

# Gigamon Overview

A Key Differentiator in Viewing & Managing Your Data



**Gigamon**<sup>®</sup>

Secure Access | Complete Visibility

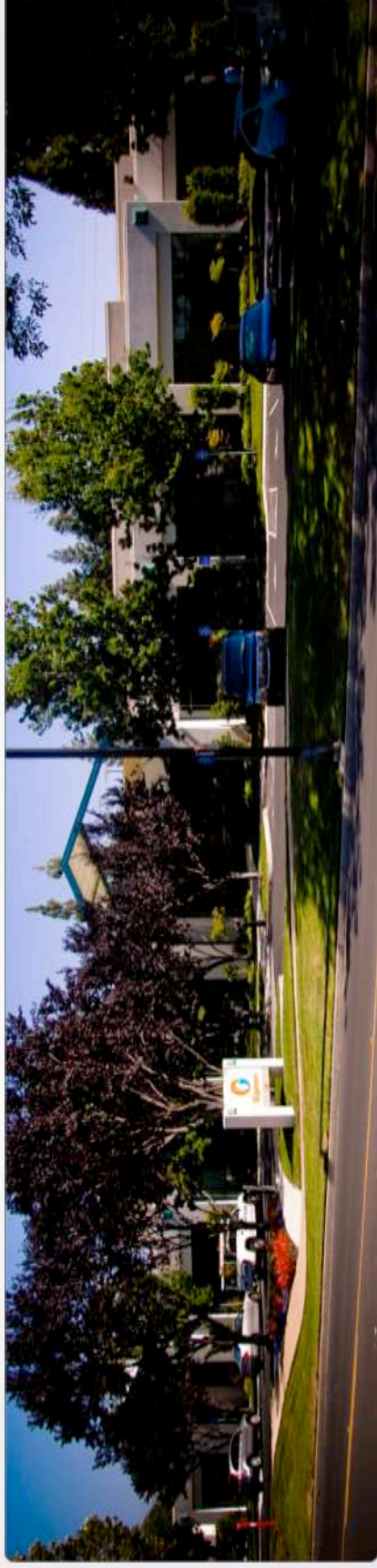
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**Gigamon**<sup>®</sup>

# Gigamon Overview

A Healthy, Growing Silicon Valley Technology Company



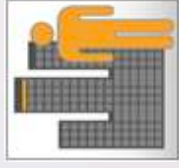
- Formed in July of 2004 with first product shipped in May 2005
- Invented and Patented the Intelligent Data Access Switch (IDAS)
- Thousands of units installed at hundreds of major companies in 40+ Countries
- All products designed and manufactured in the USA
- Profitable since 2006
- 55%+ growth year over year since 2006



# Impact With No Access & Visibility

The Impact of Not Having Access & Visibility to Your Data Center

## What is the impact of not having access and visibility to your Data Center?



### Business

- Lost or delayed revenue
- Diminished brand equity
- Customer dissatisfaction
- Competitive disadvantage
- Increased time-to-market



### IT Operations

- Credibility loss
- Inefficient, costly resolution
- Failed deployments
- Missed SLAs
- Un-needed capital investments



# Data Center

## Pain Points

- Determine
  - ✓ User activity
  - ✓ Application performance management
  - ✓ Threat vulnerability
- Verification of regulatory compliance with standards like HR2221, SOX, and PCI
- To comply with regulations and prevent network / data center downtime you need complete visibility for forensic recorders, transaction auditors, and data leakage appliances.



# What We Do

Secure Access | Complete Visibility

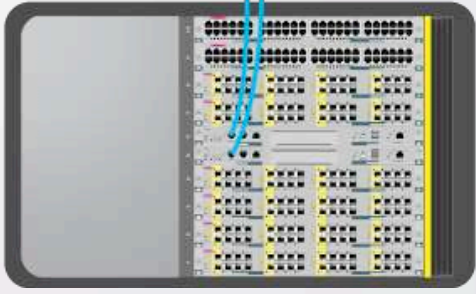
- Gigamon facilitates a revolutionary way to securely access critical data at a fraction of the cost
- Gigamon enhances the visibility of all the data, anywhere on the network while reducing costly management controls
- Gigamon lowers the total cost of network management yet increases the productivity of your IT resources



Providing **Secure Access & Complete Visibility** to all your data anywhere, anytime, while lowering the total cost of network management

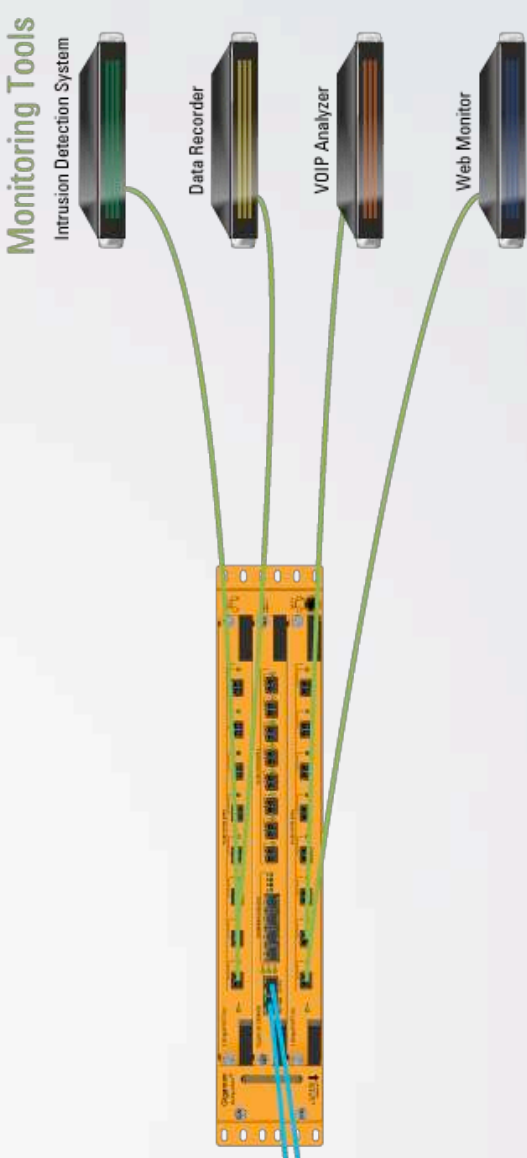


Network



# How We Do It

## Closing the Gap Between Your SPAN Ports & Monitoring Tools



- Gigamon implements a hardware appliance between the network's high speed connections and the multiple tools used to analyze the data
- Gigamon aggregates all data from the network, filters the bulk data and distributes the wanted traffic to the appropriate tool(s)
- Gigamon can scale to thousands of connections and replicate traffic to a smaller set of centralized multi-functional tools consistently reducing CAPEX and OPEX as you scale





# Gigamon's Solution

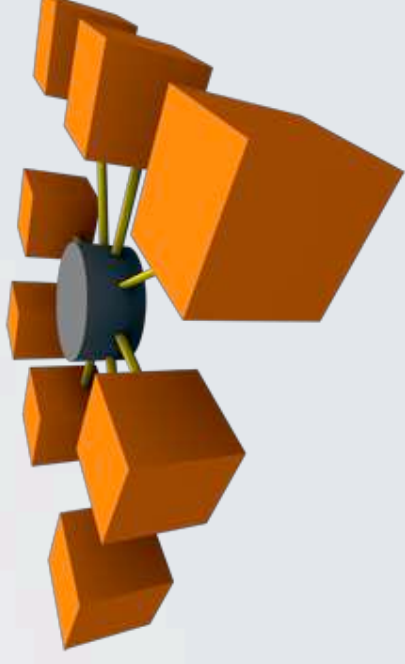
## Features & Benefits

### Features of Gigamon Solution

- Aggregation, replication, and filtering.
- Centralized access and patented mapping technology enables quick and easy connection of new tools or monitoring new applications without disturbing existing monitoring connections.
- Only authorized users can capture or see data. System notification when tools are plugged in or unplugged.

### Benefits of Gigamon Solution

- GigaVUE filters out unwanted data, significantly improving tool efficiency and effectiveness.
- Reduce and/or eliminate configuration management and potentially lengthy change order approval processes.
- Secures monitored data for security, compliance, and optimal performance.





# Gigamon

Case Studies

## Intercontinental Exchange



“The GigaVUE-2404 solution worked while delivering quick ROI for ICE. GigaVUE’s packet filtering technology is the most robust in the marketplace today.”

