



Easy. Scalable. Quality.

GD
GARLAND
TECHNOLOGY

See every bit, byte, and packet[®]

Intro | Agenda

1. Introduction to Garland
2. TAP vs SPAN
3. Product Review
4. Tech partners
5. Solutions
6. Partner Portal
7. Design-IT



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Garland Technology

Providing the Visibility Foundation

Network Administrators and SecOps team need to ensure that the data being fed into their analytic and security tools is complete and accurate.

Garland Technology specializes in providing the products needed to deliver every “bit, byte & packet” to the monitoring and security tools, on-prem or in the cloud.



Garland Technology is global



3,000 customers and over
100 partners globally

New York | Texas | UK | Poland | Australia

 Garland office



Deployed
in every vertical



Telcos • Government • Healthcare • Defense • Manufacturing • Financial • Retail •
Energy • Entertainment • Technology • Pharmaceuticals • Education • Transportation •
Gaming • Any enterprise IT network

Who has gained visibility with Garland

Financial/Insurance



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Telecom



Government



Major Brands



Manufacturing



Healthcare



Your 360°

Network **Visibility Fabric**

Starts with Garland Technology



Physical Layer TAPs

- 100% visibility for out-of-band monitoring tools
- Continued development [First to release OM5, customized solutions]



Inline Edge Security

- Reduce the risk of downtime
- Adds resiliency and peace of mind
- Innovative Inline hybrid packet broker



Purpose-built Packet Brokers

- Aggregation layer supports filtering, aggregation, and load balancing
- Advanced features support deduplication, packet slicing, time stamping and more

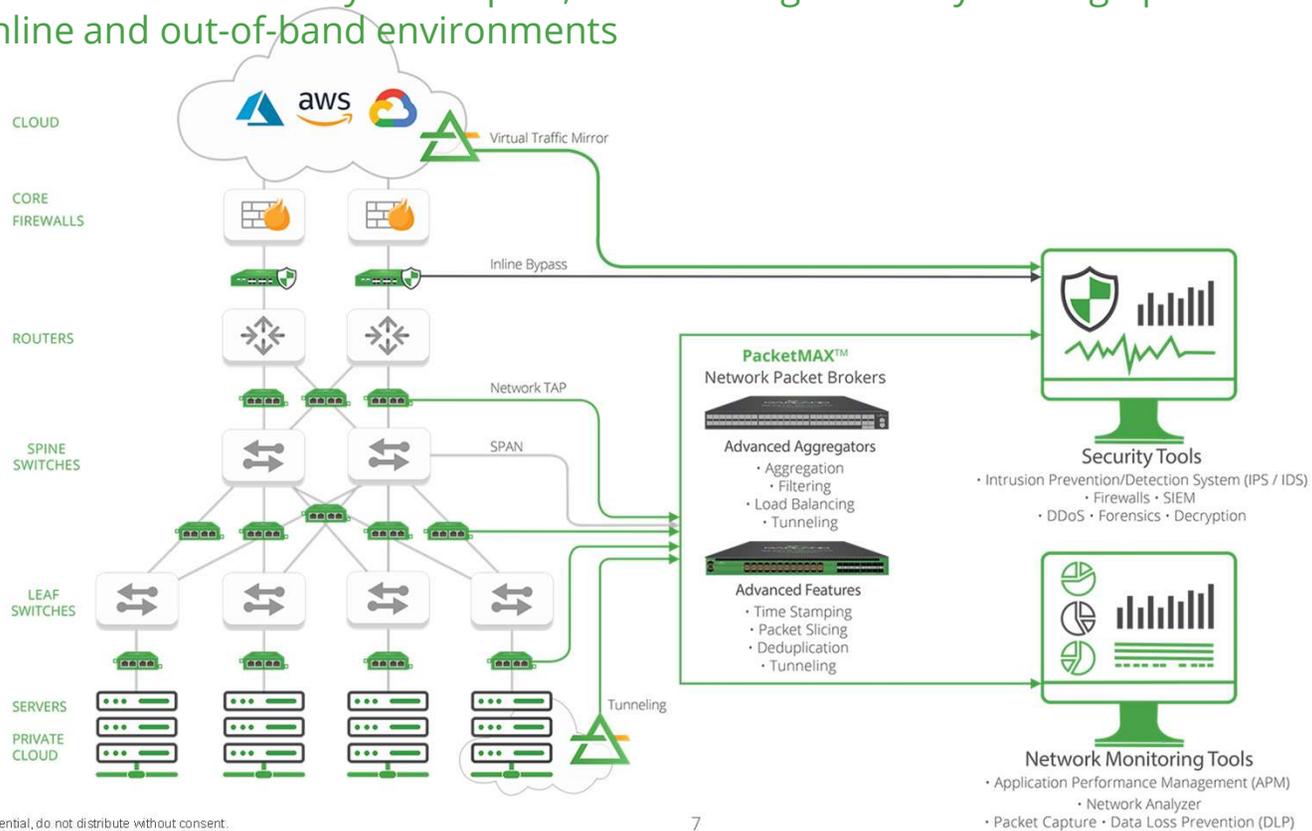


Cloud

- Private
- Public

Scalable visibility fabric for your architecture

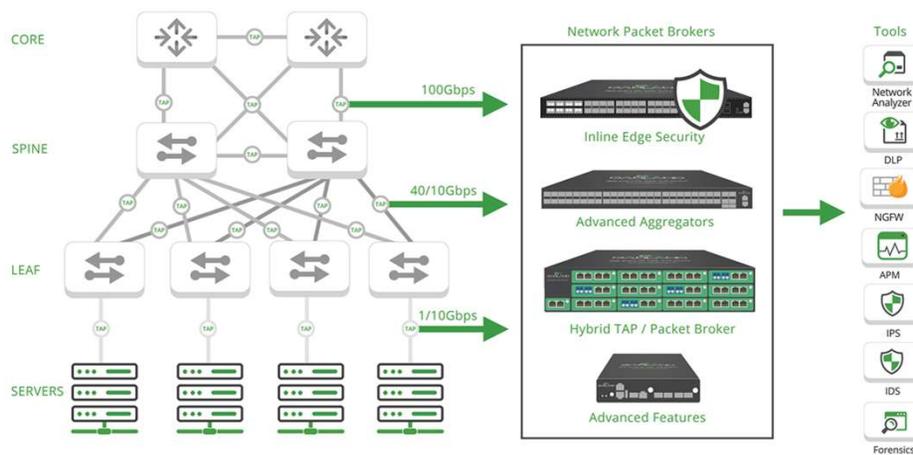
Eliminate network and security blind spots, while adding resiliency and high performance for both inline and out-of-band environments



