GENIVI FAQ

What is the GENIVI Alliance?

GENIVI® Alliance is a non-profit consortium of over 180 automotive industry companies promoting the collaboration and deployment of open source software in the automotive electronics business, specifically infotainment. GENIVI members produce and maintain the code, while the alliance hosts technical workgroups and develops recommendations that are designed to avoid fragmentation between commercial implementations. The objective is to provide the industry a more competitive environment for faster innovation and lower cost of software development.

What are GENIVI’s goals?

Deliver a reusable, open-source platform consisting of Linux-based core services, middleware, and open application layer interfaces. Engage and enable developers to deliver compliant applications. Maintaining thought leadership within the IVI Automotive Ecosystem and sponsoring technical, marketing and compliance programs.

**GENIVI is based on Linux but what does the rest of the GENIVI software platform look like?**

Linux is the basis for the platform and all software components defined by GENIVI are hosted through the Linux Foundation in GENIVI repositories, or are already in place in other open source projects elsewhere in the community. Approximately 140 different components make up what is called the GENIVI baseline, to which Tier1s and OEMs add a combination of open and closed code to meet the OEM system requirements.
What are the major deliverable components?

GENIVI collaboratively develops its compliance specification, a detailed document derived from the work of GENIVI Expert Groups and reviewed by the System Architecture team. This document provides a clear definition of what the middleware components need to be included to achieve GENIVI Compliance. A few examples of included components are an automotive audio manager, graphical layer manager, and a diagnostics log and trace component capturing car sensor information. Additionally, the GENIVI Compliance program enables GENIVI members to promote themselves for the effort they’ve invested in their software stacks and services. In support of this GENIVI also provides project hosting services for automotive related code development, regardless of whether the software component is required for compliance.

How is a platform developed and delivered?

Expert Groups align requirements from OEMs and Tier1s and adapt open source code available in upstream projects to meet the requirements. Where no code exists, GENIVI will sponsor and launch a new project to develop the needed software. A special team called Baseline Integration Team (BIT), collects the software components listed in the specification and builds a functioning baseline that serves as a reusable platform for organizations to use in development and commercial activities. GENIVI has public projects from which anyone can build a GENIVI compliant baseline using the Yocto and Baserock build systems.

What advantages does GENIVI have to application developers?

Apps developers traditionally had to work directly with the OS supplier tools, possibly under a paid support arrangement. With Linux and the open source components, developers have access to the original maintainers of each piece of software. While GENIVI does not currently include apps as part of its scope, the open source community has a very robust apps ecosystem, since a large number of mobile device apps are built on these open frameworks. As GENIVI members evolve the alliance, new areas of interest are heating up, such as application frameworks, while will impact and accelerate app development across the industry.

What are the compliant Operating Systems (O/S) distributions for GENIVI?

A list of GENIVI Compliant® platforms can be found on the Compliant Products page of the website. Additional platforms, as they are certified and registered as compliant will be announced periodically.

Does GENIVI have a product certification program?

Yes, It’s product certification is referred to as the GENIVI Compliance Program.
How does a developer get started working with GENIVI?

Start by reviewing the developer site: projects.genivi.org, where a number of key components are managed. Access to these projects is available to anyone at no cost, and use of the tools is sponsored by the alliance. If the developer wants to participate in requirements alignment, or have their work become part of the compliance specification, they will need to join at an associate or higher level, currently $5000 per year. Benefits of the membership also include access to several major conferences that rival any industry event in popularity and opportunity to advance their business from a marketing perspective. GENIVI marketing serves to promote the alliance and increase its membership, as well as promote the members visibility to customers and the industry.

How would an application be deployed? Is this something that must be done in conjunction with the car manufacturer? Is there a common app store scenario for making applications available?

While some carmakers are experimenting with user installable apps in the car, most applications must be deployed with participation from the car manufacturer. App stores for cars may be coming, but a number of issues need to be dealt with before this is common. GENIVI does not play a role in this area at this time.

How is compliance testing done?

In the current program, a combination of self-validation by members, and expert review is implemented by the system architect team. Full system level compliance testing is typically performed at the OEM/Tier1 level, not by GENIVI. Future programs may supplement the self-validation and expert review with automated testing procedures available to GENIVI members.

What type of licensing is involved?

GENIVI encourages use of a number of acceptable open source licenses, and provides training to members to help them understand the essential processes to maintain license compliance. Several companies offer licensing scanning as a service, a number of which are GENIVI members, such as Black Duck.

What is the timeline for delivery of GENIVI compatible platforms, development tools, etc.?

BMW is the first major OEM to develop a complete infotainment platform based on GENIVI compliance and leveraging suppliers that have committed to supporting the new open model. A demonstration of the production head unit was presented in
Ludwigsburg, July 2013 and will be delivered in future vehicle models to be announced later in the year. Other OEMs belonging to GENIVI are actively developing similar production systems, but have not made any public announcements yet.

**What characterizes an IVI open-source development platform?**

The GENIVI open-source platform consists of Linux-based core services, middleware and open application layer interfaces. These are the essential but non-differentiating core elements of the overall IVI solution set. The automobile manufacturers and their suppliers will use this platform as their common underlying framework and add to it their differentiated products and services (the consumer facing applications and interfaces). GENIVI is identifying these common automotive infotainment industry requirements to establish a higher baseline from which to develop products for the common good of the ecosystem.

**Will elements such as HMI/user interfaces and their design/styles be included in the GENIVI platform?**

The GENIVI IVI platform does not address the highly competitive areas such as user interfaces and logic that defines the end-user experience. The alliance is built on the notion that user interfaces and logic distinguish products and, thus, should remain in the domain of the vendors who design and deliver the device and software.

**Who should join GENIVI?**

All organizations engaged in the automotive, consumer electronics, communications, application development and entertainment industries that are invested in the success of IVI systems as well as related products and services.

**What are the main benefits of GENIVI membership?**

1. Members have full access and insight into all work in process, providing a head-start competitive advantage.
2. Active participants influence the technical direction of the alliance through contributions to the development of specifications and compliance/certification programs.
3. Members use released GENIVI specifications and implementation guidelines to reduce development costs and shorten time to market.
4. Members have access to GENIVI compliance programs and the related marketing support provided to advertise compliant products.
5. Members participate in GENIVI® events at reduced or no cost, including marketing events where customers and industry promotion is possible.
What is the derivation of the name GENIVI?

GENIVI (pronounced gen-ee-vee) is a concatenation of Geneva, the international city of peace, and the acronym IVI, for In-Vehicle Infotainment, heralding a new era of cooperation among automakers, suppliers and technology providers in the interest of streamlining the development and support of connected services to cars aligned with mobile devices.

How can I join GENIVI Alliance?

Joining is easy. Simply download, sign and return the member agreement with your payment for the appropriate amount.

Where can I get more information about GENIVI?

You can email questions to our help desk at help@genivi.org