BiPAC 7600NX

Fibre/4G LTE/Cable Gigabit VPN ADSL2+ Router

The BiPAC 7600NX is an advanced ADSL2+ router with Gigabit LAN and WAN for home, SOHO and office users that offers flexible and multiple ways to enjoy high-speed and high-level secure Internet connectivity. The dual-WAN interfaces allow the connection to current superfast FTTC (Fibre-To-The-Curb) and future ultra-fast connectivity (FTTP/FTTH), with WAN throughput in excess of 900Mbps. Two USB ports on the rear of the router will support 3G/4G LTE services from selected dongles for high-speed mobile connectivity, including load-balancing functionality. Failover between fixed line and mobile connectivity also quickly and smoothly ensures maximum Internet uptime.

With an integrated 802.11n wireless access point and 4-port Gigabit Ethernet LAN ports, the gateway enables faster wireless speeds of up to 300Mbps and LAN connection 10 times faster than regular 10/100Mpbs Ethernet LAN. The BiPAC 7600NX provides a unique Management Center, enabling users to monitor 3G/4G LTE signal strength, bandwidth, download speed, and much more.

3G/4G Mobility and Always-On Connectivity

With the BiPAC 7600NX you can connect a 3G/4G LTE USB modem to either one or both of its built-in USB ports, allowing you to watch movies, download music or access e-mail no matter where you are. You can even share your Internet connection with others, while away on business, at a show, or wherever there is mobile signal but no fixed line access. In addition, the auto failover feature ensures maximum connectivity and minimum interruption by quickly and smoothly connecting to a 3G/4G LTE network in the event that your fixed line fails. The BiPAC 7600NX will then automatically reconnect to the fixed line connection when it's restored, ideal for office situations where a constant and uninterrupted connection is critical.

Maximize Bandwidth

The BiPAC 7600NX can be able to deliverer dual-WAN connectivity, supporting superfast fibre connections through the Gigabit Ethernet WAN (EWAN) port and next generation mobile connectivity through two USB 2.0 ports. Using load balancing, both links can be in use all the time. Moreover, bandwidth can be manually managed in the form of a percentage and load balancing to maximize bandwidth of outbound traffic.

Wireless Mobility and Security

With an integrated 802.11n Wireless Access Point, the router delivers up to 3 times the wireless coverage of a 802.11b/g network device, so that wireless access is available everywhere in the house or office. If your network requires wider coverage, the built-in Wireless Distribution System (WDS) allows you to expand your wireless network without additional wires or cables. The BiPAC 7600NX also supports the Wi-Fi Protected Setup (WPS) standard and allows users to establish a secure wireless network just by pressing a button. Multiple SSIDs allow users to access different networks through a single access point. Network managers can assign different policies and functions for each SSID, increasing the flexibility and efficiency of the network infrastructure.

Secure VPN Connections

The BiPAC 7600NX supports comprehensive and robust IPSec VPN (Virtual Private Network) protocols for business users to establish private encrypted tunnels over the public Internet to secure data transmission between headquarters and branch offices. It also supports VPN dial in from smart phones (Android/ iPhone) for secure remote Internet connection via your home broadband. With a built-in DES/3DES VPN accelerator, the router enhances IPSec VPN performance significantly.
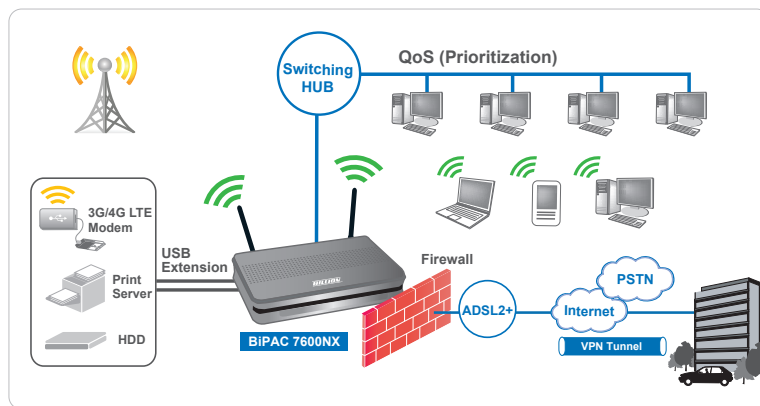
IPv6 Ready - Pathway to the Future

The BiPAC 7600NX fully supports IPv6 (Internet Protocol Version 6), launched as the current IPv4 range is filling up, and IPv6 is gradually becoming the indispensable addressing system for savvy cloud computing users. Dual stack means the router is capable of running IPv4 and IPv6 in parallel during the transition period. With Billion IPv6 enabled devices, three major transition mechanisms such as Dual-Stack, Dual-Stack Lite, and 6RD (IPv6 rapid deployment) are supported to be adapted easily into service provider's IPv4/IPv6 network.[1]

