

BILLION[™]

2011 Product Guide
Home & Office Solutions

Powering communications
with Security



Billion Electric Co. Ltd. (Taiex: 3027, trading as BILLION) is founded in Taiwan in 1973 and has grown to be one of the leading providers of network equipment and power supply products in the Asia Pacific. With the establishment of the Communication Division, Billion has reinforced its commitment to developing next-generation network equipment and Internet access devices to meet the needs of home users, telecommuters, SOHOs and SMBs around the globe. Billion has received a number of awards for its networking products and has acquired a considerable customer base across Europe, America, the Middle East, Africa and the Asia Pacific. Since March 2009, Billion's Power Division has added its investment in R&D and manufacturing of Smart Grid business in addition to the power supply products. This division has been officially renamed the "Power and Energy Management Division" (PEM Division) to illustrate Billion's long-term focus on "Green" product development. With the supply of Smart Grid to reduce carbon emissions resulting in more energy-saving products, Billion aims to contribute to environmental protection and a green planet. For more information, please visit: www.billion.com and www.smartgrid.com.tw



Home & SOHO Solution



Office & SMB Solution

Home & SOHO Applications with Billion



VoIP Router

Communicating with efficiency



3G Router

Share entertainment wherever you are



Switch

Sharing at your fingertips



HomePlug Powerline Adapter

Delivering effortless fun



Wireless Router

Ultimate Wireless performance

Powerline

Extend smart home network
via in-home power lines



BiPAC P108

Powerline500 HomePlug AV Ethernet Adapter Starter Kit

- Data rate of up to 500Mbps over existing power lines
- IEEE1901 and HomePlug AV compliant
- Supports Gigabit Ethernet connection
- Smart power saving technology
- QoS enhances HD streaming
- Supports Triple Play applications



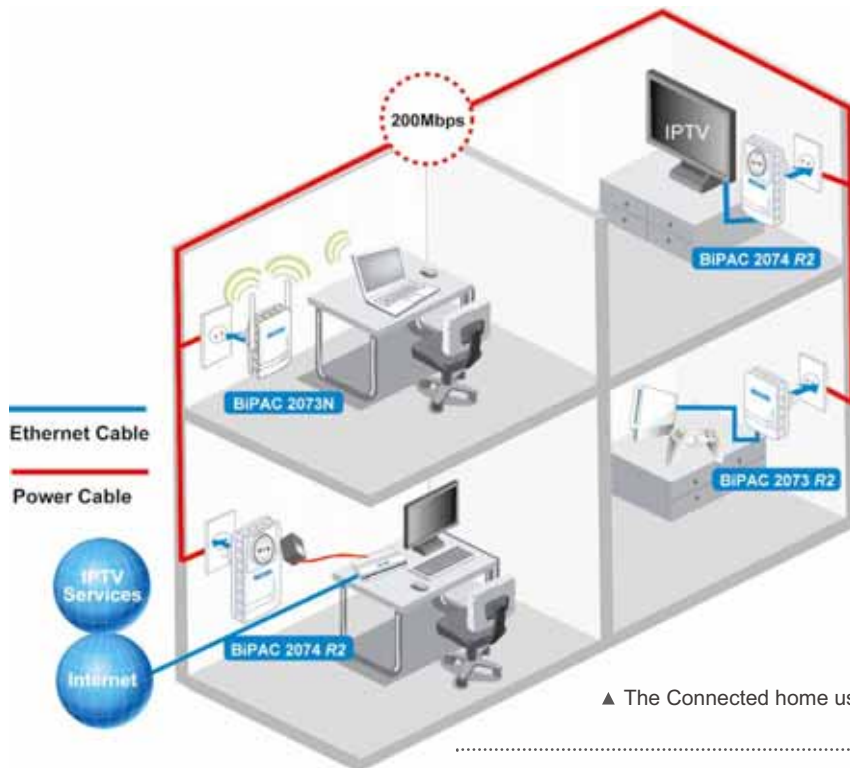
Noise Immunity

Even when turning on/off an electronic device or light, you won't experience any interruption to latency-sensitive applications such as multimedia or video being shared with your family in another room.



AC Pass-through Power Socket with Noise Filtering

The BiPAC 2074 R2, with a power outlet on the adapter, also features noise filtering that protects it from noise generated by other electric devices on the power line loop. It therefore enhances the powerline communications quality of the Billion HomePlug AV AC Pass-through adapter.



