



# BIG2000 Series Multi-Service Converged Gateway

## Product Overview

BDCOM BIG2000 series is the BDCOM-developed multi-service converged gateway oriented for various ICT scenarios such as enterprises, parks, hotels, campuses, hospitals, and commercial chains.

BIG2000 is built on a 64-bit ARM-based processor and a 10-Gigabit non-blocking switching platform with the separation of control and forwarding planes, which can provide high-performance and high-efficiency product experience. BIG2000 is equipped with a new generation of BDROS system with independent intellectual property rights of BDCOM to provide users with a variety of practical functions such as NAT high-speed Internet access, multi-line access policy, in-depth application identification and QoS flexible flow control. BIG2000 also integrates value-added services such as cloud management, network security, wireless management and user authentication, making it ideal for all types of enterprise networking.



BDROS independent  
intellectual property rights



High-  
performance



Full-  
service



Visualization



Manageability



Cloud O&M



High-reliability

# Product Characteristics

## Powerful Performance

BIG2000 series is built with a 64-bit ARM-based high-performance processor, providing maximum 10-Gigabit high-speed throughput. Standing out with a new generation of BDROS system, and the separation of forwarding and control planes, BIG2000 series delivers a robust kernel and high-efficiency forwarding to handle the massive data throughput of large-capacity user concurrent scenarios.

## Excellent Reliability

BIG2000 series supports dual-system hot backup, link backup and power supply redundancy features, providing users with carrier-level reliability.

BIG2000 series provides 6KV lightning protection and surge protection for communication network ports and power supplies; supports temperature monitoring, fan monitoring and active alarm. In addition, BIG2000 series also supports independent storage of dual Flash to quickly self-recovery from "bricking" caused by misoperation or other extreme conditions, which significantly reduces the impact of abnormal network interruption, and greatly improves the feasibility of remote operation and maintenance.

## Comprehensive Routing Protocols

BIG2000 series supports multiple deployment modes such as routing, gateway and transparent bridge; supports static routing, dynamic routing (including RIP, OSPF, BGP) and policy-based routing (PBR). Its comprehensive routing protocols make it can be perfectly compatible with the devices of mainstream manufacturers in the industry. In addition, it supports multi-service integration such as routing and switching, wired and wireless, and wireless authentication, which can meet the needs of various complex network constructions.

## Rich Feature Collection

In addition to network interconnection and Internet access, BIG2000 series also offers a large number of practical features to meet more diverse needs of users with fewer devices.

BIG2000 series supports simultaneous access of multiple lines, and provides multiple modes of load balancing strategies such as backup, overlay and intelligence, fully improving the utilization of bandwidth resources.

BIG2000 series incorporates in-depth application identification and flow control technology to ensure the smooth flow of key services, prohibit unauthorized traffic, and eliminate unnecessary bandwidth requirements.

BIG2000 series integrates routing and switching functions, reducing the number of switches, thereby simplifying the network topology.

BIG2000 series has built-in wireless AC and Portal authentications, and offers centralized management and seamless roaming of connected APs, contributing to full integration and centralized management of enterprise networks.

BIG2000 series stands out with flexible firewall filtration and multiple VPN technologies such as L2TP/PPTP, GRE, IPSec, SSL, to provide safe, controllable and cost-effective solutions for remote branch networking.