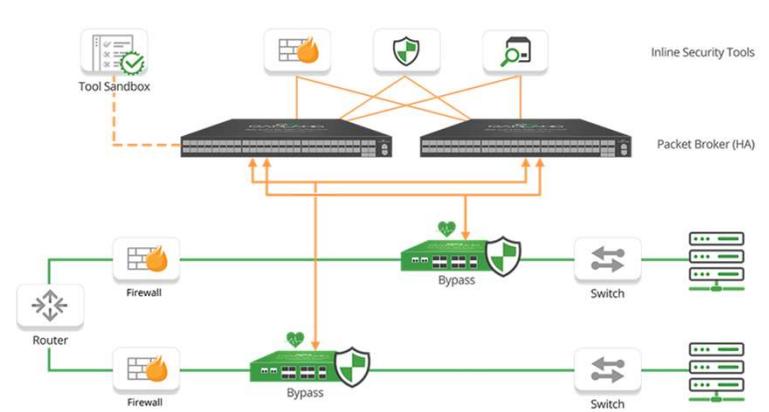
Scalable visibility fabric for your architecture

Eliminate network and security blind spots, while adding resiliency and high performance for both inline and out-of-band environments

Out-of-Band / Passive



Inline / Active



Two Ways to Mirror Traffic

TAP

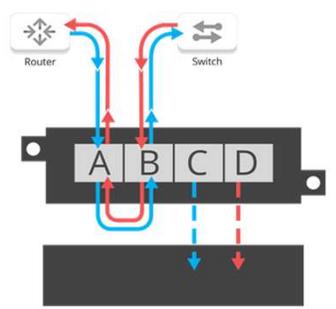
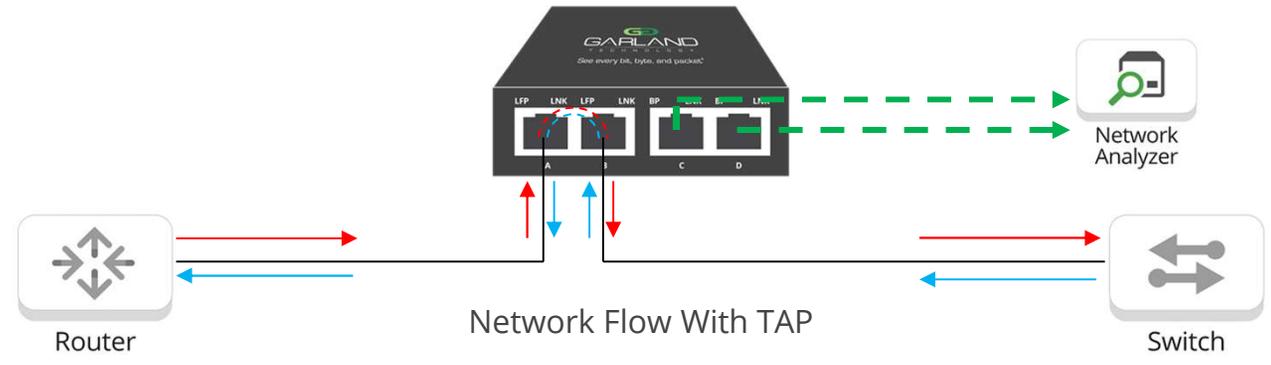
- Does not drop packets, regardless of bandwidth
- Plug & Play, set-up once and never touch again
- Does not alter the time relationships of frames
- Does not impact the live network while monitoring

SPAN

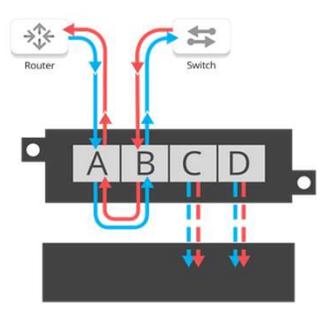
- Packets are dropped when ports are oversubscribed
- Easily misconfigured or turned off
- Can change the timing of the frame interactions
- Degrades performance of live network

Network TAPs 101

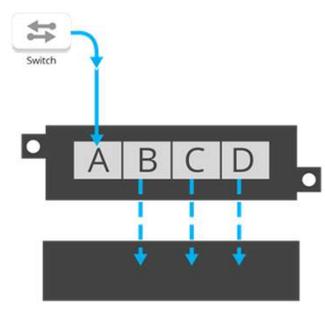
Provide 100% access & visibility



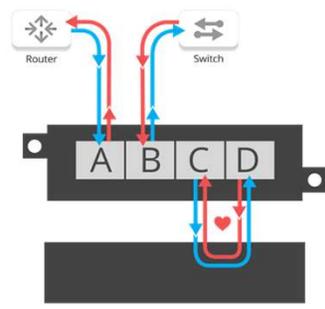
TAP "Breakout" Mode



Aggregation Mode



Regeneration Mode



Bypass Mode

Garland's Extensive Network TAP Portfolio

Supporting a variety of media, speeds and form factors. Whatever your requirements are, we have a TAP for that.

Passive Fiber TAPs	Copper TAPs	RegenTAPs	Aggregator TAPs	XtraTAP™
				
1G/10G/25G/40G/100G	10/100M & 10/100/1000M	1G/10G	100M/1G/10G	10/100M & 10/100/1000M
<ul style="list-style-type: none"> • Single-mode • Multi-mode • MPO/MTP® • BiDi [Cisco BiDirectional] 	<ul style="list-style-type: none"> • RJ45 • 2 Mighty Mouse 10/100M 	<ul style="list-style-type: none"> • Single-mode • Multi-mode • SFP+ 	<ul style="list-style-type: none"> • Single-mode • Multi-mode • RJ45 • 100Base-FX 	<ul style="list-style-type: none"> • Single-mode • Multi-mode • RJ45
<ul style="list-style-type: none"> -Portable -High Density 1U -High Density Modular 1U 	<ul style="list-style-type: none"> -Portable -1U or 2U Chassis -Military-Grade Industrial Network TAP 	<ul style="list-style-type: none"> -Portable, ½ U Chassis -High Density 1U -High Density Modular 1U 	<ul style="list-style-type: none"> -Portable, ½ U Chassis -1U or 2U Chassis -handheld "mini" 	<ul style="list-style-type: none"> -Portable -1U or 2U Chassis -2U holds up to 12 TAPs
<ul style="list-style-type: none"> -OM1/OM2/OM3/OM4/OM5 -OM5 fiber supports SWDM 	<ul style="list-style-type: none"> -Failsafe -Supports LFP, LSS and PoE -Plug and play / hot swappable 	<ul style="list-style-type: none"> -Failsafe, OEO, Passive -1x5, 1x3 -Tap + aggregation in one 	<ul style="list-style-type: none"> -Failsafe -4x1 or 4x2 -Media conversion 	<ul style="list-style-type: none"> -Failsafe -Port-to-Port Aggregator with port mapping filtering -Packet slicing and packet injection

