TiFRONT Backbone Switch

PIOLINK

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PIOLINK BS9800 series is a cost-effective next generation of high-availability backbone switches.
Terabit switching capacity reliably handles the surging core network traffic in data centers, universities and businesses and ensures business continuity with high fault resilience.

Rich L3 routing and virtualization(VSU) capabilities

Up to 12.8 Tbps switch capacity and 9,048 Mpps packet processing

Protect your system from various packet attacks (NFPP and security features)

CPP capability to block overload and malfunction

Integrated management on TiController management system

Standard rack mountable
(10 U in height, 600 mm in depth)

Virtual Switch Unit (VSU)

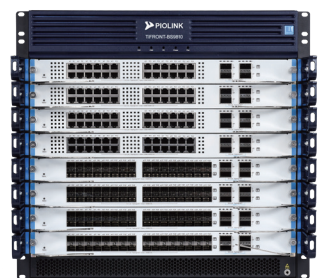**TiFRONT BS9800 series** is specifically designed for the next generation of integrated networks.
VSU(Virtual Switch Unit) virtualization technology delivered supports future ethernet requirements and greatly simplifies the network architecture to improve operational efficiency.
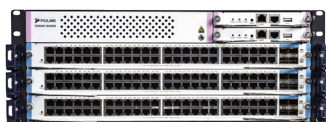
BS9805   BS9808   BS9810

TiFRONT backbone switch features

Improve operational efficiency

Virtual Switch Unit(VSU) technology simplifies two devices into one logical device to reduce administrative load and link recovery feature ensures uninterrupted transmission

Carrier-grade high availability

Key components such as control engine, power supply, fans, etc. Module redundancy and hot-swap support
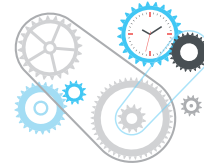
Non-blocking switching

Independent switching fabric and control module configuration for greater reliability and greater traffic transmission efficiency
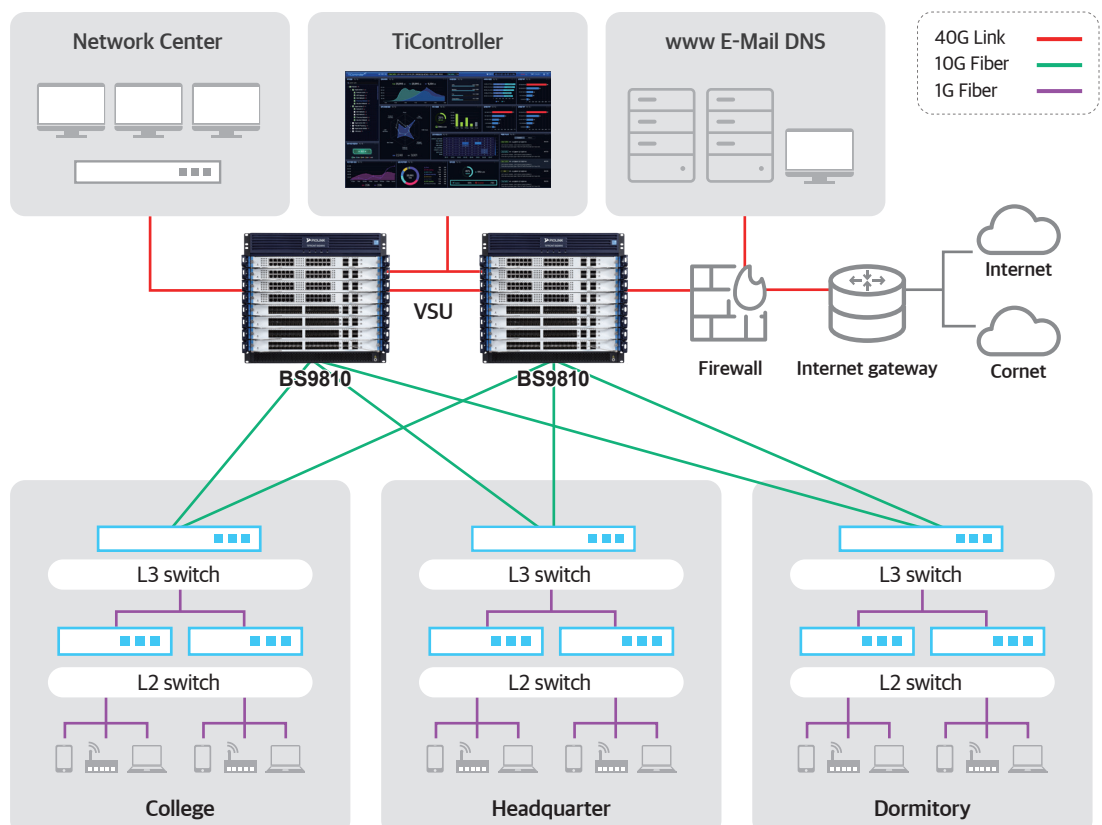
Superior energy efficiency

