Open Systems Approach by DRS Technologies Delivers on-the-move Tactical Networking, Computing & Display Systems

DRS Technologies has honed its capabilities in the development of tactical mission computing and display systems through a series of long-standing relationships with some of the world's major defence forces. With more than 300,000 tactical computers and mission systems installed worldwide, the company depends on continuous feedback fostered by these relationships, forged over the past two decades and more, to help it continuously improve the quality of its products and solutions, generation after generation. As a result, DRS has developed a world-class suite of integrated tactical and mission systems that meet the needs of today's defence forces for scalable, modular, open and agnostic ground vehicle architectures.

Over the years, DRS has gained significant experience in delivering tactical computing and networking content for two significant command and control projects for brigade-and-below tactical computing — the U.K. Bowman tactical communications system and the U.S. Army Mounted Family of Computer Systems (MFoCS), formerly known as Force XXI Battle Command, Brigade and Below. In December 2015, DRS won a $60 million contract to upgrade a large portion of its Bowman tactical computing fleet with the latest generation of computing technology and DRS delivered a solution that was derived from technology advancements under its MFoCS contract. This new Bowman contract (known as BCIP5.6) provides DRS the ability to provide a solution with a high degree of commonality between the two projects, enabling DRS to continue to deliver the benefits of

technology insertion and capability advancement in core computing, networking and security architecture to both end users.

The MFoCS solution, which consists of a Multi-function Rugged Tablet computer (MRT-104) and docking station, a Data Distribution Unit with expandable processing power (DDUx) and Multi-function Rugged Displays (MRD-12/15/17), emphasizes a networked capability supporting multiple user needs and applications versus a traditional stove-pipe system aimed at meeting a single or dedicated user need such as battle management or blue force tracking. Although the upgraded Bowman capability 6 may not yet mirror the multiple applications and network interfaces enabled by MFoCS, the solution that DRS is delivering will be able, as a common computing architecture, to support both needs. The resulting MFoCS/Bowman BCIP5.6 baseline will support numerous virtual machines and local area networks, interface with a range of video sources, and permit more complex security architectures, thus serving as a basis for capability growth.

In addition to providing technology upgrades and insertions and multi-function computing and display systems to the U.S. and U.K armies, DRS also provides integrated mission systems that enable commanders and platform operators to control and interface with sensors, communications equipment, mission command applications, navigational devices, and platform vetronics from any workstation in the platform. At the core of our mission system offering is the Data Distribution Unit (DDU).

The multi-faceted DDU gives the mobile user a host of bundled and on-the-move capabilities. They comprise a rugged latest-generation PC, a data router, a multi-OS server, a tactical LTE host, a GPS distributor, a data recorder, a video-management device, and a communications cross-banding solution.

The DDU has been selected for use by a U.S Government agency and several international armed forces. With it, civilian government officials, first responders and other military forces working alongside U.S. military forces would be able to communicate directly by voice, data and video.

To learn more about the on-the-move computing and networking capabilities of the DDU, please visit www.drs.com/missionsystems.

Alongside the DDU, DRS has been developing a range of generic vehicle architecture (GVA to UK Def Stan 23-09), open-system-compliant rugged workstations and smart displays along with other GVA networking components such as 00-82 encoders/decoders and dual channel cameras. These investments have resulted in a new line of tactical work station products known as the RW-EP GVA range of smart displays. The workstations have been designed for the extreme environments of tactical tracked and wheeled vehicles as well as towed systems such as the BAE Systems M777 howitzer. The workstations can even be hard-mounted without special or expensive installation mounts in all but the most adverse environments.

The RW-EP range is highly modular and shares a common processing and input/output (I/O) sub-system across various display sizes to include 10.4″, 15″ and 17.3″ displays.

To learn more about the features, capabilities and technical specifications of this range of displays, please visit www.drs.com/RW-EP.com.

The company is also growing its capability portfolio by providing more of the systems infrastructure through the addition of complementary capabilities. One example is a new IP-based vehicle intercom system (VIS). Along with the GVA-based workstations and the DDU, this system is the foundation for delivery of integrated systems whose user requires a single workstation and headset to access all data, video and voice systems and services on the vehicle or available on the network.

The DRS VIS is a scalable modular system that can be used in applications from the combat vehicle all the way to a command post Local Area Network System, offering a complete range of communication

services and can be provided as a stand-alone vehicle intercom solution, as part of DDU based architecture where the VIS is integrated into the communications network via the DDU or as part of a GVA solution with the VIS IP interface being integrated via the DRS RW-EP GVA workstations.

The combination of the DRS DDU, RW-EP range of tactical workstations, and the Vehicle Intercom System provide the basis for delivering integrated mission systems with an open-systems infrastructure which is both network and application agnostic.

Remaining true to its roots, DRS continues to design and develop leading-edge tactical computing and networking products suitable for integration into modern open-systems vehicle architectures such as the UK's GVA and the U.S. Vehicle Integration for C4ISR/EW Interoperability (VICTORY) initiatives. To see many of these capabilities in person, please visit the DRS Technologies Booth 2K4 in the U.S. Pavilion at the Land Forces Conference on September 6–8th in Adelaide, South Australia. ∎