

# IPv6/IPv4 APOS 2.0

## The Way for Next Generation Network

### APOS 2.0 Highlights

IPv6/IPv4 APOS 2.0 of AddPac technology is the best solution towards next generation network which includes networks of mobile phones and even electric home appliances. In order to have highly advanced future network environment, it is very essential to have IPv6 function.

APOS 2.0, AddPac's embedded operating system supports IPv6 and IPv4 concurrently on dual stack mode. Therefore AddPac's WAN router, ATM router series and video service router can be easily adopted in any evolving network environments. It delivers outstanding IPv6 translation services between IPv6 and IPv4 networks by supporting IPv6 and IPv4 on dual stack mode.

The IPv6 translation function of APOS 2.0 supports NAT-PT (Network Address Translation/ Protocol Translation) and 6 to 4 tunneling. AddPac's APOS 2.0 enables WAN connection and IPv6 translation without external IP translator.

IPv6 provides more powerful functions on QoS, security and mobile services than formal IPv4.

IPv6 overcomes the weakness of IPv4 which has limited QoS service function and delivers advanced services by accepting functions such as Flow Label, Traffic Class etc.

AddPac's APOS will provide optimized QoS service by supporting IPv6 furthermore it enables to provide quality services such as IPv6 based mobile IP service, advanced QoS service as well as IPSec based security services.

#### **APOS2.0 Internetworking SW for AP Networking Equipment**

AddPac Operating System (APOS) 2.0 is best Network Equipments software to provide scalability, reliability, stability, and QoS for internetworking solutions based on IPv6/IPv4. APOS also provides optimized performance and industry standard network functionality with easy-to-use, easy-to-installation, and maintenance.

#### **IPv4 Specification**

- Static, RIP v1/2, OSPF v2, BGP4, PIM-SM\* and IEEE 802.1Q VLAN Routing Protocols
- TFTP, FTP Server/Client, Telnet Server, DNS
- VRRP for Network Load balancing and Fault Tolerance Service
- IPSec VPN, SSH for Secure Communication
- Traffic Queuing, and SNMP MIB v2 for Network Management Features
- Standard & Extended Access List for Security Functions
- PPP, PPPoE for WAN Interworking
- Essential Scalability Features such as DHCP Server & Relay, DHCP Client, NAT/ PAT, IEEE Transparent Bridging, IP Accounting, and Debugging/Diagnostics, etc.

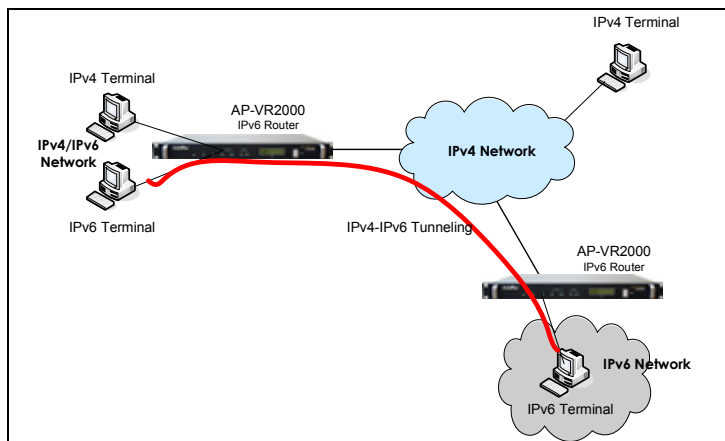
#### **IPv6 Specification**

- IPv6, TCPv6, UDPv6, ICMPv6, NDP, IPv6 Stateless Address
- Static, RIPng, OSPF v3 and IEEE 802.1Q VLAN Routing Protocols
- TFTP, FTP Server/Client, Telnet Server, and DNS For IPv6
- VRRP for Network Load balancing and Fault Tolerance Service
- IPv6 VPN, IPv6 Secure Communication
- Traffic Queuing, and SNMP for Network Management Features
- Standard & Extended Access List for Security Functions
- PPP for WAN Interworking
- DHCP for IPv6

#### **IPv6-IPv4 Interworking Specification**

- NAT-PT(Network Address Translation-Protocol Translation)
- 6 to4 Tunnel

## IPv6/IPv4 Network Diagram



## IPv6 Protocols & Services

### Basic Protocols

- IPv6, TCPv6, UDPv6, ICMPv6, NDP, IPv6 Stateless Address

### IP Routing Protocols

- Static and IEEE 802.1Q VLAN Routing
- RIPng, OSPF v3

### WAN Protocols

- Point-to-Point Protocol for IPv6

### Network Managements

- Traffic Queuing and Frame-Relay Flow Control
- Standard SNMP Agent (MIB v2) Support
- Remote Management using Console, Rlogin, Telnet
- DNS IPv6, VRRP for IPv6

### VPN Service

- IPv6 VPN

### Security Functions

- Standard & Extended IP Access List
- Access Control and Data Protections
- Enable/Disable for Specific Protocols
- Multi-Level User Account Management
- Auto-disconnect for Telnet/Console Sessions

### Operation & Managements

- System Performance Analysis for Process, CPU, Connection I/F
- Configuration Backup & Restore for APOS Managements
- Debugging, System Auditing, and Diagnostics Support
- System Booting and Auto-rebooting with Watchdog Feature
- System Managements with Data Logging
- IP Traffic Statistics with Accounting

## IPv4 Protocols & Services

### IP Routing Protocols

- Static and IEEE 802.1Q VLAN Routing
- RIP v1/v2, OSPF v2, BGP v4, PIM-SM\*

### WAN Protocols

- Point-to-Point over Ethernet Protocol (PPPoE) for ADSL
- IPoA, PPPoA, HDLC, etc.

### Voice over IP Service

- ITU-T H.323, SIP, and MGCP VoIP Protocol
- ITU-T H.323 Gateway, Gatekeeper Support
- Enhanced QoS Management Features for Voice Traffics
- G.723.1, G.729.A, G.711 Voice Compressions
- Voice Processing Features Supports
  - VAD, DTMF, CNG, G.168 and T.38 G3 FAX Relay
- ITU-T H.323 Gateway, Gatekeeper Support
- Enhanced QoS Management Features for Voice Traffics

### Network Managements

- Traffic Queuing and Frame-Relay Flow Control
- Standard SNMP Agent (MIB v2) Support
- Remote Management using Console, Rlogin, Telnet
- Web based Managements using HTTP Server

### VPN Service

- IPsec VPN
- SSH

### Security

- Standard & Extended IP Access List
- Access Control and Data Protections
- Enable/Disable for Specific Protocols
- Multi-Level User Account Management
- Auto-disconnect for Telnet/Console Sessions
- PPP User Authentication Supports

### Operation & Managements

- System Performance Analysis for Process, CPU, Connection I/F
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- Debugging, System Auditing, and Diagnostics Support
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- System Managements with Data Logging
- IP Traffic Statistics with Accounting

## IPv4-IPv6 Interworking Services

### IPv4/IPv6 Dual Stack Protocols

- NAT-PT
- 6to4 Tunneling

### Contact Information

Web site : <http://www.addpac.com>

E-mail : [info@addpac.com](mailto:info@addpac.com)

Tel : 822-568-3848

### AddPac Technology Co., Ltd.

3F, Jeong-Am Bldg., 769-12, Yeoksam-Dong

Kangnam-Gu, Seoul, 135-080, KOREA

Phone +82 2 568 3848

Fax + 82 2 568 3847