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Sotas Vehicle Electronic Architecture systems

Real Operational Advantages

By courtesy of the Royal Netherlands Army

Sotas Vehicle Electronic Architecture systems

Full control of the platform capabilities

The proliferation of C4I components, sensors, effectors and peripherals is bringing new capabilities to the highly mobile vehicle domain. Sotas Vehicle Electronic Architecture systems are designed to turn these added capabilities into a real operational advantage by supporting the integration and interworking of the vehicle-borne systems.

Sotas Vehicle Systems are at the core of a vehicle's electronic architecture (VEA). Sotas interfaces with on-board systems using industry standard interfaces, such as Ethernet, video, CAN, USB and serial data. The distribution of data between the on-board systems and the software applications hosted by Sotas is performed by the open standards real-time middleware (OMG DDS). This results in an efficient system for sharing data within the vehicle, processing data (data fusion) and communicating data between vehicles and with other nodes in the Network-Enabled Operations environment.

The Sotas VEA is the infrastructure for a comprehensive set of applications and capabilities. This set includes Thales applications such as the Sotas tactical voice services and tactical networking services, but also third party applications like Health and Usage Management Systems and Platform Management System applications, thus allowing full control of the platform capabilities by the user.

The highly scalable TNN can be configured to offer a wide range of services and interface types, including 10/100/1000 Mbps Ethernet (PoE+), USB 2.0, video, serial data, analogue audio and general purpose I/O. User stations provide interfaces for headsets, radios, data terminals, sensors and other equipment. Every user station offers independent Human Machine Interfaces and audio channels for 2 users. Where required, the user stations are configured with additional interface modules, e.g. additional audio ports, (10/100) Mbps Ethernet (PoE+) and USB 2.0 interfaces.

Tactical User Station (TUS)

Tactical User Node (TUN)

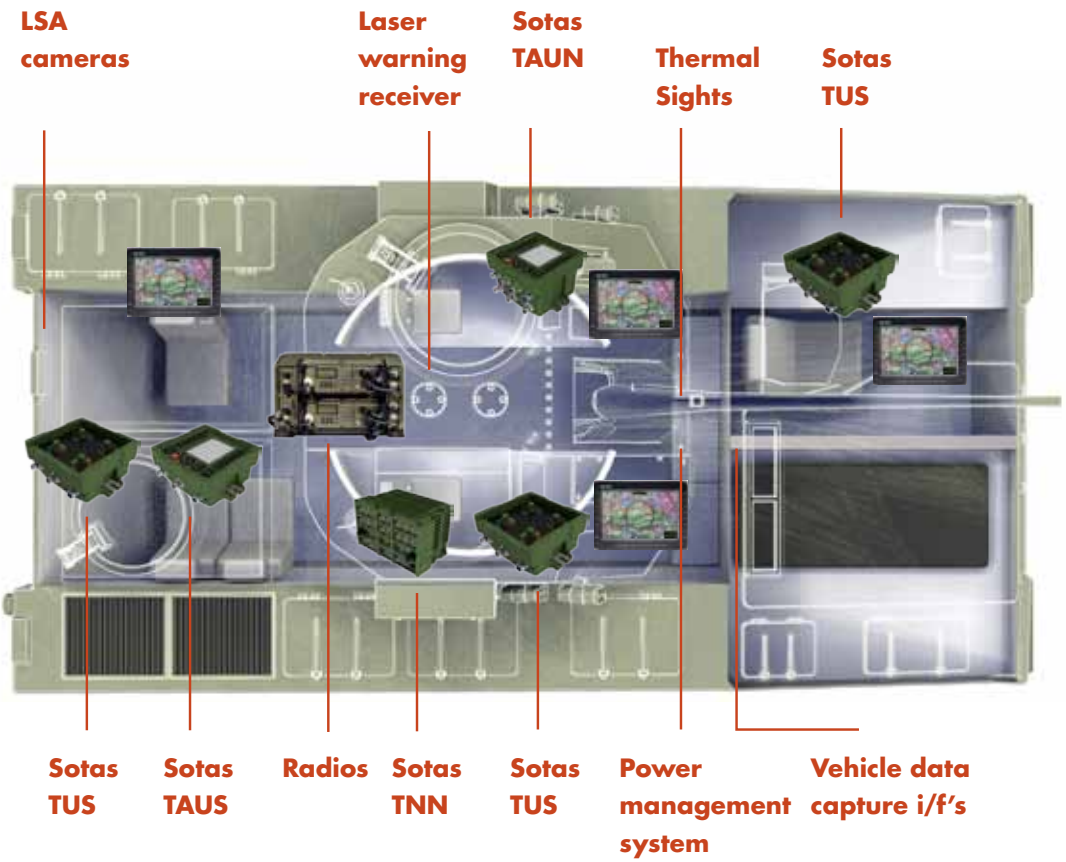
Tactical Network Node (TNN)

