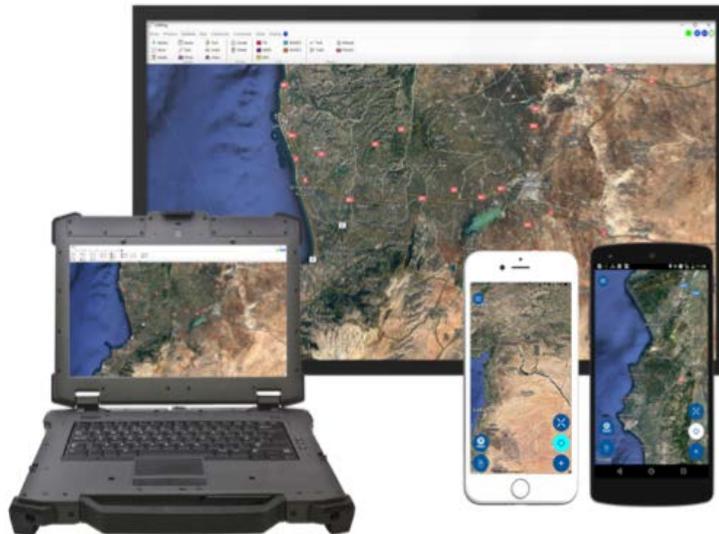




LIFERING – C4I Operations Up and Down the Chain of Command Summary

For the military, being able to gather and share the Common Operational Picture (COP) and Intel and to Communicate, Collaborate, Coordinate, and Command is mission critical. In the past, this function has been accomplished by multiple different C4I systems each of which has different capabilities and each of which uses unique User Interfaces and different Operating systems. This creates a serious problem as when a C4I operator has learned one C4I system, they do not know enough to competently operate the others. Each of these dissimilar C4I systems require contractor support and advanced training and all need to be transported for use in the field.

LifeRing™ is a Made in The USA COTS product that enables users to easily establish an ad hoc COP along with a complete set of C4I capabilities including Push to Talk (PTT) and Full Motion Video (FMV). The User Interface is based on the familiar Microsoft Windows 10 Operating system for immediate familiarity, thus greatly lessening training time. The LifeRing Android and iPhone Smartphone and tablet users utilize the familiar Google Maps interface. All LifeRing systems are similar in having extensive functions and are all capable of interoperating with all others.



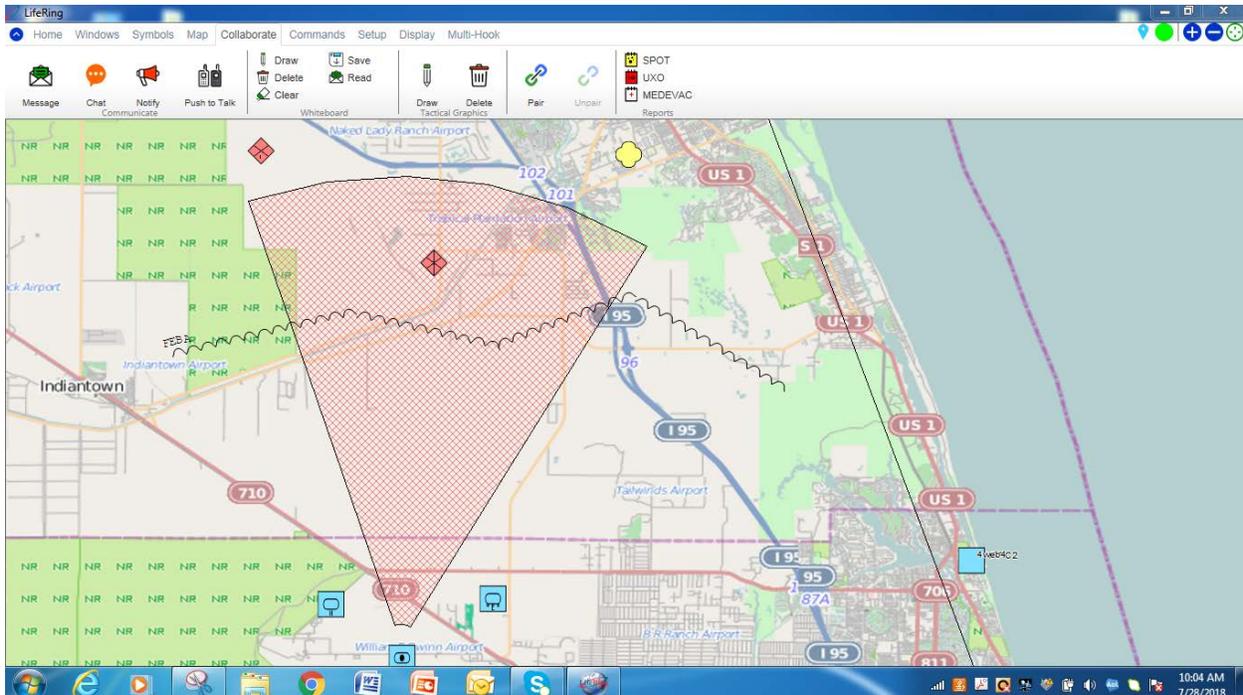
LifeRing enables real-time, situational awareness exchange between PCs, Android and iPhone Smartphones and tablets. LifeRing users up and down the chain of command can easily create a scalable C4I COP between each other. The software provides everything you need to communicate, collaborate and command between others in the group and enables C4I data to be appropriately sent up and down the Chain of Command.

