust and efficient performance across automotive systems.

Linux Distribution Yocto, Ubuntu, Sabaton

HW Platforms Qualcomm, x86, i.MX series, R-Car series, Nvidia, Telechips Dolphin series, Jacinto-4/6, Intel XScale

Bootloaders U-Boot, Little Kernel

Toolchains GNU, Yocto, LLVM

Kernel and BSP Customization

Extensive know-how to meet specific requirements and optimize performance for diverse platforms and applications.

Kernel configuration

Kernel modules

Customizing SW Stacks

Application Development

Create user-friendly applications across various Linux-based platforms.

Middleware

GStreamer, D-Bus, OpenGL ES, OpenVG

Application C/C++, Rust

HMI QT/QML, GTK, Kanzi

Why Acsia?



Deep Understanding of Automotive Linux Architecture

Experienced in building high quality and high performance Linux-based automotive products.



Proven Linux Production Program Experience

Ascia has delivered successful programs on Linux for leading OEMs since 2014.



Deep Domain Expertise

In-depth understanding of the automotive industry and its specific needs, regulations, and safety standards.



Tread fast. Tread boldly. Thread safely

Deep knowhow of integrating Rust in Linux-based infotainment systems.



What's In It For You



Faster Innovation and Development

Open Source Collaboration

Automotive Linux thrives on open-source principles, fostering collaboration between carmakers, tech giants, and a vast developer community. This shared effort fuels rapid innovation and feature creation, accelerating development cycles.

Reduced Fragmentation

Traditionally, carmakers relied on proprietary software, leading to a fragmented landscape. Automotive Linux provides a common platform, allowing for standardized software across brands, simplifying development for automakers and ensuring a consistent user experience.



Improved User Experience and Scalability

Modern Infotainment

Automotive Linux allows carmakers to create more user-friendly infotainment systems with smartphone-like interfaces and seamless mobile device integration, enhancing the in-car experience.

Scalability and Adaptability

The Automotive Linux platform is designed to be scalable, allowing carmakers to easily integrate new features and functionalities as connected vehicle technology and autonomous driving systems evolve.

Introducing Sabaton

Sabaton is Acsia's Automotive Linux software platform, based on the Rust programming language for developing secure, high-performance ECUs (electronic control units) and TCUs (telematics control units). Sabaton is built on a network and data-centric architecture, with industry-standard DDS and SOME/IP as the primary mechanism of message control.

About Acsia Technologies

Acsia is a global leader in automotive software powering Digital Cockpits & Displays, e-Mobility, and Telematics. We use our expertise to develop solutions that simplify complex problems and create safer, sustainable, and more compelling driver and passenger experiences. With a presence across the United States, Germany, Sweden, Japan, and India, we collaborate with top car makers and Tier-1 suppliers.