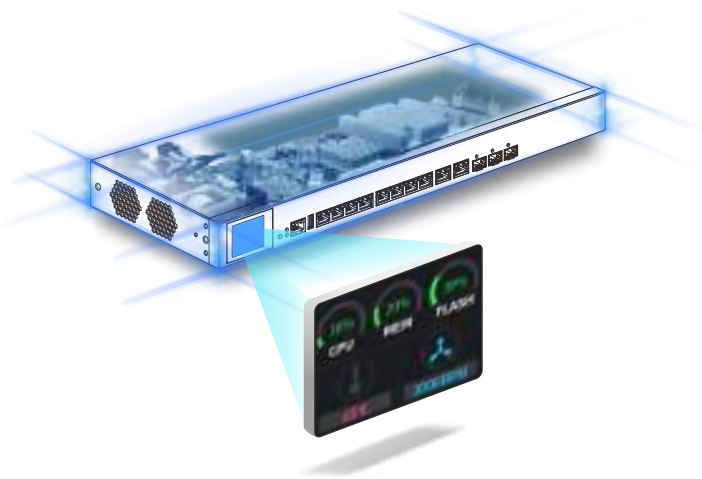
BIG2000 series consists of six functional modules such as routing, switching, wireless, security, flow control, and authentication, which enhances the practicability and value of the product and provides users with more functional options. Its integration feature also simplifies enterprise networking, reduces the difficulty of operation and maintenance, and slashes the total cost of ownership (TCO), which can be called less is more.

## Thoughtful Cloud Management and Maintenance

BIG2000 series has approval for Web graphical management and interactive quick configuration wizard. Only three steps of powering on, networking and cloud optimization are required to start, which greatly improves efficiency.

BIG2000 series can enable automatic registration of the cloud-based operation platform (Pallas). Users can not only remotely view the network status and device running states, but also perform daily operation and maintenance through a laptop (Web) or a small program (mobile phone), which significantly eliminates failure recovery time and travel costs and improves production efficiency as a whole.

BIG2000 series is equipped with color LCD screen through which users can check the operation status without other management devices and terminals, which is ease-to-use and practical.