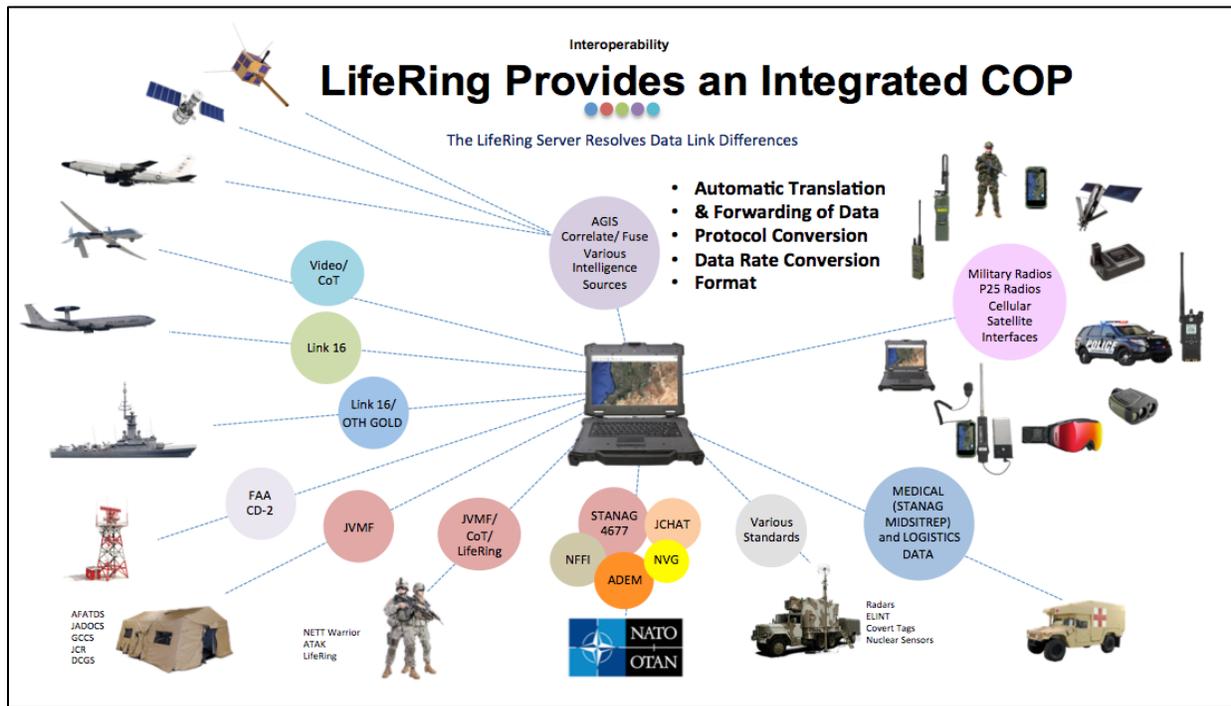
The LifeRing Server resolves disparity between different radio types (Military, MANET, P25, DMR, Cellular, etc.), encryption types, data rates, protocols and message formats and provides PTT and FMV communications between radios, military cellular networks, and satellite communications either individually or in various combinations. LifeRing Users can join or create groups to segment communications by echelon, location, mission or priority thus creating aggregation of all the Users in the group as well as a command hierarchy.

