BSR2900 Series

Multi-service Enterprise Gateway

Product Overview

BDCOM BSR2900 Series is the next- generation multi-functional switching router developed by BDCOM. It adopts the 64-bit multi-core processor, high-speed switching engine. It is a well-adapted router.

BDCOM BSR2900 Series has 2 models such as BSR2900-10B, BSR2900-24G. It supports the full switching function, USB2.0 expansion, service expansion and engineering maintenance.

BDCOM BSR2900 Series is equipped with BDROS operating system, of which BDCOM has the independent intellectual property right. BDCOM BSR2900 Series builds a real multiservice broadband platform by providing rich software functions such as routing, switching, safety, VPN and LTE.With its strong processing and expansion capability, rich software functions and hardware modules, BDCOM BSR2900 Series meet requirements of the government, financial institutions, the defense system, operators and enterprises in network construction.

Diversified options

- Gigabit RJ45
- Gigabit SFP
- USB2.0
- Reset button

Multiservice platform

- RIP/OSPF/BGP
- PPTP/L2TP/GRE/IPSec
- GBSC flow-control
- VLAN
- ZTP

BDROS operating system

- IPv4/v6 dual-stack
- High performance
- energy efficiency design

BDCOM BSR2900 Series

Product Characteristics

High Performance

BDCOM BSR2900 Series is driven by the 64-bit dual-core processor with specialized gigabit ASIC switching chip and .FPGA components, which enables the whole hardware platform to run on the high-speed Ethernet frame. The innovative design endows BSR2900 with asuper processing capability, providing a guarantee for upper-layer software functions.

Strong Expansibility

Because built on the basis of switching core, BSR2900Series can expand their external interfaces, slots and modules without any limitation from the total CPU resources. The switching chip guarantees that the whole BSR2900 router is provided with sufficient and broadband internal channels, making the expansibility of BSR2900 routers exceed that of traditional modularized routers.

Energy-Saving Advantage

BSR2900 Series adopt the new-generation hardware chip in consideration of energy saving while guaranteeing its strong processing capacity. Compared with the mainstream devices in the industry, power consumption of the BSR router is reduced by 15% to 20%,which both reduces the device maintenance cost and accords with the low-carbon idea. BDCOM BSR2900 Series is also equipped with the environment friend lymaglev mute fan.

Varied Protocols

BSR2900 Series supports Layer 2 link protocols including PPP and dot1q; static routing; policy routing; and dynamic routing such as RIP, OSPF and BGP. These routing protocols are well compatible with the devices manufactured by the mainstream vendors in the industry.

Besides, BSR2900 Series supports integration of multiple services such as routing, switching, voice, safety and wireless, which meets the requirement of complicated network construction.

New Services

BSR2900 Series supports the MPLS characteristics and the MPLS-based layer-2/layer-3 VPN technology, which realize the transparent Ethernet transmission service and the flexible enterprise interconnection.

BSR2900 Series supports IPv6 data forwarding, routing protocols and multicast routing protocols;

BSR2900 Series also supports the IPv4/IPv6 protocol stack and the interconnection technology, which makes the existing networks smoothly upgrade to IPv6.

Secure Service Access

BSR2900 Series supports selective ACL firewall filtration technology, NAT, VPNs such as IPSec/L2TP/PPTP/GRE, and security technologies such as AAA, Radius, PAP/CHAP.

Traffic Management Policy

BSR2900 Series supports varied queues including FIFO, PQ, CQ, CBWFQ, LLQ, WFQ, DSCP, IP Precedence, RTS and CAR.

BDCOM BSR2900 Series supports its self-developed traffic control and service management policy (GBSC), which can better real-time arrange and monitor your data traffic.