Garland's Network Packet Broker Portfolio

Deploy what you need, when you need it, and enhance your existing infrastructure

PacketMAX™ Advanced Aggregator	PacketMAX™ Advanced Features	PacketMAX™ Advanced Features Dedup	EdgeLens® Inline Security Packet Broker
			
1G/10G/25G/40G/100G	1G/10G/40G/100G	10G	1G/10G/40G
<ul style="list-style-type: none"> • RJ45 • SFP/SFP+ • QSFP+ • QSFP28 	<ul style="list-style-type: none"> • RJ45 • SFP/SFP+ • QSFP+ • QSFP28 	<ul style="list-style-type: none"> • SFP+ 	<ul style="list-style-type: none"> • Single-mode [m] • Multi-mode [m] • SFP/SFP+ [n]
1U or 2U Chassis	1U Chassis	½ Rack Chassis	-1U Chassis / ½ Rack
-Filtering, Aggregation and Load Balancing -Start and Terminate GRE and L2GRE Tunnels -2k filters -No additional per-port license fees	-Time stamping -Packet Slicing -GRE / ERSPAN Termination -Hash-based Round-Robin load balancing and -High Density filtering, aggregation & load balancing	-Large window deduplication -FPGA Based design for increased flexibility	-Heartbeat/Failsafe Technology -Filtering, Aggregation and Load Balancing -Deploy multiple inline, active security tools -High Availability (HA)

Technology Partnerships

Our TAP to Tool™ philosophy empowers the solution by architecting to the tool



How Garland Technology works with your **Monitoring Solutions**

Deploying or managing one of these tools?



Wireshark



APM



Packet Capture



Network Analyzer



IDS



Lawful Intercept



Forensics



DPI



SIEM



Content Filter



Packet Injection



Network Packet Broker

Work with any of these companies?



Recommended Garland Products



Breakout Network TAPs
• Passive Fiber & Copper



Aggregator Network TAPs
• UniversalTAPs



Xtra TAPs
• All-in-1 Advanced Filtering TAP



Network Packet Brokers

Advanced Aggregators
• High Density filtering, aggregation and load balancing

Advanced Features
• DeDup, time stamping

Hybrid NPB System
• Under 200 Ports
• Inline Security



How Garland Technology works with your **Security Solutions**

Deploying or managing one of these tools?



NGFW



WAF



IPS



DDoS



DLP



SSL Decryptor



Packet Capture



Packet Injection

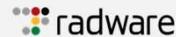
Work with any of these companies?



Check Point
SOFTWARE TECHNOLOGIES LTD.



ForeScout



##SCADAfence

Recommended Garland Inline Edge Security Products



EdgeSafe: Bypass TAPs

- Failsafe & heartbeat technology
- 1G/10G/40G/100G



EdgeLens® In-line Security

- Hybrid Packet Broker



Network Packet Brokers

Advanced Aggregators

- High Density filtering, aggregation and load balancing

Advanced Features

- DeDup, time stamping

Hybrid NPB System

- Under 200 Ports



Identifying Opportunities



Ideal Customer Profile



Organization Size

250-500+ employees
Mid Size Enterprise (1000+)
Global Enterprise (5000+)



Verticals

Healthcare
Retail
Finance
High Tech
Industrial/Utilities
Federal/SLED



Physical Environments

On-prem Data Centers
Campus networking/security requirements



Cloud Environments

Public
Private
Hybrid



Targets

Network Engineer
Network Architect
Security Engineer
Security Architect
IT Manager
IT Director
Cloud Architect
CTO/CIO/CISO/VP of IT

Reseller Positioning



SMB Focused

FieldTAPs
Portable TAPs
EdgeLens Focus
Small packet brokers



Enterprise

Traditional VAR

Network TAPs
Advanced Aggregators
Advanced Features
EdgeLens/EdgeSafe
Prisms



Online Reseller

FieldTAPs
Copper Breakout TAP



Security Focused

EdgeSafe Bypass TAPs
EdgeLens
Advanced Features
Advanced Aggregators

Identifying an Opportunity

Two points of entry

Network Operations (NetOps)

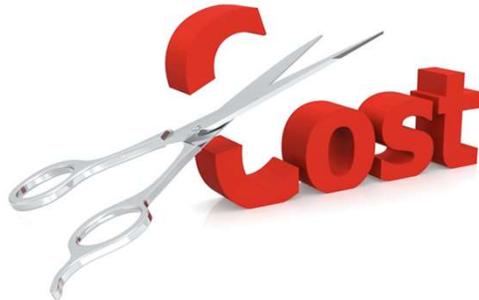
- **Improved Enterprise IT productivity**
 - (Source: Enterprise Management Associates (EMA) research - 38% of Enterprise respondents)
- **Improved responsiveness to business needs and faster delivery of services**
 - (Source: EMA research - 28%)
- **Accelerated detection of incidents**
 - (Source: EMA research - 26%)
- **Opportunity indications**
 - Network outages
 - Performance concerns
 - Network infrastructure upgrades

Secure Operations (SecOps)

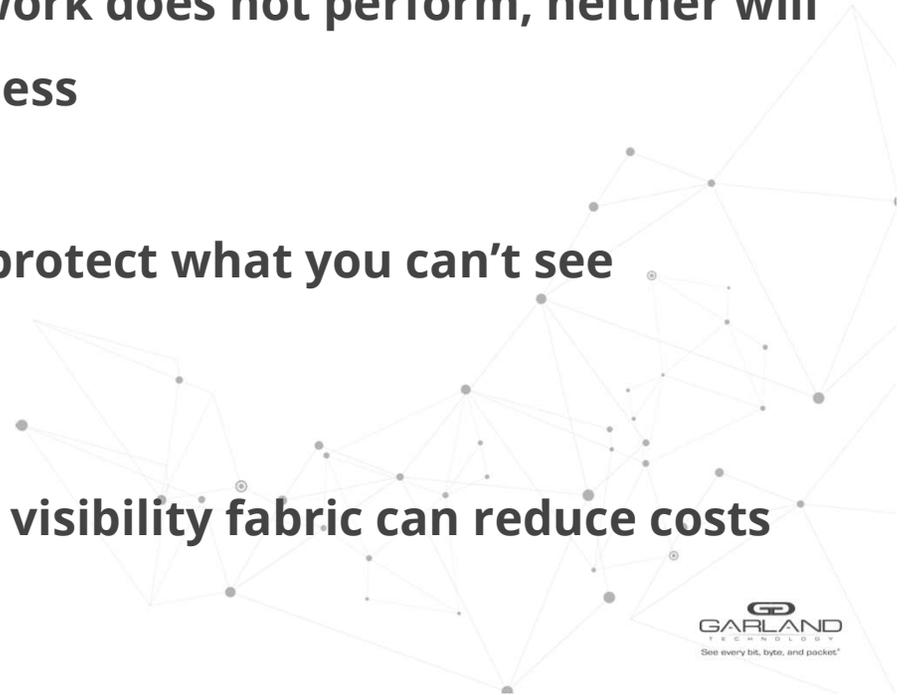
- **Network blind spots are a major obstacle to data protection**
 - (source: VansonBourne survey 67% of respondents)
- **Accelerated detection of security incidents**
 - (Source: EMA research - 26%)
- **Reduction in security/operational costs**
- **Opportunity indications**
 - Multiple inline security tools - NGFW, IPS, DLP, WAF, Ddos gateway, En/Decryption appliances
 - Current/future Behavior Analysis or Forensic tools
 - Concerns about security breaches

