



Cracking the Code: Simple Fiber-to-Copper Conversion for Defense

Challenge

Converting fiber traffic to copper often carries complexity and risk, especially when visibility and data integrity are on the line. Many network operators hesitate, fearing packet loss or misconfigurations during the process.

This was exactly the challenge facing a large naval defense unit. They needed to tap 100Base-FX fiber links on a ship and convert the copied traffic to copper, making it accessible to their IT team for monitoring and analysis. That's where Garland Technology stepped in.

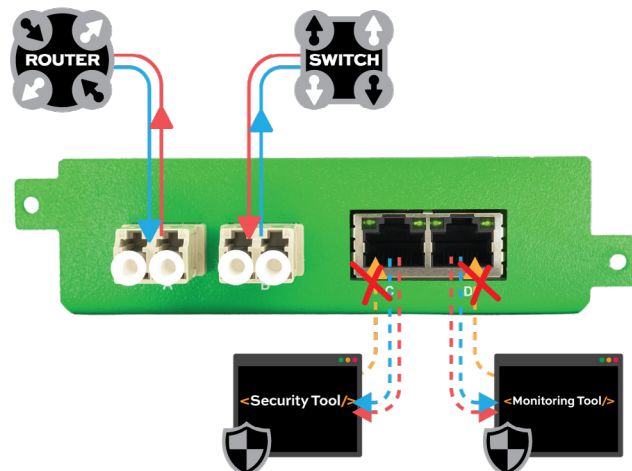
Garland offered a streamlined media and speed conversion solution, purposely built to bridge the gap between legacy fiber infrastructure and copper-based tools, while ensuring complete visibility and network protection.

The TAP to Tool™ Solution

1. To gain critical visibility into their network, the customer needed to convert their existing 100Base-FX Fiber links into copper, without disrupting operations or compromising security.
2. By deploying a portable Aggregator TAP with media conversion, the customer was able to seamlessly convert fiber traffic to Copper Gigabit, enabling 100% full-duplex traffic visibility. The Aggregator TAP also combined two streams of copied traffic into a single monitoring link, which reduced the complexity of the overall design and maximized efficiency.
3. An added layer of protection came from the TAP's built-in unidirectional data diode. This hardware feature prevents any traffic from being injected back into the live network, ensuring added security for sensitive environments.
4. Additionally, the solution enabled both media and speed conversion, giving the customer added flexibility to match the varying network configurations, without requiring multiple devices or added infrastructure.

Benefits

- Seamless Media Conversion
- 100% Traffic Visibility for accurate analysis
- Built in security for one way traffic flow
- No packet loss, ensuring zero dropped packets
- Cost effective, simple to deploy solution



Have Questions?

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