Full Data Capture Under Extreme Environmental Elements

Industry: Military, Government

Challenge:
To effectively collect and analyze data related to communications, battlefield tactical deployment, and situational awareness during Department of Defense exercises.

Situation:
A leading infrastructure contractor for the Department of Defense, had been utilizing numerous Test Access Points (TAPs) as part of their mission-critical networking equipment solution. This was to measure and assess battlefield communications, and evaluate highly-volatile environments during reconnaissance missions, ensuring the transfer of mission-critical data between battlefield military units, during drills, scouting, and situational occurrences.

Putting together the network visibility strategy, they recognized the need to respond, collect and transfer every field request, while still balancing the requirements for toughness and improved reliability in the field. They found that many manufacturers of test access equipment were struggling to keep up with the fast evolution for ruggedized, compactness, weight, quality, and design.

The four key requirements outlined were:

1. Portability & Vehicle-Mounted: The ability to conduct testing both 'on' moving military vehicles (MATV's, MAXXPRO's, Bradley's, HMMWV's, STRYKER's, Tanks) and 'inside' each mode of transportation to allow for information to be gathered and collected, whether in a drill, or live exercise. Further, having the flexibility to secure a mount to a plate and run the required cables/cabling to any device that might need a breakout TAP

2. Environment Durability: Withstand exposure to corrosive, high-heat, and high-pressure weather environments

3. Design: Specific requirements to address electromagnetic interference (EMI)

4. Capability: Network connections and power connectors needed to be secure with custom Mighty Mouse ports

> "Working with Garland, we achieved leading network test access solutions that have been utilized in the field for over four and a half years, with zero fail."
>
> -Bruce Aldrich,
> Jacobs Engineering

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Solution:

To ensure battlefield exercise data was effectively collected, the communication devices were outfitted with a Garland Technology network TAP which fed the data through a packet capture tool and onto hard drives.

With Garland Technology, the DoD received custom-built TAPs that boasted 'wings' on the chassis so each could be mounted in a different location as well, each having a double-bay chassis so they could TAP more items.

Top Solution Benefits of Garland Technology:
1. The only vendor that delivered a smaller footprint product — Garland Technology addressed space as a 'benefit'
2. The only vendor that has a rugged metal closed box build
3. The only vendor that could design and deliver a custom-build that would meet the Government's short delivery window.

Ongoing Outcome:

Garland Technology continues to capture 100% of DoD exercise data using network TAPs. This has ensured the packet capture of full-duplex traffic without dropping packets or losing connections under extreme environmental elements.

With over 250 TAPs in circulation, and over four and a half years, DoD has not experienced any product failure, nor had a need for improvements/replacements. Garland Technology was able to deliver a highly reliable, mission critical solution that set the standard for portable mission specific TAPs.

Tools Deployed:

M100CCBM (10x100M)

M1GCCBM (10x100x1000M/1G)

Military-Grade Industrial Network Test Access Points

> "The military is undergoing increased pressure to deliver data faster, with accuracy and reliability, and working with Garland, as a proven leader for network access equipment, has resulted in our ability to forecast, plan, and assess, proactively, as a business driver."
>
> -Bruce Aldrich, Jacobs Engineering