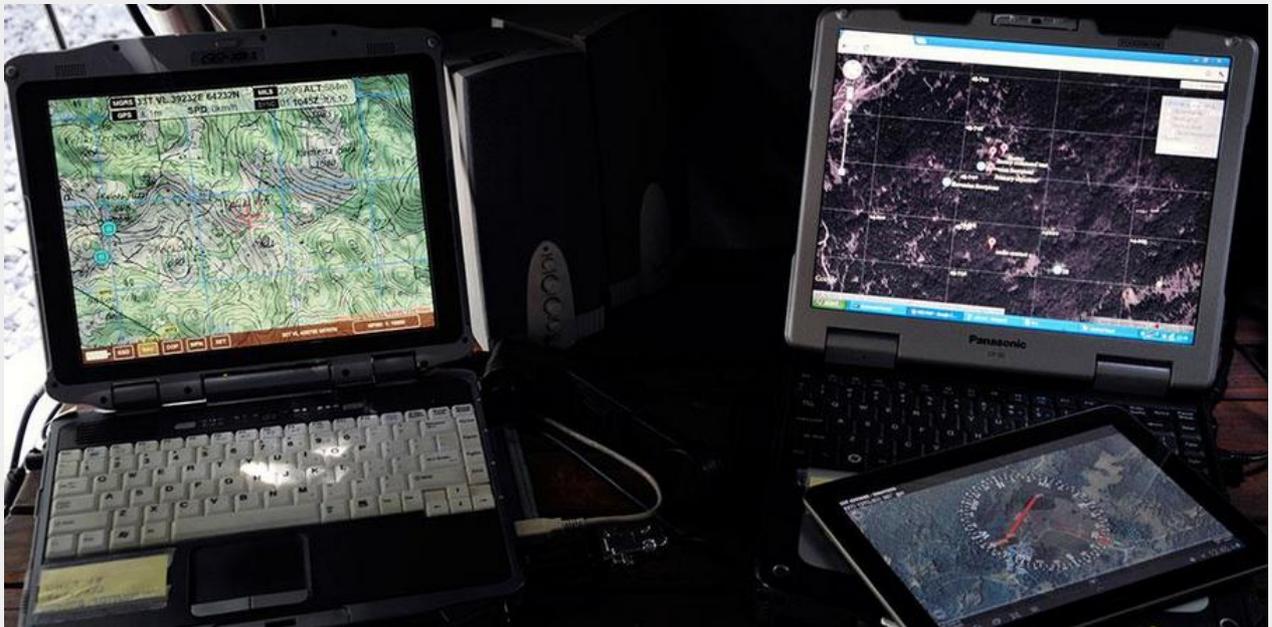


# AT MMS - Mission Management System

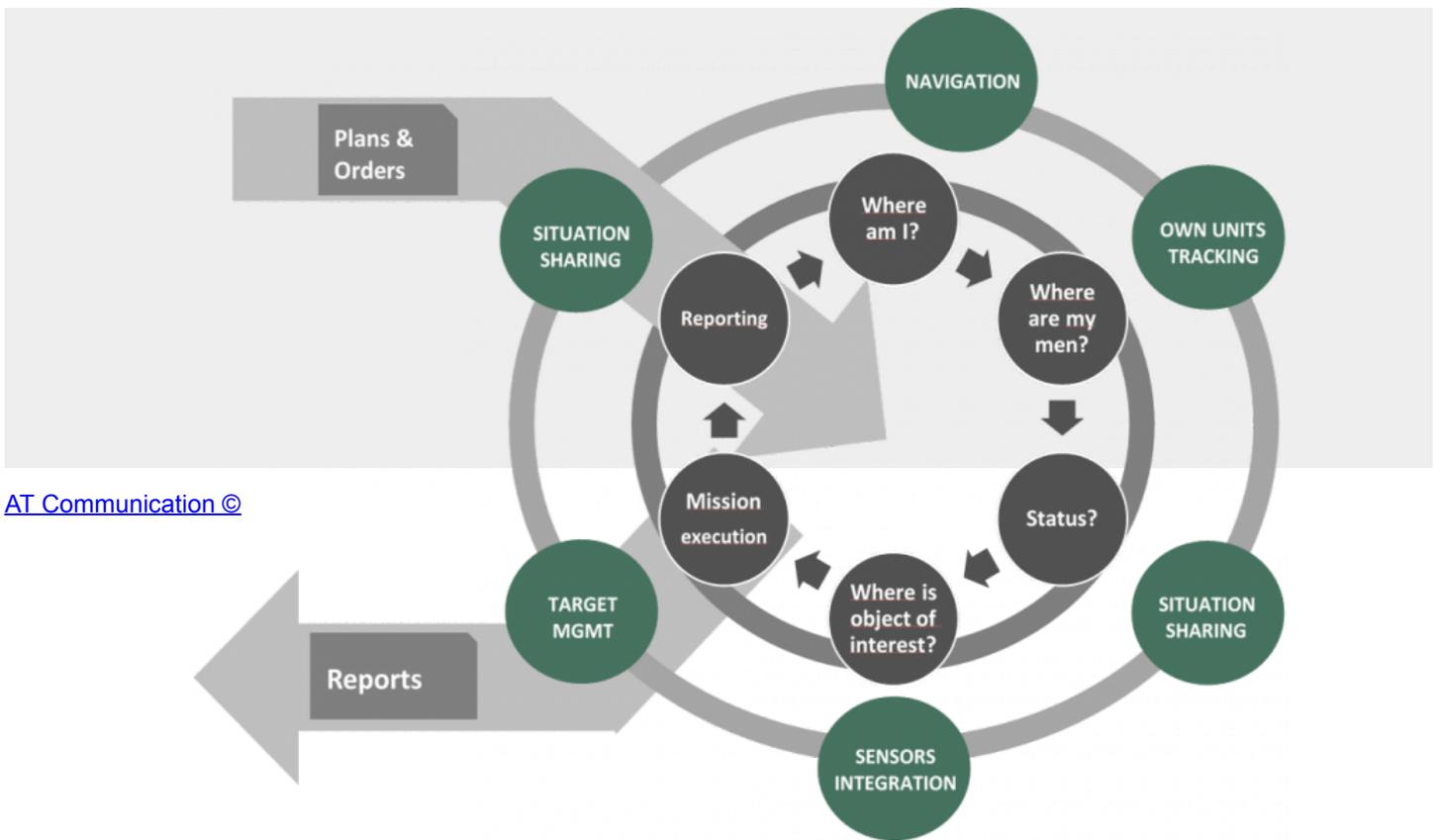
## AT MMS - Mission Management System

### INTRODUCTION AND OVERVIEW

AT Mission Management System (AT MMS), Situational Awareness System, is a state-of-the-art Map based mission management and planning system. It improves planning and execution of law enforcement, emergency, rescue and protection missions by enhancing the situational awareness for operators by providing a clear digital map of the mission scene.



With its robust, modular architecture built around a high-performance GIS Engine, the AT MMS delivers graphical data to the screen of the operator. AT MMS offers a wide range of connectivity to various fixed and wireless data networks improving the efficiency of command and control processes.



[AT Communication ©](#)

AT MMS gathers and shares information by integrating navigation, sensor and communication systems. An intuitive touchscreen gives essential information to operators designed to be used in difficult mission conditions.



AT MMS is a suite of task specific application modules that can be added or removed without the need to recompile the core product.

Key software modules include:

- ✓ Component Server for sensor & weapons integration
- ✓ COMMS2 for tactical data communications and

- ✓ VBS2/3 simulation engine for training missions.

