

# Six Industries

*We've got your back!*

# Nomad: E.M.A.R.

## EMERGENCY MANAGEMENT AND RESPONSE



### "First in, last out."

Dynamic Emergency Management network infrastructure system including hardware support, software support and layered encryption in order to provide law enforcement, on all levels, with common operational cross-domain secure data, enabling new levels of dynamic agility. It is a software networking suite designed for cellular phones, internet of things (IOT) and desktop integration of Command, Control and Communications, to provide a Commercial off-the-shelf (COTS) solution enabling tactical and strategic information advantage, hyper situational awareness, speed of command and maximizing response and operations effectiveness in dynamic environments. It does this by leveraging the latest in cellular phone hardware technologies advancements to integrate them with the

latest cutting-edge redundant encryption algorithms, advancements in geo-spatial technologies and cloud computing capabilities couching them all in a server-side mission adaptable user-managed user interface customizable to mission requirements in dynamic enforcement environments.

The goal of this technology is to enable Responders and Commanders access to immediate actionable intelligence and capabilities to do their jobs safely, while simultaneously eliminating digital information vulnerabilities inherent to use of private or unsecured mobile communications within a widely interoperable common information operating environment.

# Application Security Features...

HEBADMAN software eliminates inherent vulnerabilities common place in personal cellular phone possession and usage on the modern battlefield. During the installation process the cell phone owner must give permission for the app to override other location sharing and communication applications while the application is in operation thereby preventing location intelligence leakage to the internet via social media and data mining software. This includes any communication outside of the AES256 security structure; all voice, text, photo and tactile (fingerprints) information is supported by the application and occurs with-in the applications security. There is no bleed over, when the application is active all other functions of the phone are turned off and all battery and processing power is used by Nomad EMAR. When EMAR is turned off our software restores the phone to its previous operating unsecured state. There is zero data sharing between the on and off states.



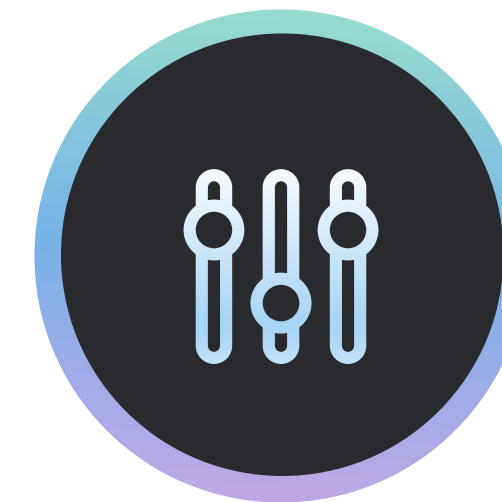
## Secure & Stealthy

HEBADMAN system uses frequency hopping burst transmissions of encrypted data over VPN to reduce RDF risk.



## Layered Encryption

All application data is protected with patented dual layer encryption, considered secure by the US Military for transmission of Top-Secret level signals. Data is then couched within a permissioned block-chain network at a cloud storage facility.



## Customizable

Apps can be tailored to client needs for any mobile intelligence solution. Anything from encryption standard to integrating existing facilities security system technologies, we can do it!



## Mobile Security

App overrides other location sharing and tunnels the communication of other apps while the application is in operation thereby preventing location and intelligence leakage to the internet via social media and other potential data mining software.



Easy to use GUI for quick access to modules when time is critical.  
Command what you need when you need it.

# Intelligence, Operation, Support, Statim.

Mobile features are designed with client-controlled server-side functions, essentially enabling Commanders to customize the features used inside the Soldier's application-based mission requirements.

Feature requests from our clients for a tailored application will always be honored.

The following C5ISR modules are standard for the warfighter:





# Field OPS, Support, and Reporting Modules

Streamline operation, reporting, and support requests.



Every Second Counts.  
Nomad EMAR allows units to call in  
the support the need, pronto.