*Jose Veras – Senior Security Engineer*

## Amica Insurance



“The GigaVUE enabled us to easily direct, manage, and record VoIP traffic, allowing us to enhance our training and maintain the highest levels of customer satisfaction.” *Ron Rivet, Amica Network Engineer*

## The College of William & Mary



“With Gigamon, The College of William & Mary was able to efficiently utilize network monitoring equipment in a cost effective manner while providing room for future growth.” *Norman Elton – Network Engineer*





# Forrester & Gartner

Analyst Commentary



Gigamon and the industry leading, Forrester's Senior Research Analyst, Andre Kindness, discuss how to gain complete visibility and secure access to all your data from all your connections even 10Gbps and beyond



Gartner Research & Gigamon discuss transitioning to proactive monitoring to increase efficiency, save money, and better understand your network performance

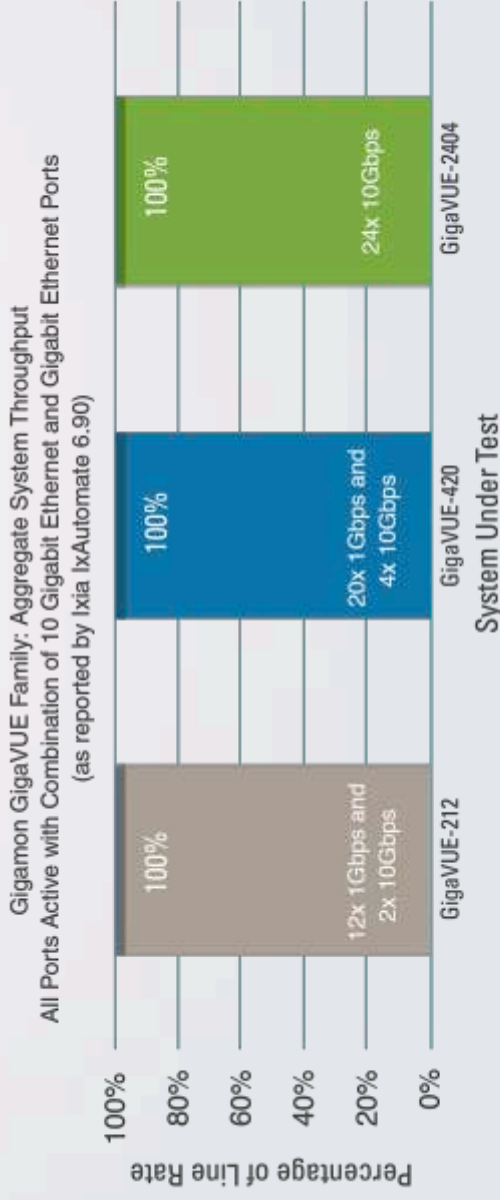


# Tolly Group

## Gigamon Completes Testing

### Test Highlights

- Exhibited very low latency across all major connection scenarios even in a fully utilized chassis
- Demonstrated line rate throughput at all frame sizes
- Implemented mapping technology to enable high filtering capacity
- Supported a broad range of filtering criteria to filter and redirect network traffic at line rate on a fully utilized chassis.



\*Note: Values represent average, aggregate throughput for the system under test using the port configuration shown within each bar. Tests run at various frame rates ranging from 64-bytes to 1,518-bytes. Results equivalent for all tests.





# Gigamon Solution

Providing Intelligent Data Access

- Purpose built infrastructure devices providing complimentary solution for network monitoring and network management tools used in Data Centers and Enterprises, such as:
  - ✓ Security IPS, IDS & Data Leakage Prevention
  - ✓ Application Server Farm Performance Monitoring
  - ✓ Network Troubleshooting & VoIP QoS Measurement
  - ✓ Forensic Incident Recording & CALEA Lawful Intercept
  - ✓ SOX compliance transactions



# Gigamon

## Top Advantages

- Eliminate SPAN port contention
- Access 10Gbps connections with tools that only have a 1Gbps interface or can't do 10Gbps at full line rate
- Simplify & distribute application access & centralized control/management in cloud computing
- Eliminate configuration management and lengthy change order approval
- Load sharing algorithm to distribute data by flows to multiple interfaces
- Complete visibility of all the traffic even in asymmetrically routed networks
- Create fail-safe connections for inline IPS monitoring devices
- Improve VoIP Analysis with GPS and PTP clock reference



# Innovator and Leader of the Intelligent Data Access Market

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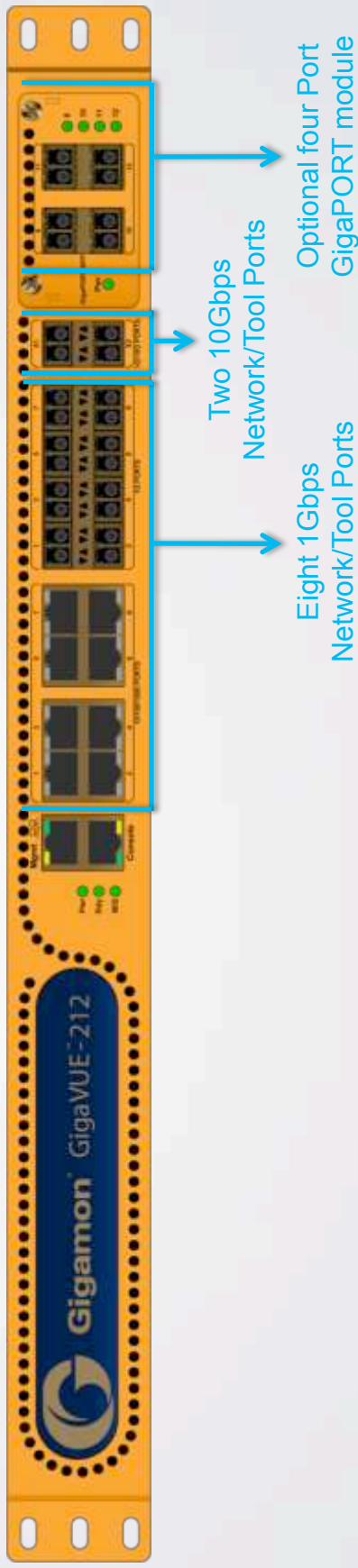
**GigaVUE**

Intelligent Data Access Switches



# GigaVUE-212

All The Power In A Smaller Form Factor



- 1U high rack mountable chassis
- Eight 1Gbps network or tool ports
- Two 10Gbps network or tool ports
- Optional four port 1Gbps module (inline option to be added in future)
- 4000 Map Filter Rules





**Gigamon**

# GigaVUE-420

The Industry Standard for Intelligent Data Access



GigaPORT Modules

GigaTAP Modules

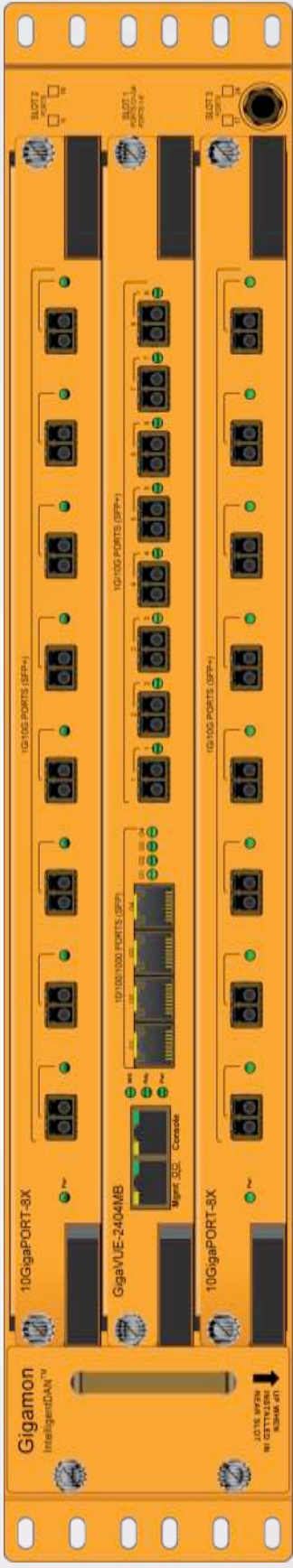
- 1U high rack mountable chassis
- Supports up to four GigaPORT, GigaTAP, or Bypass Switch modules and four 10Gbps GigaLINK
- Each Bypass Tap module supports one inline link and tool
- Each GigaPORT module supports four network or tool ports
- Each GigaTAP module supports two inline links
- Four 10Gbps ports or two 10Gbps TAPs on rear panel
- 4000 Map Filter Rules



**Gigamon**

# GigaVUE-2404

Telecom/Enterprise Grade 10G Data Access Solution

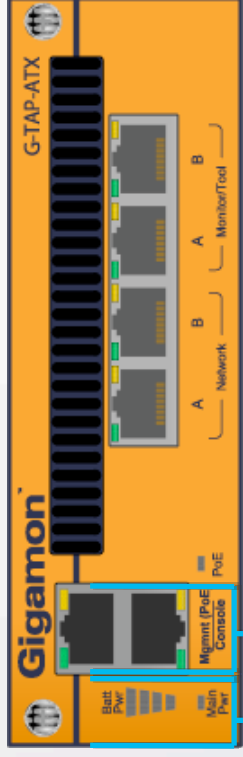


- 2U high rack mountable chassis with three blade slots
- Base chassis with eight 10Gbps SFP+ ports and four 10/100/1000 SFP ports
- Two additional blades each supports eight 10Gbps ports
- Optional GigaSMART blade supports six 10Gbps ports
- NEB's Compliant
- 2000 Map Filter Rules