LifeRing provides each User the ability to view the whole COP including all LifeRing Users' locations along with their movements, tracks received from interfacing C4Systems, sensors and manually entered MIL STD – 2525 map markers. Additionally, LifeRing offers an extensive suite of command and control tools that provide the ability to seamlessly communicate with ground units, aircraft, ships and artillery systems and to integrate data received from medical and logistics information systems. Since the LifeRing PCs and Smartphones are interfaced to the LifeRing Server, all in the designated group view all the ground units, aircraft, ships and artillery in their area. The Smartphone units can designate targets and issue Call for Fire to AFATDS either manually or by using a laser target designator.

Users can add markers to the map via a complete menu of Mil STD 2525 symbols. Additional content such as descriptive text, image, audio, video or files can be attached to a marker that is then immediately available to everyone in the group by clicking on or simply touching the marker symbol. Marker data also can include size, unit info, MIL STD designators, Lat/Long, etc.. The LifeRing map displays the other LifeRing Users symbols which include the above data along with their range, bearing, heading, speed and altitude as well as their device's GPS strength, signal strength and battery availability percentage.

Typical LifeRing Command Center Console Display





For large or distributed LifeRing systems Server to Server communications are provided. This enables a small Company level Server to exchange the COP with the Battalion, the Battalion then forwards each of the Companies COPs to other Companies. Each of the Battalions also then exchanges the integrated Companies COP with the Regiment. If a Server were to be lost, LifeRing provides an automatic Server failover capability.

When a different mode of operations is desired, LifeRing uses the Amazon AWS cloud Server to provide inter-LifeRing system communications.

For secure data communications, LifeRing connects to GFE U.S. Type1 encryption devices or uses CSFC encryption provided by others. LifeRing also provides a built in AES-256 bit encryption for digital data, PTT and video communications, thus information can be encrypted multiple times. For Department of State approved friendly countries, as we are now doing in Australia, AGIS provides Users encrypted AES 256bit one-to-one and one-to-many group communications.

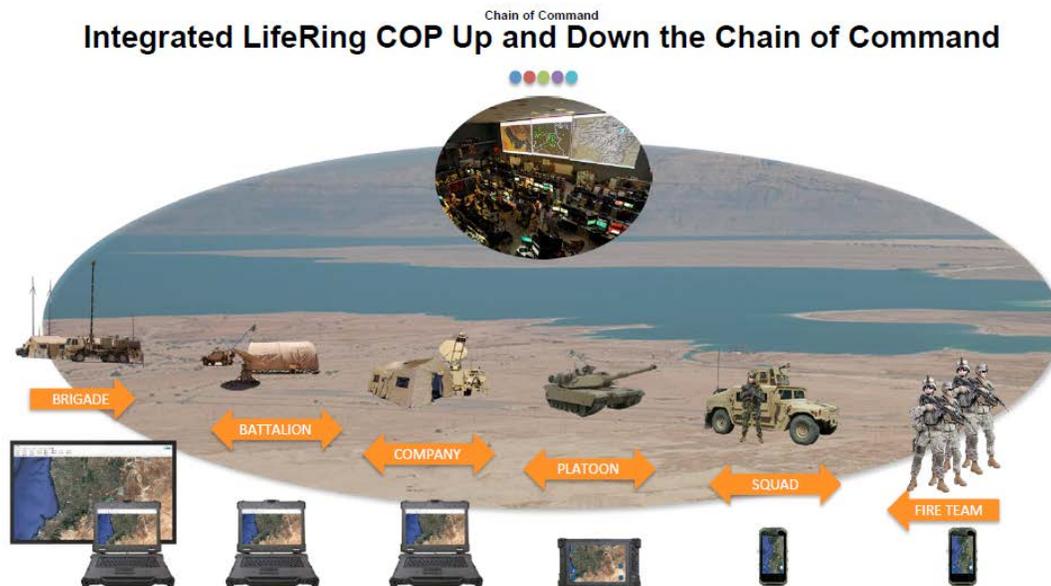
LifeRing has a whiteboard feature that allows the user to draw on the device's displayed map, and to use a NATO Vector Graphics drawing mode to further augment the COP with battle specific graphics and directions. A geo-fence tool allows the PC user to create exit and entry boundaries on the map which sounds an alert if a User goes in or out of the geo-fence. An optional Call for Fire capability is available that pinpoints the ground location to AFATDS, all on the LifeRing network are then notified of the target and the impending artillery strike. LifeRing also receives, displays and disseminates UAV video along with UAV location and TV ball pointing angle. LifeRing can also receive aerial data and maritime sensor data that identify location of ships at sea. LifeRing has the ability to interface with the US Navy's Tomahawk fire control TTWCS, this capability was demonstrated by the JCS during a Government exercise.