Standard modules include:

- Bluetooth functionality (for life safety systems)
- Custom group building and tiering
- Facial and fingerprint up-load for High Value Identification (HVID)
- HUMINT (Human Intelligence) contact module
- Contact reporting, SALUTE, SALT, and SPOT or user defined formats
- MEDEVAC (Medical Evacuation) support
- CAS (Close Air Support)
- Call for Fire
- CBRNE (Chemical, Biological, Radiological, Nuclear, Explosives)
- QRF (Quick Reaction Force Module)
- UAS (Unmanned Aerial Systems) operating module
- UXO/IED (Unexploded Ordinance / Improvised Explosive Device)
- Range Cards
- Security Actions Module (compromised device options)

The client, as a part of the design/development process will determine the feature modules required in the product including modules not mentioned above.

# Standard E.M.A.R. Modules

- **Bluetooth functionality (operations):** With hardware tie-in and data monitoring, enabling C2 elements to monitor individual vital signs such as heart rate, oxygenation levels and blood pressure with the correct currently available off-the-shelf hardware.
- **Custom group building and tiering (operations):** Enables units to be digitally structured in the system. A Battalion Commander could send directions to his whole Battalion simultaneously or pass down via the Chain of Command to all or a portion of his command or in extreme cases could reach out directly to an individual Soldier via text or voice.
- **Facial and fingerprint secure up-load (reporting):** Using the High Value Identification (HVID) Module and a photo-capable, tactile capable phone, field sampling and upload of facial recognition features along with fingerprint scanning data to headquarters is completed in seconds for field identification of human high-value targets.
- **HUMINT Contact Module (Reporting):** Using elements from the HVID Module and the SPOT Reporting modules, users are able to snap a photo of the individual(s) and their ID cards, fill out text space regarding said interaction and record the interaction which is then sent up the chain of command to be reviewed and filed.
- **Contact reporting (reporting):** Using the Contact Report Module, units in contact with the enemy can describe the enemy, their number and armaments, with accurate error-free location information instantly and silently. This module uses standard reporting formats such as; SALUTE, SALT and SPOT or user defined formats. Attached photos or video give Command an immediate visual snapshot of the contact situation.
- **Medical Evacuation (support):** The MEDEVAC Module allows service members on the ground to quickly and accurately, via dropdown menu, request Emergency Medical Evacuation, with no location transcription errors, silently. Using the touch-to-target function this module also allows service member to select a requested pick-up zone away from their current location if they are moving rapidly in dynamic combat situations.
- **Air support (support):** The Close Air Support (CAS) Module allows service members to request CAS, select from a customizable menu the type of available CAS and using tap-to-target on the map request a specific target zone and approach vectors, additionally the target data could be sent and displayed on the aircrafts HUD for precise targeting or gun runs.
- **Call for Fire Module (support):** Similar to both the MEDEVAC and CAS functions the Call for Fire uses a drop-down menu of the standardized Call for Fire request and tap-to-target functionality to request artillery support via their Tactical Operations Center (TOC). This streamlines the current multiple relay process where the request must be sent by radio after determining target's location on a map the requestor radios their TOC, the TOC radio relays to the supporting Fire Direction Center (FDC), the FDC radio relays to the actual artillery squad who will aim and fire the gun. There are numerous opportunities for transcription errors in this system and it takes time. The Nomad EMAR Call for Fire Module uniquely eliminates this problem by allowing the data to be sent through the system from the requestor to the gun crew in seconds, accurately and silently.