## Model lists

### BIG2000-20C



- 1 GE Combo-WAN
- 8 GE-LAN

### BIG2000-20



- 1 GE Combo-WAN
- 8 GE-LAN

### BIG2000-40



- 1 10GE-WAN
- 2 GE-SFP-WAN
- 2 GE-TX-WAN
- 8 GE-LAN

## Application Scenarios



Enterprise



Government



Financial



Hotel



Education



Medical

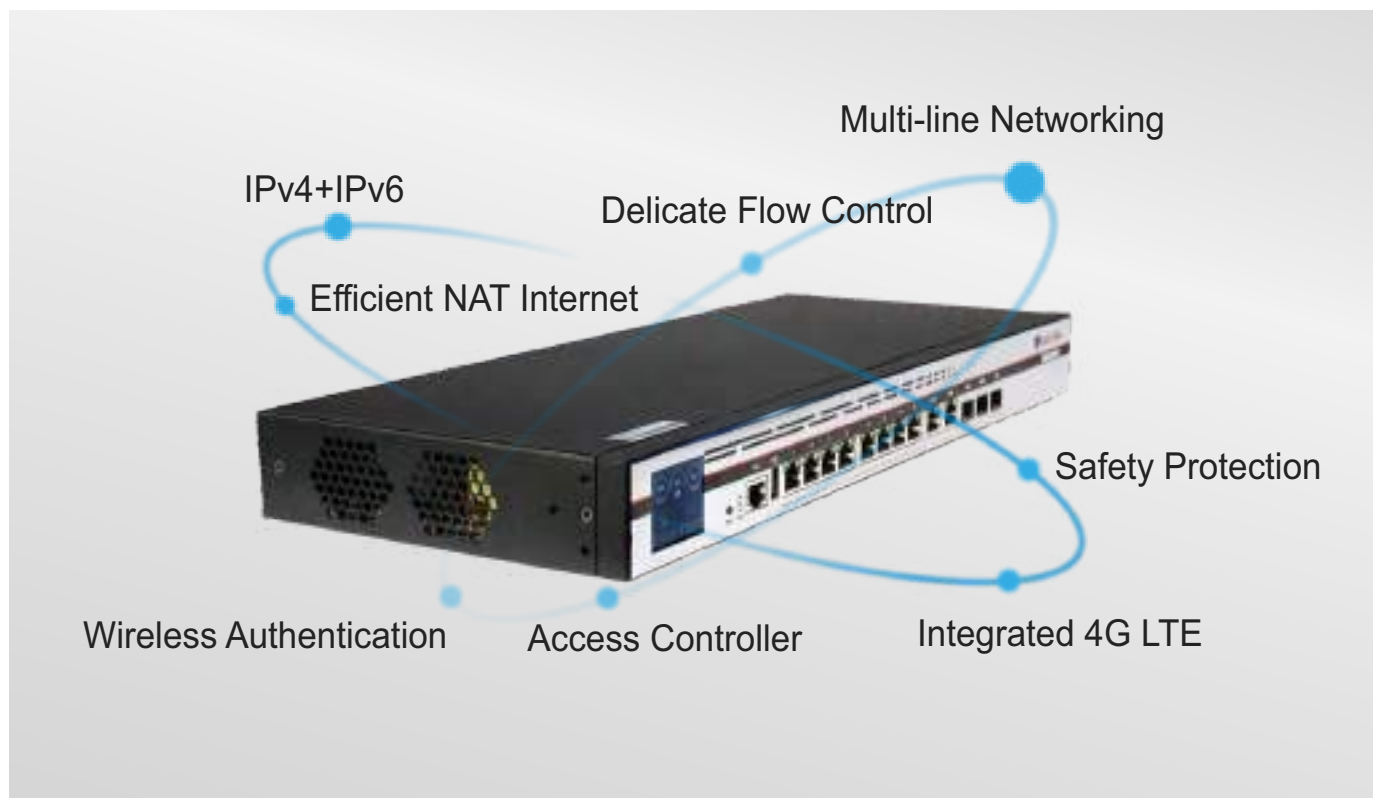


Park



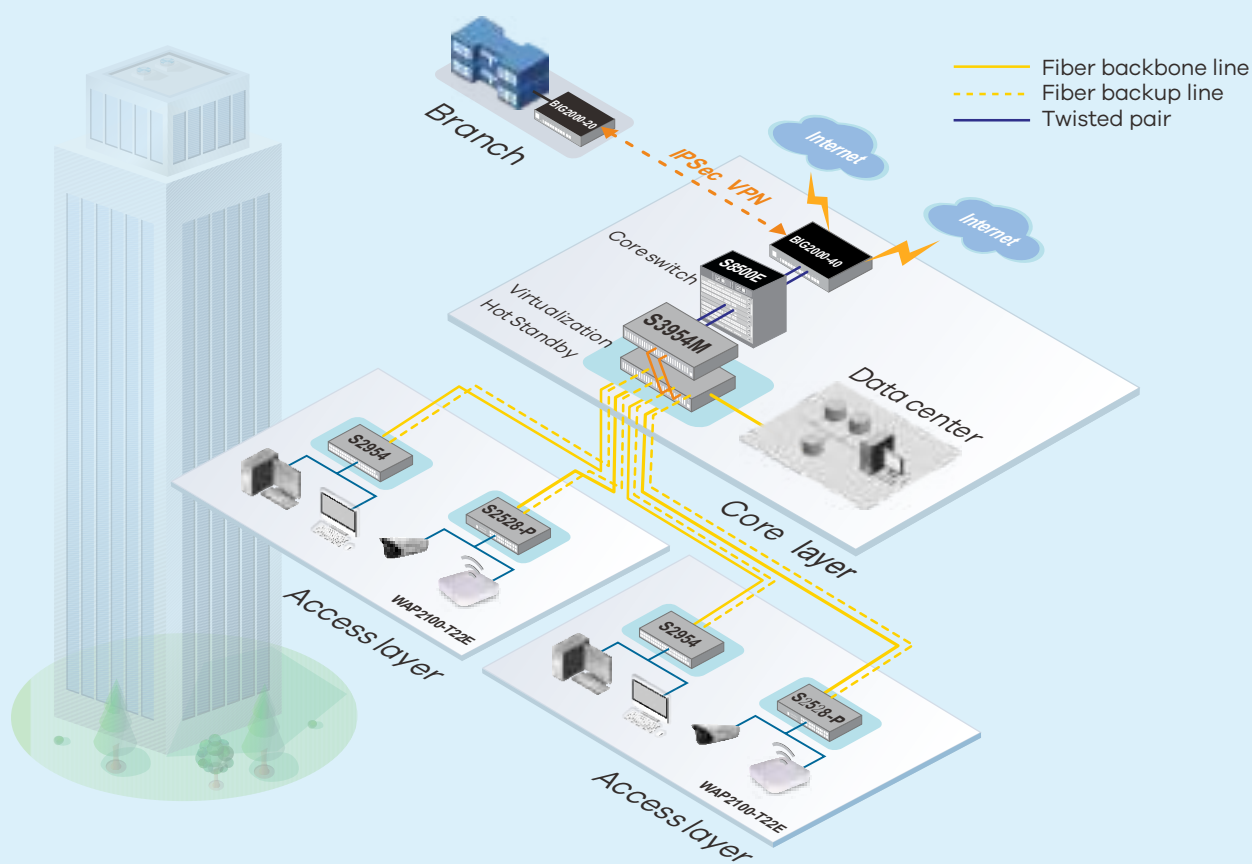
Operator ICT

## Advantages

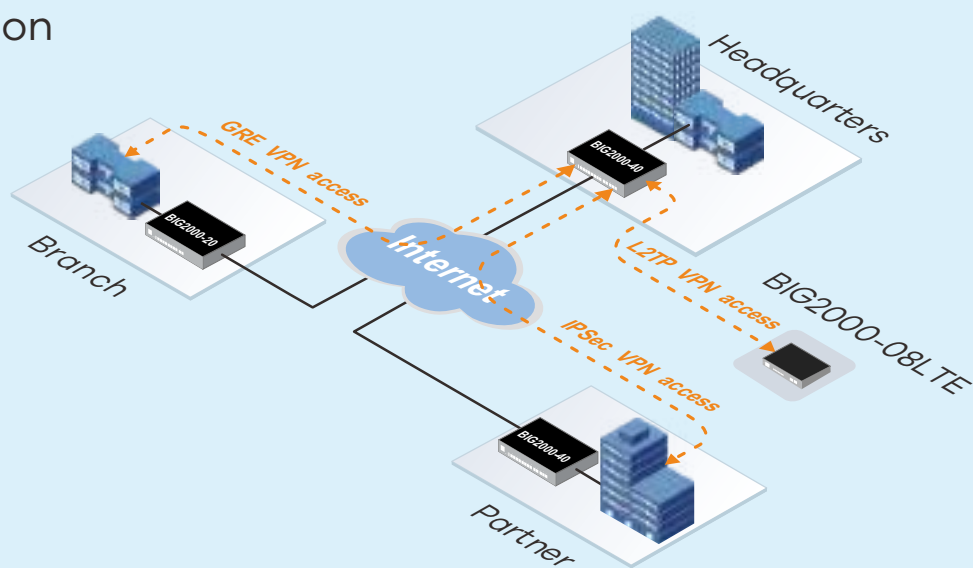


# Typical Application

## Enterprise Network Solution



## VPN Solution



# Product Specifications

Items		BIG2000-20C	BIG2000-20	BIG2000-40
Interface				
Console(RJ45)		1	1	1
USB		1	1	1
Ports	WAN	1-Port Gigabit RJ45/SFP combo	1-Port Gigabit RJ45/SFP combo	1-Port 10G SFP+ 2-Port Gigabit SFP 2-Port Gigabit RJ45
	LAN	8-Port Gigabit RJ45	8-Port Gigabit RJ45	8-Port Gigabit RJ45
LCD		/	1	1
Reset		1	1	1
Performance				
Throughput		1Mpps	1Mpps	5Mpps
Flash		4GB	4GB	16GB
DRAM		1GB	1GB	4GB
NAT concurrent session		<350K	<350K	<2M
Appearance				
Consumption No-load		≤5W	≤6W	≤13W
Full-load		≤10W	≤10W	≤20W
Total output BTU(not: 1000BTU/hr=293W)		34.13	34.13	68.25
Chassis	Dimensions mm (WxDxH)	280x180x44	440x180x44	440x180x44
	Weight (kg,empty)	1.5	2	2.3
Package	Dimensions mm (WxDxH)	500x320x80	500x320x80	500x320x80
	Weight (kg)	1.7	2.2	2.5
Operating	Temperature	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C
	Humidity	5%~95% (non-qucondensing)	5%~95% (non-condensing)	5%~95% (non-condensing)
Storage	Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C
	Humidity	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)
Fan		/	/	2
Noise@25°C(dBA)		0	0	40
Power supply		100-240V AC	100-240V AC	100-240V AC
Accessory		Console cable, power adaptor, rackmount-kit, rubber pads	Console cable, power adaptor, rackmount-kit, rubber pads	Console cable, power adaptor, rackmount-kit, rubber pads