3 Talking Points

Customers can't monitor, manage or protect what they cannot see



- If the network does not perform, neither will your business
- You can't protect what you can't see
- A network visibility fabric can reduce costs



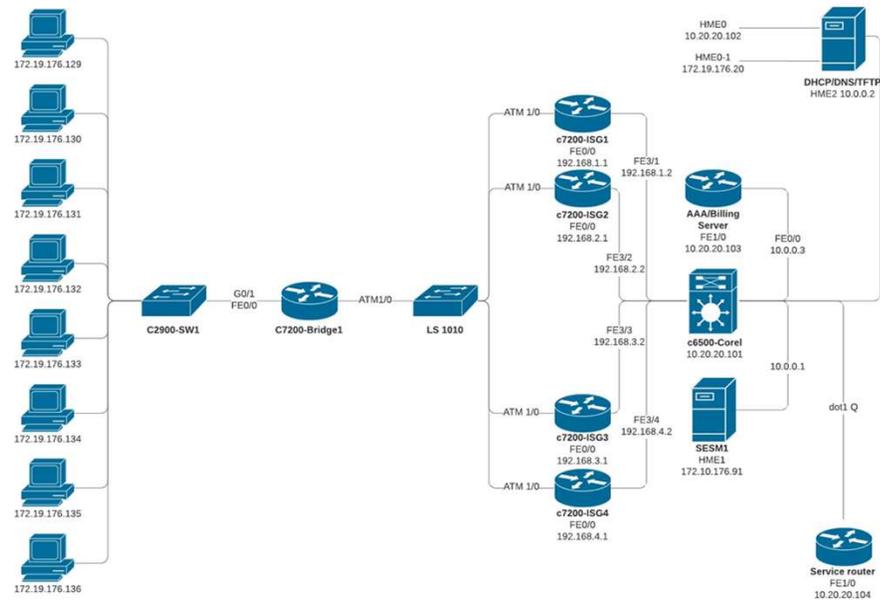
Solutions that work

Access and Visibility



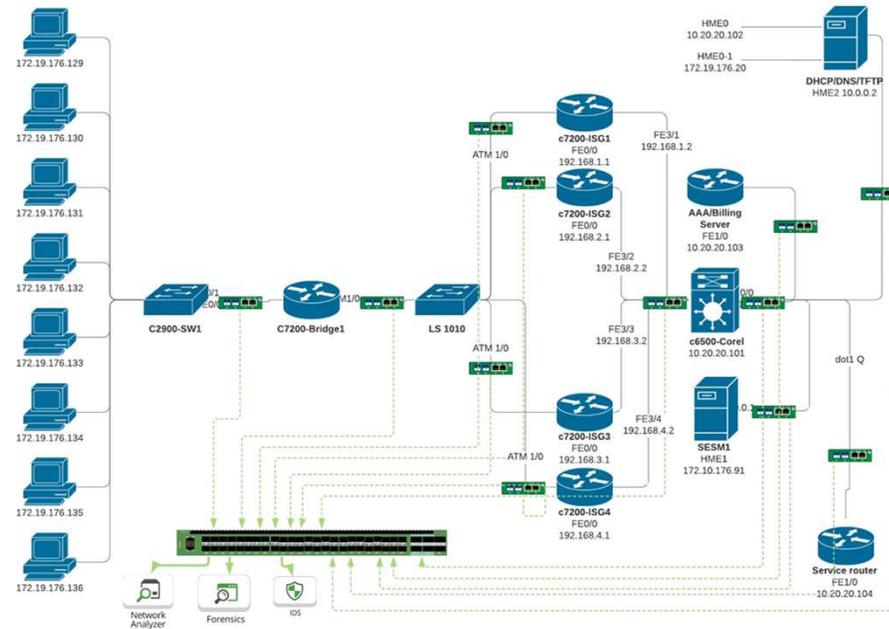
