



Managing Connections Smarter

GreenNet Orthogonal TAP SWITCH

DataSheet

Overview

Orthogonal TAP Switch is a traffic probe TAP switch with high port density, rich working modes, efficient and flexible deployment, convenient management and maintenance, etc. Built with orthogonal architecture, the TAP Switch is specially designed for the traffic collection of large-scale local area networks or dense 10-Gigabit links and 100GE links of operator networks. Adapting to multiple application environments, the Switch provides network traffic for network information monitoring, network service analyzer, signaling analyzer, and other equipment in real-time as needed.

Orthogonal TAP Switch provides a powerful intelligent flow processing function, supports flow port and VLAN tag marking, aggregation, filtering, replication, or load balancing, suitable for complex application environments with a large number of links, large scale traffic, and high density. Orthogonal TAP Switch combines splitter, filtering analysis equipment, and load balancing equipment into one box, providing a convenient and efficient data collection solution for network security, protocol analysis, and signaling detection systems.

The Orthogonal TAP Switch is designed with carrier-grade general available chassis of 19-inch orthogonal architecture and 13U standard rack height. There are eight front stack service slots (for service cards) and six back stack service slots (for switch cards or export cards) to support pluggable redundant fan module groups on two independent chassis management slots and provide standard IPMI chassis management.



Features

- An advanced plug-in card of orthogonal architecture supports a maximum 12.8T traffic collection and a full line-speed switching capability.
- Intelligent modules for management, fan control, and power supply control that enable master-standby redundancy scheme for hot-swappable capability.
Provides up to 192*100GE (40GE), 160*25GE (10GE), and 40*10GE (GE) ports that can flexibly be configured as input and output ports.
- Supports full data flow aggregation. The flow of all ports is aggregated before processing. The output flow is fully integrated.
- Provides detailed port traffic statistics counters.

- Supports traffic replication for outputting multiple copies of traffic according to policies such as ports and filtering policies.
- Powerful flow classification processing function and processing flow according to various characteristics such as input port, 5-tuples, characteristic fields, and application protocol, a friendly user-interface to provide complete command line management, WEB page management, and SNMP management interface.
- Provides detailed multi-level device log.