- **Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) Module (reporting):** Similar to the SPOT report module, the CBRNE Module provides the front-line observer a unique drop-down standardized reporting format enabling streamlined efficient communication of time-sensitive critical information, using native hardware video and camera capabilities integrated into our proprietary application overlaid with robust encryption these hazards are rapidly reported and published in the Common Operating Picture (COP) of the Mosaic Battlefield for rapid reaction on a level not currently available.
- **Quick Reaction Force Module (support):** enabling on the ground support request of additional resources, called Quick Reaction Force (QRF). This module follows the same user interface of the SPOT and CBRNE modules to request supporting QRF from external resources in the same manner.
- **Unmanned Aerial Systems Operating Module (operations):** enables operation of small warfighter deployed UAS for local ISR missions on the Mosaic Battlefield. Using this software module establishes a local segregated communication link for direct control of small warfighter carried and deployed UAS in situation requiring; remote surveillance, remote targeting or actions on target (with explosive payload) to degrade enemy war fighting capabilities. Video data and UAS geo-location and targeting telemetry can be uploaded in real time to the Command Suite as needed via the Nomad encryption communication algorithms.
- **Unexploded Ordinance (UXO)/Improvised Explosive Device (IED) Module (reporting/support):** Enables the timely reporting and location sharing of unit contact with UXO/IED while in transit using standard reporting formats. This location can be immediately marked on the maps of all units in the area allowing for up-to-the-minute information sharing and tactical visibility of the battlefield for Commanders. This report is also used for the support request of Explosive Ordnance Disposal Units. Photos and/or video can be attached for immediate recognition by responding support units.
- **Range Cards (operations/reporting):** Using augmented reality the Range Card module allows for the warfighter to overlay a standard range card diagram on top of a picture taken using the phone's camera. Tying in the geo-location coordinate data and compass heading information the Range Card Module overlays this data on to the situation map giving Commanders a rapid and accurate picture of defensive plans.
- **Security Actions Module (operations):** This Module provides the user with the ability to positively prevent unauthorized access to the HEBADMAN systems. It provides three security options. Lock: enables the user to lock his application. This lock also deletes any information related to Nomad that is not the base application. All groups, map data, mission data and communications are deleted. In order to access the application once more the user must take the phone to an administrator for two-person verification. Brick: The brick function deletes all application data, any locally stored app permissions and finally the application itself, restoring the phones operations to pre-install functionality, no digital evidence of the application remains on the phone. Burn: Using the Six Industries Inc proprietary phone case, on a time delay, the phone sends a command to an ignition circuit connected to an embedded magnesium mesh. The phone literally burns, physically destroying the software, hardware and functionality of the phone.