Flexible Management and Maintenance

BSR2900 Series is convenient in managing and monitoring the network by using the in-band and out-band management tools such as Console, Telnet, SSH and SNMP;
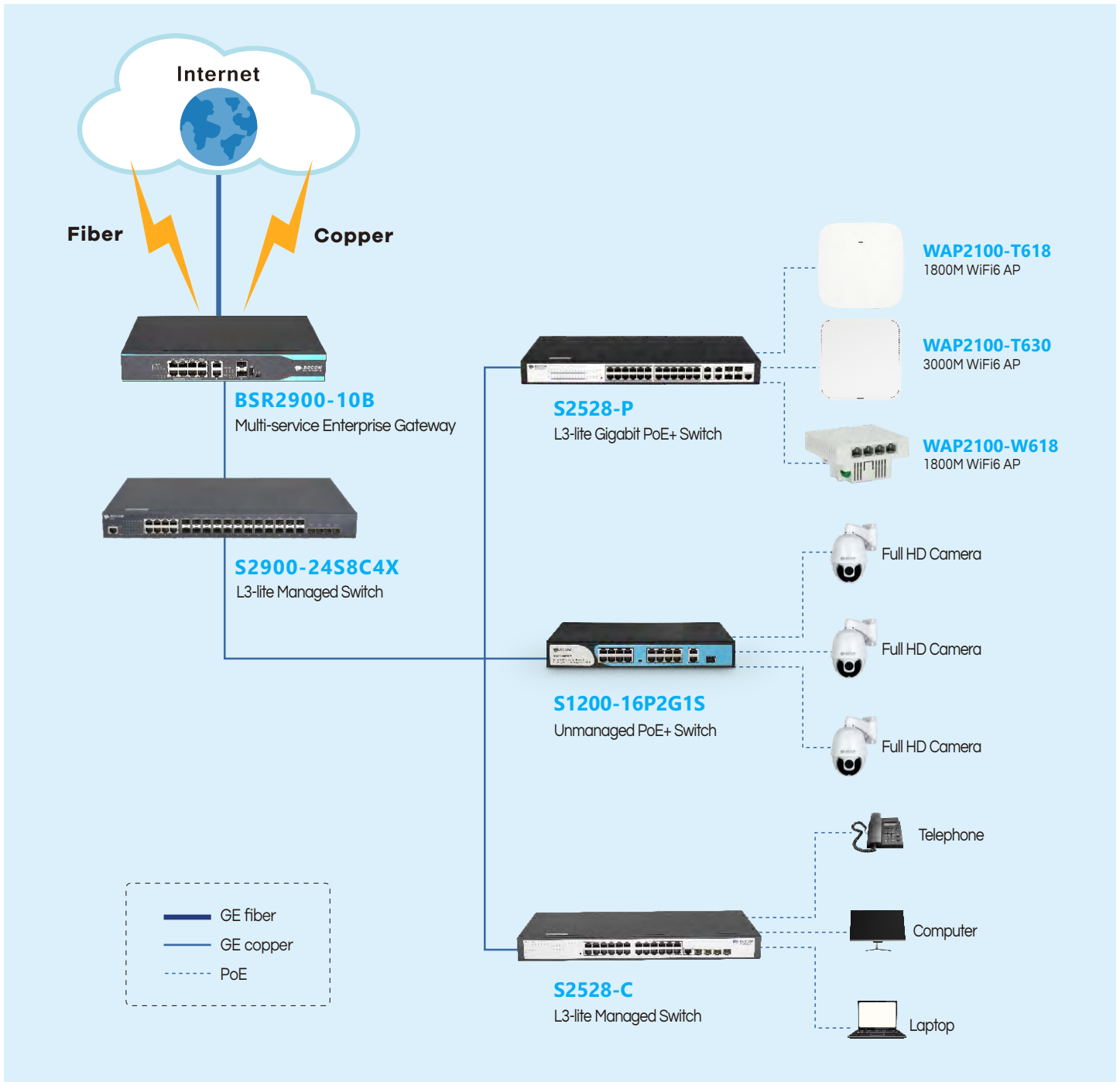
Model lists

BSR2900-10B

- 1-Port Console(MiniUSB)
- 1-Port USB2.0
- 2-Port Gigabit RJ45 WAN
- 2-Port Gigabit SFP WAN
- 8-Port Gigabit RJ45 LAN

BSR2900-24G

- 1-Port Console(RJ45)
- 1-Port USB2.0
- 2-Port Gigabit RJ45 WAN
- 2-Port Gigabit RJ45/SFP Combo WAN
- 24-Port Gigabit RJ45 LAN

Application Diagram

Internet

Fiber

Copper

BSR2900-10B
Multi-service Enterprise Gateway

S2528-P
L3-lite Gigabit PoE+ Switch

WAP2100-T618
1800M WiFi6 AP

WAP2100-T630
3000M WiFi6 AP

WAP2100-W618
1800M WiFi6 AP

S2900-24S8C4X
L3-lite Managed Switch

Full HD Camera

Full HD Camera

Full HD Camera

S1200-16P2G1S
Unmanaged PoE+ Switch

Telephone

Computer

S2528-C
L3-lite Managed Switch

Laptop

— GE fiber
— GE copper
---- PoE

Software Characteristics

Routing

LAN
- ARP, ARP proxy, Gratuitous ARP

WAN
- PPP, PPPoE (Client/Server)

Routing
- Static route, default route
- RIPv1/v2, OSPFv2, BGPv4
- Fast Switch, Load-Balance
- PBR

Multicast
- IGMP
- PIM-DM, PIM-SM

IPv6
- IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6 (authenticate through IPv6 PhaseII)
- IPv6 QoS
- IPv6 transition: NAT-PT, IPv6 tunnel, 4over6
- IPv6 tunnel: IPSec v6, GRE, 6to4, ISATAP
- IPv6 route: IPv6 static route, RIPng, OSPFv3, BGP4+

