

3299 Table Top

The 3299 Table Top is part of the BypassP² product line, providing 1Gb bypass and active tap versatility and multi-functionality.

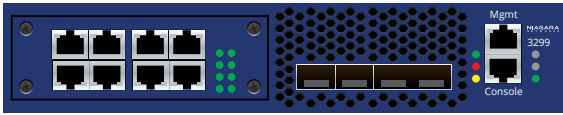


Figure 1: Fanless tabletop populated with fixed dual copper bypass segments

The 3299 tabletop supports dual copper bypass segments.

Additionally, the 3299 includes 10Gb aggregation ports that aggregate the traffic from the multiple 1Gb segments. With this, fewer links are required towards an aggregator or network packet broker device, reducing points of failure and reducing total cost of deployment.

Multifunctional BypassP² Segment

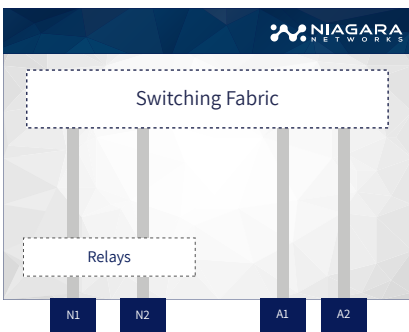


Figure 2: Multi-purpose 4-port segment

A full bypass segment comprises two network and two appliance ports. The dual copper bypass segment module includes direct 1000Base-T (RJ45) on the appliance ports.

Fabric Flow technology provides the ability to forward the traffic from one segment to any other segment.

Network Bypass Technology

Our signature BypassP² offers double-protection bypass technology. A failsafe switching relay on network ports, and a user-configurable heartbeat-generated packets on appliance ports.

In Bypass/Inline deployments, traffic from one side of the network is forwarded to the inline appliance, and through the inline appliance to the other side of the network. This is the common network deployment for inline security devices such as firewalls and intrusion detection systems.

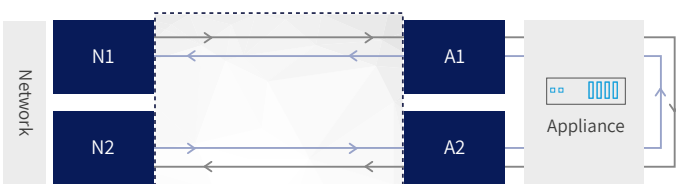


Figure 3: Inline deployment

Product Highlights

Aggregation:

- 4 x 10Gb aggregation ports

Multi-functional Segments:

- Each segment comprises 2*Network ports and 2*Appliance ports
- Network ports support RJ45
- Bypass for inline deployments
- Active Tap split mode
- Active Tap aggregate mode
- Super copper mode

Management:

- Robust command line interface (CLI)
- User-friendly, web-based user interface
- REST API for third-party integration and support
- Managed by Niagara Visibility Controller (NVC)
- Supports TACACS+, RADIUS, SNMP and NTP
- Centralized management

Form Factor:

- Table top
- Fanless



Fabric Flow:

Mapping traffic flow relationships between source and destination ports

- Multi-functional bypass segment configuration
- High availability between primary and secondary bypass segments
- User-configurable packet heartbeat (ms resolution)

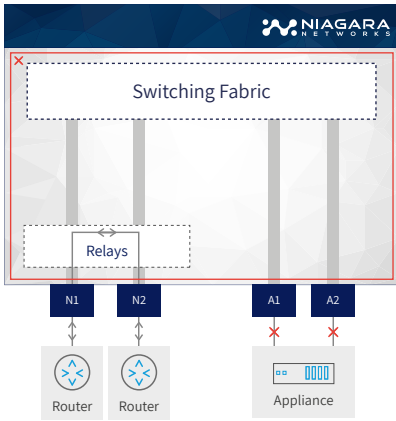


Figure 4: Power Failure Mode

Failsafe protection - protecting network traffic flow in the event of BypassP² failure. When power fails, as depicted in figure 4, the relays ensure that the network flow continues uninterrupted. The switching relays can be configured fail open or fail close to meet specific deployment needs. An optical switch mechanism is the most reliable method for connecting inline devices to your network, while ensuring uninterrupted network services under all conditions.

Heartbeat protection - protecting network traffic flow in case of appliance failures. The BypassP² transmits a user-configurable heartbeat on the appliance ports as depicted in figure 5. In the event of an appliance malfunction (such as a software crash, system failure or loss of power depicted in figure 6), the failure is detected, and the BypassP² bypasses the traffic intended for the inline appliance to the network ports, allowing it to continue to flow through the network link. This feature also enables the network appliances to be removed and replaced without network downtime. Once the system is back up, or the power is restored to the appliance, it is detected by the BypassP² heartbeat mechanism, and network traffic is seamlessly diverted back to the inline device, allowing it to resume its critical functions.

Niagara's heartbeat mechanism is an integrated configurable sub-second-rate mechanism that is available independently for each segment. The number of missed heartbeat packets before entering bypass mode is configurable, so too is the number of received heartbeats to determine that the appliance is back on-line. BypassP² heartbeat does not require additional drivers to be installed on connected appliances.