# Mission Adaptable

User-managed interface customizable to mission requirements in dynamic enforcement environments.



## Quick access to modules you need, when you need them!

Enable Responders and Commanders access to immediate actionable intelligence and capabilities to do their job efficiently.

- Adaptability: User can tailor to your specific mission needs.
- Availability: Data uplink, by any means.
- Security: Patented dual layer encryption.

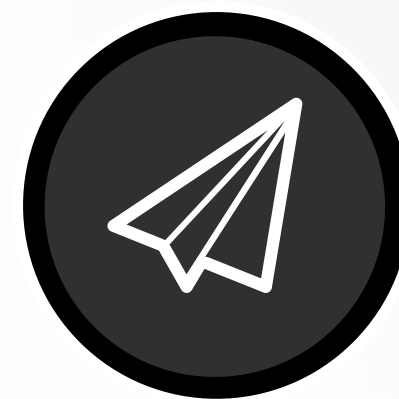




Security starts at the App.

All app data is encrypted before being transmitted via HEBADMAN system software.

The App overrides all I/O from other phone resources and apps, then tunnels them through the HEBADMAN system software.



Software accesses the best available communication modality used to transmit the data.

## Network Redundancy

Data uplink by any means available.

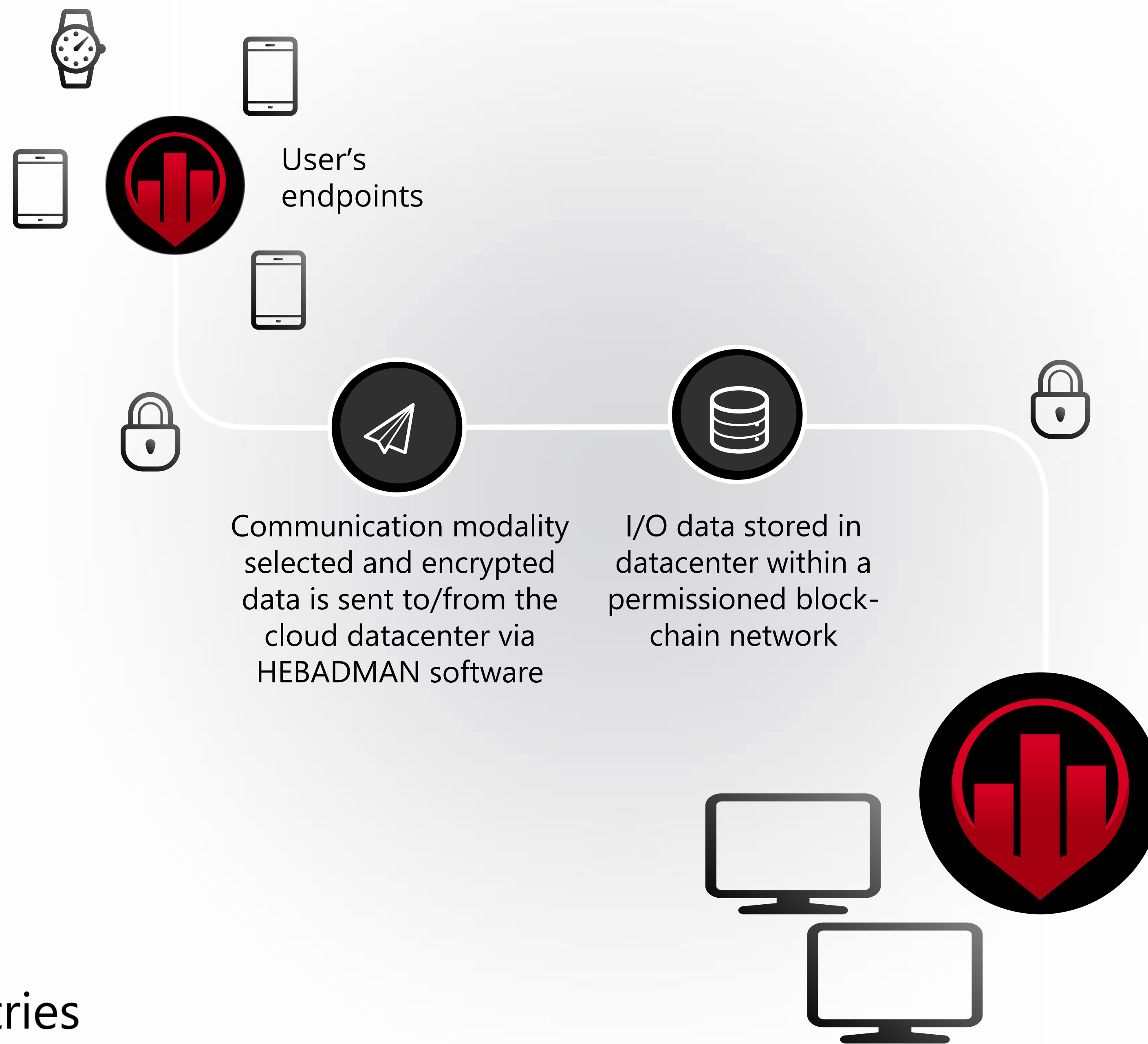
**HEBADMAN:** Hyper-awareness Enabled Battlespace, Advanced Digital Management And Networking System

Options for communication modality include:

- **Satellite uplink** (traditional communication satellites or newer pending **Low Earth Orbit (LEO)** mesh communication satellites,
- **Traditional 5G LTE** cell tower networks
- **Non-traditional Citizen Band Radio System (CBRS)**
- **Ad hoc temporary cellular networks**
- **Bluetooth repeater networks** to satellite/radio/cellular base station uplinks
- **Secure military/public safety radio systems.**

The ability of HEBADMAN to access all if these communication methods is cutting edge fail-over safety.





