



GigaConnect[®]

Wireless-N Broadband Voice Gateway

BEC VG-2600

The BEC VG-2600 is Wireless-N Broadband Voice Gateway – featuring all Gigabit Ethernet interfaces, Wi-Fi 802.11n access point, VoIP and Stateful Inspection Firewall. The gateway integrates a Gigabit EWAN (Ethernet WAN) and a built-in 3-port Gigabit switch enabling wire-speed LAN transmission performance for bandwidth consuming applications such as video streaming and file sharing. The BEC VR-2600 also has integrated two RJ-11 FXS ports for connecting to regular telephones, allowing users to make economical VoIP calls over the internet and 802.11n Wireless Access Point with 2x2 detachable MIMO antennas providing wireless data speeds up to 300Mbps. The built in robust firewall provides protection against intrusion attacks while the Quality of Service feature allows traffic prioritization and bandwidth management for downloads, OTT applications and online gaming. The BEC VR-2600 automatically adopts the optimal connection to deliver smooth and constant signal reception even if obstacles are present. Users can easily enjoy high bandwidth applications such as Video streaming without changing their home network.

Flexible Deployment Options

The BEC VG-2600 provides service operators with a flexible, scalable deployment option optimized to both reduce costs and provide the longest possible lifespan for the investment. The BEC VG-2600 integrates dual WAN options; a 10/100/1000 Ethernet WAN interface which can be used for broadband connectivity to any other Ethernet broadband device and a uplink interface that can connect to the BEC 6800RUL 4G/LTE Outdoor UE for wireless (cellular) connectivity.

Smooth, Responsive Net Connection

The Quality of Service (QoS) feature gives user full control over outgoing data traffic. Traffic prioritization can be assigned by the router to ensure that important and specific transmissions such as gaming packets, VoIP calls or Video streaming content passes through the router at lightning speed, even during heavy Internet traffic. The speed of different types of outgoing data passing through the router can also be controlled to ensure that different users do not saturate bandwidth with their browsing activities.

Simple, Hassle-Free VoIP Calls

The BEC VG-2600 is compliant with SIP standard (RFC3261) and supports SIP registrar. This router integrates two FXS ports allowing users to set up two separate VoIP accounts to make or receive calls by connecting with two standard analog telephone sets. The router offers much more great features, Call Waiting, Conference Call, Return Call, etc. The unique Speed Dial Plan provides custom hotkeys of frequently used phone numbers. This state-of-the-art feature is ideal for SOHO users, delivering free communication between branch offices and client sites. Making VoIP calls is just as easy as dialing an extension number!

Optimal Wireless Speeds and Coverage

With an integrated 802.11n multiple Wireless Access Points, the router delivers up to 6 times the speed and 3 times the wireless coverage of an 802.11b / g network device. It supports data rates of up to 300Mbps and is also compatible with 802.11b / g equipment. The multiple-APs separates network for primary and guest networks to eliminate unknown users to access to the main network. Wireless Protected Access (WPA-PSK / WPA2-PSK) and Wireless Encryption Protocol (WEP) features enhance the level of transmission security and access control over the Wireless LAN. The router also supports the Wi-Fi Protected Setup (WPS) standard, allowing users to establish a secure wireless network by simply pushing a button. If the network requires wider coverage, the built-in Wireless Distribution System (WDS) repeater function allows users to expand the wireless network without the need for any external wires or cables.

Pathway to the Future

The BEC VG-2600 fully supports IPv6 (Internet Protocol Version 6), implementation of IPv6 is growing significantly and multiple transition methods are required to support the coexistence and migration from IPv4. With BEC IPv6 enabled devices, service providers easily adapt IPv6 to thier network as we support major transition mechanisms such as Dual-Stack, Dual-Stack Lite, and 6RD .



Performance

- 32-bit MIPS 34K CPU
- Gigabit EWAN (Ethernet WAN) Interface
- 4-port Gigabit Switch
- IPv4 / IPv6 Dual Stack
- 802.11n WLAN with WPS Support

VoIP

- Compliant with SIP standard: RFC3261
- Two RJ-11 FXS interfaces
- Supports two SIP accounts for connecting to Internet Telephony Service Provider (ITSP)
- Supports G.711 A / μ law, and G.729 Audio CODEC standards
- Supports FAX Transmission: T.38 fax relay, G.711 pass-through

Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land
- Attack, Ping of Death, etc.
- VPN pass-through

QoS (Quality of Service)

- Quality of Service Control for Traffic Prioritization and bandwidth control, VLAN tagging and IGMP Proxy/Snooping