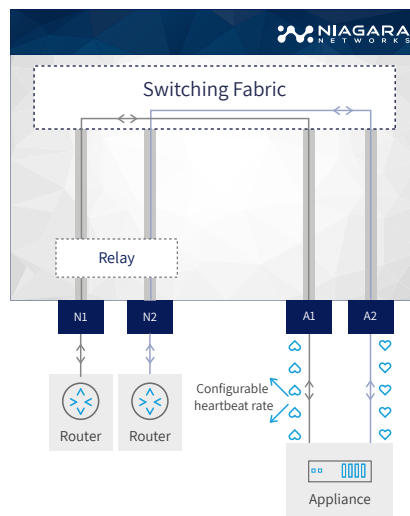


Figure 5: Normal inline Operation Mode

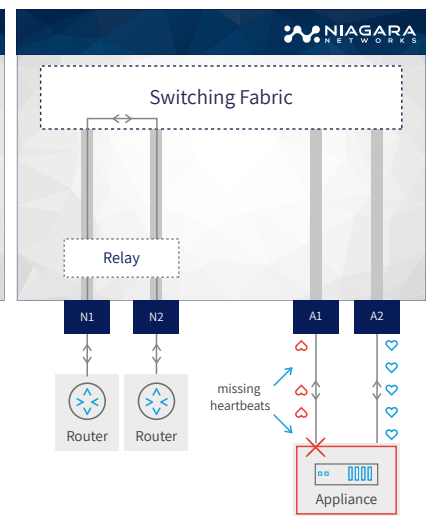


Figure 6: Appliance Failure Mode

Active Tap (aggregation)

The bypass segment is configured as an active Tap, supporting one network link. Traffic on the network side is always maintained. Each appliance port receives a copy of the Rx from both sides of the network. This mode economizes on monitoring tool ports, in case the total traffic throughput from both network sides is below that of the single appliance port.

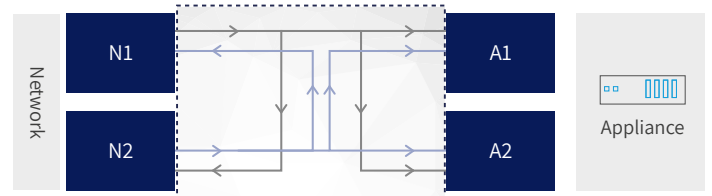


Figure 7: Active Tap (aggregation)

Active Tap (split)

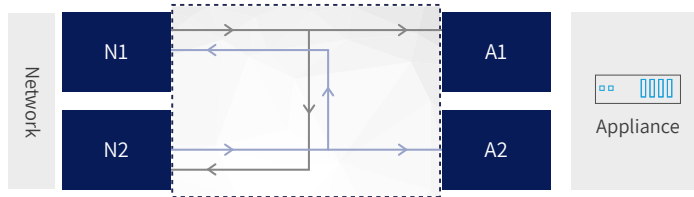


Figure 8: Active Tap (split)

The bypass segment is configured as an active Tap, supporting one network link. Traffic on the network side is always maintained. Each appliance port receives a copy of the Rx from one of the network ports.

Common Use Cases

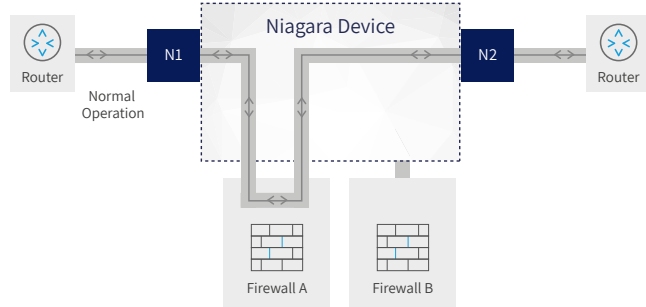


Figure 9: Supports high availability configuration. If Firewall A failed, Niagara device will switch traffic to Firewall B and protect network from security attack.

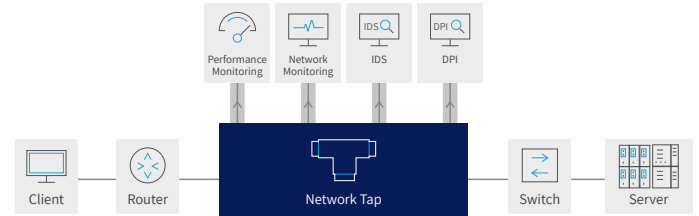


Figure 10: Send copy of network traffic to multiple tools.

Specifications

Height	1.74 in (44.20mm)	Operating Humidity	5%-95%
Depth/Length:	12.21 in (310.13mm)	Operating Temp	0° - 40 °C
Width	8.65 in (219.71mm)	Max Power	21.69 W
Raw Power	29.69 W	AC Input	90-264V, 47-63Hz, 1.5A (max) *external AC power supply unit
Max Current	0.24A @ 90V _{AC}		

Emissions

FCC Part 15B, ICES 003, EN55032

Immunity

EN55024

Safety

UL/CSA 60950-1, EN 60950-1, IEC 60950-1
CB Scheme with all country differences

Certifications

North America (NRTL) 2014/35/EU Low Voltage Directive
European Union (EU) 2014/30/EU EMC Directive
VCCI (Japan) 2011/65/EU RoHS Directive
2012/19/EU WEEE Directive

Part Number

3299TT-SG-2TX

3299TT with dual copper bypass segments. Each segment includes 2 TX network ports and 2 TX appliance ports

3299-EXT-PSU

3299 external AC power supply unit

About Niagara Networks

Niagara Networks provides high performance network visibility solutions for seamless administration of security solutions, performance management and network monitoring. Niagara Networks products provide advantages in terms of network operation expenses, downtime, and total cost of ownership.

A former division of Interface Masters, Niagara Networks provides all the building blocks for an advanced Visibility Adaptation Layer at all data rates up to 100Gb, including Taps, bypass elements, packet brokers and a unified management layer. Thanks to its integrated in-house capabilities and tailor-made development cycle, Niagara Networks are agile in responding to market trends and in meeting the customized needs of service providers, enterprise, data centers, and government agencies.

3299TT 2018 Version 2