▲ The Connected home using the HomePlug AV series

Smart Power Saving

When the Ethernet-based device is powered down or disconnected, it will automatically fall into sleep mode, which reduces power consumption up to 50%.



Powerline

■ Atheros-based solution



Products & Models	BiPAC 2073N	BiPAC P106 R2 (2x BiPAC 2073 R2)	BiPAC P106N (1x BiPAC 2073N & 1x BiPAC 2073 R2)	BiPAC 2074 R2	BiPAC 2075	BiPAC P108 (2x BiPAC 2075)
HomePlug AV standard	V	V	V	V	V	V
IEEE 1901 standard					V	V
Data rate	200Mbps				500Mbps	
EuP	V*	V*	V*	V*	V	V
Type	Wall Plug					
Wi-Fi 802.11n	V		V			
Ethernet switch	10/100Mbps				10/100/1000Mbps	
LAN ports	1	1	1	1	1	1
Smart Power Saving		V	V	V	V	V
AC power				1x AC Pass-through power socket		
Quality of Service	V	V	V	V	V	V
Target user	Home & SOHO					

* By request

■ Marvell-based solution

BiPAC 2094 R2

Powerline Ethernet Adapter with AC Pass-through Power Socket

- 1-port 10/100M Switch
- Noise filtering outlet
- Remote management



BiPAC 2093 R2

Powerline Ethernet Adapter

- 1-port 10/100M Ethernet Switch
- Remote management



3G

Sharing network anywhere
with secure and always-on
connectivity!



BiPAC 7800NZ

3G / HSPA Embedded ADSL2+ Wireless VPN Firewall Router

- High speed ADSL2+ & 3G connection
- 3G / HSPA embedded with a built-in SIM card slot
- Supports 802.11n Wireless access point with WPA-PSK / WPA2-PSK
- WPS (Wi-Fi Protected Setup) for easy setup
- 4-port Ethernet switch
- 4 IPSec VPN tunnels supported
- QoS control



3G SIM card available from your service provider

Share your networks wherever you go

Enjoy the freedom of secure and high-speed Internet connection at offsite meetings, tradeshows, conferences, workshops, at home or on the go.



Hotspot on the road



Office Networking



Digital Home



Remote Surveillance

■ Broadband Router



BiPAC 3300NX

Dual-WAN 3.75G Wireless-N Mobile Server / Router

- 2 x USB 2.0 ports for 3.75G networks and peripherals
- 2 x RJ-45 10/100Mbps Ethernet ports
- Auto fail-over to 3G connection when Ethernet-WAN connection breaks down
- 802.11n Wireless AP with WPS and WPA-PSK/ WPA2-PSK
- Built-in power plug
- Slide switch for 3 modes : Router / AP / AP-Client
- QoS control and SOHO firewall
- UPnP support
- Supports Virtual Server / DMZ



BiPAC 6200NXL

Dual-WAN 3.75G Wireless-N Broadband Router

- Supports 3.5G/HSDPA/3.75G/HSUPA, EVDO and TD-SCDMA
- 3G Management Center application utility
- Dual WAN interfaces for EWAN and 3.5G/3.75G connections
- Auto fail-over feature to ensure an always-on connection
- 3-port Ethernet switch
- 2 x USB 2.0 ports for multiple functions: 3.5G/3.75G networks and printer server, Webcam server, FTP server, Samba server
- 802.11n with WPA/WPA2
- Wi-Fi Protected Setup (WPS)
- SOHO firewall security with DoS prevention and SPI
- Quality of Service control



