

SME Consortium proves Dynamic Battlefield Interoperability Solution for UK MoD

BACKGROUND

The Centre for Defence Enterprise (CDE) is the enabler for anyone with a disruptive technology, new process or innovation that has a potential defence application, and funds research from a broad range of science and technology providers to enable development of cost-effective capability advantage for UK Armed Forces.

CDE awarded a contract to a consortium led by 2iC in November 2012 to deliver a proof-of-concept demonstration for a **Cross Domain TacSB®**.

THE PARTNERS

2iC – Interoperability Software for disparate systems in challenging environments.

NEXOR – Secure Information Exchange expertise, following CESG good practice advice.

Dytecna – Innovative, agile engineering solutions.

THE OPERATIONAL REQUIREMENT

- To allow coordination of two independent Systems in two separate domains.
- To provide interoperability between these Systems without the need to know how the other system works.
- To allow rapid updating of interoperability, without compromising security.

HOW WE ACHIEVED IT

The team used 2iC's DOP (Decentralised Operating Procedure) approach to Define procedures, Nominate connections and Run the interconnections between systems.

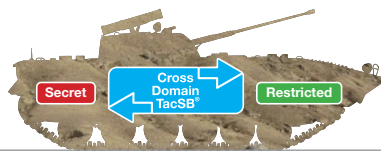
Using the Lean Services open standard, Dytecna rapidly integrated their in-theatre ECM system with the **Cross Domain TacSB®**.

NEXOR Guardian is used as part of **Cross Domain TacSB®** to control the transfer of data between Trusted and Untrusted networks, ensuring deep inspection and validation of data, and full conformance to CESG design practices.

EXAMPLE APPLICATIONS

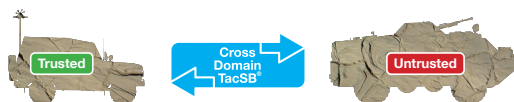
On-board Vehicles

Interlink ECM (Secret) to GVA (Restricted).



Fire Threat Warnings

Share data between members' assets
For example – Vehicle-to-vehicle.



Anti Piracy Task Requests

For example – UK Naval vessel issuing instruction to Russian Naval vessel.



THE SOLUTION

The solution was created for lab purposes through CDE, and demonstrated to UK MoD in March 2013. It can run on low powered, small footprint equipment, so can be easily deployed into practically any military environment.

FEATURES & BENEFITS

Key Features

- Coordination of behaviour between systems in separate domains.
- Secure Interoperability where neither system knows the other.
- Rapid, secure updating.

Key Benefits

- Increase Capability:
 - Rapid updating in field.
 - More systems can be deployed at Restricted, saving money.
 - True coalition interoperability for the first time.
- Weight savings:
 - As systems can be shared between assets.
 - Allows additional equipment / personnel / ammunition to be carried.
 - Fuel savings, more manoeuvrable vehicles.
- Cost savings:
 - Fewer deployed systems as they can be shared.
 - Assets can be engineered for lower payload.