Low voltage power supplies and multi-core CPUs reduce power and ensure durability in high temperatures with smart fans that control temperature and speed

TiFRONT backbone switch scenario

Campus network deployment example

Network Center

TiController

www E-Mail DNS

40G Link
10G Fiber
1G Fiber

VSU

BS9810

BS9810

Firewall

Internet gateway

Internet

Cornet

L3 switch

L2 switch

College

L3 switch

L2 switch

Headquarter

L3 switch

L2 switch

Dormitory

Specification
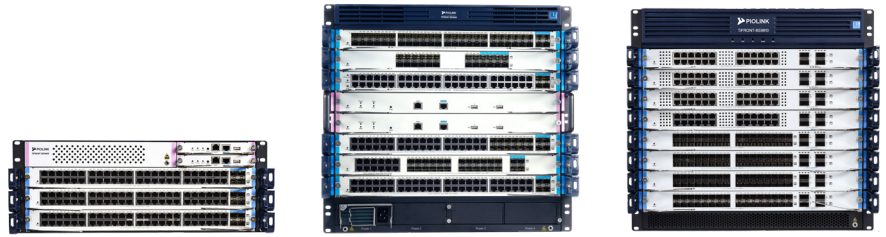
TiFRONT	BS9805	BS9808	BS9810
Height	4 U	10 U	10 U
Slot for Control Engine	2	2	2
Slot for Fabric Engine	-	-	2
Slot for Line Card	3	6	8
Max. 1GbE ports	144	288	384
Max. 10GbE ports	144	288	384
Max. 40GbE QSFP+	24	48	64
Max. 100GbE QSFP28	24	48	64
No. of Power Supply	2	4	4
No. of Fan Moudles	1	2	2
Power Input	AC 100~240 V, 50/60 Hz		
Power Consumption (Main Chassis)	88 W	176 W	432 W
Switch Fabric	3.7 Tbps	9.6 Tbps	12.8 Tbps
Forwarding Rate	3321 Mpps	7142 Mpps	9047 Mpps

Control Engine

BS9805-CE-MT	BS9805 Control engines (Max. 2, 1+1 Redundancy)
BS9808-CE-MT	BS9808 control engines (Max. 2, 1+1 Redundancy)
BS9810-CE-AT	BS9810 Control Engine (Max. 2, 1+1 Redundancy)
BS9810-CE-BT	BS9810 Control Engine (Max. 2, 1+1 Redundancy)

Switch Fabric Module

BS9810-SF-AT	BS9810 First Generation Switch Fabric Module
BS9810-SF-BT	BS9810 Second Generation Switch Fabric Module