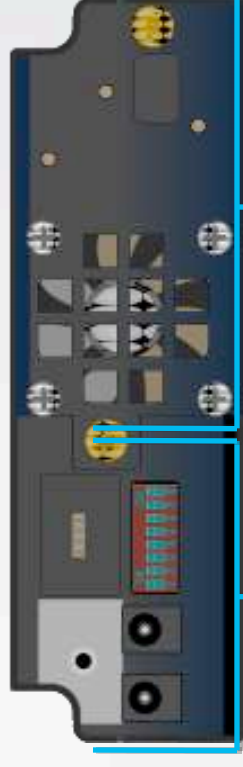


# G-TAP® A Series

Eliminating Downtime in Data Centers



POE Enable  
Management Port  
Battery  
Power Indicator



AC Power and Optional  
DC Power Block

Removable Fan and  
Replaceable Battery\*

- Overcomes network renegotiation delay upon power loss in Gigabit networks
- Three forms of power: POE, AC/DC Power, and Battery
- Management console to send SNMP traps to power and link state alerting
- Additional rack chassis that simplifies power distribution to individual taps
- Fit three taps per 1U of rack space
- \* Battery has five year life span



# Innovator and Leader of the Intelligent Data Access Market

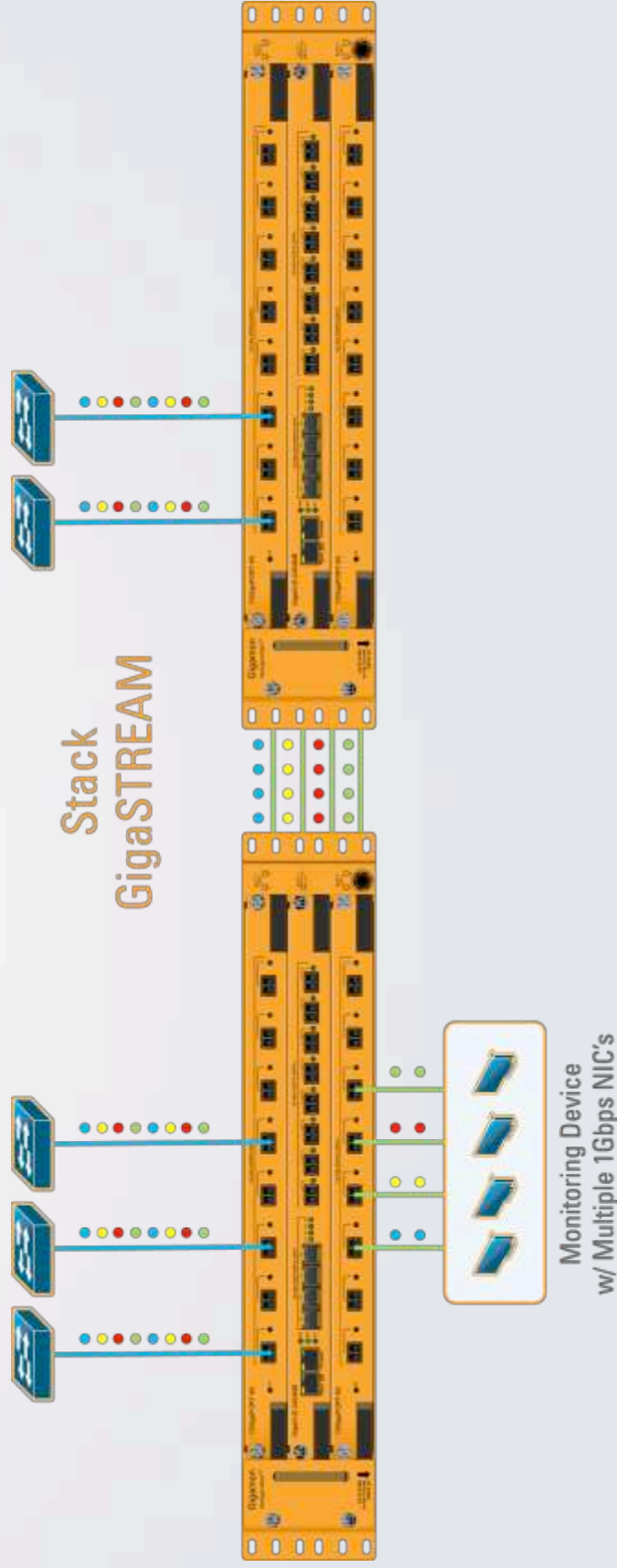
**GigaSTREAM**  
Innovative Trunking Technology



# GigaSTREAM

The bridge between the core network & security tools

- ✓ Trunk up to 8 tool or stack ports
  - ✓ GigaSTREAM stack (up to 160Gbps) trunking
  - ✓ GigaSTREAM tool (up to 80Gbps) port trunking on GigaVUE-2404's
- Managed via CLI or Citrus

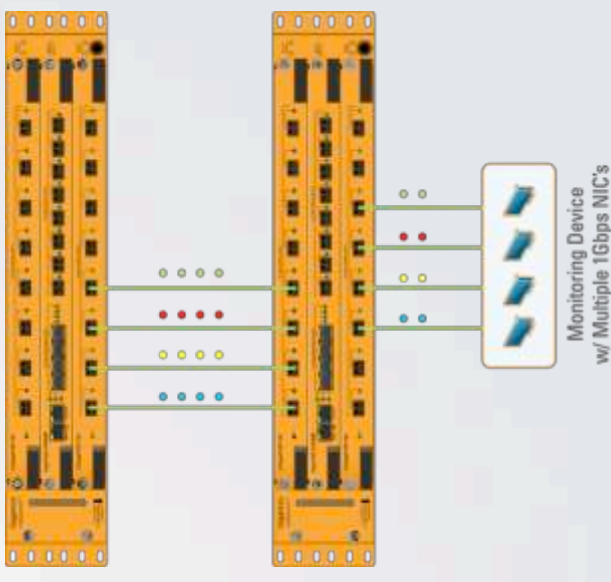




# Cross Box Stacking Options

Terabit bandwidth for network & security tools

- Master/Slave mode for 2404/420/MP
  - ✓ Master can be 2404 or 420, not MP
  - ✓ Supports up to 23 units of 2404/420 systems
  - ✓ GigaStream tool (up to 80Gbps) port trunking on 2404's
- Star or daisy-chain stack configuration
  - ✓ Recommend star stack configuration when using 2404
  - ✓ A stack of 420/MP (Limited in scale)
- Citrus support for M/S mode stacked systems
  - ✓ All systems can be managed via master
  - ✓ Citrus v1.1 or higher must run on the master
  - ✓ All systems must be running the same CLI version
  - ✓ Each slave in the stack requires a Citrus license
- Classic mode (legacy)
  - ✓ Supports up to 23 units of 2404/420 systems







# Innovator and Leader of the Intelligent Data Access Market

**GigaSMART**

DPI & Packet Modification Technology

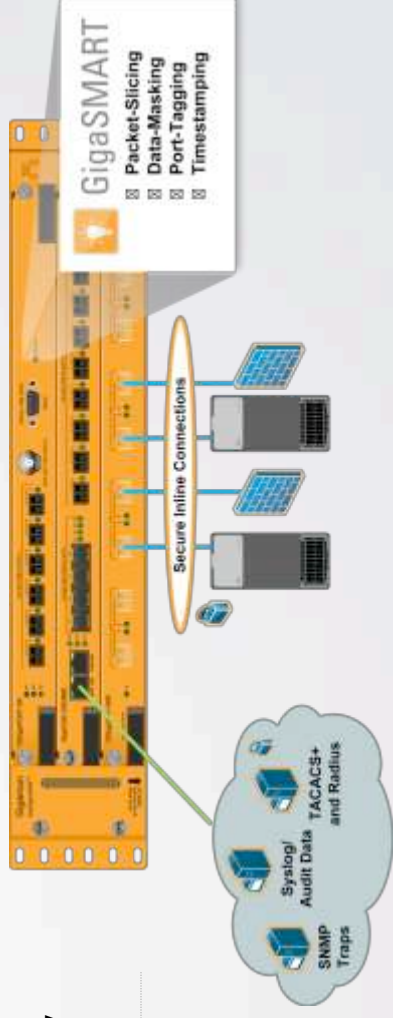


# GigaSMART

## DPI & Packet Modification Technology

- Combined hardware & software solution enhancing the functionality of the GigaVE-2404 with:

- ✓ Time Stamping
  - Accurate time stamping of the arrival of packets.
- ✓ Packet Slicing
  - With packet-slicing, the tool only sees the header information, and no privacy infraction is possible.
- ✓ Masking
  - Encrypting the payload for information privacy purposes.
- ✓ Port Labeling
  - Allows the tools to identify where the packets come from in the production network.