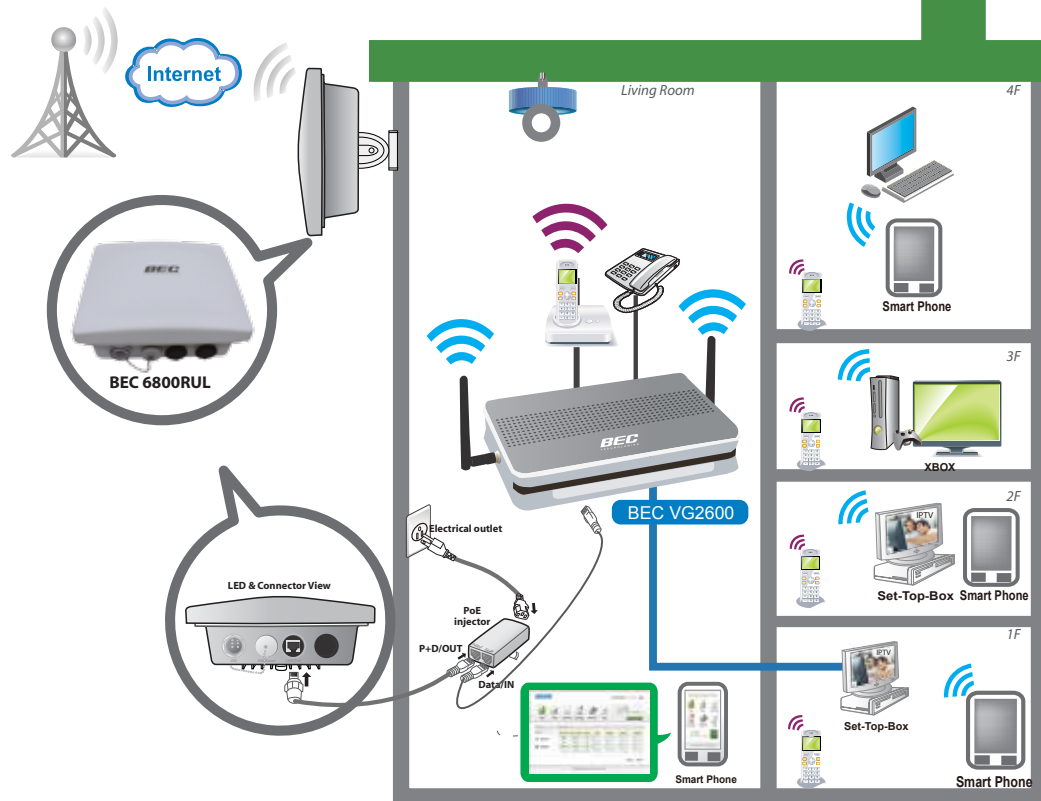
Management

- Web-based GUI for remote and local management
- SNMP v1 and v2 support
- TR-069 remote management

Ideal for

- Home, SOHO environments
- Self-Installation Service Offerings

Application Diagram



Features & Specifications

WAN Protocols

- DHCP Client
- Static IP
- PPPoE

Network Protocols and Features

- IPv4 or IPv4/IPv6 dual stacks
- NAT, static (v4/v6) routing and RIP-1/2
- IPv6 stateless/stateful address auto-configuration
- IPv6 router advertisement
- IPv6 over PPP
- DHCPv6
- IP Tunnel IPv6 in IPv4 (6RD)
- IP Tunnel IPv4 in IPv6 (DS-Lite)
- Universal Plug and Play (UPnP) compliant
- Dynamic Domain Name System (DDNS)
- Virtual server and DMZ
- SNTP, DNS relay, IGMP proxy and IGMP snooping for video service
- MLD proxy and MLD snooping for video service
- Management based-on IP protocol, port number and IP address
- Supports port-based Virtual LAN (VLAN)

Quality of Service Control

- Supports the DiffServ approach
- Traffic prioritization and bandwidth management based-on IP protocol, port number, and IP address
- IGMP Snooping/ proxy
- Virtual LAN (VLAN)

Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Parental Control
- IP Filtering, MAC Filtering, URL Filtering
- Password protection for system management
- VPN pass-through

Wireless

- Compliant with IEEE 802.11n standard
- Backward compatible with IEEE 802.11b and 802.11g standards
- 2.412 ~ 2.484GHz frequency range
- Up to 300Mbps wireless operation rate
- WPS (Wi-Fi Protected Setup) for easy setup
- 64/128 bits WEP supported for encryption
- Wireless security with WPA-PSK/WPA2-PSK
- Supports WDS repeater function
- Multiple SSID

VoIP

- Compliant with SIP standard (RFC3261)
- Audio Codec: G.711 A-Law, G.711μ-Law, G.729
- DTMF Method: In-band/out-of-band (RFC 2833), SIP Info
- Caller ID Generation: DTMF, FSK
- FAX Transmission: T.38 Fax Relay, G.711 Pass-through
- Silence Suppression, Voice Activity Detection (VAD), Comfort Noise Generation (CNG), G.168 Echo Cancellation, Packet Loss Concealment
- Call Waiting, Conference Call
- Speed Dial, Return Call, Redial
- Don't Disturb
- Call Detailed Records(CDR)*

Management

- Easy Sign-On (EZSO)
- Quick Installation Wizard
- Web-based GUI for remote and local management
- User Access Management levels
- Firmware upgrade and configuration data upload and download via web-based GUI
- SNMP v1 / v2 / v3, MIB-I and MIB-II support
- Supports DHCP server/client/relay
- TR-069 supports remote management
- Syslog monitoring

Hardware Specifications:

Physical Interface

- 1-port Gigabit EWAN (Ethernet WAN)
- 3-port auto-crossover (MDI / MDI-X) Gigabit Ethernet Switch
- Wireless Antenna: two (2) detachable antennas
- VoIP: Two (2) RJ-11 FXS interface ports
- Reset Button / WPS Button
- Power jack
- Power switch

Physical Specifications

- Dimensions: 7.28" x 4.86" x 1.38" (185mm x 123.5mm x 35mm)

Power Requirements

- Input: 12V DC, 1.2A

Operating Environment

- Operating temperature: 0 ~ 40°C
- Storage temperature: -20 ~ 70°C
- Humidity: 20 ~ 95% non-condensing