Security/Monitoring Fabric

Providing Visibility to ensure Performance & Security



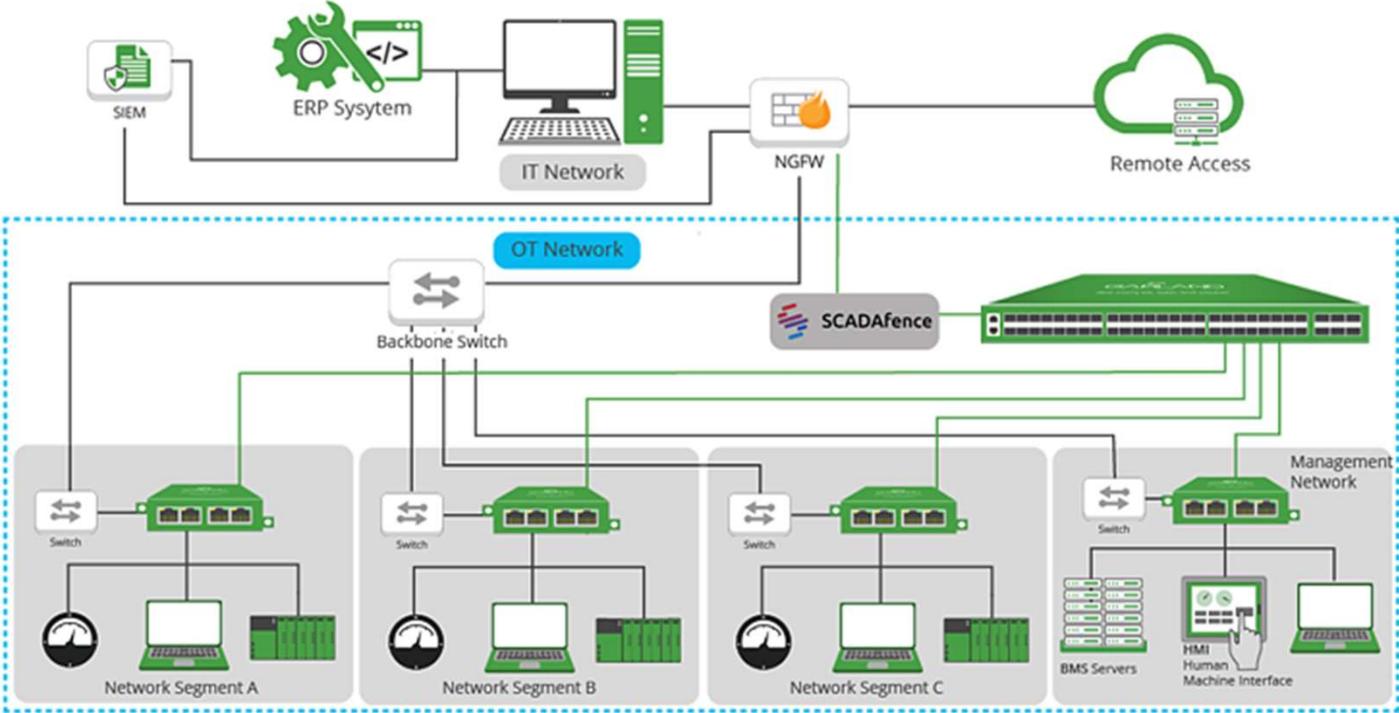
Security/Monitoring Fabric

Providing Visibility to ensure Performance & Security



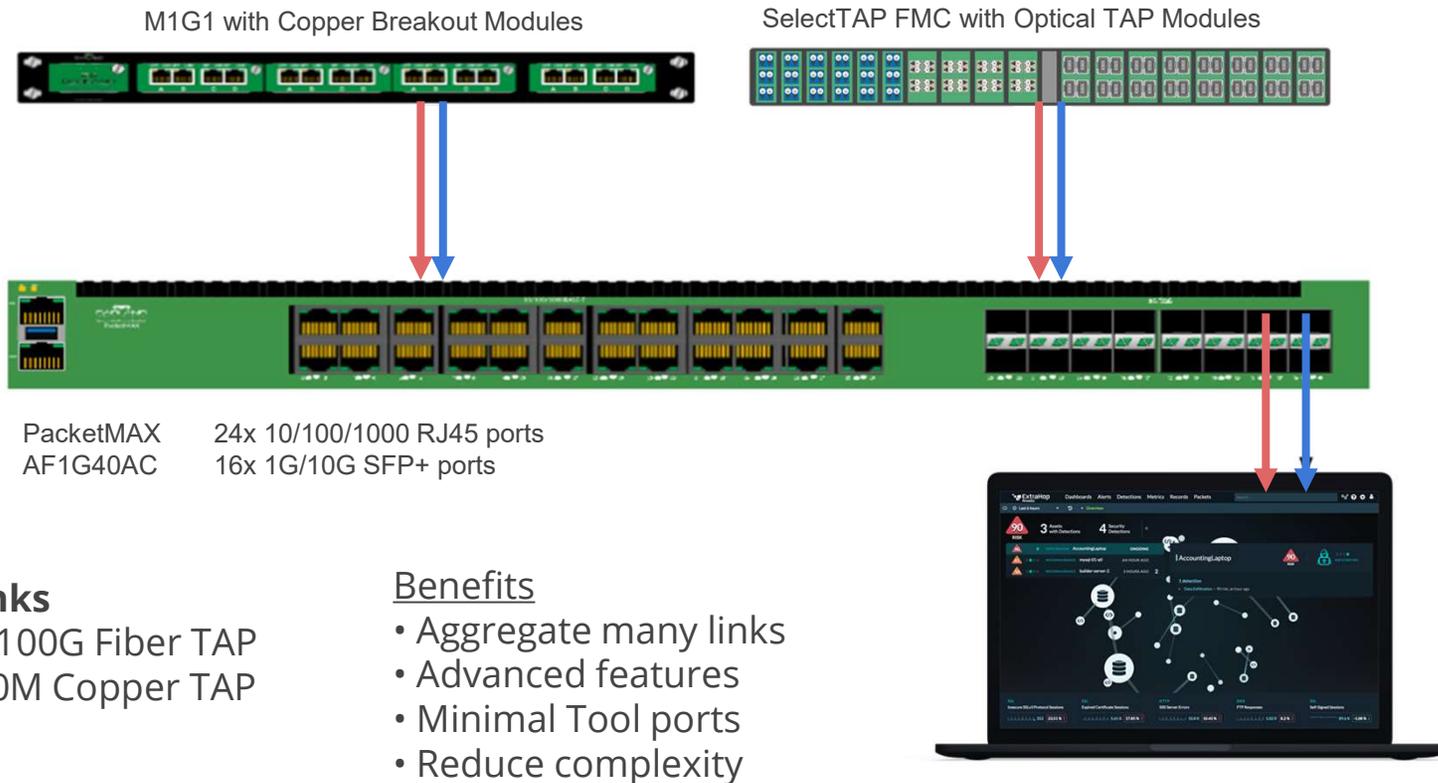
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Continuous Monitoring for Industrial Environments



