

VEHICLE ELECTRONIC ARCHITECTURES

GVA Interface



Platform Gateway & Interface

Connecting Systems from different architectures

Features

- Software Gateway
- Graphical Interface
- Hardware agnostic
- Tailored to Platform Requirements
- GVA compliant
- Interfaces with legacy systems

International Standards such as the UK Generic Vehicle Architecture (GVA) (Def Stan 23-009) and NATO GVA (Stanag AEP4754), provide a common, open architecture by defining connectors, how the data should be exchanged between devices and even what the user interface should look like.

When applied to new platforms and sub systems, these standards make it easier to achieve commonality.

However, numerous upgrade programs running throughout the world are adding new equipment to old legacy vehicles. As the implementation of these standards is in its infancy, there are still considerable electronic systems that use the vendors' proprietary interfaces and software, which can make integration difficult.

Physical connection issues can be solved by the addition of an adaptor or power interface.

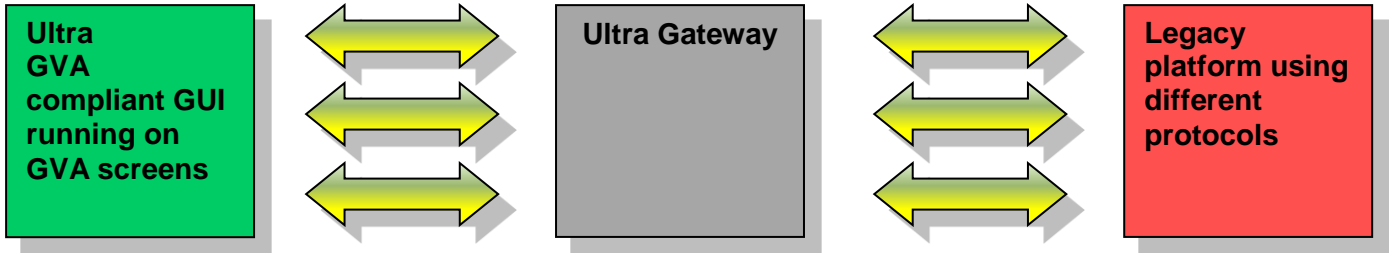
But the real difficulties exist trying to integrate equipment that uses different types of network protocols or message sets.

Ultra Electronics has developed a Software Gateway: a core piece software that allows for the translation of these different protocols, either to communicate using a standard such as GVA, or to enable systems using different protocols to communicate with each other.

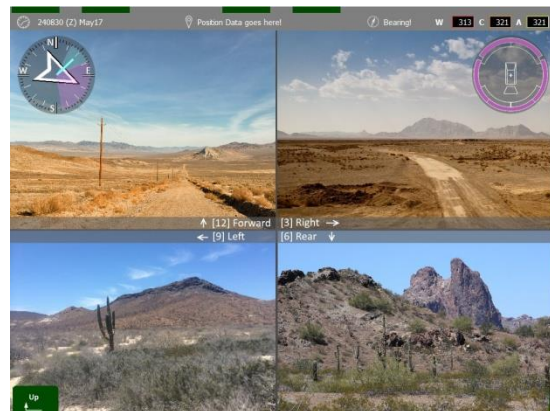
A Graphical User Interface can also be provided to give a common look and feel and compliance to standards.

Benefits

- Enables Legacy compliance to Standards such as GVA
- Enables integration of new equipment using different protocols
- Reduces Cost and time of integration
- Enables plug and Play Capability
- Reduces design constraints



In the example above a gateway and a front end interface have been used to provide an existing legacy platform using the vendors own message set and network protocol with a totally GVA compliant connectivity and User Interface. This was achieved by inserting GVA screens with onboard processors to run the Gateway Software. As the gateway contains the GVA message set, then any GVA compliant equipment integrated to the platform will be Plug and Play. The integration of non compliant equipment is still achievable by updating the Gateway Software.



Ultra can take the information from any platform systems using any protocols and then convert that information to present that data in a format that is compliant to the standard and familiar to the User.

Although GVA has been used as an example here, the Interface and Gateway can also be used to integrate different systems and platforms



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