

As an IT interface between the vehicle, operator and external communication participants, ATM's IT command components guarantee unrestricted operability in all weather conditions and levels of threat.

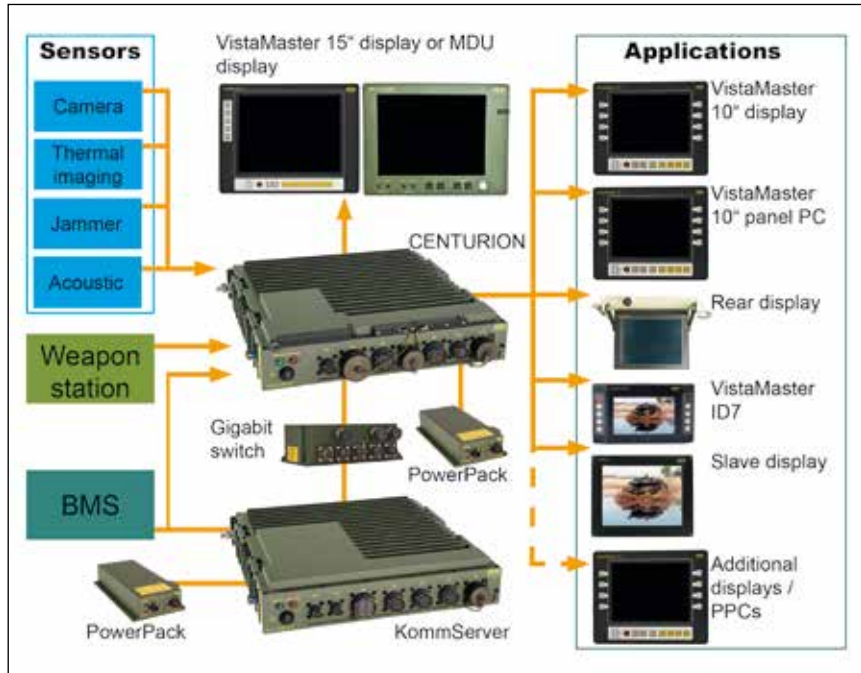
Camouflaged by vegetation, the soldiers in the vehicle focus their attention on the dimmed displays which, in addition to the data from command and information systems, also display the view from the weapon station's thermal imaging device. The driver aligns the image with the map to find the best route, the commander checks the positions of other units – taking the information from the weapon station sensors into consideration – and the team watches the simultaneously visualised rear-view camera. Acoustic sensors locate suspicious noises and quickly relay the direction to the crew, who adjust their views accordingly. A range finder determines the distance to a potential enemy and this is communicated to the commander and the driver via the internal network. The command information is checked a last time before the driver heads for the target coordinates. The information required for each workstation appears on the various display devices. The driver sees the night vision image and the map display while the rear display shows an image of the area behind the vehicle.

Information is determined

Information forms a key part of military missions and is the "gunpowder of the 21st century". It must be in the right place at the right time as this is the only way to ensure an optimised overview

Contact:

ATM Computer-Systeme GmbH
 Max-Stromeyer-Straße 116
 78467 Konstanz/Germany
 Phone: +49 (0) 7531 808 4462
 Fax: +49 (0) 7531 808 4363
 E-mail: info@atm-computer.de
 Web: www.atm-computer.de



Exemplary system logic

of the situation, a better assessment of the situation and operational decisions and to ensure that accidental damage is kept to a minimum. This requires data from a wide range of sources to be provided adequately and effectively in a form that can be called, displayed, edited and distributed.

For information processing in the vehicle, this means that both the data from the command and information system and the data generated in the vehicle must be relayed and assigned so that it can be interpreted in context and effective measures can be taken promptly. ATM ComputerSysteme GmbH aims to provide a wide range of field-tested C3I and C4I system solutions for this purpose.

Centurion as the centrepiece

The centrepiece of the vehicle IT is the Centurion vehicle computer, which can

be extended using plug-ins for project-specific functions, acts as a server and is visualised on the commander's workstation using a VistaMaster or an alternative MDU display.

As the central node in the network, the Centurion receives, uses and disseminates the sensor information from cameras, thermal imaging devices, jammers, acoustic detectors, radar systems or laser range finders and connected applications. The customer-specific configuration determines which data have to be sent to which workstations and applications. Pure displays or panel PCs help the operators with this.

Modular displays and panel PCs

ATM provides an excellent solution for this application with the VistaMaster display and panel PC family, which offers a broad base for a variety of configurations. A key feature of this product

(Graphic: ATM)

family is its modular structure which allows for flexible variation. This means that the display sizes are freely scalable and the range of functions can be customised. The touch-capable VistaMaster family can be implemented as a display with video interface, as an autonomous, multi-function display with picture-in-picture (PiP) function and soft keys, and as a panel PC system. The VistaMaster also features assignable function buttons, text overlay function and multiple camera connections and can display multiple video images synchronously via the PiP function. The displays can be read both under night vision conditions and direct sunlight.

With the VistaMaster ID7, ATM has developed a small, intelligent display which displays vehicle-specific information within reach of the driver or co-driver, acts as a terminal for operating external computers and can be used to play back videos.

A foldable VistaMaster rear display can be used as a rear-view observation system for soldiers in the vehicle.

The operator can control the rear-view cameras, call up data from the command information system or access the vehicle sensors. The information flow outside of the vehicle can be guaranteed using the rear-mounted VistaMaster slave display.

Efficient and secure communication

KommServer embodies the core of communication in the form of a universal communications switchboard. In its "central intelligence" role, the KommServer acts as the essential link between various applications and the expanded and heterogeneous pool of predominantly narrowband communication resources used in the German Bundeswehr. The KommServer ties together all existing means of communication from wire to radio to satellite, hence making the communication technology infrastructure available in the first place. As provider for all networks currently used by the German Bundeswehr, the

KommServer acts as an agent between the various transmission media – even, in fact, for non-IP-enabled transmission resources. With the aid of dynamic network management, it is able to find an optimum route through all networks, linking any connected (sub)networks to a superordinated meta-network. In this "network of networks", tactical users no longer have to know the topology, like on the internet, knowing the (tactical) destination is sufficient, as KommServer is able to deal with everything else. KommServer is able to detect and compensate for network failures directly. Thanks to the fact that it is highly modular and has an open system architecture, KommServer will have no difficulty adapting to future communication media and software functions. In network-centric warfare, the KommServer therefore proves to be an elementary backbone of tactical communication.

Secure - even in the event of a power failure

A PowerPack backup battery provides a short-term power supply for critical system components in the event of a voltage drop or complete failure of on-board voltage. This ensures a controlled shutdown of the connected systems.

To allow dismantled use for a long period of time in remote areas, it is essential to be able to recharge the batteries of radio devices or observation equipment. The battery charger is a tool specially developed for these requirements and can support up to four different battery types at the same time. The intelligent charging electronics ensure the battery is always charged to an optimum level.

ATM - a reliable partner

Customised system solutions are developed based on a cross-functional solution concept. Besides the hardware, ATM also offers appropriate software as well as convenient concepts for maintenance and logistics. In other words, ATM covers the entire life cycle, acting as a partner right from the birth of an idea, through development, to the servicing of the finished solution.



Photo: KMW

The ATM systems can be integrated in various positions in a vehicle of the Dingo-family to save space