■ 3G ADSL2+ Router



ADSL2+ 3G Router								3G embedded	
Products & Models	BiPAC 7300WX	BiPAC 7402XL	BiPAC 7402X	BiPAC 7402GXL	BiPAC 7402GX	BiPAC 7402NXL	BiPAC 7402NX	BiPAC 7800GZ	BiPAC 7800NZ
ADSL2+	V	V	V	V	V	V	V	V	V
3G supported*	USB 2.0 host							3G embedded	3G embedded
Auto fail-over	V	V	V	V	V	V	V	V	V
LAN ports	4	4	4	4	4	4	4	4	4
Ethernet switch	10/100Mbps					10/100/1000Mbps		10/100Mbps	
EWAN	n/a	LAN # 1 (configured)						LAN # 4	n/a
802.11g with WPA/WPA2	V			V	V	V	V	V	V
802.11n with WPA/WPA2	V (1T1R)					V (2T3R)	V (2T3R)		V (2T2R)
Wi-Fi Protected Setup	V			V	V	V	V	V	V
Quality of Service	V	V	V	V	V	V	V	V	V
Firewall	V	V	V	V	V	V	V	V	V
IPv6		V*	V*	V*	V*	V*	V*		
IPSec VPN	Pass through	pass through	16 tunnels	pass through	16 tunnels	pass through	16 tunnels	4 tunnels	4 tunnels
Target users	Home & SOHO	Home & SOHO	SOHO & Office	Home & SOHO	SOHO & Office	Home & SOHO	SOHO & Office	SOHO & Office	SOHO & Office

* By request

VoIP Router

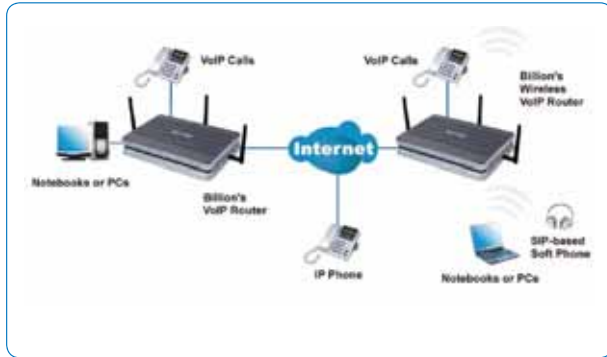


Products & Models	BiPAC 6404VGP R3	BiPAC 7401VGP R3	BiPAC 7401VGPX	BiPAC 7404VGPX	BiPAC 7404VGOX	BiPAC 7404VNPX	BiPAC 7404VNOX
WAN	Broadband	ADSL2+					
3G supported		USB 2.0					
Auto fail-over			V	V	V	V	V
LAN ports	4	4	4	4	4	4	4
Ethernet switch	10/100Mbps					10/100/1000Mbps	
EWAN		V (LAN 1 port configured)					
FXS ports	2	1	1	2	2	2	2
FXO ports	1	1	1	1	1	1	1
Gateway – Least Cost Routing				V	V	V	V
802.11g with WPA/WPA2	V	V	V	V	V	V	V
802.11n with WPA/WPA2						V	V
Wi-Fi Protected Setup	V	V	V	V	V	V	V
IPSec VPN	pass through				16 tunnels	pass through	16 tunnels
Firewall	V	V	V	V	V	V	V
Quality of Service	V	V	V	V	V	V	V
IPv6		V*	V*	V*	V*	V*	V*
Target users	Home & SOHO				SOHO & Office	Home & SOHO	SOHO & Office

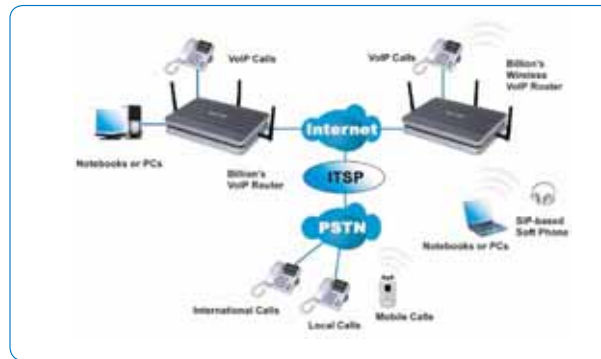
* By request

VoIP Call Applications

VoIP calls to/from VoIP



VoIP calls to/from PSTN



PSTN Fixed-line Support



Advanced VoIP Router Applications

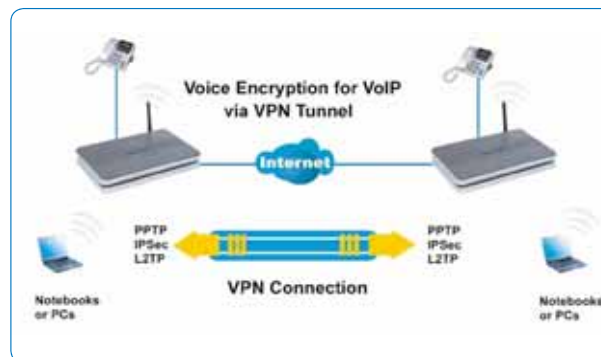
Gateway – Lease Cost Routing

Gateway – The Least Cost Routing feature allows to use the most economical rates offered provided by different Internet Telephony Service Providers (ITSPs).