# Software Characteristics

## ARP

- ARP dynamic learning, ARP static binding, free ARP anti-spoofing

## Ethernet protocol

- 802.3 protocol family, 802.1Q VLAN, Rate-limit, broadcast storm suppression

## Link layer protocol

- Point to Point Protocol (PPP)

## LTE wireless

- TDD and FDD-LTE full Netcom modules, backward compatible
- APN dial-up
- dual-SIM single-standby and wireless backup networking (applicable to some models)

## WAN access

- Static IP address, DHCP dynamic IP and PPPoE dial-up access
- Multi-line networking
- Load balancing of multiple policies (equivalent, weighted)

## QoS

- Traffic classification based on IP 5-tuple
- Committed Access Rate (CAR) and Generic Traffic Shaping (GTS)
- PQ, CQ, CBWFQ

## Routing protocol

- Static routing, PBR
- RIP v1/v2, OSPF v2, BGP
- Floating routing and routing automatic backup
- Keepalive, BFD remote link detection

## NAT

- NAT based on IP, port and address pool
- SNAT, DNAT
- NAT port mapping
- NAT concurrent connection limit
- NAT Application Layer Gateway (ALG)

## DHCP

- DHCP server, DHCP Relay
- DHCP Option43, 60, 82

## IP-based service

- IP, ICMP, TCP, UDP
- DNS and DDNS
- NTP
- FTP and TFTP
- PPPoE server

## Multicast protocol

- IGMP, PIM-SM, PIM-DM

## Network security

- AAA, PPP, CHAP and MS-CHAP authentication
- IP and MAC-based ACL firewall policy
- Rich VPN protocols such as IKE, IPsec, L2TP/PPTP, GRE
- Nested deployment of multiple VPN protocols
- Anti-Flood capability for ARP, IP, ICMP, TCP
- Attack protection such as Ping of Death, Tear-drop, WinNuke, Smurf, etc.

## IPv6 protocol

- IP v4/v6 dual stack
- Ipv6 static routing
- IPsec v6
- Ipv6 Dynamic routing such as RIPng, OSPFv3, BGP4+

## Management and maintenance

- Console, Telnet, SSH, SNMP
- ping, traceroute
- Syslog
- LCD color screen to provide real-time operation, fault diagnosis and online help
- Cloud management through Pallas

# Ordering Information

Model	Description
BIG2000-20C	BIG2000-20C Multi-service Integrated Gateway ( 1-Port RJ45 console, 1-Port USB2.0, 1-Port Gigabit RJ45/SFP combo WAN, 8-Port Gigabit RJ45 LAN, 220V AC power supply)
BIG2000-20	BIG2000-20 Multi-service Integrated Gateway ( 1-Port RJ45 console, 1-Port USB2.0, 1-Port Gigabit RJ45/SFP combo WAN, 8-Port Gigabit RJ45 LAN, LCD screen, 220V AC power supply)
BIG2000-40	BIG2000-40 Multi-service Integrated Gateway ( 1-Port RJ45 console, 1-Port USB2.0, 1-Port 10G SFP+, 2-Port Gigabit SFP, 2-Port Gigabit RJ45, 8-Port Gigabit RJ45 LAN, LCD screen, 220V AC power supply)