Medium sites

TAP + Aggregation 1-100G Monitoring



Large sites

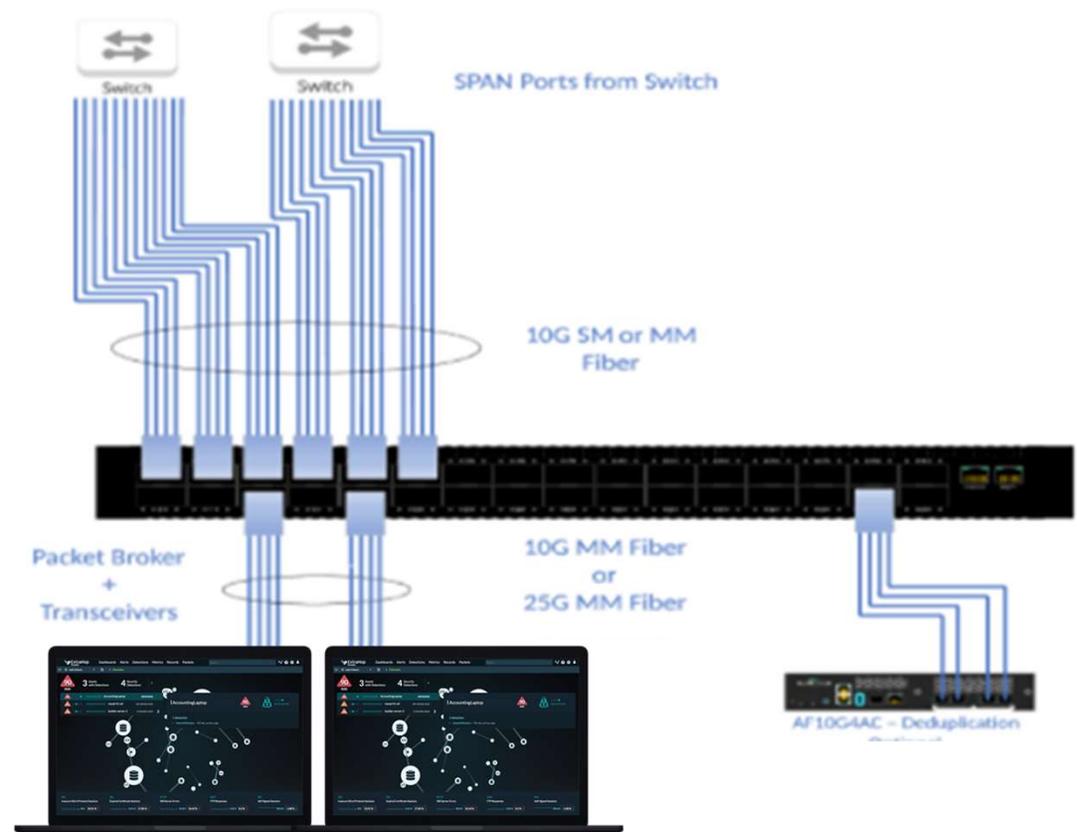
TAP + Aggregation 1-100G
Monitoring

10G links

- Aggregate many TAP links
- Aggregate many SPAN links

Benefits

- 100% wire data visibility
- Advanced aggregation and load balancing
- Deduplication
- Load balance 25G links to Tool
- Media Conversion



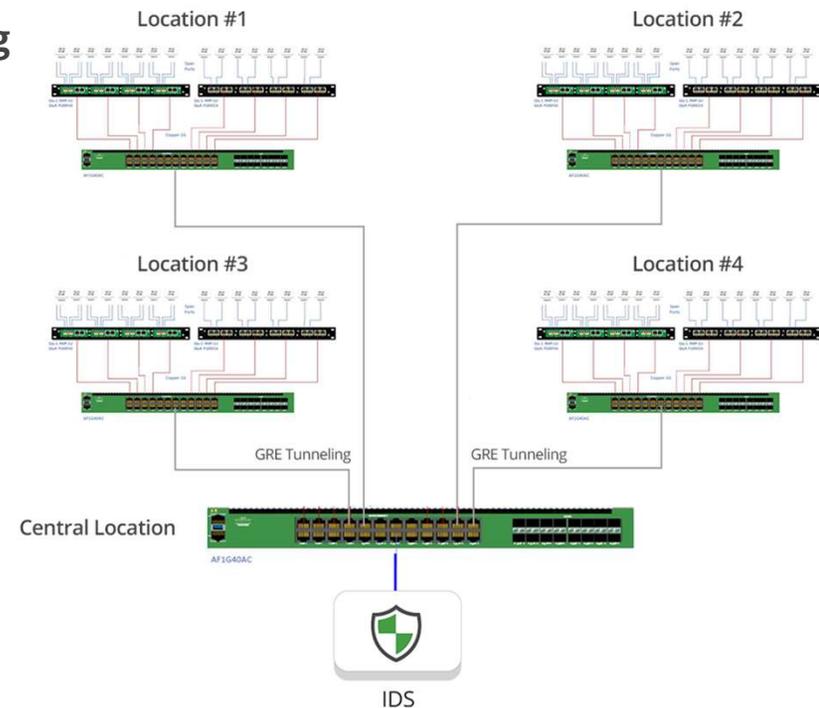
Multi-location Intrusion Detection Solution

Providing Visibility and Reducing Network Complexity

An example solution with a single IDS monitoring multiple locations

Solution: A combination of Network TAPs and PacketMAX packet brokers deployed throughout the network, feeding back to a central location.

- Reduce costs, complexity and administrative overhead
- Enable infrastructure upgrades
- Improve effectiveness of tool performance



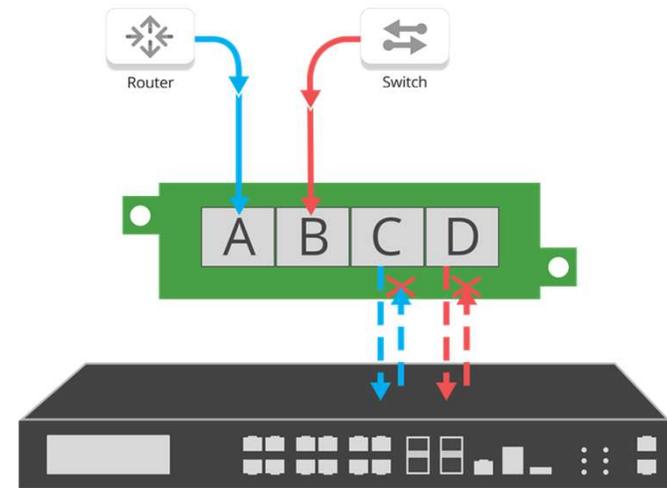
Infrastructure Protection

Providing added Visibility for Airgapped Unidirectional Pathways

Secure out-of-band analysis

Solution: Data Diode TAPs:

- Disallows bidirectional traffic to protect against back flow of traffic into the network
- Secure — TAPs do not have a IP address, or MAC address and cannot be hacked.
- Protects additional source of data streams like switch SPAN ports and network links
- Network traffic control is enforced at the physical level



Connecting Inline Security Devices

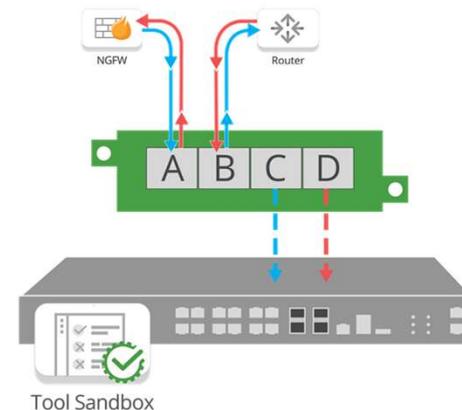
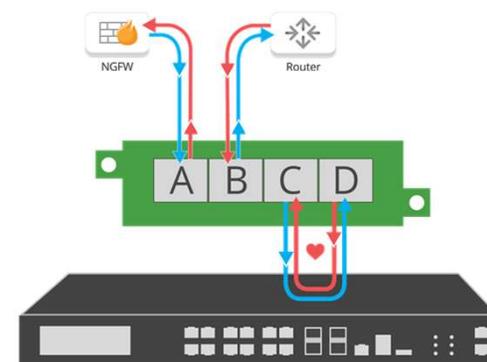
IT Security Solutions Use Case

Challenge: Managing the risk of downtime is a critical consideration when deploying security tools.