# Innovator and Leader of the Intelligent Data Access Market

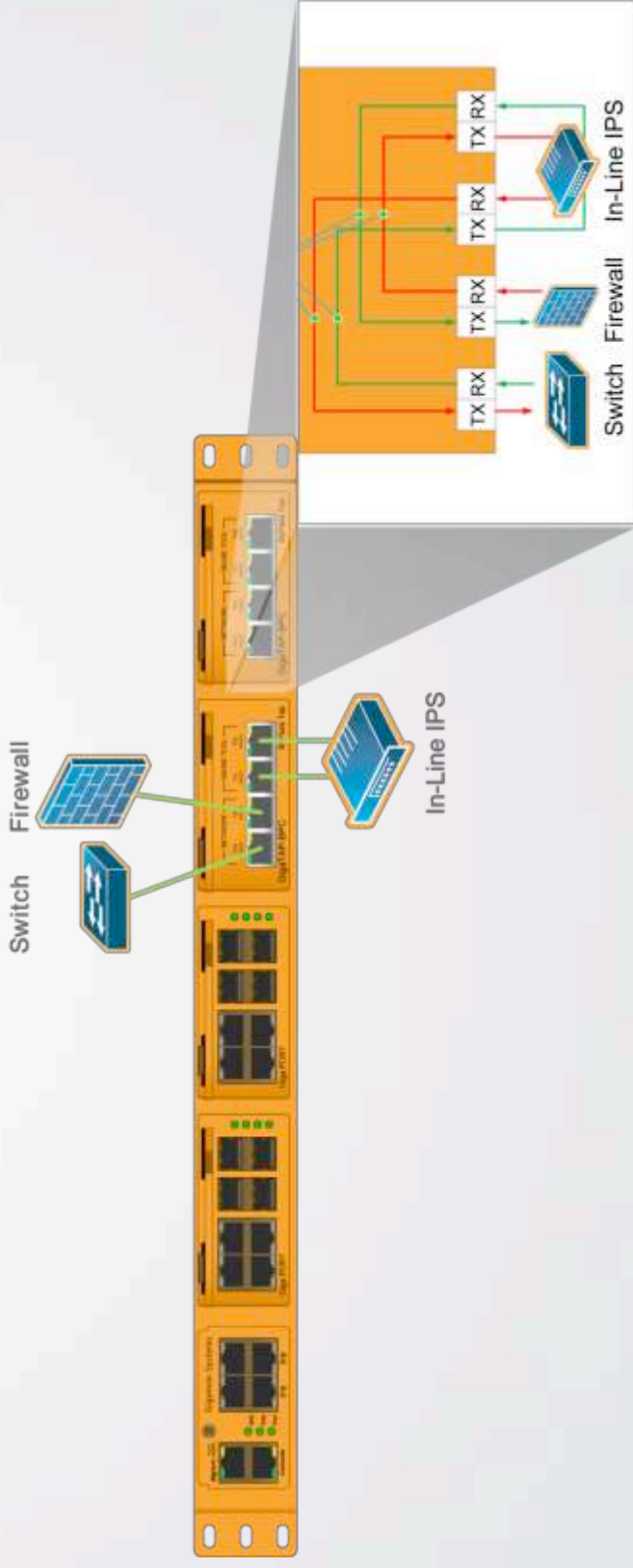
## GigaTAP-BPC

Fail-Safe Protection For Inline Tools



Gigamon®

# GigaVUE Creates Fail-Safe Connections for Inline IPS Monitoring Devices

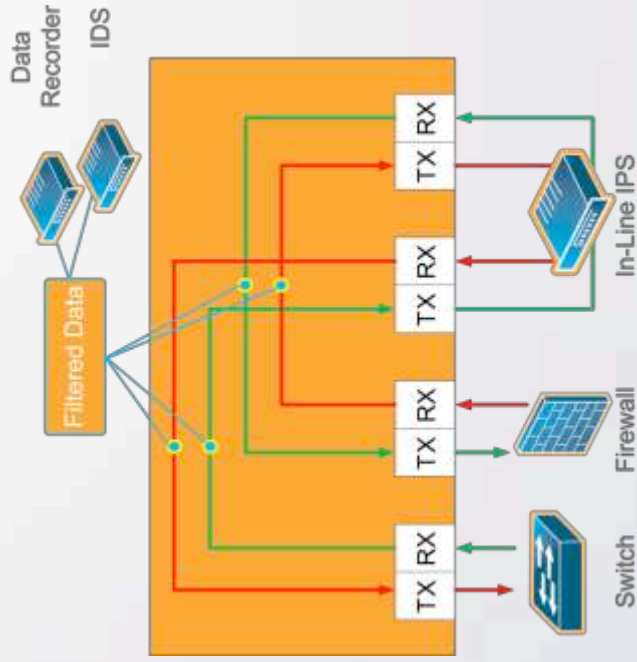


All data is routed through inline appliance or IPS. Data before and after bypass can be filtered and sent to other monitoring or analyzing devices.



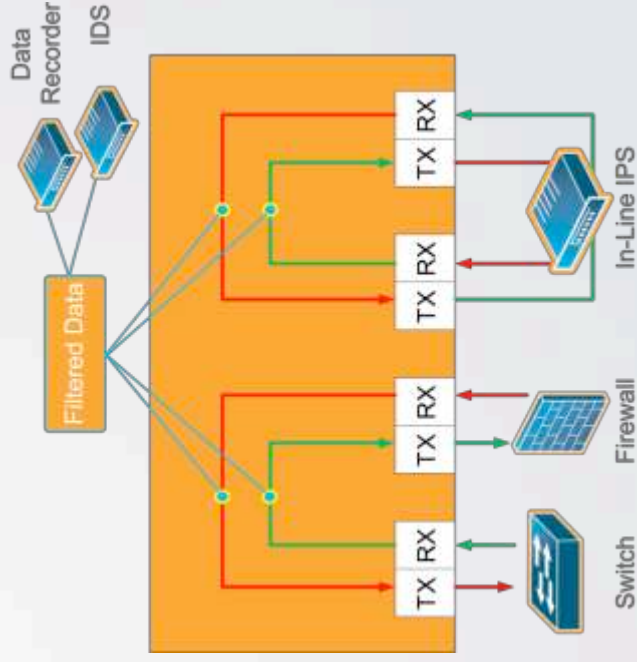
Gigamon®

# GigaVUE Creates Fail-Safe Connections for Inline IPS Monitoring Devices



Off

Bypass TAP with bypass functionality "Off".  
When bypass is off, data from network link is routed through inline IPS device.



On

Bypass TAP with bypass functionality "On".  
When bypass is on, data from network link is not routed through inline IPS device.



# Innovator and Leader of the Intelligent Data Access Market

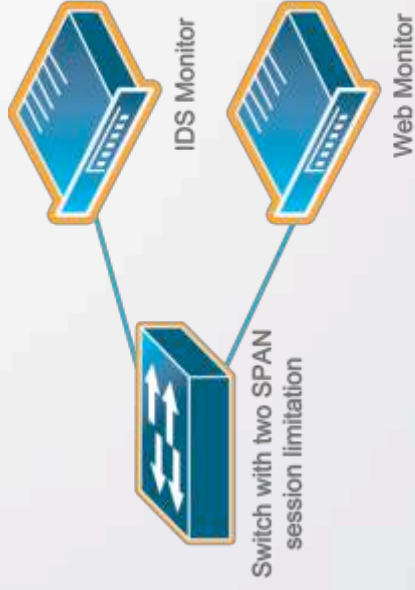
**Best Practices**  
Intelligent Data Access Switch