- Triple-WAN ports for 3G/4G LTE, ADSL2+, Gigabit Ethernet WAN (EWAN) for broadband connectivity
- Auto failover feature to ensure an always-on connectivity
- 802.11n wireless AP with high-speed wireless connection up to 300Mbps data rate
- Supports Wi-Fi Protected Setup (WPS) and WPA-PSK/WPA2-PSK
- Gigabit EWAN and LAN
- Fibre (FTTC/FTTP/FTTH) ready with high WAN throughput
- Embedded IPSec, PPTP and L2TP VPN endpoint/server with powerful encryption
- 24 VPN tunnels
- IPv6 ready (IPv4/IPv6 dual stacks)
- Dual-Stack Lite and 6RD (IPv6 rapid deployment)[1]
- Two USB ports for NAS and 3G/4G LTE USB modem
- Load balancing to maximize bandwidth of outbound traffic
- QoS for traffic prioritization management
- Multiple wireless SSIDs with wireless guest access and client isolation
- Supports IPTV applications[2]
- Ideal for SOHO, office, and home users

Features & Specifications

ADSL Compliance
- Compliant with ADSL/2/2+ standard
  - ITU-T G.992.5 (G.dmt.bis plus)
  - ITU-T G.992.5 Annex M (ADSL2+ Annex M)
  - ITU-T G.992.3 (G.dmt.bis)
  - ITU-T G.992.3 Annex M (ADSL2 Annex M)
  - Full-rate ANSI T1.413 issue 2
  - ITU-T G.992.1 (G.dmt)
  - ITU-T G.992.2 (G.lite)
  - ITU-T G.994.1 (G.hs)
  - ITU-T G.998.4 (G.inp)
- Supports Annex A, I, J, M & L

ATM and PPP Protocols
- ATM Adaptation Layer Type 5 (AAL5)
- Multiple Protocol over AAL5 (RFC 2684, formerly RFC 1483)
- Bridged or routed Ethernet encapsulation
- VC-based and LLC-based multiplexing
- PPP over Ethernet (PPPoE, RFC 2516)
- PPP over ATM (PPPoA, RFC 2364)
- OAM F4/F5 loopback

Network Protocols and Features
- DHCP client, static IP
- IPv4, IPv6, IPv4/IPv6 dual stack
- Dual-Stack Lite and 6RD (IPv6 rapid deployment)[1]
- NAT, static routing and RIP v1/v2
- Dual WAN failover and failback
- Dual WAN load balance
- Virtual server and DMZ
- SNTP, DNS proxy
- Universal Plug and Play (UPnP) compliant
- Dynamic Domain Name System (DDNS)
- IGMP proxy and IGMP snooping
- MLD proxy and MLD snooping

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

Quality of Service Control
- Traffic prioritization and bandwidth management based-on IP protocol, port number and address

Virtual Private Network (VPN)
- 8 IPSec VPN tunnels
- 8 PPTP VPN tunnels (Dial-in: 4, Dial-out: 4)
- 8 L2TP VPN tunnels (Dial-in: 4, Dial-out: 4)

IPTV Applications[2]
- IGMP proxy and IGMP snooping
- MLD proxy and MLD snooping
- Virtual LAN (VLAN)
- Quality of Service (QoS)

Wireless LAN
- Compliant with IEEE 802.11n, 802.11g and 802.11b standards
- 2.4GHz - 2.484GHz frequency range
- Up to 300Mbps wireless operation rate
- 64/128 bits WEP supported for encryption
- Wireless security with WPA-PSK/WPA2-PSK
- WPS (Wi-Fi Protected Setup) for easy setup
- Multiple wireless SSIDs with wireless guest access and client isolation
- Supports WDS repeater function

USB Applications Server
- 3G/4G LTE USB modem
- Storage/NAS: FTP server, SAMBA server

Management
- Quick installation wizard
- Web-based GUI for remote and local management
- Firmware upgrades and configuration data upload and download via web-based GUI
- Supports DHCP server/client/relay (WAN port)
- TR-069[3] (CWMP) supports remote management
- Supports SNMP

Hardware Specifications
Physical Interface
- DSL: ADSL port
- USB: 2 USB 2.0 type A ports support storage service and 3G/4G LTE USB modem
- WLAN: 2 detachable antennas
- Ethernet: 4-port 10/100/1000Mbps auto-crossover (MDI/ MDI-X) switch
- EWAN: RJ-45 Gigabit Ethernet port for connecting to ADSL/Cable/VDSL/Fibre modem device
- Factory default reset button
- Wireless on/off and WPS push button
- Power jack
- Power switch
Physical Specifications
- Dimensions: 9.04" x 6.10" x 1.46" (229.5 mm x 155 mm x 37mm)
Power Requirements
- Input: 15V DC, 1.6A

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

*Notes:
1. Future release and only upon request for Telco/ISP tender projects.
2. IPTV application may require subscription to IPTV services from a Telco/ISP.
3. Only upon request for Telco/ ISP tender projects.
4. Specifications in this datasheet are subject to change without prior notice.