![Garland Technology logo — See every bit, byte, and packet.®]
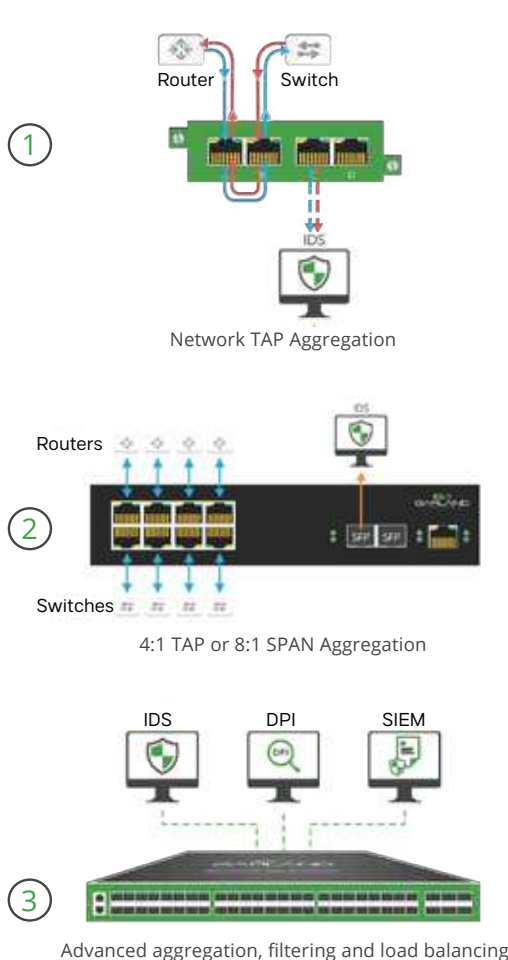
How to Gain Complete Visibility Across Your OT Environments To Meet Today's Security Threats

Today's industrial and critical infrastructure companies face a new cybersecurity reality. Modern security threats combined with the convergence of OT and IT environments have exposed architectural vulnerabilities, as these companies work to meet new regulatory requirements, standards and cybersecurity frameworks to combat these threats.

The tools used to accomplish this include asset visibility, inventory and management, as well as threat detection and response solutions. The challenge then becomes architecting connectivity throughout the network to provide packet visibility to ensure these tools properly map and secure the network.

Garland Technology has spent years working with OT customers and government agencies to design specialized network TAPs to work with these unique environments, including media and speed conversion, environmentally and temperature resistant, as well as unidirectional data diode TAPs – all in small rugged metal form factors. Designed to allow Industrial Control System (ICS) teams to overcome legacy equipment and distributed network challenges to gain the complete visibility that is needed to meet today's security challenges.

① Network TAP Aggregation

② 4:1 TAP or 8:1 SPAN Aggregation

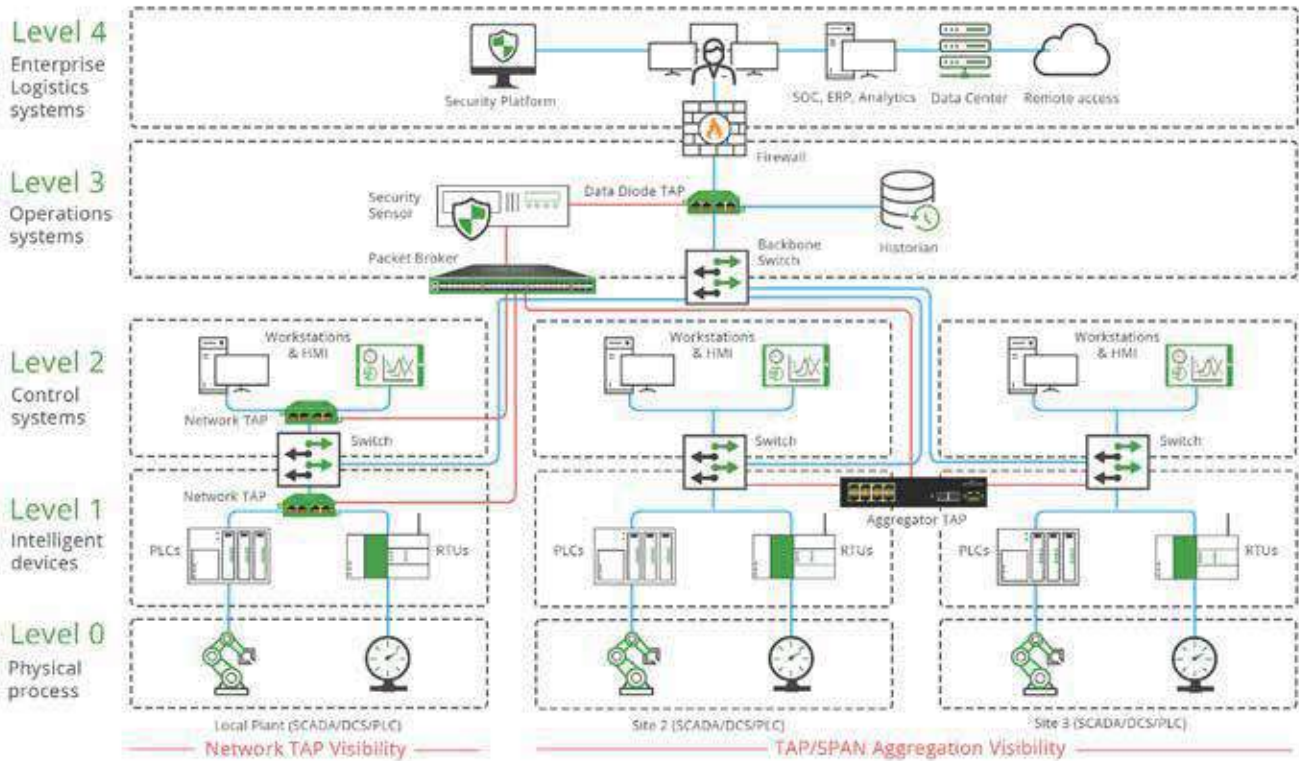③ Advanced aggregation, filtering and load balancing