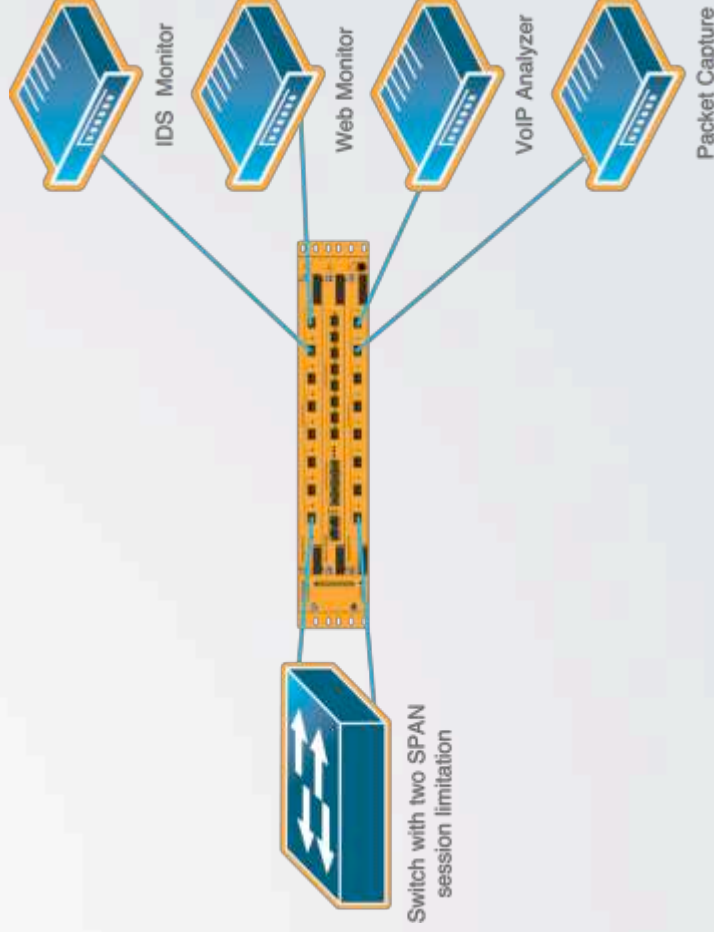


# GigaVUE

## Eliminates Span Port Contention Issues



**Without Gigamon**  
Customer is unable to use all tools!!

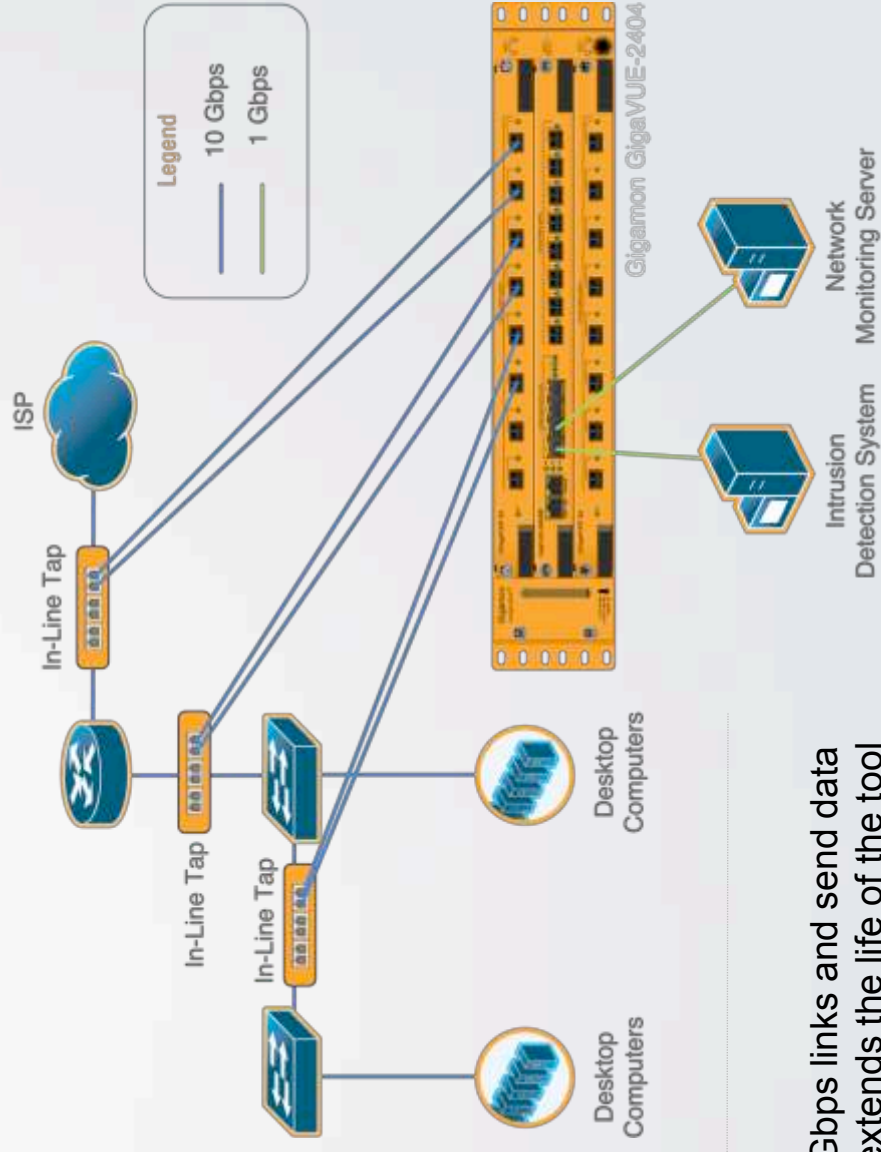


**With Gigamon**  
Customer has complete visibility for all tools!!



# GigaVUE

## Empowers 1G Tools

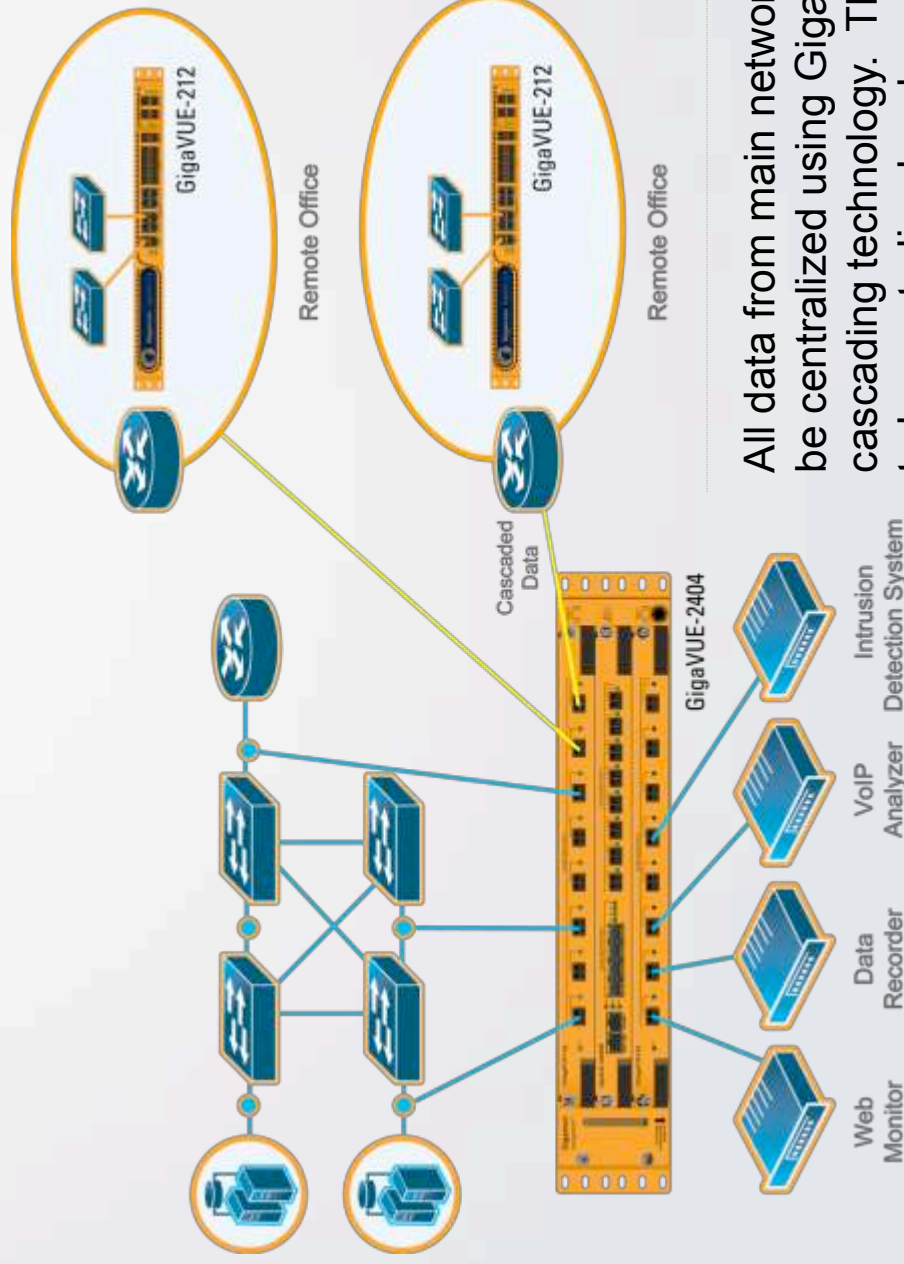


### With Gigamon

Customers can filter traffic on 10Gbps links and send data to 1Gbps monitoring tools. This extends the life of the tool and delays capital outlay on more expensive 10Gbps monitoring tools

# GigaVUE

## Centralizes Monitoring Tools



All data from main network and remote offices can be centralized using Gigamon's stacking and cascading technology. This allows monitoring tools to be centralized and avoids the purchase of separate monitoring tools for each remote office.