Tactical Advanced User Station (TAUS)

Tactical Advanced User Node (TAUN)

Tactical Network Node (TNN)

Note: Sotas units not drawn to scale



A Sotas System for a Battalion Commander's IFV, providing voice, data, IP, video, HUMS and platform management services to 5 users

No risk solutions

Exactly meeting your requirements

Unique Architecture

Sotas consists of a family of modular components that can be assembled and scaled to provide optimal configurations for all vehicle types and missions. A simple vehicle intercom only requires one single Sotas unit. Larger and more comprehensive systems are created by adding user stations, network nodes, software packages, and hardware option modules.

With this unique building block approach Thales delivers tailor-made solutions to every customer, using proven off-the-shelf Sotas building blocks.

Installed Sotas systems can easily be upgraded when new requirements with respect to system size and functionality emerge. Upgrades are performed with minimal impact on the existing installation.

Significant benefits

With a proven history and core competence in development and delivery of ruggedized, light-weight, tactical systems Thales offers significant benefits

- **No Risk -** Sotas solutions are based on a proven family of equipment with more than 21,000 systems deployed in over 30 countries in approximately 50 types of vehicles
- **Flexibility -** A high level of scalability and flexibility to meet the requirements for the full range of tracked and wheeled platforms as well as allow for future evolution
- **Short lead-times -** Based on off-the-shelf standardized building blocks, Thales delivers tailor-made solutions within months
- **Experience -** An established Contractor with proven ISO9001 certified processes, production and support experience ensuring low management risk

"With battle-proven Sotas Vehicle Systems fielded in more than 30 countries, connected to more than 40 radios types and installed in over 50 vehicle types, Thales is committed to the continuous development of new capabilities to increase mission effectiveness."

Thales

Thales is a world leader in designing and building mission-critical information systems for defence and security, aerospace and transportation.

Operational in 50 countries, Thales employs 68,000 people all over the world. Thales steps up to the security challenges of its customers in an increasingly complex world: utilizing expertise in the most sophisticated technologies and large scale software systems, and aided by a global network of 22,500 high level researchers. The company has earned particular recognition for its ability to develop and deploy dual civil and military techniques, leveraging international operations to provide an end to end supply chain, from equipment manufacture to systems and services.

Thales Nederland employs about 2,000 staff members. The company, established in 1922, is one of the leading companies in integrated systems for surveillance, weapon control, combat management and system integration worldwide.

Thales has a comprehensive range of C4ISR products and solutions for air, land and naval forces, joint structures, special forces and homeland security services to achieve full situation awareness and information superiority. The Sotas family of products is just one of an outstanding range of military and civil communications products and services that Thales has to offer. Sotas is a mature, combat-proven system, with 21,000 systems deployed in over 50 vehicle types in 34 countries throughout the world, demonstrating the systems diversity and flexibility. As a leading defense supplier, the products are compliant with the most stringent military requirements. Thales has the highest AQAP and ISO9000 military standards accreditation.

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