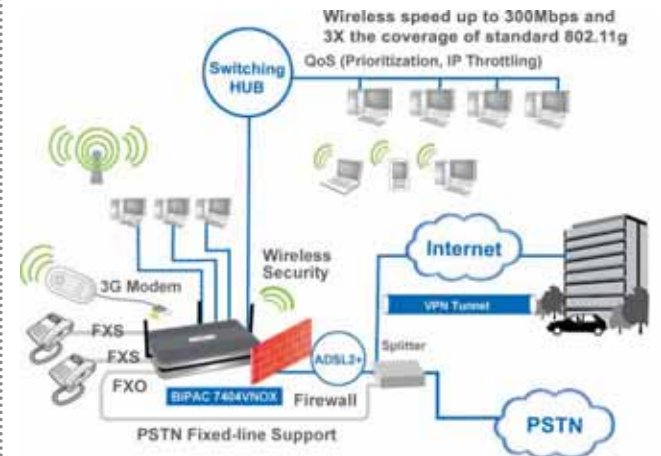


Secure Voice over VPN Tunnel

Three types of VPN solutions (PPTP, IPSec and L2TP within IPSec) allow office users to build secure VPN tunnels for voice and data communication between a company's head office and its branch(es).



Advanced Calls over 3G network



Wireless

No more dead zones.
Access and share your
networking anywhere



BiPAC 7800NL

All-in-One ADSL2+ Router with Wireless-N technology

- IPv6 ready (IPv4/IPv6 dual stack)
- 4-port Ethernet switch integrated
- High-speed ADSL2+
- IEEE 802.11n Wireless Access Point with WPS, WPA-PSK/ WPA2-PSK and WEP support
- QoS control and Firewall support
- Universal Plug and Play (UPnP) compliance



Billion Support IPv6

Billion provide an IPv6 firmware upgrade. IPv6-capable firmware will enable these routers to handle seamlessly a major technical change in the Internet.



Wireless-N 802.11n

Data rate 300Mbps and 3X the coverage of standard 802.11g



With an integrated 802.11n Wireless Access Point, the router delivers up to 6 times speeds and 3 times wireless coverage of an 802.11b/g network device. It supports up to 300Mbps data rate, also compatible with 802.11b/g equipment.

Wireless-N

Data rate 150Mbps



Wireless-G 802.11g

Data rate 54Mbps



BiPAC 3100SN

802.11n 300Mbps Wall Plug Access Point

- WPA/WPA2, WPS, WEP
- WDS with WEP, TKIP, and AES encryption
- Wireless MAC access control
- Auto channel select
- WDS repeater & bridge modes
- For Triple Play applications
- 1x 10/100 BaseT Ethernet port
- Ideal for residential users



■ Wireless USB Adapter



BiPAC 3011N
Wireless-N 300Mbps
USB Adapter



BiPAC 3011W
Wireless-N 150Mbps
USB Adapter

Wireless



Product & Models	BiPAC 5210SG RC	BiPAC 5200G RC	BiPAC 5200W	BiPAC 5200N	BiPAC 5200N RC	BiPAC 7300G RA	BiPAC 7300W	BiPAC 7300N	BiPAC 7700N	BiPAC 7800NL	BiPAC 7800N
WAN	ADSL2+										
USB 1.1 port	1										
EWAN							LAN 1 port (configured)			V	V
Ethernet switch	10/100Mbps										10/100/1000 Mbps
LAN ports	1	4	4	4	4	4	4	4	4	4	4
802.11g with WPA/WPA2	V	V	V	V	V	V	V	V	V	V	V
802.11n with WPA/WPA2			V	V	V		V	V	V	V	V
			(1T1R)	(2T3R)	(2T2R)		(1T1R)	(2T3R)	(2T2R)	(2T2R)	(2T3R)
Wi-Fi Protected Setup				V	V		V	V	V	V	V
Quality of Service			V	V	V	V	V	V	V	V	V
Easy Sign on (EZSO)						V	V	V		V	V
Firewall	V	V	V	V	V	V	V	V	V	V	V
Impulse noise production for IPTV applications	V	V	V	V	V	V	V	V	V	V	V
IPv6										V*	V
Remote management*	by request										
Target users	Home & SOHO										