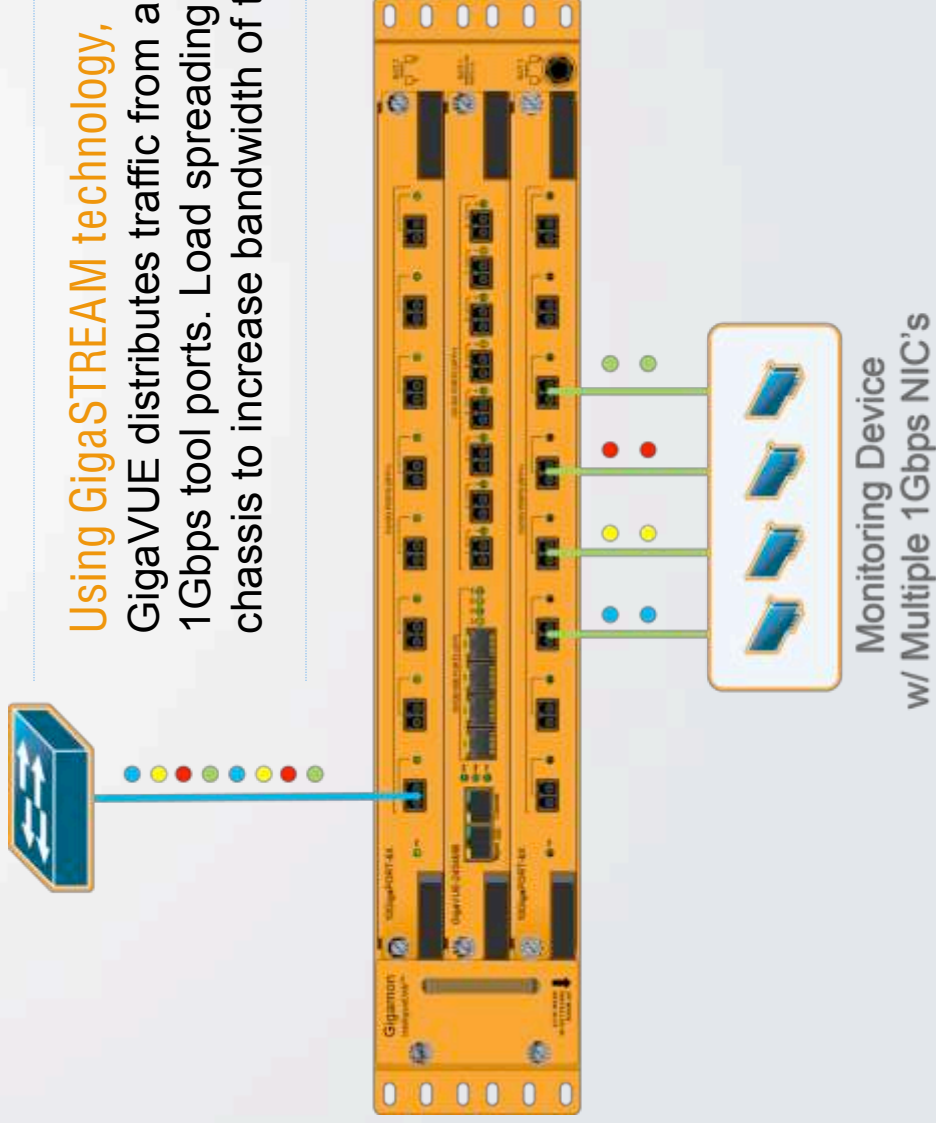


# GigaVUE

## Spreads The Load

Using GigaSTREAM technology,

GigaVUE distributes traffic from a 10Gbps network link to multiple 1Gbps tool ports. Load spreading can also be applied between chassis to increase bandwidth of trunk/stack links.

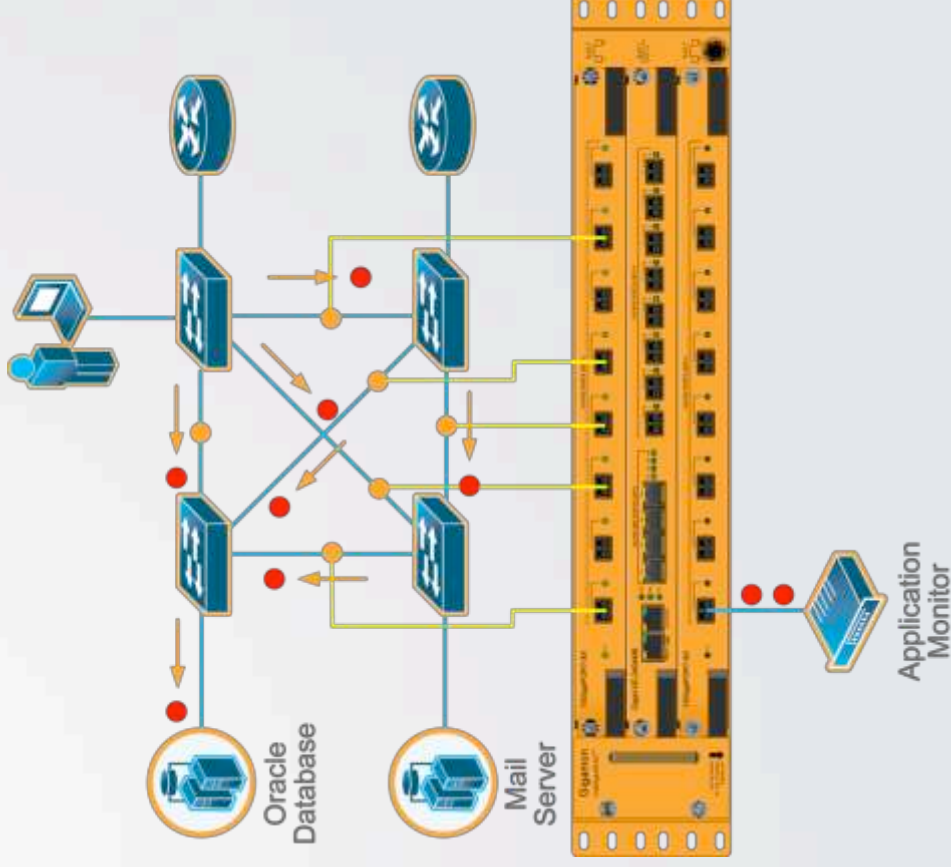




# GigaVUE

## Makes Asymmetric Analysis a Reality

User requests or transactions to network servers can take different routes making analysis more complicated. Using Gigamon's patented mapping technology, users can filter for transactions from specific hosts and send the entire transaction to application monitoring tools.







# GigaVUE

## Secures Data & Mitigates Change Management

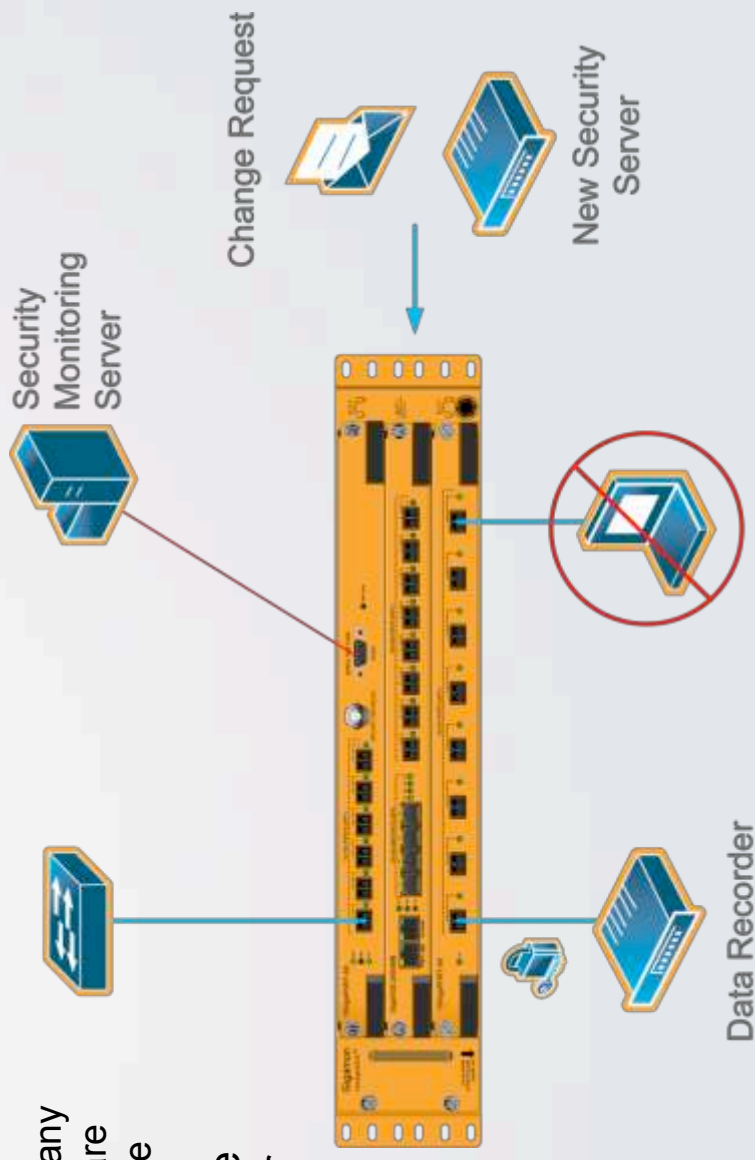
### GigaSMART

Technology masks confidential data



Gigamon triggers alarms if any unauthorized connections are made to GigaVUE appliance