- Device failures can bring down the network
- Deploying new technologies into the network
- Scheduling off hour planned downtime

Solution: Bypass TAP “inline lifecycle management”

- Easily take tools out-of-band for updates, installing patches, maintenance, or troubleshooting
- Simplify tool piloting and deployment
- Administrative isolation
 - No maintenance windows
 - Reduced network impact and downtime



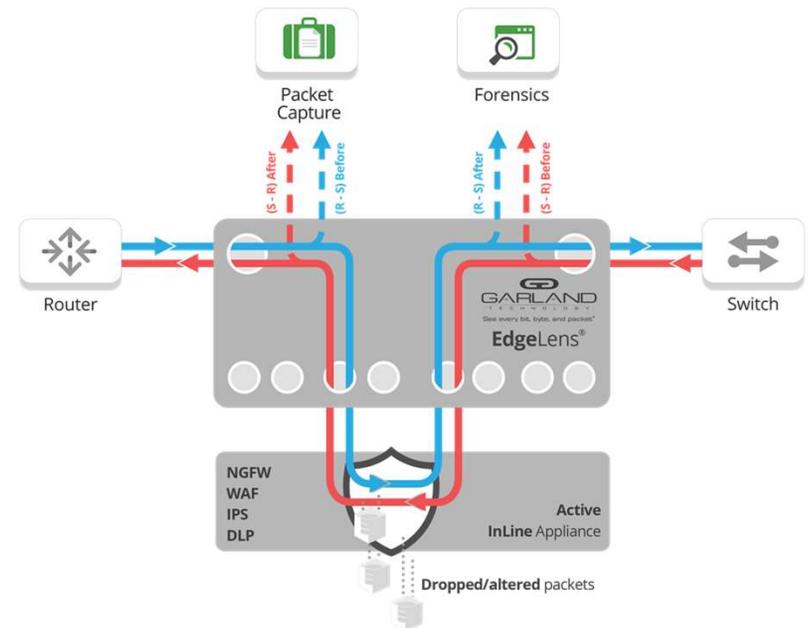
Optimizing Inline Tool Performance

IT Security Solutions Use Case

Challenge: How to troubleshoot inline tools (IPS, firewalls etc) are configured and optimized properly.

Solution: Before and After Optimization & Validation allows you to provide visibility to out-of-band packet capture, storage and analysis tools

- Analyze packet data before and after your inline device to ensure optimal tool performance to validate any updates or troubleshoot why threats weren't blocked
- Enable real-time proof-of-concept evaluations without impacting the network
- Validate tool changes or updates are configured properly



Ensuring Availability

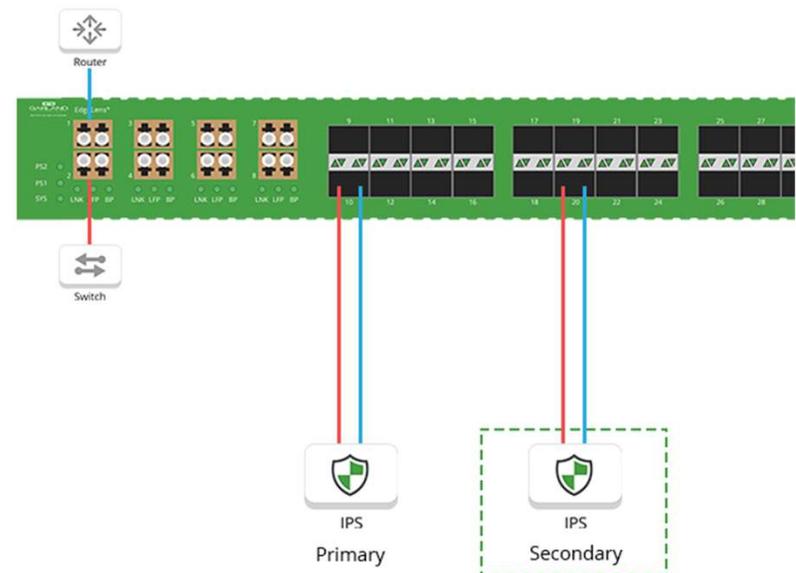
Ensuring Complete High Availability (HA) Redundancy for Critical Links

Large financial corporation ensured all critical links with Garland's HA redundancy so there is no business interruption or downtime, while protecting sensitive data.

Solution: Garland's EdgeLens deployed redundant IPS tools in an active standby scenario.

- One primary or "active" IPS
- And a secondary or "passive" IPS

In the event the primary appliance goes down, the secondary appliance will automatically take over as primary.

