



Integrated platform design with knowledge and Electronic Architecture pull through has led to development of new standards

- Knowledge gained from FP&MS WG focuses on re-role and interoperability design goals.
- DSTL communications and ECM co-habitation/ deconfliction study work
- Operational communications performance analysis
- Experience from communications systems performance and degradation due to build standards
- Development of electronic countermeasures enhancements from visits to theatre
- Active understanding on deconfliction and combining of electronic countermeasures with communications through joint ID&C

Has led to assurance that platforms have the ergonomic capability to house all planned Mission Systems, which will compliment initial CDSC profiling, thus minimising interoperability issues.

Platform re-role simplicity

De Stan 23-09 engineered open architecture concept

Common infrastructure across whole platform family

Integrated power and data Distribution (CIDS)

Modular, flexible, space saving, rapid re-role capability

Modular physical plug and play concept

Easy to re-role with robust 'push to fit' connectors

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Platform Services

Open architecture concept

Systems integration – a holistic approach

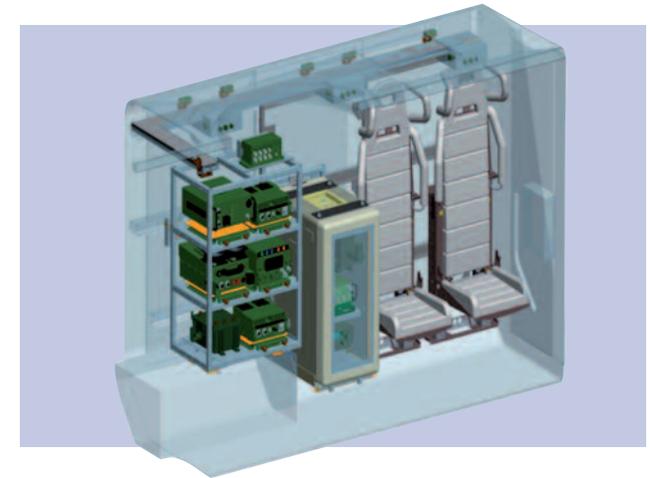
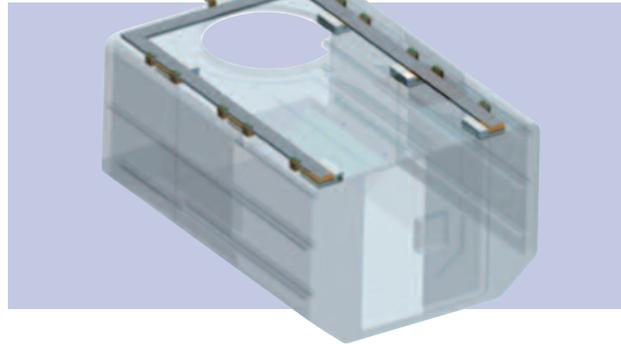
Open, modular, scalable data and power distribution that is system agnostic enabling 'plug and play' design. Providing growth potential (power, data and control), reducing certification timescales for capability uplift of missions systems.



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General Dynamics UK GVA concept



CIDS Integrated power and data distribution

Provides the basis for platform re-role capability and improves system interoperability (EMC and interconnectivity) providing redundancy (ring topology), reduced training (Common MMI) and weight, space and volume.

Platform re-role (CV to TCV) concepts

Next generation concept on how to re-role a platform such as Mastiff Troop Carrying Vehicle (TCV) in to a Command Variant, easily, quickly and without the problems of having to strip and rebuild the infrastructure within the vehicle.'

'C' Rail physical mounting

Modules and 'Plug and Play' components can be easily mounted, positioned and moved. Removing current restrictions employed when designing a system to fulfill a particular role. Brings massive savings in several areas.

Installation modularity with physical 'Plug and Play' concept

Components fitted demonstrate the concept of separating various components into easily handled modules and these are currently formed into power, network, HF and VHF. Each module is contained in a robust aluminum box

with covers at both ends to allow for sealing when being transported out of the vehicle. Each module is defined for a specific role and can be removed or added rapidly, to suit the platform role for a particular mission.

Easy to re-role with robust 'Push to Fit' connectivity

A 'Must' for this concept is the ability to quickly fit and connect the various modules. On production versions this will be achieved by routing all power and data through just one connector. The module then has to just simply be slid into its frame and pushed firmly back making a solid contact. This concept greatly reduces the amount of cables required, removes the weak spots where cables currently get damaged (saving cost and downtime) and gives commanders and planners much more freedom.

Modular design for ease of handling

Bowman and other radio systems are installed into modules which are self contained two man portable boxes. With individual covers to protect the equipment from harsh environmental conditions, these boxes are easily moved in and out of vehicles.

Modular, compact, space saving, rapid re-role capability

Quickly facilitates ease of platform re-role. Using new standards in line with requirements of Def Stan 23-09, means that this working concept demonstrates how users could easily re-role their fighting vehicles. With easy fitting modules, space inside the vehicle can be managed and moved around depending on the role requirement. Change to a simple Bowman fit, add seats, change the layout in minutes not days. This totally new concept will change the way planners and designers will work in the future.