- ✓ New connections can be made without waiting for maintenance windows



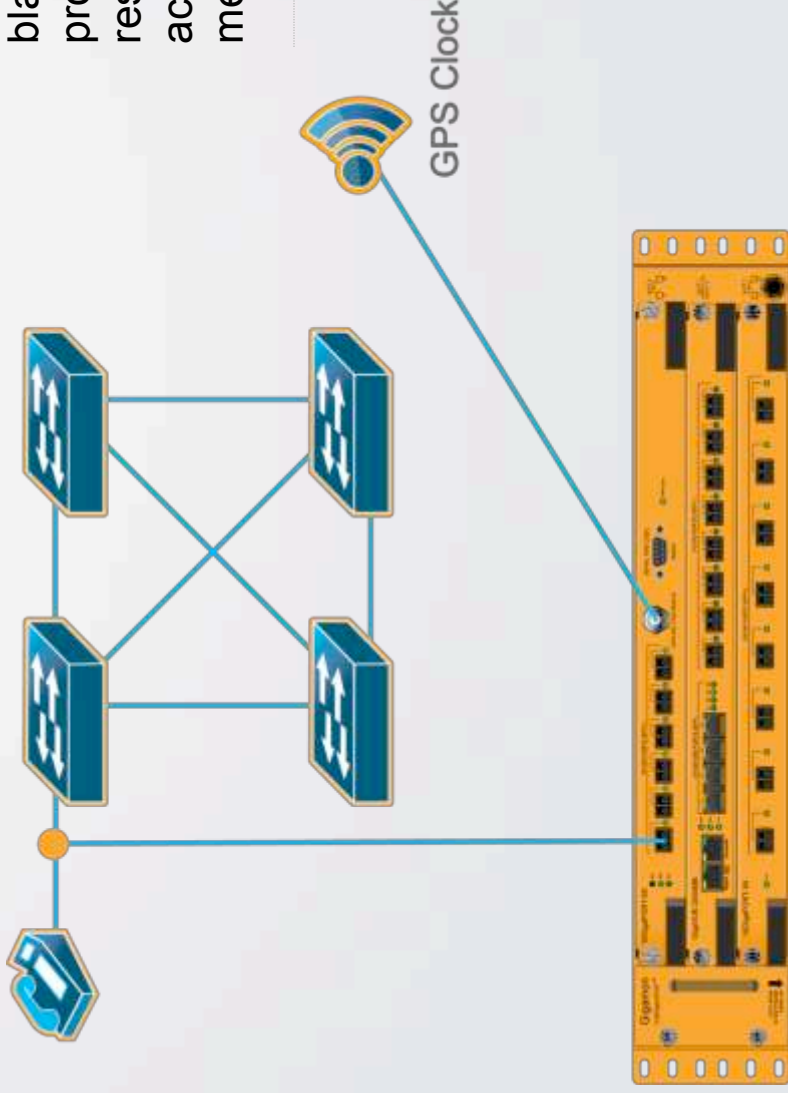




# GigaVUE

## Improves VoIP Analysis

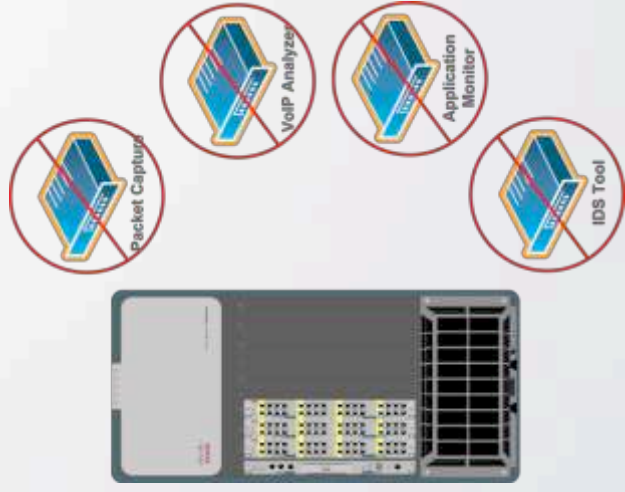
Using GigaSMART technology, users can synchronize GigaSMART blades with a GPS clock reference, providing nano-second time stamp resolution. This enables highly accurate jitter and delay call quality measurements.





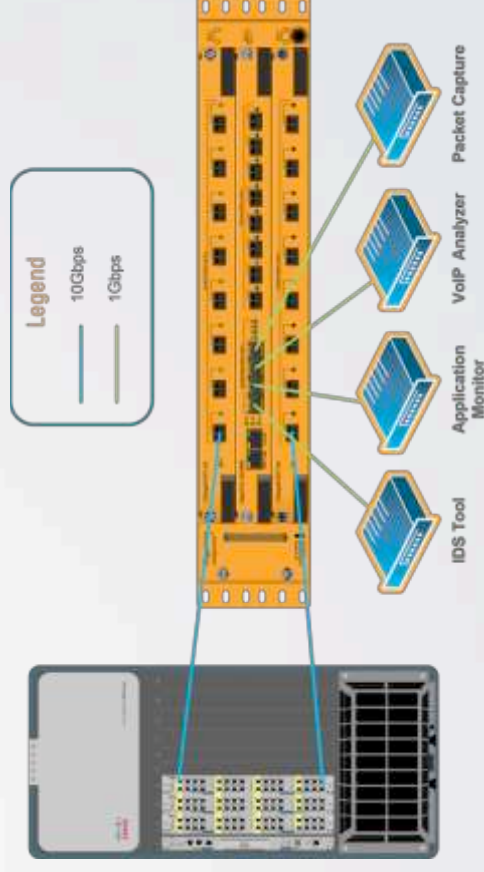
# Use Case #1

## Network Upgrade to 10Gbps



### Without Gigamon

When a company migrated to 10Gbps network architecture, monitoring tools with 1Gbps interfaces became useless