The System is not a single application rather separate modules are configured to customer needs, delivering unprecedented flexibility, adaptability and integration to 3rd party systems.

## AT MMS FEATURES

### Navigation

- ✓ Multiple routes
- ✓ Next / Previous Way Point
- ✓ Leg distances - distance measurement tools
- ✓ Multiple grid references on one map
- ✓ Track recording and reporting (Patrol reports)
- ✓ State-of-the-Art, fast GIS engine
- ✓ Terrain LOS analysis
- ✓ Visual cue on unit's readiness



### Own Unit Position & Tracking

- ✓ Blue Force Tracking
- ✓ Civilian or military symbology
- ✓ Situation (Common Operational Picture) Sharing
- ✓ Blue Picture
- ✓ Red picture
- ✓ Manual Position
- ✓ Points of Interest and Reference Points



### Sensors and Weapons Integration

- ✓ Laser range-finders
- ✓ LIRD laser detection and triangulation
- ✓ Inertial Navigation Sensors
- ✓ ROVER or other sensor video
- ✓ Various interfaces (USB, Serial, Bluetooth)

### Object of Interest Management and Tracking

- ✓ Range Cards (e.g. sniper, JTAC, reconnaissance etc.)
- ✓ Targets and Photos
- ✓ Points of Interest

### Mission Plans and Orders

- ✓ Orders with delivery and wilco reports (ACK)
- ✓ Events and incidents
- ✓ Complete situational awareness for the operation command
- ✓ Maps packaging and peer-to-peer distribution
- ✓ Order status reporting