# Command Suite Features

- **Down/look functions:** Enable leaders from the highest level to visually look down through their subordinate commands to the level of the individual soldier on the ground.
- **Real time Command and Control:** Using the down/look feature, Commanders can instantly communicate real-time mission adjustments in dynamic combat situations.
- **In progress mission tracking:** Commanders can see visual tracks of where Soldiers have been and monitor their progress along pre-planned waypoint tracks, set in the desktop Planning Suite. Especially designed for small elite unit actions, this function allows for pre-mission objective and routing planning which is displayed in the Command Suite module on the Soldier's phone.
- **Look across functions:** Enable subordinate unit Commanders to see adjacent units operating in the same Area of Operations (AO), communicate with those unit peer level Commanders and in the event of loss of communication with superiors, coordinate operations to ensure mission success.
- **Standardized communication:** Since the mobile features and modules are standardized across the services, rapid passing of accurate information and requesting units to action is optimized. This removes the possibility for human transcription errors and forwards the request to the unit without delay.
- **Customize mobile features:** Using client-controlled server-side functions, Commanders can specify which mobile functions are used on the mobile platform of each unit, customizing them for specific mission needs.





Reduce human error and cumbersome relays, saving time and lives.  
EMAR & Command Suite streamlines the flow of operations, minimizing reaction time.

**Every Second Counts.**  
Command Suite allows Leaders to view everything happening in the field from a streamlined interface so you can have all the information needed to make decisions quickly.



**Commander**



**OPS and Support,  
in one interface.**  
Having all the real-time information you need in one interface helps to significantly reduce time communicating through various platforms.

# Command Suite Features

- Incorporating current battlefield map datum, the planning suite allows for detailed route waypoint designation, target waypoint designation, plotting of intentional mission triggered delay points for multiprong combined arms dynamic mission objective planning.
- Displays scaled simulated mission movement in the planning scenario with completely customizable mission representative icons enabling mission planners to visualize the mission as it should happen in real time or sped up if planning time constraints require.
- Feeds real time input from the Command Suite to enable contingency planners to modify the plan on the fly using current battlefield intelligence in the event of unforeseen circumstance requiring mission changes.
- Plan data is remotely downloadable to designated receiving mobile devices allowing for dynamic mission refinement, reducing Fog of War effects and rapid countering of enemy actions.
- All planning and execution data is time stamped, stored and available for post mission evaluation. Visual side by side or superimposed layered data of the original plan and what happened facilitates intelligence analysis of enemy actions and effects enabling detailed modification of future plans, based on demonstrated enemy action trends.



# Hardware

The following hardware is designed to complete the EMAR operating system's suite of function:

- **Bluetooth enabled biometric ruggedized smart watch** able to withstand the water pressures, temperature extremes, dust and shock environments of today's combat.
- **Bluetooth repeaters**, roughly hockey puck sized with an estimated 2 days battery life and 1,000-foot range, when connected to a radio base station these create a mesh network that greatly extends the operational range of Nomad in cell tower denied AOs.
- **Magnesium mesh Burner** function. Imbedded in the following cell phone case and the Bluetooth pucks this mesh enables the thermal destruction of the cell device on command, local or remote, by a timed flash burning of the magnesium mesh.
- **Ruggedized cell phone case**, designed to slip over the users' cell phone these cases include a satellite antenna, extended life battery, and magnesium burner mesh. They can be removed for safety and charging when off mission.
- **Vehicle mounted mobile cell antennas with satellite up-link**. These devices mounted on the exterior of the combat vehicle, enable mobile cellular networking with satellite uplink to headquarters allowing forces to create cell networks independent of civilian assets.

# Future Development

*The following software concepts are currently undergoing feasibility studies for possible future incorporation in the Tertia Optio & Nomad Suite.*

- Multiple GPS system integration including location data from; Russia's GLONASS system (common in most cell phones from 2011 on), India's NavIC regional satellite constellation, Europe's Galileo system, Japan's regional Michibiki or Quasi-Zenith Satellite system and the PRC's Beidou system.
- Terrestrial based GPS ad hoc systems. Using ground-based GPS systems to establish temporary local GPS networks providing GPS level geo-location in areas denied traditional GPS satellites.



# E.M.A.R. FAQ

**Q - Is the data “real time”?**

**A** - Data is sent real time using AES256 + Block Chain encryption algorithms to provide an extensively encrypted and secure network.