### With Gigamon

The company was able to extend the life of their 1Gbps network tools

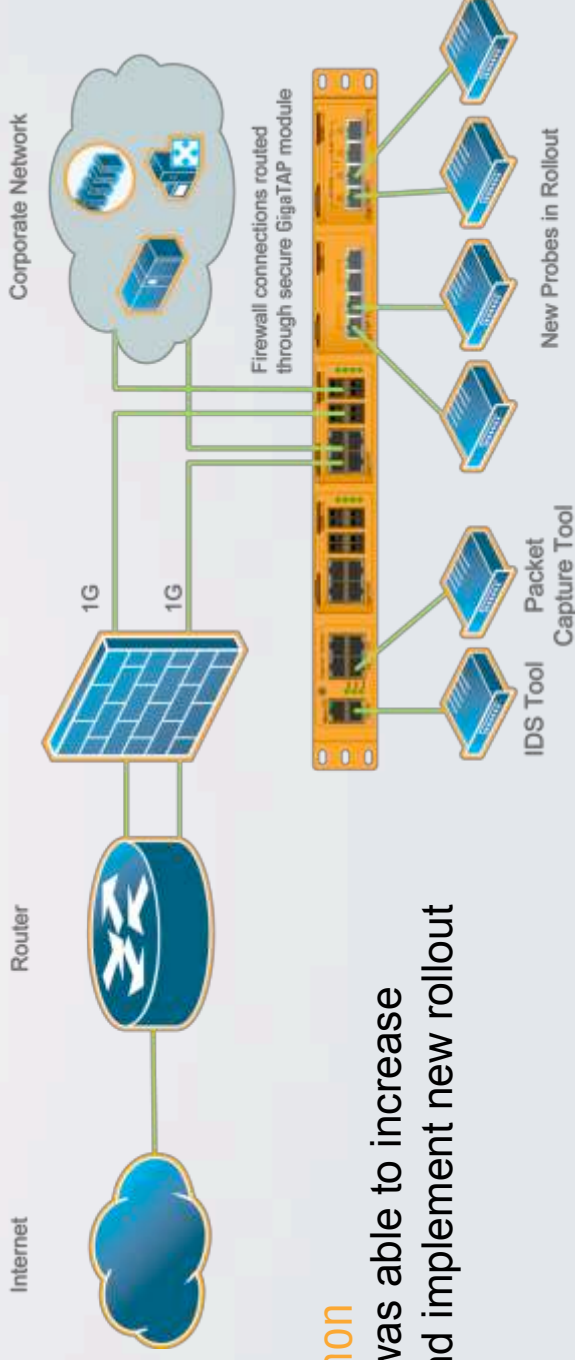


# Use Case #2

## Multiple Probe Rollout

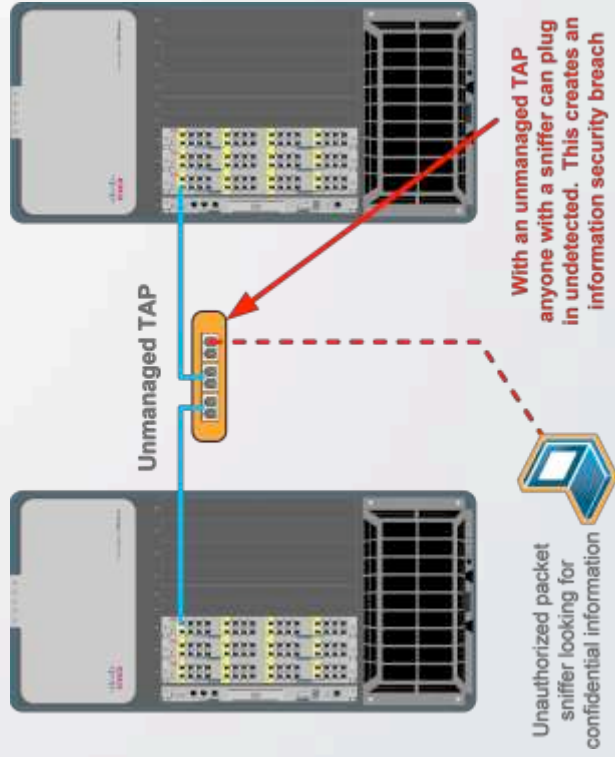
### Without Gigamon

Customer wanted to enhance the monitoring of critical firewall links with a multi-probe implementation but currently had existing tools in links

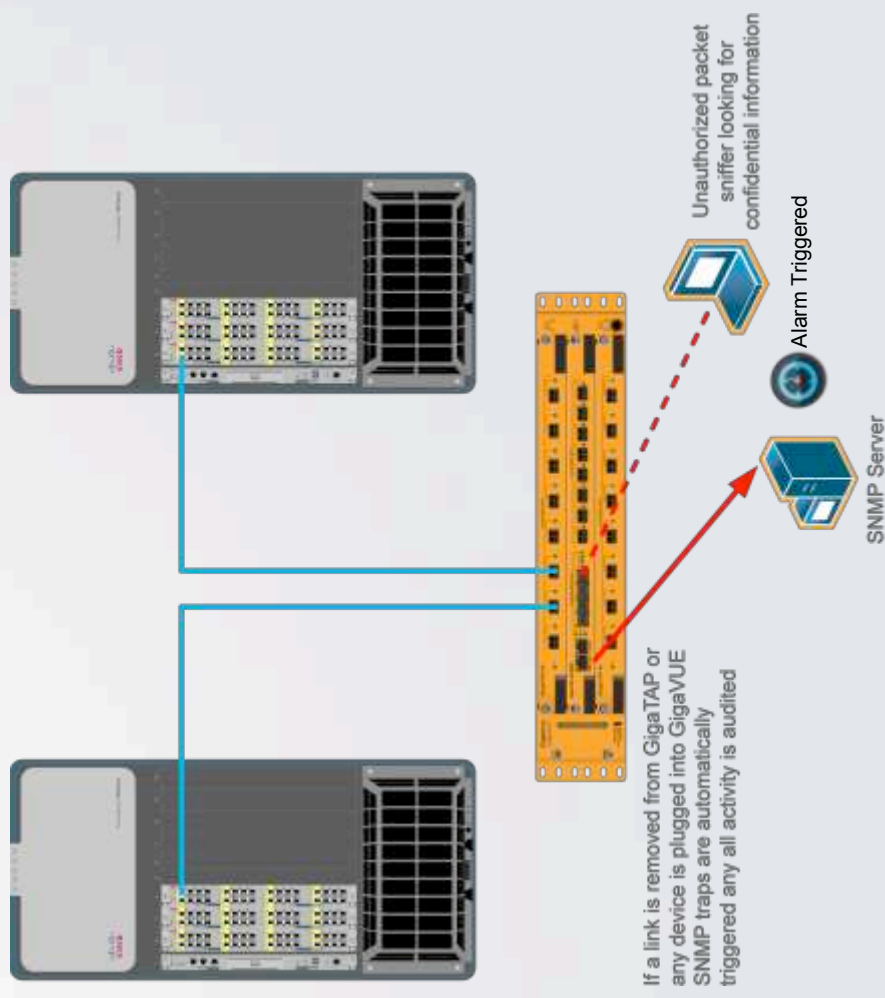


**With Gigamon**  
Customer was able to increase visibility and implement new rollout

### Security Challenges With unmanaged external TAP's



### Resolving Security Challenges With GigaTAP





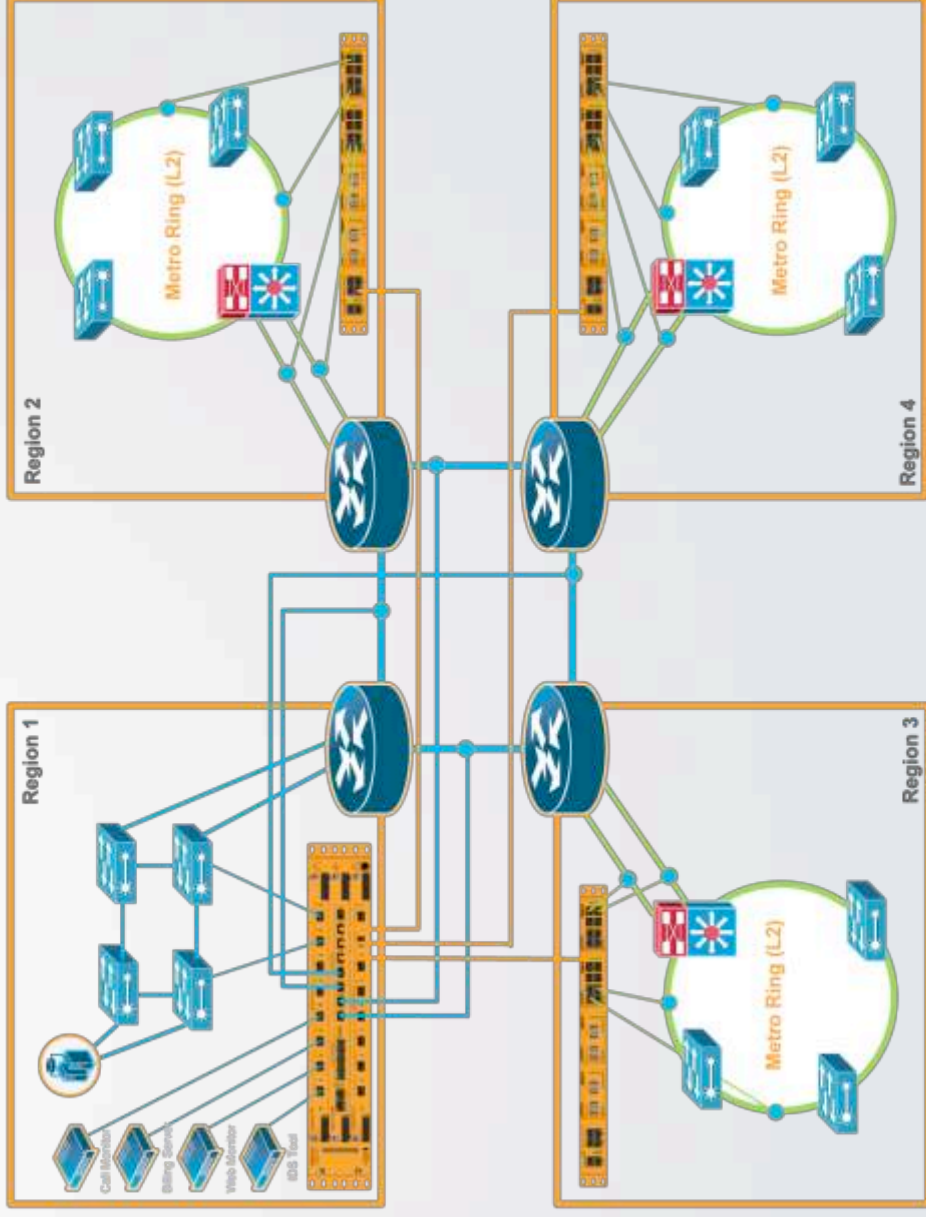
# Use Case #4

## Service Provider w/ Regional POP's

### Centralized Monitoring

A Service Provider wanted to reduce costs and decrease response time by centralizing monitoring resources with increased flexibility for onsite technicians at individual POP's.

These goals were accomplished by using Gigamon's stacking technology





Thank you for your time

Contact NextGig Systems, Inc.  
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