### Reporting

- ✓ Standard formatted messaging (message templates)
- ✓ Reports with delivery acknowledgment
- ✓ Simple user status reporting
- ✓ Free text messages
- ✓ User configurable templates

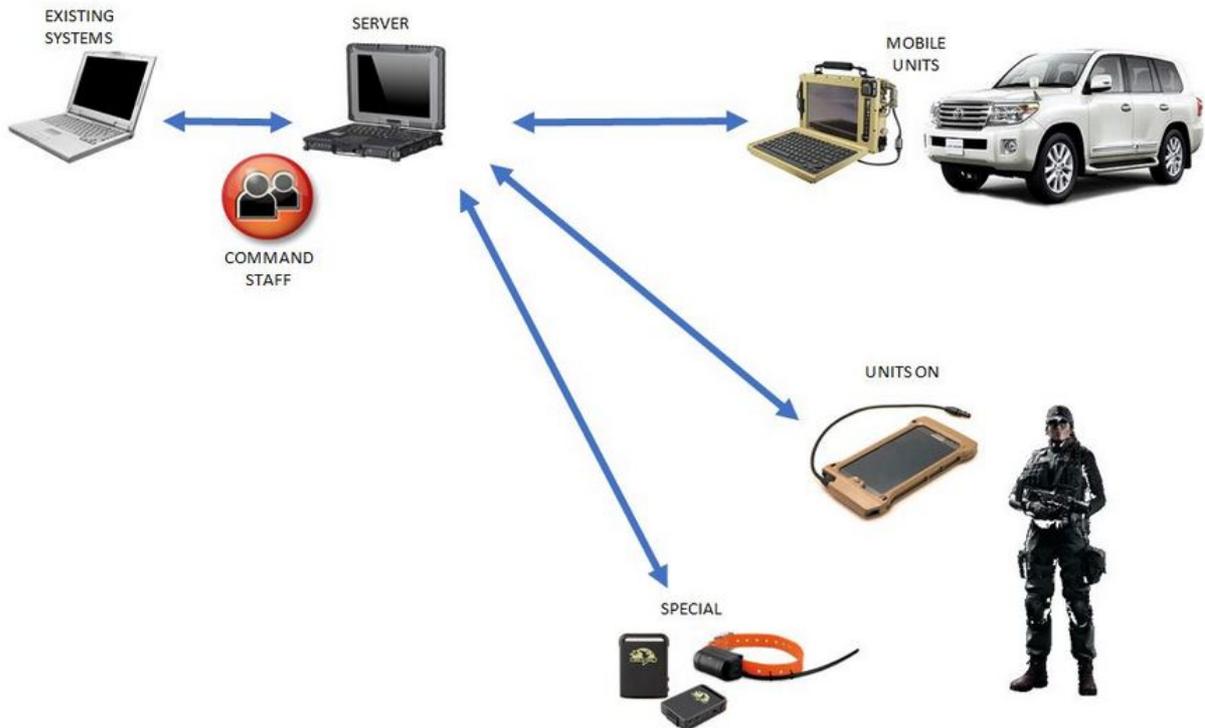
- ✓ Tactical Group Chat
- ✓ ALERT high priority messages
- ✓ Video streaming
- ✓ Emergency data erase with silent report

### UAV Integration

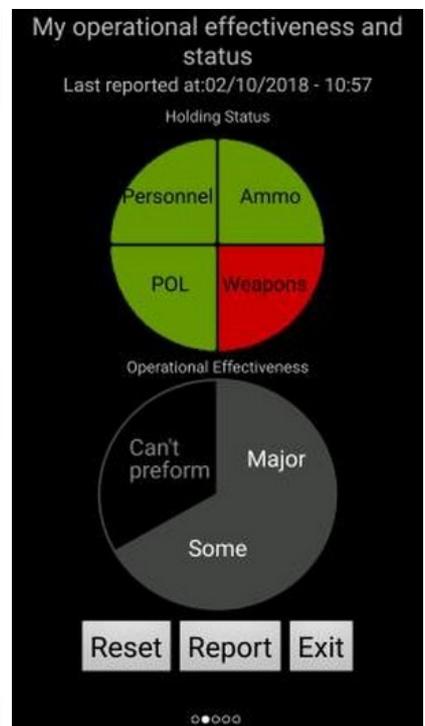
- ✓ UAV tracking
- ✓ Video preview
- ✓ Full screen video with HUD



### AT MMS MISSION MANAGEMENT SYSTEM OVERVIEW



### MOBILE DEVICE SCREENS



## TECHNICAL INFORMATION

### Modular Architecture

The core of the AT MMS is software and is not tied to a specific hardware platform or a specific radio type. AT MMS can communicate with devices, sensors and serial inputs using device driver architecture for connectivity. This separates the software parts of AT MMS (G and GUI) from the communications, sensors and weapons.

