

## Customer Reference Story – USAF / MIT Lincoln Labs

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### → Situation/Sponsor

The USAF worked with a Lincoln Labs at MIT to design, engineer and build a Mobile Command and Control Center which required support of unclassified and classified communications. Due to the nature of the mobile unit it had to meet specific communication requirements, withstand extreme temperatures, various environmental conditions all within a limited amount of physical space.

### → Critical Issue

Critical to the solution design components included, equipment space requirements, support of various classified and unclassified circuits, environmental conditions such as safeguards against extreme temperatures and stability of the equipment itself due to the mobile nature of the mobile platform. The solution must be 100% Commercial off the Shelf (COTS), address security issues to prevent theft of the communications signals and support up to 10 circuits of various types. And it would have to be designed, engineered, fabricated, assembled, tested and shipped for trials within six (6) weeks.

### → Problem

Lincoln Labs had spent many months working on the issue without resolution, tested many products and eliminated them one by one due for various reasons including the lack of environmental support issues, lack of critical infrastructure support and security for each of the classified and unclassified circuits and space issues. Out of frustration, they were about to abandon the project when they found FiberPlex Technologies, LLC (FiberPlex). FiberPlex has a long history of designing, engineering, building and delivering COTS products for its US Government customers.

### → FiberPlex Provided

- Final product is COTS.
- The final design included support of classified and unclassified circuits through media conversion of the circuits from electrical to optical interfaces.
- FiberPlex designed an environmentally safe enclosure for all electronic equipment to the customers exact space requirements.
- Redundant power was also included which could be supported by both AC and DC power sources depended upon the location of the mobile platform.
- The fabricated design met all customer requirements which included easy access to the solution itself for operation and maintenance.
- From start of project to delivery took six weeks.

## → Result

The solution was able to meet our customer requirements within budget and time frame.

## → End User Contact Information

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## → Period of Performance

The labs shared their program criteria with FiberPlex, requirements, program goals and objectives, infrastructure needs, environmental issues, cost restrictions and finally time frames. FiberPlex worked directly with the Lincoln Labs to design the required solution. Within two weeks, FiberPlex developed mocked up solutions which the customer made few changes. Upon final approval, Laboratory worked quickly with their contracting officers (KO) and our Value Added Resellers (VARs) to issue the necessary purchase order (PO) to move forward with the build phase of the program.

Initial evaluations and development started in June of 2013 initial quantities of completed units were delivered in September of 2013. Complete solution was then delivered to USAF by Lincoln Labs and is being evaluated, date of full production procurement has still not been identified by USAF.

## → Support Documentation

**Photo:** *Custom designed RMC-3700 chassis NEMA compliant chassis that was mounted in the 'black' communication area under the vehicle chassis of the mobile command center.*





Figure 1 Block diagram of FiberPlex comms in Mobile Command Center