In addition to the messaging tools, the PC version of LifeRing has a Command feature for issuing Commands to an individual or to all in the group. The Commands are received by the other PCs and Smartphones and must be responded to with HAVECO, WILLCO or CANTCO in order to clear their screen. All User responses are received and cataloged by the issuing PC.

When use of the Internet is permitted, the LifeRing operator can select to automatically download Internet maps that are also automatically displayed according to the user location and selected map zoom level. In the case of the National Geospatial Agency (NGA), a LifeRing direct connection to current NGA imagery files has been used.

One of LifeRing's most compelling features is the ability to declare that you are in an Emergency situation. This immediately alerts all Users on the network of your emergency status. You can also use an Emergency Contact feature to quickly notify other Users of a Sniper, Ambush, IED or Contact at a specific location.

LifeRing interfaces with most U.S. Command and Control Systems (GCCS, C2PC, FCB2, JCR, Etc.) and NATO Command and Control Systems (using NFFI, ADEM, NVG, JCHAT) and can use Cellular, Military Radio, MANET or Satellite communications in any combination to establish communications. This capability enables LifeRing to be easily used for up and down the Chain of Command communications.



LifeRing supports other communications methods including: Iridium handheld satellite communications, Thuraya handheld satellite communications, BGAN Satellite communications, GPS Trackers such as: NAL, Cornerturn and satellite-based SPOT; and radio interfaces including Harris, Motorola, Persistent Systems, Trellisware; and private cellular systems such as (Radisy, Lemko, TLC, Oceus and others). LifeRing supports special purpose devices such as Laser targeting devices (the Special Force's Vectronix PLRF 25C), ship tracking transponders (Automatic Identification System) AIS, Goggles (RealWear), and other wearable computer devices.

Last year, the US Army contracted for a large Command Center to be installed in a NATO Partnership for Peace country. This system has over 50 interconnected LifeRing Operations Center Consoles

communicating between each other and is due to be expanded to communicate with corresponding LifeRing Command Centers and mobile centers at different locations in the country. The external interfaces to US and NATO external systems is being tested in the US and will be available if conditions warrant.



This NATO Partnership for Peace LifeRing system has passed initial in-country testing, and customer acceptance testing is due to commence in August 2018.

LifeRing has well over 100 features to enable easy operation and interoperability with other LifeRing PCs and Smartphones, with various sensors (radars, ELINT, etc.) and with various US, Five Eyes and NATO C4I systems. These features are described in detail in our PC and Smartphone Operator manuals.

To summarize, LifeRing provides an easy to understand and largely common UI across the Chain of Command. LifeRing is easy to use and it provides a highly portable, secure, interoperable C4I system that has been domestically and internationally field-tested. LifeRing interoperates at the different Military echelon levels (from the soldier / Marine to the Division), it interfaces to most US and NATO systems and it has been extensively field tested.

Videos of LifeRing operations can be seen at <https://www.agisinc.com/videos/military-videos/>. Evaluation copies of LifeRing are available to the US Government personnel on our website.

AGIS provides our integrated COTS LifeRing systems on a Fixed Price basis, during the first year of use, any reproducible issue is fixed at no cost. Any software additions that are paid for by the US government are provided to others at no cost. This approach assures our customers that what we promise and provide works!

AGIS will provide U.S. Government Points of Contact upon request.