* By request

Wired

■ ADSL2+ Router



Product & Models	BiPAC 5200S RC	BiPAC 5210S RC	BiPAC 5200 RC	BiPAC 7300 RA	BiPAC 7800
WAN	ADSL2+				
Ethernet WAN (EWAN)					✓
USB 1.1 port		1			
Ethernet switch	10/100Mbps				10/100/1000Mbps
LAN ports	1	1	4	4	4
Quality of Service				✓	✓
Firewall	✓	✓	✓	✓	✓
Easy Sign On (EZSO)				✓	✓
Impulse noise production for IPTV applications	✓	✓	✓	✓	✓
Auto fail-over					✓
IPSec VPN	Pass through				
IPv6					✓
Remote management*	by request				
Target users	Home & SOHO				

* By request

■ Green Ethernet Switch

BiPAC ES05

- 5-port 10/100Mbps switch
- Smart power saving technology
- 2K MAC entries
- 384K bits packet buffer
- For Home & SOHO users



BiPAC ES08

- 8-port 10/100Mbps switch
- Smart power saving technology
- 1K MAC entries
- 768K bits packet buffer
- For Home & SOHO users



BiPAC GS08

- 8-port 10/100/1000Mbps switch
- Smart power saving technology
- 4K MAC address
- 1M bits buffer memory
- 9K bytes jumbo frames
- For Home & SOHO users





Office & SMB Solution

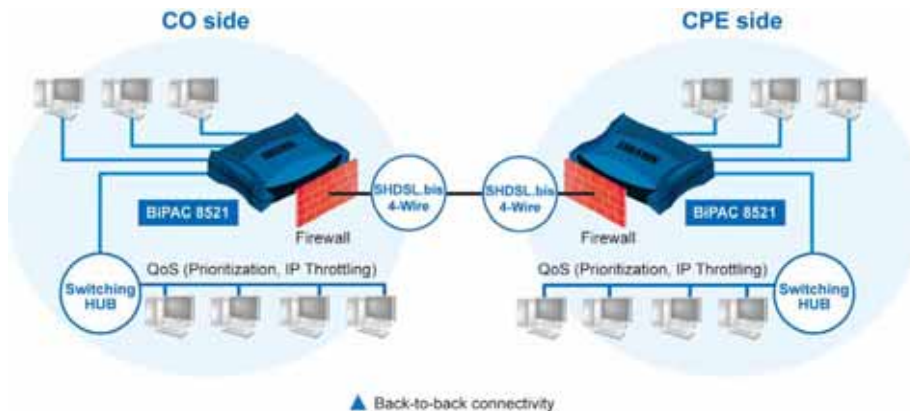
- SHDSL
- Web Smart Switch
- PoE Switch
- SSL VPN Gateway
- IPsec VPN Gateway
- CMS

SHDSL



Products & Models	BiPAC 8500	BiPAC 8520	BiPAC 8501	BiPAC 8501 R2	BiPAC 8521
SHDSL	2.3 Mbps	4.6 Mbps			
SHDSL.bis			5.7 Mbps	5.7 Mbps	11.4 Mbps
WAN ports	1 (2-wire)	2 (4-wire)	1 (2-wire)	1 (2-wire)	2 (4-wire)
LAN ports	4	4	4	4	4
Ethernet switch	10/100Mbps				
Back-to-back	V	V	V*	V	V
Quality of Service	V	V	V	V	V
Firewall	V	V	V	V	V
IPSec VPN	V	V	V		
Target users	SOHO and Office				

* up to 2.3Mbps only



Web Smart Switch

BiPAC GS2024-4S

24-port Gigabit Web Smart Switch with 4-Port Mini-GBIC



- 24 ports at 10/100/1000Mbps connection
- Up to a total 48Gbps backbone link
- 4 SFP (mini-GBIC) ports slot for optional fiber connection
- Smart Management features:
 - Port mirror, SNMP, QoS - port-base, tag-base, DSCP priority
 - Port aggregation up to 12 groups, max 8 ports per group
 - Up to 24 groups VLAN table
 - Web-based management interface
- 8K MAC address entries
- 4M bits buffer memory
- 9K bytes jumbo frames
- Smart Power Saving
- For business users