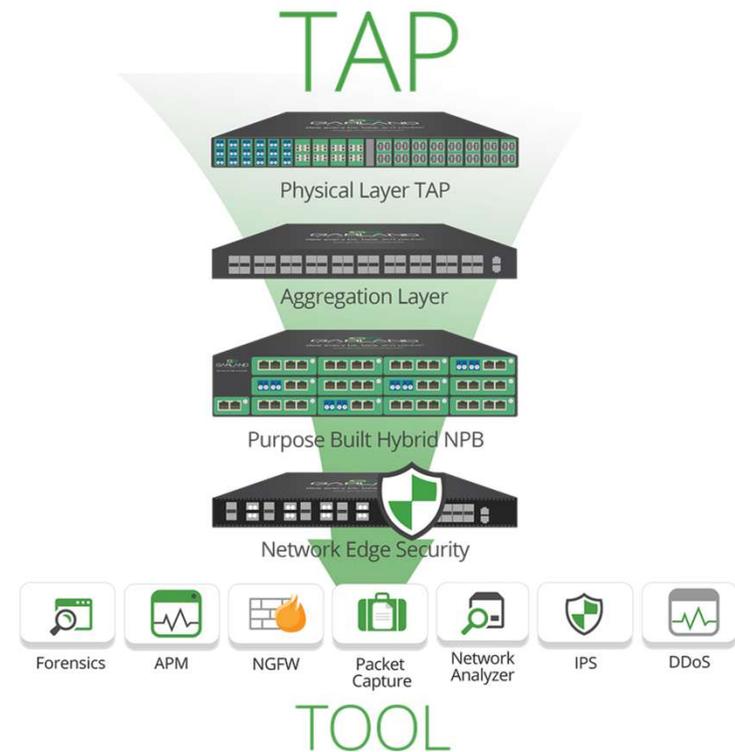


Competitive Landscape



Two Approaches to Your Cybersecurity Profile

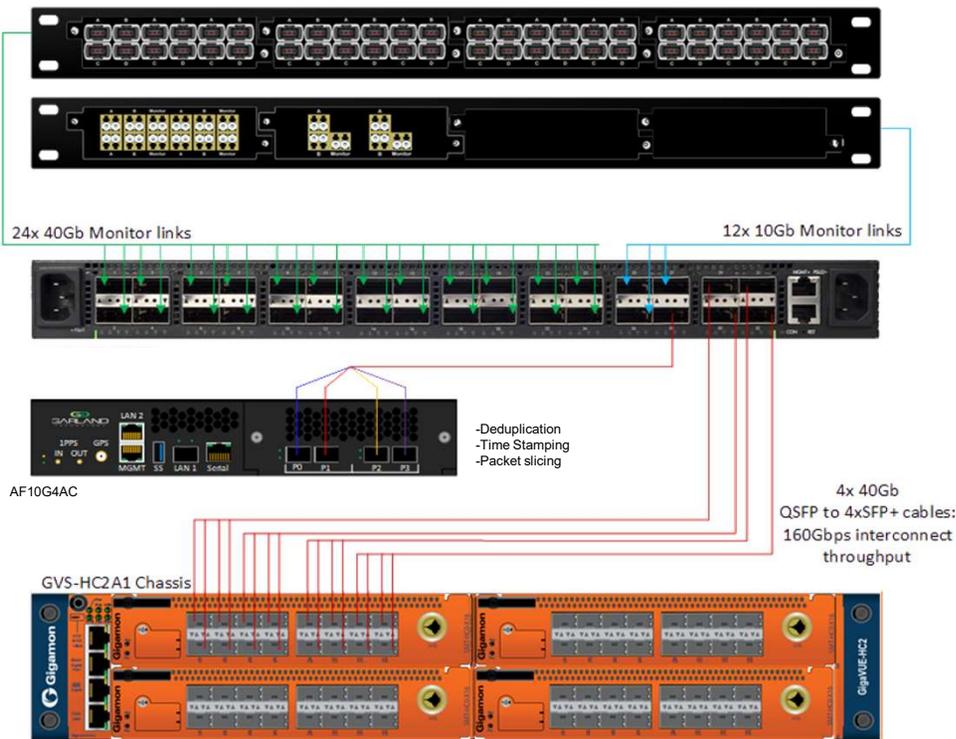
What makes Garland Difference



The Garland Advantage

- Customers buying Gigamon & Keysight IXIA NPB's pay a premium product price on the premise that one day they might one day need premium features
- Simple to specify & configure
 - No hidden license costs
 - MSA compliant transceiver support
- Ability to address the full market from midsize to large enterprise
- Significant price/performance advantage
- Full standard discount on maintenance renewals

How Garland works with your existing investment



Upgrading current deployment to 40G

By using Garland's PacketMAX™: Advanced Aggregator:

- Tapped traffic can be aggregated to fully utilize each monitor link.
- Allows the packet broker to make the most out of each port.
- Less ports on the packet broker will be needed leading to less expensive modules/licenses will be required, which will save the customer money and extend the lifespan of the packet broker.

Adding the PacketMAX™: Advanced Features for dedup, packet slicing, GRE tunneling and time stamping significantly reduced processing overhead and licensing fees.

Value: Save money, added value

- Less licenses needed, reduces cost
- Open Vendor transceivers/optics, no vendor lock-in

Savings Example

Garland offers the same functionality at a single purchase cost, no additional licenses or fees for more features.

Capital Expenditures

O&M Spend

Competitor's deduplication add-on license to the overall solution cost upwards of \$20,000 a year, every year.

Garland never charges a license fee for any advanced functions.



The Garland Difference

- Clear & Consistent Strategy
 - 100% focus on network visibility products
 - Customer focused
 - 100% channel driven
- High Quality Products
 - Manufactured in the USA
- Scalability
 - Industries' largest & highest density TAP portfolio
- Flexible, Agile and Economical
 - Open approach
 - Custom solutions
 - Responsive to the needs of our customers & partners
- Innovative
 - CTO invented Bypass technology
 - Deconstructed Packet Broker architecture
 - Next generation Hybrid Packet Brokers

Partner Portal

Garland's TAP-IT Partner Portal
Your destination for content, resources, deal registration, and training on Garland's products and services.

Welcome

Register a Deal
Lock in your registered deal discount today!

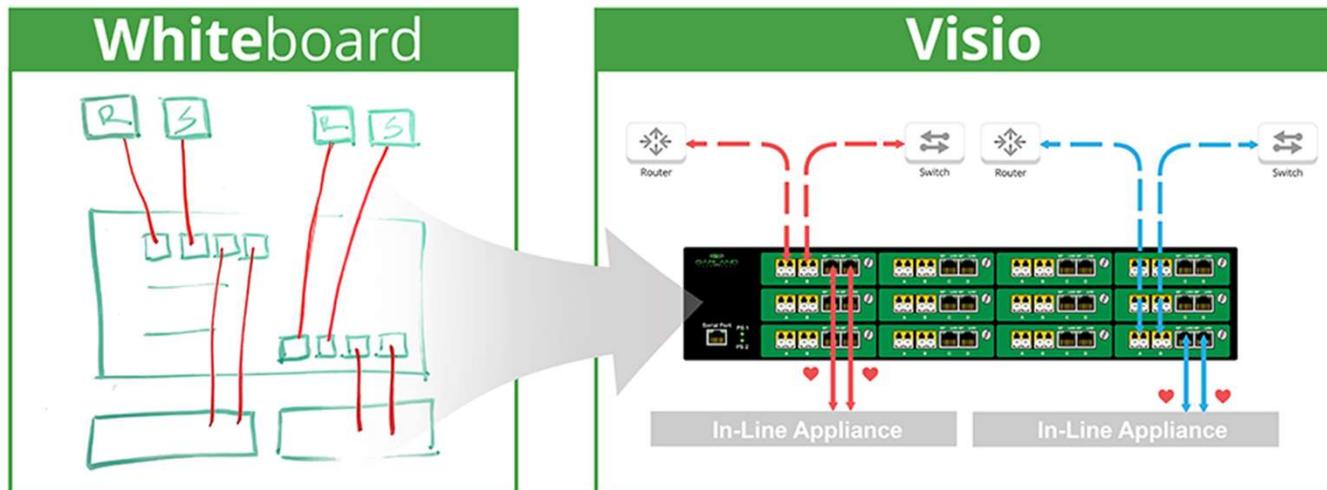
Learning Tracks
Get started with your Garland training and education.

Create Prospect Pages
Identify and share content with your prospects to help close deals.

Quick Links

- 1 Get Started with our Quick Start Learning Track
- 2 Read: 3 Keys to Network Resiliency
- 3 Connect with your GT Counterpart: US Territory Map
- 4 Connect with your GT Counterpart: Global Territory Map
- 5 2020 Product Catalog

Design-IT: Network Consultation



Thank You



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