# LifeRing C4I Communications Flexibility Under Hostile Conditions

Interoperability for critical communications that can automatically shift to any available method and/or type of communications.

JUPITER, FL, USA, October 13, 2020 /EINPresswire.com/ -- Military and [Disaster Response](#) organizations have a demanding operational need for assured communications in time of conflict. Satellite failure, Jamming and Severe weather and terrain can all affect stable communications.

Knowing that assured communications is a critical need, AGIS has spent more than a decade to develop methods to assure that the LifeRing™ users are able to use the optimum means to rapidly maintain communications between each other and to rapidly and automatically shift communications to take advantage of using any available Method and/or Types of communications. Specifically:
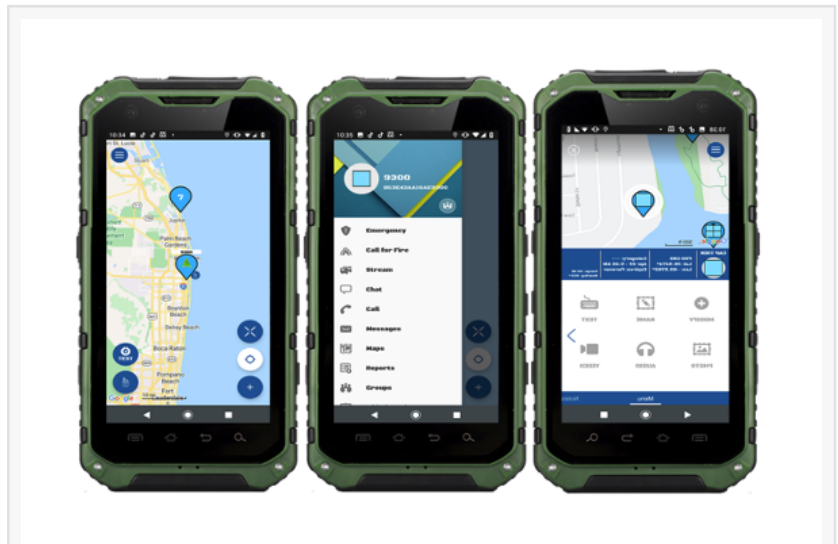
Tap and Swipe Smartphone Symbols

Up & Down Chain of Command

1. LifeRing uses the following Methods to Assure continuity of Communications:

a. LifeRing Web Clients can access remote Web Servers (i.e. AWS GovCloud, etc.) or an on-Premises Web Server. Among the many advantages of the [Web Client](#) is the ability to update and upgrade the C4I software centrally at the Web Server rather than individually (possibly 10,000's of clients). The big disadvantages are the high bandwidth requirements and the fact that, since maps are not stored locally, new maps are not available. The Web Server can exchange data with the LifeRing App Server when others are using the App Server (See b.

below).

b. The LifeRing App on PC, Android and iPhone Clients can communicate with a remote App Cloud Server or an on-Premises App Server. The big advantages of using the App Server are: 1. Map zooms and offsets can be handled by the Client and 2. It enables the Clients to communicate with it using low bandwidth communications (i.e. radios). The App Server can communicate with the LifeRing Web Servers (See a. above)

Streaming or Images - Situational Awareness

c. LifeRing provides for up and down the   Chain of Command communications when using App Servers at the different echelon levels. For example, Platoons need to pass information up the Command Chain to higher echelon level units like Brigades and, conversely, Brigades need to send data down the Chain to Platoons. To resolve this flow of communications issue, LifeRing Servers are provided with Server to Server (STS) Communications software which enables the Servers at each Command level to communicate with each other.

2. LifeRing can use different Types of Communications:

a. Military radios, P25 and other radios, MESH, cellular LTE and 5G and Satellite. These communication speeds can range between 2.4 Kbps to 5G 10 Gbps.

b. Different communications protocols that are used by different types of radios, i.e. Link-16 vs EPLRS vs JTRS.

3. LifeRing Servers resolve the issues associated with the different communications Types, speeds and protocols:
The LifeRing Server is a smart Server. It is able to resolve the interface issues associated with different communications types and speeds by receiving data from each interfacing system in accordance with its protocol, formats and transmission speeds. LifeRing then translates the received information into our Multi Domain Data Link (MDDL) format and then converts MDDL into the appropriate protocol and format for transmission to the interfacing system. When the LifeRing Server connects to each of the different communications devices it determines the speed of each. As an example, when information is received from a system using 5G at Gigabits per second it is processed by the Server to determine the optimum information for transmission to an Iridium handheld capable of only receiving data at 2,400 bits per second. This includes an adaptive range filtering so that the symbol data closest information to the Iridium user is transmitted to the user.

4. LifeRing Clients automatically shift Primary Server communications to a designated alternative Communications Server when communications to the Primary Server are lost.

Thus, regardless of the Methods, Types and Speeds associated with interfacing communications systems, LifeRing enables communications between users. This capability enables LifeRing users to quickly shift between communications Methods and Types while maintaining interoperability between each other.

To maximize the Operational effectiveness of these critical communications, for U.S. and other approved militaries, the LifeRing Server also provides interfaces to and translation and data forwarding between Link-16, OTH Gold, JVMF, CoT and NATO NFFI, ADEM and NVG providing to all a true Common Operational Picture (COP) thus enabling all interfacing systems to have a Multi-National Common Operating Picture (COP).

All the above exists and it has been tested.

You can try using an unclassified version of our Web Client by going to https://liferingmilitary.com or https://liferingfirstresponder.com or for a copy of the unclassified APP go to www.agisinc.com/download.

For further discussions, call Cap Beyer at (561) 744-3213, beyerm@agisinc.com or George Barros at (703) 947-7818, gbarros@agisinc.com or visit www.agisinc.com. We look forward to talking!

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