

► Qinisa - Vehicular Command and Control Computer

The Vehicular Command and Control Computer (VCCC) is a real-time computer server system for a wide range of military and para-military vehicular command and control applications.

Functions

The Vehicular Command and Control System (VCCS) will typically provide the following functions :

- receive Position Data from the following own sensors : GPS (external or internal)
- receive Own Force Data from the following external sources : Tactical Radio System, Satellite Communication System
- receive Tactical Orders
- receive Vehicle Data from own vehicle crew and operators
- monitor Own Vehicle Status from own vehicle sensors
- perform Blue Force Tracking
- determine and display own Situational Awareness Picture
- display and share own Tactical Status and Position
- display and share Tactical Constructs
- determine and display own Vehicle Status
- record Tactical Status and own Vehicle Status

Features

- User-Friendly
- Environmentally Resilient
- Dependable
- Cost-Effective
- Flexible
- Scalable

Options

- Internal GPS
- Vehicle Monitoring and Control
- Environmental Monitoring and Control
- Advanced Situational Awareness
- Replicated Configurations

Design and Architecture

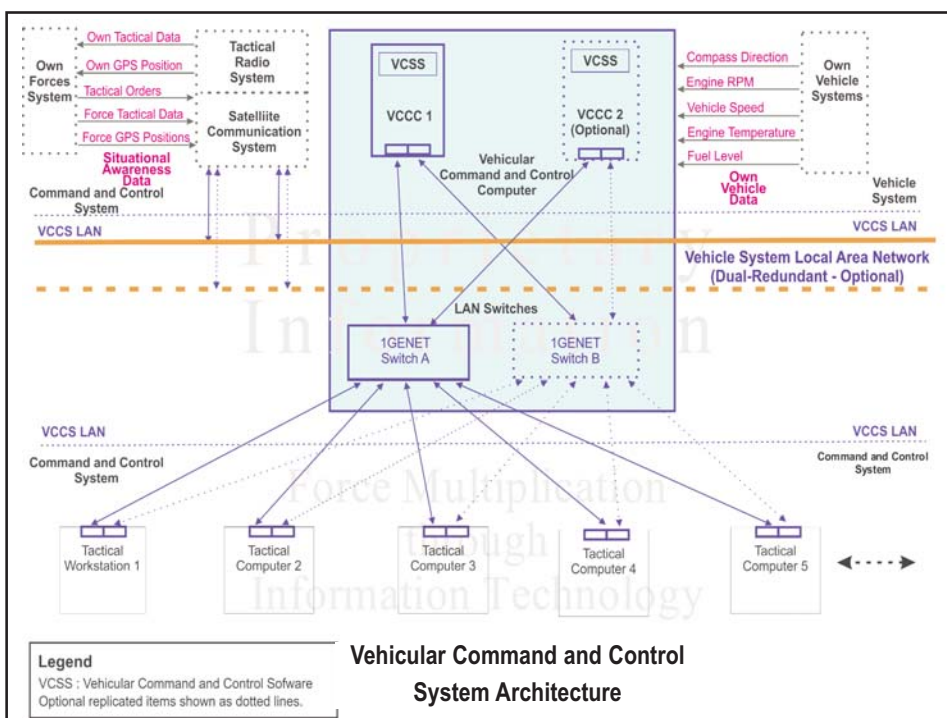
The VCCC is the processing element of the Command and Control Software (VCSS) and interfacing element of the Command and Control System (VCCS) configured in a real-time, distributed client-server architecture.

Internally the system consists of a networked set of Human-Machine Interfaces (HMI) and a set of interfaces to the vehicular Tactical Radio System, Satellite Communication System and vehicular sensors, as well as external interfaces to the static and mobile Command and Control System via the vehicular Tactical Radio Network.

The VCCC physically and logically connects the internal segments of the Vehicular Command and Control System.

Applications

- Armoured Fighting Vehicles
- Infantry Fighting Vehicles
- Armoured Personnel Carriers
- Military Patrol Vehicles
- Para-Military Patrol Vehicles
- Police Patrol Vehicles



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Interfaces

The VCCC provides the following interfaces :

- Tactical Radio System (TCS)
- Satellite Communications System (SCS)
- 2 x high-speed LAN interfaces
(Gigabit Ethernet standard)
- 2 x USB interfaces

Human-Machine Interface (HMI)

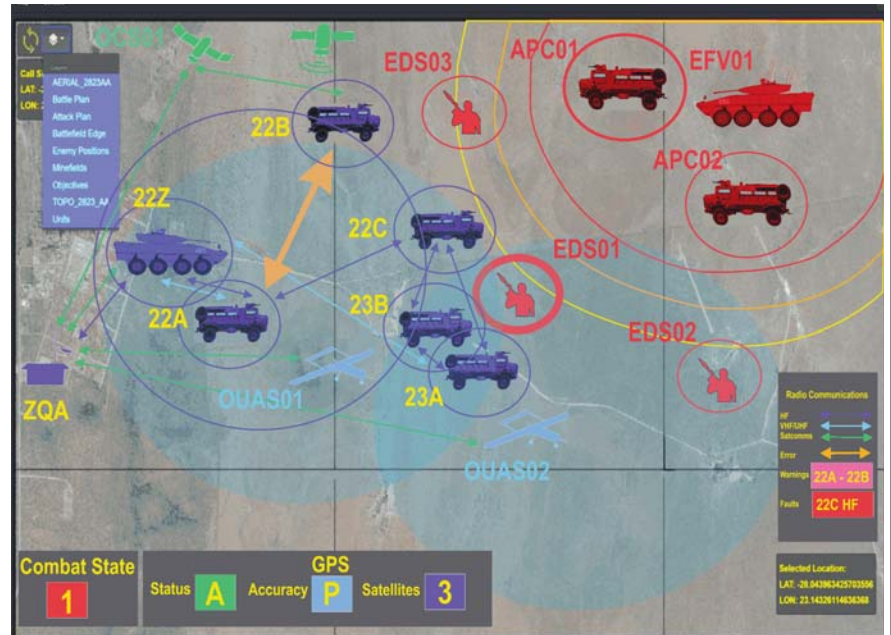
via a system of networked workstations consisting of ruggedised tablet or notebook computers or dedicated workstations

Performance

- Intel 5th Generation Quad Core i7 Processor
- 2,4 GHz processor speed
- 16 GByte DDR4 DRAM
- up to 750 GByte Solid-State Data Storage

Physical Characteristics

- conduction-cooled
- aluminium construction
- military standard metal circular connectors
- stainless steel, wire-ropo shockmounts (optional)



Vehicular Command and Control Computer Human-Machine Interface (HMI)

Specifications	
Power Supply	24 V DC; power supply requirements according to STANAG 1008
Power Consumption	< 5 A at 24 V DC
Total Mass	5,5 ± 0,5 kg
Temperature	-40 C to 85 C
Mechanical Shock	40 g, 11 ms
IP Rating	IP 68 i.a.w. IEC 60529
EMC	conforms to RE, CE, RS, CS i.a.w. MIL-STD-461G
Heat Dissipation	150 W ± 20%
Acoustic Noise	< 10 dBA
MTBF	> 10 000 hours, MIL-HDBK-217F, Ground Mobile @ T = 65 C
MTTR	1 hour
Availability	> 97,5% over 10 day mission
Dimensions	Height x Width x Depth : 155 mm x 190 mm x 305 mm