Line Card

Line Card		IPv4 Routing Table	IPv6 Routing Table
BS9800-24F12C4XS-AT	24 x 1GbE (SFP), 12 x 1GbE copper combo (RJ45), 4 x 10GbE (SFP+)	16 K	8 K
BS9800-24C24F4XS-AT	24 x 1GbE copper (RJ45), 24 x 1GbE (SFP), 4 x 10GbE (SFP+)		
BS9800-48C4XS-AT	48 x 1GbE copper (RJ45), 4 x 10GbE (SFP+)		
BS9800-48F4XS-AT	48 x 1GbE (SFP), 4 x 10GbE (SFP+)		
BS9800-32XS4QXS-AT	32 x 10GbE (SFP+), 4 x 40GbE (QSFP+), 40GbE supports 1 to 4 x 10GbE (SFP+)		
BS9800-48XS-BT	48 x 10GbE (SFP+)	64 K	24 K
BS9800-8CQ-BT	8 x 100GbE (QSFP28), Support to be downward compatible with 40GbE (QSFP+)		
BS9800-48C-BT	48 x 1GbE copper (RJ45)	134 K	50 K
BS9800-48F-BT	48 x 1GbE (SFP)		

Power Supply

BS9805-PWR-AC460	BS9805 Power Module (support redundancy, AC, 460W)
BS9808-PWR-AC1600	BS9808 Power Module (support redundancy, AC, 1600W)
BS9810-PWR-AC1600	BS9810 Power Module (support redundancy, AC, 1600W)

Common features

L2 Features	
	• Jumbo Frame
	• 802.1Q
	• STP, RSTP, MSTP
	• Super VLAN
	• GVRP
	• QinQ, Flexible QinQ
	• LLDP
	• ERPS (G.8032)

IPv4 Features	
	• Static Routing, RIP, OSPF, IS-IS, BGP4
	• VRRP
	• Equal-Cost Multipath (ECMP) Routing
	• Policy Routing
	• GRE Tunnel

IPv6 Features	
	• Static Routing, OSPFv3, BGP4+, IS-ISv6, MLDv1/v2
	• VRRPv3
	• Equal-Cost Multipath (ECMP) Routing
	• Policy Routing
	• Manual Tunnel, Auto Tunnel, ISATAP Tunnel, GRE Tunnel

Multicast	
	• IGMP v1, v2, v3
	• IGMP Snooping
	• IGMP Proxy
	• PIM-DM, PIM-SM, PIM-SSM
	• MLD
	• Multicast Static Routing

VXLAN	
	• VXLAN L2 Bridge
	• VXLAN L3 Bridge

ACL	
	• Standard, Extended, Expert ACL
	• ACL 80
	• IPv6 ACL

Port Mirroring	
	• Many-to-one/One-to-many, Flow-Based mirroring
	• SPAN, RSPAN, VLAN mirroring

QoS	
	• 802.1P
	• Queue Scheduling Mechanisms (SP, WRR, DRR, SP+WRR, and SP+DRR)
	• RED/WRED,Traffic supervision and traffic shaping
	• Input/Output Port-Based Speed Limit

Security features	
	• NFPP (Network Foundation Protection Policy)
	• CPP (CPU protection)
	• DAI, port security, IP Source Guard
	• 802.1x
	• Portal authentication, RADIUS and TACACS+ user login authentication
	• uRPF
	• Login authentication and password security policy
	• Unknown multicast are not delivered to CPU and Support unknown unicast suppression
	• Support SSHv2 to provide a secure and encrypted channel for user login

Reliability	
	• Control engine : 1+1 redundancy
	• Power supply : N+M redundancy
	• FAN : 1+1 redundancy
	• Hot-swappable components
	• Hot-path and online patch upgrade
	• ISSU
	• GR for OSPF / IS-IS / BGP
	• BFD for VRRP / OSPF / BGP4 / ISIS / ISISv6 / static routing
	• Isolating failed fiber ports

Management and Maintenance	
	• Console / AUX modem / Telnet / SSH2.0 command line config
	• FTP, TFTP, Xmodemfile upload/download management
	• SNMP v1/v2c/v3
	• Remote Network Monitoring(RMON)
	• NTP clock
	• Fault alarm and self-recovery
	• System Log
	• sFLOW

EEE Format	
	• EEE (802.3az)

PIOLINK is a professional network and security company.
Ensure industry-leading application availability and performance, deploy cloud infrastructure, easy network management, and It has unique skills and leadership in an intelligent and advanced IT environment with
information protection. Major products include Application delivery controllers which dominate the domestic market, web application firewalls, Cloud-managed networking and hyper-converged infrastructure. Major services include security control and security consulting.

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