

Case Study: Tactical Military Communication

BACKGROUND

In today's military, the requirement for reliable communications infrastructure in a DIL environment is becoming increasingly important as forces continue to be deployed to some of the harshest environments around the world. The edge of the existing communication infrastructure is rapidly evolving from fixed to a highly mobile ecosystem of radios, cellular, Wi-Fi, and satellite devices. The ability for the warfighter of today to succeed or fail is dependent on reliable communications that could originate anywhere including inside the Pentagon or the tactical edge in theater. Tactical communications across all intelligence agencies and branches of the military should be seamless and transparent.

PROBLEM

Today's communication infrastructure typically requires four - five 100 pound containers, containing complex pieces of equipment and multiple people to install and maintain. This is due to utilizing old technology to provide reliable communications on the battlefield. In a time where critical communication on the tactical edge is paramount to the success of a mission, current infrastructure is not mobile, heavy, requires time-consuming installation, and is difficult to support.

Tactical communication networks today rely on a collection of radios, processors, and switches that provide end to end communications links. Significant processing power is required to connect one network to another, run the servers or applications for unified communications, and encrypt/decrypt the data. In addition, locations in remote areas where the battlefield is constantly moving, current SWAP is not manageable to move with the unit.

SOLUTION

Acuity was specifically designed to meet the communications challenges of today's battlefield. At the tactical edge, Acuity provides a robust array of built-in communication capabilities such as cellular, Wi-Fi, hard-lines, and SATCOM in a 30 pound carrying case. With the power of 10 servers, Acuity supports a wide variety of the tactical edge communication software required on the forefront of battle, such as Exchange, Active Directory, radio management software, encryption, SD-WAN, and a universal communication suite. The system can auto load balance and provide failover the different legacy/modern networks as movement demands. An infrastructure that normally requires 20 people to set up, configure and support, can be accomplished with a single person due to Acuity's turnkey capabilities of auto initialization with an ability to operate in a disconnected or connected environment.

OUTCOME

- Robust communication at a fraction of current infrastructure SWAP
- Reduction the number of communication personnel required for a tactical edge mission
- Order of magnitude reduction in system weight
- Reduction in training requirements
- Maintain force mobility and agility without sacrificing functionality