How It Works

Three common deployment scenarios that can be used for various OT/IT environments:

1. Network TAPs are connected between two network appliances like switches, routers, firewalls, PLC, RCUs, etc. from any IT and/or OT segment at each layer that needs to be monitored. The network TAP provides full-duplex copies of traffic directly to monitoring tools and are typically used to overcome limitations that occur when SPAN (Mirror/switched port analyzer) ports are used or not available.

2. To optimize traffic in distributed networks, Aggregator TAPs can aggregate multiple TAP or SPAN links from various segments back to a centralized monitoring sensor, providing the benefits of a network TAP including unidirectional data diode protection.

3. For advanced traffic optimization, TAP or SPAN traffic from various segments are connected to a PacketMAX™ packet broker for aggregation, load-balancing, filtering, and GRE tunneling – sending the packet data to a centralized monitoring sensor.

INDUSTRIAL PRODUCTS

- Network TAPs
- Aggregator TAPs
- Data Diode TAPs
- Extreme temperature TAPs
- Specialized TAPs
- Advanced Aggregators

Level 4 — Enterprise Logistics systems
Level 3 — Operations systems
Level 2 — Control systems
Level 1 — Intelligent devices
Level 0 — Physical process

Network TAP Visibility — Local Plant (SCADA/DCS/PLC)
TAP/SPAN Aggregation Visibility — Site 2 (SCADA/DCS/PLC) — Site 3 (SCADA/DCS/PLC)

Business Benefits

- Minimize risks to the ICS/OT environment and maintain optimal device utilization by transferring the monitoring demands to systems and devices that are not critical to the infrastructure.
- Reduce network downtime and monitoring deployment time with easy plug and play options without configuration changes to existing infrastructure.
- Ensure network infrastructure reliability is maintained and implementation costs for monitoring solutions are minimized.
- Eliminate blind spots, improving real-time asset inventory and management.

Functionality Benefits

- Provide complete packet visibility with full-duplex traffic copies.
- Ensure no dropped packets while passing physical errors and support jumbo frames without introducing delay, or altering the data.
- Network TAPs do not have an IP address, or MAC address, and cannot be hacked.
- Provide unidiredirectional secure visibility with data diode functionality to your OT security tools without adding latency.
- Aggregate TAP and SPAN traffic to a centralized sensor.
- Media and speed conversion to bridge legacy equipment.
- Rugged and reliable visibility products for extreme environments
- Accommodates OT environments with DIN rail, DC power converters, various secure connector options.

About Garland Technology

Garland Technology is an industry leader of IT and OT network solutions for enterprise, critical infrastructures, and government agencies worldwide. Since 2011, Garland Technology has been engineering and manufacturing simple, reliable, and affordable Network TAPs and Network Packet Brokers in Richardson, Texas. For help identifying the right IT / OT network visibility solutions for projects large and small, or to learn more about the inventor of the first bypass technology, visit GarlandTechnology.com or @garland-technology-llc.

Learn More
otd.salesgrp@onlineteknikdestek.com

GARLAND TECHNOLOGY

Value-Added Distributor
OTD BİLİŞİM
www.onlineteknikdestek.com

ICT
OTD
PREFER EXPERIENCE ONLINE
Since 2011

110821