



Challenge

Protecting civilians from waste contamination is one of the most essential public safety responsibilities today. Mismanaged or delayed waste processing can lead to severe health risks, environmental pollution, and even large-scale public health crises. As waste management operations become increasingly automated and connected via IoT devices, ensuring the security and reliability of these systems has never been more critical.

Modern waste management networks rely on real-time data collection and analysis to monitor systems, equipment, and logistics across multiple sites. However, without complete visibility into network traffic, even the most advanced security tools can be ineffective, leaving gaps that could expose operations to downtime, cyber threats, or compliance failures. Recently, a large waste management organization partnered with Garland Technology to overcome these visibility challenges.

The TAP to Tool™ Solution

1. The customer required a reliable method to connect their Network Detection and Response (NDR) tool to existing SPAN ports within their network.
2. Garland Technology recommended a portable Hardware Data Diode solution designed for both aggregation and regeneration. This flexible, plug-and-play solution enables organizations to securely send SPAN traffic to out-of-band monitoring tools, such as an NDR, while maintaining network integrity through one-way data flow, effectively eliminating the risk of inbound cyber threats.
3. Depending on the site requirements, with this solution, the customer had the flexibility to:
 - a. Regenerate one SPAN link up to three times to multiple appliances
 - b. Aggregate two SPAN links and distribute the combined data stream to two separate appliances
4. This solution solved a much-needed visibility gap, while allowing the customer to fully maximize their existing architecture.

Benefits

- Safeguard critical network assets
- Simplify deployment through a compact and portable design
- Built-in security with one-way traffic enforcement
- Hardware Data Diode has no IP or MAC address
 - invisible to adversaries