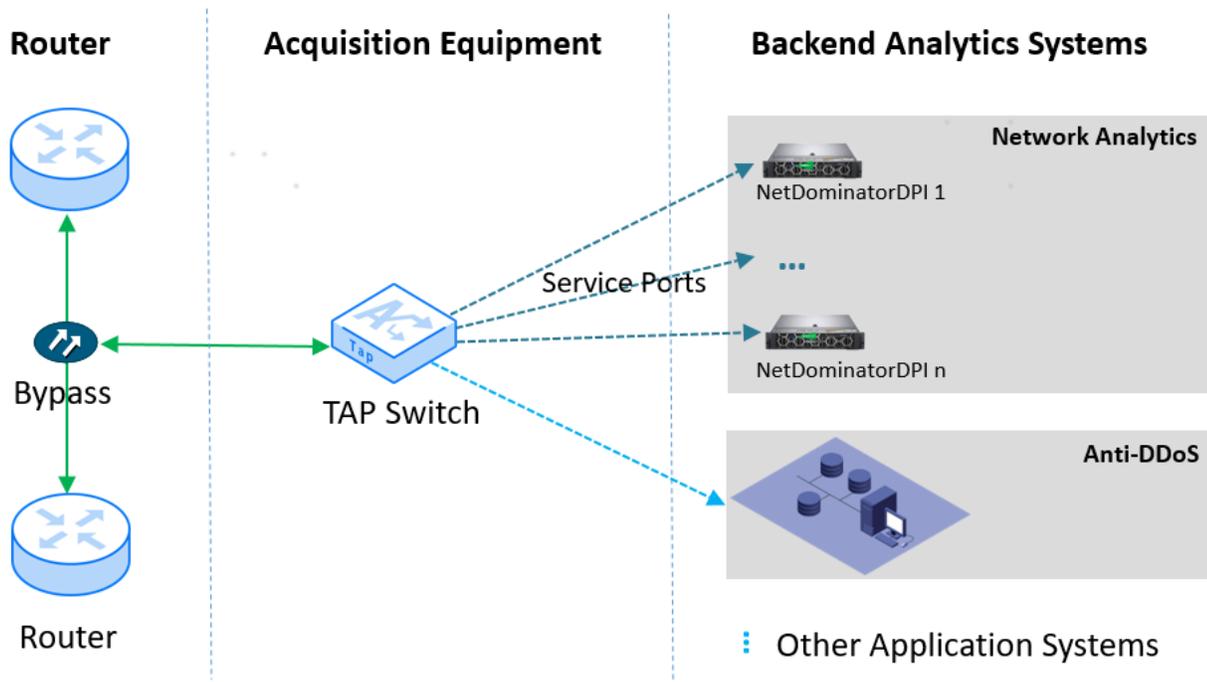
Typical Scene

Orthogonal TAP Switch designed for traffic collection of dense 10Gb/25GE/40GE/100GE links in large-scale LANs or operator networks. It is deployed in the network in inline or bypass mode and provided bypass protection. It adapts to various application environments and provides real-time network traffic for network information monitoring equipment, network service analyzers, Anti-DDoS, signaling analyzers, and other equipment as needed.

A traffic filtering function identifies HTTP, Email, and other business-related content traffic and discards useless traffic, thus reducing the traffic pressure on the business system.

Provide traffic mirror function based on port and flow rules to meet the traffic data collection needs of parallel deployment of multi-service systems.

The TAP Switch is usually based on the hash algorithm for traffic processing. The results of the hash value from the same flow are the same, through the destination IP hash rule (one of the 5-tuple hash rules) can be balanced to forward of flow from the same user session to a fixed output port by ensuring the integrity of flow from the same user session.



Components

Components	Description
Orthogonal Chassis	Orthogonal Chassis,13U, 8 services slots on the front, 2 switching slots on the back, with 4 rear IO slots. Redundant AC 220V power supply (3000W module), and adjustable speed plug-in fan module.

Management Card	Orthogonal management card, intel Atom CPU, 32G RAM, 32G SSD, supports centralized management of the whole machine.
Switch Card	Orthogonal switch card, 6.4T switching chip, backplane bandwidth 600G, adapted to 8 slot cabinet, with standard shunt software.
Interface Card	Orthogonal interface board, adapted to 8 slot cabinet. The panel provides 24*100GE QSFP28 ports and 36*10GE SFP+ ports, with standard shunt software.

Specifications

Management Card Parameter	Description
Size	185mm x 43mm x 480mm (W x D x H)
Weight	2.7KG
RAM	DDR4 SODIMM
Storage	32GB mSATA Hard Disk
Power Consumption	50W
Temperature	0°C ~ 50°C
Humidity	5% ~ 95% (non-condensing)
Vibration	20Hz ~ 2KHz random multi-axis, 0.5G R
Environmental Standards	RoHS Compliant
Switch card Parameter	Description
Size	511mm x 220mm x 61mm (W x D x H)
Switch capacity	Adopt 6.4T switching chip, the data channel bandwidth with the interface card is 600G, which can be configured with a maximum of 2 cards.
Weight	4.6KG
Power Consumption	320W
Temperature	0°C ~ 50°C
Humidity	5% ~ 95% (non-condensing)
Vibration	20Hz ~ 2KHz random multi-axis, 0.5G R
Environmental Standards	RoHS Compliant
Interface card Parameter	Description
Size	433mm x 476mm x 52mm (W x D x H)
Traffic ports	24 * 100GE QSFP28 ports and 36 * 25GE/10GE SFP+ ports. The card can be configured with a maximum of 8 cards.
Weight	6.6KG
Power Consumption	440W
Temperature	0°C ~ 50°C
Humidity	5% ~ 95% (non-condensing)

Vibration	20Hz ~ 2KHz random multi-axis, 0.5G R
Environmental Standards	RoHS Compliant

HongKong

Unit 1001, 10/F, Mira Place, Tower A
132 Nathan Road TST,
Kowloon, Hong Kong
+852 2824-8753

Beijing

603, CLP Information Building,
6 Zhongguancun South Street,
Haidian District, Beijing, China
+86 (10) 6870 9986

Wuhan

Fl 4, Building E2, 4 Middle
Software Park Road,
Optics Valley Software Park,
East Lake High-tech
Development Zone,
Wuhan, China
+86 (27) 8780 9610

Uzbekistan

Uzbekistan Tashkent City,
Mirabad District, 14 Oybek
Ko'chasi
+998 93-0012248