

Overview

Niagara 2846 is a modular 1G, 10 Gigabit and 40 Gigabit Intelligent Active Bypass Switch and TAP with up to 32 multi-purpose SFP+ Ports for extensive packet filtering, distribution, aggregation and mirroring functionality. The Niagara 2846 can support up to 8 hot pluggable, field replaceable modules that can be either 2 segments of 1G/10G, 1 segment of 40G or 1 segment of 100G. The non-network ports can support 10G/1G SFP+ media or 40G ports depending on what module is selected and can be assigned to any of the network segments. The system's packet processing includes L2, L3 and L4 packet filtering, IPv4 and IPV6 traffic and supports the ability to customize filters and per port traffic for distribution. The active bypass functionality enables plug and play connectivity, includes an auto heartbeat and does not require additional drivers to be installed on connected appliances.

The unit possesses management functionality that can be utilized via an extensive web GUI or CLI which enables flexibility and multiple configurations. The Niagara 2846 passive bypass feature automatically switches the network traffic upon power failure of an attached in-line device, preserving network connectivity. The Niagara 2846 is designed to integrate with UTM, Firewall, WAN Acceleration, QoS, DPI, IPS, IDS and Enterprise IT security appliances.

When Niagara 2846 bypass functionality detects an appliance malfunction such as a software crash, system failure or loss of power, the in-line traffic continues to flow through the network link, but is no longer routed through the in-line device. This ensures that network devices can be removed and replaced without network downtime. Once the system is back up or the power is restored to the appliance, network traffic is seamlessly diverted back to the in-line device, allowing it to resume its critical functions.

The system's shared non-blocking switch fabric is set to support multiple network segments which enable data processing on asymmetric traffic by session-based distribution of the traffic to appliance ports.

Niagara 2846 supports flexible TAP and Link Aggregation options that provide Network managers, IT managers and operators high visibility into network performance and network traffic content. The unique TAP features include two main TAP options, Split TAP Mode and Aggregation TAP Mode.



Essential Features

Niagara 2846 provides major features that are essential in today's data centers:

- 100G bypass module and 100G QSFP28 module
- Up to 16 10Gb/1Gb network segments or up to 8 40Gb networks segments of bypass/failover with PacketMaster functionality
- Active switching of traffic in case of system failure
- Passive Bypass which is essential during power loss
- Active and Passive TAP for out of Band Appliances
- 32 multi-purpose SFP+ Ports or 16 QSFP+ ports for extensive packet filtering, distribution, aggregation & mirroring
- Flexible Support for SFP (SX, LX and TX) and SFP+ (SR, LR, ER) and QSFP on non-network ports
- Modular 2U form factor for flexibility and scalability
- Redundant hot-swappable power supplies for maximum reliability
- Dedicated Management Port and Console Port
- Extensive CLI and WEB based management (GUI)
- SSH and HTTPS for secure Management
- TACACS+ authentication
- Syslog support
- NTP support
- Low Max Power consumption:
 - » 559W (when populated with only 10G modules)
 - » 655W (when populated with only 40G modules)

- RoHS Compliant
- FCC Class A, UL & CE Certifiable

Filtering Definitions

- MAC source and destination
- IP source and destination
- Protocol: HTTP, VoIP, FTP, etc.
- VLAN ID
- TCP port source and destination
- UDP port source and destination
- User Defined Byte (UDB)

Extensive Bypass Configuration

Niagara 2846 allows for multiple bypass configurations including:

- Bypass - fail open or fail close
- Bypass heartbeat custom configurations including:
 - » Heartbeat pattern
 - » Heartbeat frequency
- Bypass on link loss
- Configuration of the number of link losses prior to activating bypass
- Configuration of the number of heartbeats prior to disabling bypass

Highly Reliable

Niagara 2846 utilizes two redundant hot-swappable power supplies for maximum reliability.

Niagara 2846 deploys passive bypass along with active switching for fail safe operation.

Niagara 2846 Front and Back View



Environmental

Operating Temperature	0 to 40 °C or 32 to 104 °F
Operating Humidity	5 to 85%
Maximum Power Consumption (All fiber ports installed)	559 Watts - when all ports are 10G 655 Watts - when all ports are 40G
Airflow	283 LFM / 10 CFM

Dimensions

	mm	inches
Length	663.49	26.12
Height	86.61	3.41
Width	438.15	17.25

Ordering Part Numbers

Niagara 2846 Chassis-AC	2U Chassis with two redundant AC power Supply
Niagara 2846 Chassis-DC	2U Chassis with two redundant DC power Supply
IM2800-TX-PM	8 Ports 10/100/1000 Copper, PacketMaster Module
IM2800-TX-BP	Four 1G Copper Bypass Segments
IM2800-TX-TAP	Four 1G Copper TAP Segments
IM2800-SX-TAP	4 Segments 1Gb SX TAP module
IM2800-LX-TAP	4 Segments 1Gb LX TAP module
IM2800-SFP+-PM	8 Ports 1/10Gb SFP+, PacketMaster Module
IM2800-SR-BP	Two segments Bypass module 1/10Gb SR
IM2800-LR-BP	Two segments Bypass module 1/10Gb LR
IM2800-SR-TAP	4 Segments 10Gb SR TAP module
IM2800-LR-TAP	4 Segments 10Gb LR TAP module
IM2800-QSFP+-PM	4 Ports 40Gb QSFP+, PacketMaster Module
IM2800-40G-SR-BP	40Gb SR one segment Bypass module
IM2800-40GLR-BP	40Gb LR one segment Bypass module
IM2800-40G-SR-TAP	40Gb SR 2 segments TAP module
IM2800-40G-LR-TAP	40Gb LR 2 segments TAP module
IM2800-100G-PM	one port of 100Gb QSFP28 Module
IM2800-100G-LR4 BP	One Segment 100Gb LR4 Bypass Module - Dual Bay
IM2800-100G-CLR4 BP	One Segment 100Gb CLR4 Bypass Module - Dual Bay

Product Line

- Network Interface Cards with Bypass
- Network Interface Cards without Bypass
- External Bypass Products
- SSL/IPSec Cards
- Embedded Switches
- Embedded Platforms
- Development Tools
- TAP Systems

About Interface Masters Technologies, Inc.

[Interface Masters Technologies](#) is a leading vendor in the network monitoring and high speed networking markets. Based in the heart of the Silicon Valley, Interface Masters' expertise lies in Gigabit, 10 Gigabit and 40 Gigabit Ethernet network access and network connectivity solutions that integrate with monitoring systems, inline networking appliances, IPS, UTM, Load Balancing, WAN acceleration, and other mission-critical IT and security appliances.

Flagship product lines include [hardware load-balancers](#), [specialized 10GE internal server adapter cards](#), switches, [10 Gigabit external intelligent Network TAP](#) and [Bypass](#) and [failover](#) systems that increase network visibility capabilities, network reliability and inline appliance availability.

Company Headquarters is located in San Jose, CA with satellite offices in Hona Kona and Europe.

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Innovative Network Solutions