PoE Switch

BiPAC PES084

8-port Ethernet Switch with 4-port PoE



- 8 x RJ-45 ports for 10/100Mbps connectivity
- 4 x PoE ports with classification identify
- Supports 15.4W maximum per PoE port
- 1K MAC address entries
- 768K bits buffer memory
- Rack mountable
- For SOHO & SMB users

SMB Gateway

SSL VPN Gateway



Highlights on SSL VPN Gateway

- SSL VPN gateway plus solid router functions
- Network/Transport Extender
- Application Proxy
- Network Places
- Green Smart Power Saving
- Host security checking
- Firewall security
- Microsoft Windows Mobile 5.0/6.0 compatible mobile devices support
- Wake On LAN (WOL)
- Data encryption and user authentication
- Supports Citrix
- Supports ERP applications
- Windows/Linux/Macintosh support
- Hardware DMZ support
- Granular access policy management
- Personalized web portal
- Quality of Service

Other Options

- BiGuard SSL VPN Tunnel upgrades
Increases more SSL VPN tunnels by upgrading existing devices
- BiGuard *EZSiteConnect*
Enables site-to-site SSL VPN by upgrading existing devices
- Feature and Firmware upgrades

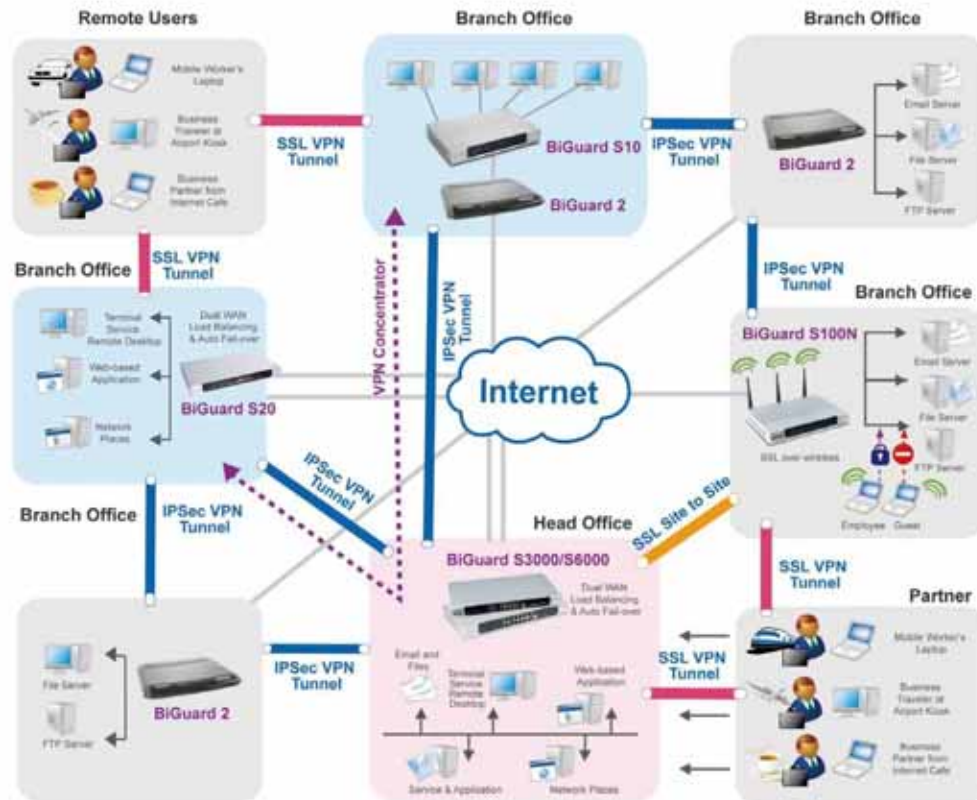
Products & Models	BiGuard S10	BiGuard S20	BiGuard S100N	BiGuard S3000	BiGuard S6000
Concurrent SSL VPN users	10 ~ 20	20	10 ~ 30	10 ~ 50	50 ~ 200
IPSec VPN tunnels	10	30	10	30	30
WAN ports	1x10/100Mbps	2x10/100Mbps	1x10/100/1000Mbps	2x10/100/1000Mbps	2x10/100/1000Mbps
LAN ports	4x10/100Mbps	8x10/100Mbps	1x10/100/1000Mbps	4x10/100/1000Mbps	8x10/100/1000Mbps
High Availability (HA)				√	√
Load balancing & auto fail-over		√		√	√
Site-to-Site SSL VPN	√	√	√	√	√
802.11n with WPA/WPA2, WPS			√		
Wireless Network Access Control (NAC)			√		
3G supported			√*		
Smart Power Saving			√		
Wake On LAN (WOL)	√	√	√	√	√
QoS and firewall	√	√	√	√	√
Host security checking	√	√	√	√	√
End Point Security (EPS) checking			√	√	√
AD account membership			√	√	√
Rack mountable	√	√		√	√
Target users	SMB up to 50 staffs	SMB up to 200 staffs	SMB up to 200 staffs	SME 200 to 500 staffs	SME 500 to 1,000 staffs