The modular architecture offers organisations greater flexibility and lowers the total cost of ownership. Changes in hardware used does not require a complete system change using this architecture.



### COMMS2: Combat net radio integration suite

A hardware device driver provides connectivity between AT MMS and different communications equipment and networks. This provides organisation with ultimate flexibility when connecting base, mobile and man portable wireless systems to hardwired networks.

AT Communications works with organisations to develop the necessary interfaces and device drivers allowing clients equipment to send and receive messages with the corresponding transmission status notifications.



## Benefits

- ✓ Radio type and make independent
- ✓ Radio IP network MESHNET and MANET ASYNC radio with P2P or software MANET Optimized for low bandwidth VHF/HF links Automatic on the fly radio reconfiguration
- ✓ User installable encryption
- ✓ User installable protocols (ACP142)

## CS – Component Server (Sensors & Weapons)

The AT MMS CS Component Server integrates various vehicle information, and communication systems. The server communicates with different systems using interfacing standards via network or serial connections.

Every sensor, device or weapon system is connected to the Component server via specific device driver. The Component server then transfers this data via a secure programming interfaces to the AT Mission Management system.

The AT MMS delivers necessary information to personnel or it can also deliver tracking information to client's 3rd party systems with custom integration services from AT Communication.

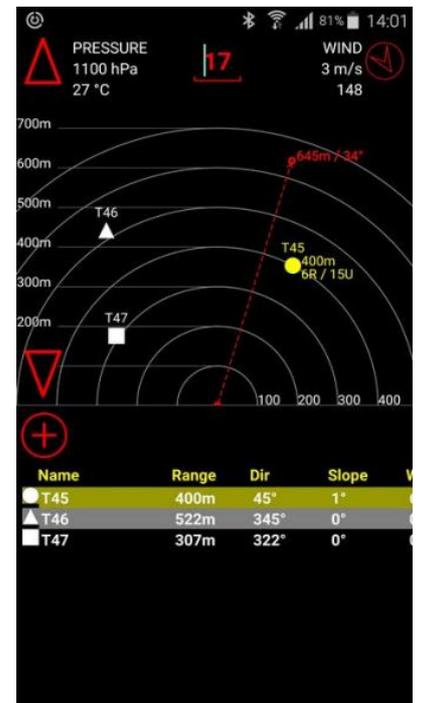
This architecture ensures total modularity and eliminates the need to rebuild the complete systems every time a configuration is changed.

## Sniper Calculator

The Sniper Calculator is a software tool designed for snipers and other law enforcement officers. It helps the shooter to calculate hold overs and scope settings necessary for accurate long-range shots. A log of fired shots is kept making Data On Previous Engagements (DOPE) available for a later review or download. The Sniper Calculator Software operates on the Android platform and is currently in use with Special Force Units worldwide.

## Features

- ✓ Innovative user interface
- ✓ G1-G8 drag calculation functions
- ✓ Full external elements used in calculation
- ✓ Spin drift and Coriolis effects calculation
- ✓ Drop table calculation and export
- ✓ Truing
- ✓ Integrated range estimation tool
- ✓ Integrated MIL dot calculator
- ✓ Separate click values for Elevation and Windage
- ✓ Log Book (DOPE) with export
- ✓ Kestrel Bluetooth integration
- ✓ Laser Rangefinder Integration
- ✓ Metric or Imperial units
- ✓ MILDOT US Army, MILDOT USMC, NightForce MOA Reticles



## Interoperability Suite

A core element of the AT MMS System Interoperability Suite is a connectivity gateway. The gateway connects different systems into one seamless command and control platform. Modular architecture shares the same design principles with other products thus ensuring

maximum expandability and connectivity. All filtering and data transformation is configuration-based minimizing the need for frequent software upgrades.



Currently supported protocols include:

- ✓ NFFI
- ✓ MIP (Multilateral Interoperability Protocol) C2IEDM/JC3 database gateway, enabling interoperability with “MIP nations”, without the need for in house or custom development of additional MIP protocol connectors.
- ✓ 3rd Party C4I/C2 software can be easily integrated into a common network using BRIDGE extendable plugins

### **Training and Simulation**

All System software is integrated with the VBS2/VBS3 simulator, a fully interactive three-dimensional simulation system focused on tactical training and operational procedures down to team level. It is suitable for a wide range of training scenarios in a chosen simulated environment. Units use it to speed up reaction times and improve the organization of activities.



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