**Q - What if there is no cell phone signal?**

**A** - Using the EMAR Radio hook up and tie in, we can push information within the network using the radios as an ad-hoc mobile centralized network until it reaches a phone with connectivity.

**Q - What hardware is required to use EMAR?**

**A** - Any personally owned Android or iPhone smartphone device, or one purchased by Six Industries Inc. Certain features from personally owned smart watches are available from the start.

**Q - Is the hardware included in the price?**

**A** - Hardware (computers and phones) are not included in the price but can be purchased through Six Industries at a discounted rate.

**Q - Can I add licenses to my subscription at any time?**

**A** - You can add licenses to your subscription at any time without a price increase if you do not exceed the limit amounts of your agreed upon tier. If you’d like to add licenses and enter a higher tier there will be a cost adjustment

**Q – Are there additional products being incorporated?**

**A** - Six Industries is an innovative company and always looking to improve upon existing products and introduce new ones. Currently we are working on the release of:

- Multiple GPS integration
- Terrestrial based GPS ad-hoc systems
- Operating System for Ad Hoc Bluetooth repeater system
- Bluetooth enabled Smart Watch designed specifically for Nomad and Tertia Optio.
- Temporary and mobile Bluetooth repeaters
- Magnesium Mesh “Burner” function for mobile devices
- Specialized cell phone cases
- Vehicle mounted mobile cell antennas
- And More...

**Q - Are licenses transferable if I have attrition?**

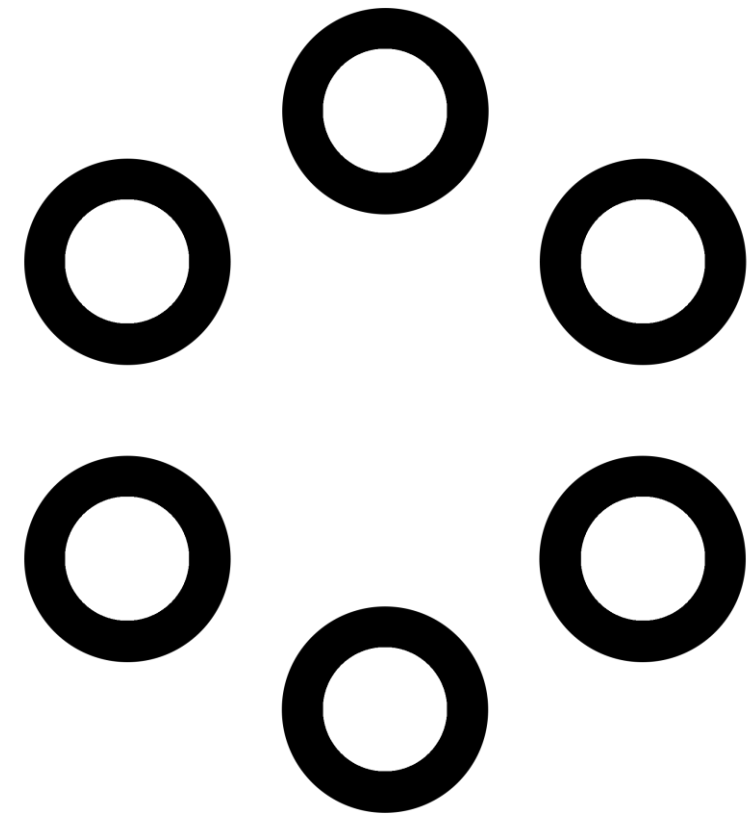
**A** - Licenses are unique and individually managed, however if you have attrition and would like to replace that license, you are able to do so with no additional charge.

**Q - Do I need to use all the features available, or can I add features?**

**A** - You do not have to use all the functions provided and some can be “locked down”. All options are also completely customizable. Please consult with your Six Industries point of contact for customized programs and appropriate pricing.

**Q - Do I have to provide the hardware to my employees?**

**A** - It is suggested that you provide all the hardware to users, however it is not required. Users will simply need to give permission for the Six Industries app to override other location sharing and communications applications while the application is in operation.



# Six Industries

*We've got your back!*

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