* to be available

■ IPsec VPN Gateway

BiGuard 2

- 2 IPsec VPN connections
- IPsec VPN performance is up to 4 Mbps+
- 4 PPTP VPN connections
- PPTP VPN throughput is up to 10 Mbps
- SIP pass-through for Voice over IP protocol
- 8-port switch
- E-mail alert and logs of attack
- Quality of Service and firewall
- DMZ support

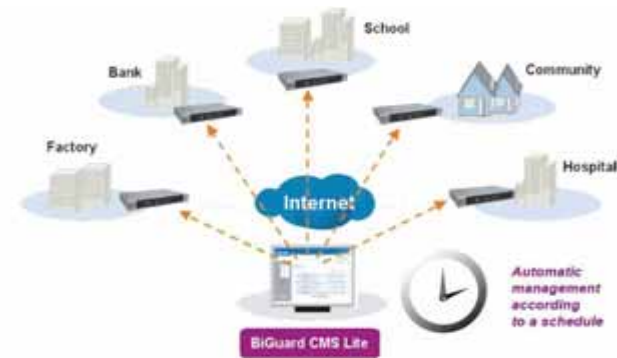


▲ Business Network Application Scenario

■ CMS

BiGuard CMS Lite

- Native HTML/HTTPS interface between the remote device and BiGuard CMS
- Data encryption and ID/password authentication for secure management
- Firmware upgrade for single/grouped devices on demand or according to a schedule
- Configuration backup for single/grouped devices on demand or at regular time intervals
- No client installation needed
- Supports PostgreSQL
- Device connectivity checking
- MS-IE to management device
- Supports different levels of central management: 10, 20, 30 devices
- Database backup and restoration (not available in Evaluation version)
- Ideal for SMBs and service providers
- Web-based user interface
- Configuration restoration
- Event logs of BiGuard CMS actions
- Supports BiGuard SSL VPN series security appliances



BiGuard CMS Pro

- XML/HTTPS interface between the remote device and BiGuard CMS
- Data encryption and CMS server authentication by remote device for secure management
- Supports database backup and restoration (not available in Evaluation version)
- Firmware upgrade for single/grouped devices on demand or according to a schedule
- Configuration backup for single/grouped devices on demand or at regular time intervals
- No client installation needed
- Automatic device discovery
- Configuration restoration
- Device model auto-detection
- Real-time monitoring and alerts
- Statistics and log reports
- Web-based user interface
- Remote configuration management
- Device connectivity check
- Fault management
- Email alert upon emergency event
- Security – account management by access level for CMS
- Supports BiGuard SSL VPN series security appliances
- Supports different levels of device management: 10, 30, 60, and 120; central management for 120 above devices is provided with project - based version upon request for Telco and ISPs.
- Ideal for SMBs and service providers



Australia	Germany	Morocco	Sweden
Bahrain	Hong Kong	Nepal	Swiss
Belarus	India	Netherlands	Thailand
Belgium	Indonesia	Norway	Turkey
Bolivia	Iran	Russia	U.A.E.
Brazil	Israel	Pakistan	U.K.
Canada	Italy	Philippines	Ukraine
Chile	Japan	Slovenia	U.S.A.
China	Kazakhstan	Singapore	Vietnam
Denmark	Malaysia	South Africa	Yemen
Egypt	Mexico	Spain	

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