Switching

Switching
- 802.1p CoS, 802.1Q VLAN
- STP, RSTP
- Keep alive, port mirror, broadcast/ multicast storm control

Network safety

AAA
- Authentication, Authorization, Accounting
- Enable, local, Radius, Tacacs+
- PAP, CHAP, MS-CHAP

MPLS
- VPLS, MP-BGP, VRF
- L2VPN, L3VPN

IP service
- ICMP, TCP, UDP, IP Option
- NAT, PAT, Port-MAP, Private-Service, ALG
- Ping, Trace Route, Nslookup
- IP ACL, IMP filter, Fast-Access
- DHCP Client/Serv/Relay
- DNS, DNS host, DNS Proxy, DDNS (Peanut Hull/DynDNS/CTC)
- Helper-Address, UDP Helper
- IP unnumber, DDR
- Keep alive, PDP (compatible with CISCO)
- NetFlow, IP SLA
- TFTP Client/Serv, FTP Client
- SNTP, job/schedule
- PNP
- ALIAS
- Reverse telnet, VTY binding

Network Security

Firewall
- ASPF state detection
- SYN flood, UDP flood or ICMP flood ptotection
- ARP attack protection, ARP-SCAN and DHCP-Snooping
- Prevention of Ping of Death, Teardrop, Land-Based, Win Nuke, Ping Sweep, ARP attack and IP-Spoofing

VPN
- IKE, IPSec, DMVPN, EZVPN
- L2TP, PPTP, GRE,EoGRE
- VPN stacking

Reliability

Backup function
- Interface backup
- Route backup
- E-Backup, Keep alive Ethernet remote monitoring
- VRRP, HSRP
- Bandwidth based load sharing and backup
- Traffic based load balancing and backup

BFD
- BFD for RIP, OSPF, BGP, MPLS and VRRP

QoS

Congestion management
- FIFO, PQ, CQ, WFQ, CBWFQ

Congestion avoidance
- WRED/RED

Traffic shaping
- GTS (Generic Traffic Shaping)

Others
- GBSC, Layer7filter

Traffic classification
- ACL Flow Classification
- IP Precedence Flow Classification
- DSCP flow classification
- MAC address classification
- 802.1P classification

Management
- SNMP, MIB, SYSLOG, RMON
- Console/Telnet/VTY/SSH/HTTP

Technical Parameters

Items		BSR2900-10B	BSR2900-24G
Interface			
Console(RJ45)		1	1
USB2.0		1	1
WAN		2-Port Gigabit SFP 2-Port Gigabit RJ45	2-Port Gigabit RJ45/SFP combo 2-Port Gigabit RJ45
LAN		8-Port Gigabit RJ45	24-Port Gigabit RJ45
RST		1	1
Encryption engine		Built-in	Built-in
Performance			
Throughput		3Mpps	5Mpps
Flash		32MB	32MB
DRAM		1GB	1GB
Appearance			
Consumption	**No-load**	≤15W	≤25W
	Full-load	≤30W	≤50W
Total output BTU (note: 1000 BTU/hr = 293W)		102.39	170.65
Chassis	**Dimensions mm (WxDxH)**	300x200x44	440x300x44
	Weight (kg,empty)	1	1.7
Package	**Dimensions mm (WxDxH)**	454x96x287	576x448x94
	Weight(kg)	2	4.5
Operating	**temperature**	0°C ~ 50°C	0°C ~ 50°C
	humidity	0%~85% (non-condensing)	0%~85% (non-condensing)
Storage	**temperature**	-40°C+85°C	-40°C+85°C
	humidity	5%~95% (non-condensing)	5%~95% (non-condensing)
Fan		Fanless	2
Noise@25°C (dBA)		0	45
Power supply		AC 100~240V 50/60Hz	AC 100~240V 50/60Hz
Accessory		Console cable, power adaptor	Console cable, power adaptor

Ordering Information

Model	Description
BSR2900-10B	BSR2900-10B Multi-service Enterprise Gateway (1-Port MiniUSB console, 1-Port USB2.0, 2-Port Gigabit SFP WAN,2-Port Gigabit RJ45 WAN, 8-Port Gigabit RJ45 LAN; single AC-220V power supply)
BSR2900-24G	BSR2900-24G Multi-service Enterprise Gateway(1-Port RJ45 console, 1-Port USB2.0, 2-Port Gigabit RJ45/SFP Combo WAN, 2-Port Gigabit RJ45 WAN, 24-Port Gigabit RJ45 LAN, single AC-220V power supply）

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