PassFinder AP5850, a multi-service broadband router, is high performance, multi-function solution supporting various multi-service modules such as broadband network access, real-time voice and video broadcasting, VoIP Media Gateway, hardware VPN accelerator and gigabit Ethernet module etc. AP5850 supports major IP routing & VoIP call control protocols including H.323, SIP and MGCP concurrently on one embedded OS(APOS), and maintains high voice and IP data quality on any types of conventional IP networks by utilizing new level of QoS.

Key Features

- Scalable high-performance and high-end computing power using 64bit RISC and DSP architecture for voice processing
- High scalability, reliability, and stability features for IP routing and voice internetworking applications
- State-of-art IP routing and VoIP technology for enterprise and ISP & ITSP marketplace with WAN/ATM application
- Provides cutting edges of IP technology using IPv4 and IPv6 network protocols for next generation networks
- Solves the needs for Multi-service Routing, VoIP Trunking, IP & Multimedia Telephony, and VoIP access gateway markets
- Cost-effective IP and VoIP media gateway solution based high-speed WAN, ATM, Gigabit application
- Compliance with industry standards and quality

APOS Internetworking Software

APOS™(AddPac Internetworking Operating System) is AddPac's unique software which supports data, voice, video and security with IPv4 and IPv6 software technology. It provides scalability, reliability, stability and QoS for internetworking solutions. It also provides optimized performance and industry standard network functionality with easy-to-use, easy-to-installation and maintenance.

AddPac

www.addpac.com

Products Overview

High-performance Multi-service Router, AP5850

Below are multi-service modules which can placed in multi-service network slots ; △45(DS3)/155(OC3/STM-1)Mbps ATM and POS △POS (Packet over Sonet)/SDH DS3 45/155Mbps △HSSI(High Speed Serial Interface) △Multi-port V.35 serial interface module △6-port 10/100Mbps Fast Ethernet Switch Module △ 2-port Gigabit Ethernet module △ Video module △4-E1/T1 VoIP module △VPN Hardware accelerator etc. These various modules enabling service consistency by replacing modules during the system operation using Hot swap function. Built in 4-port 10/100 Mbps Fast Ethernet Interface offers an optimized performance for interoperation between local networks and AP5850. Apart from built in Ethernet interfaces, 6-port Fast Ethernet switch module enables flexibility when configuring many switching groups. Moreover, 2-port gigabit Ethernet module is based for uplink or interoperation with core switch.

AP5850, as media gateway, processing total 600 channels of VoIP call in real-time

VoIP service is the core application of BcN. AP5850 is a high-performance mid-large range VoIP gateway which enables real-time processing of maximum 600 channels of VoIP call. By placing HIM-VoIP4E1 and 4E1 Digital VoIP module in multi-service slots of AP5850, banking offices, ISP or large enterprises can utilize massive media gateway using 600 channels. Also AP5850 will be an excellent choice for the ITSP for keeping a system consistency using Hot swap function. Embedded OS, APOS™ of AP5850 supports VoIP control protocols such as H323, SIP, MGCP concurrently and also ensures high quality of voice communication using QoS combined with AddPac's own QoS algorithm.

Deliver seamless stability and system consistency for high capacity deployments

AP5850 is a high capacity VoIP media gateway which can concurrently process 600 channel calls. Due to heavy concurrent users, the seamless stability is a major requirement. AP5850 adopts dual PSU (Power Supply Unit) structure for meeting this demand, which ensures system consistency with module replacement during the system operation. Furthermore, multi-service networking module slot also adopts Compact PCI Hot-swap mode which enables not only module replacement during the system operation but also system consistency without shut down in case of error occurring or extra modules installing.

AP5850 Target Applications

- IP Routing with WAN, ATM Networking, VoIP Trunking Application with 45/155Mbps WAN bandwidth & GigaBit Ethernet
- High-performance Multiservice Routing Application for Larger Enterprise and ITSP Market
- Large Scale IP and Multimedia Telephony Application

Hardware Specifications

Main Chassis	19-inch Rack Mountable Embedded Hardware Chassis with Cooling FAN
Capabilities	Over 100Kpps Packet Processing Capabilities VoIP Voice Call : Up to 600(20 x E1) Independent and Simultaneous Call Processing Power
Module Slots	Fives(5) Module Slots for Multi-service Network Module
CPU & Memory	High-end 64bit RISC Microprocessor, 512KB Boot Memory, 32/64/128MB Flash Memory, 128/256MB Main Memory
Network Interface	4-ports 10/100Mbps Fast Ethernet
Console	1-port RS-232C Console Interface
Power Supply	AC110~220VAC 50/60Hz Free Voltage, Dual Power Supply
Operation Environment	Temperature 0℃~+45℃(operating), -40℃~+85℃ (storage), Humidity 5%~95%
Demension	440mm x 416mm x 88mm (W x D x H), 5.5Kg (w/o Mutiservice Network Module)

Digital E1/T1 Voice Module	Embedded Hardware Form Factor for AddPac Multi-service Router and VoIP Media Gateway
Capabilities	VoIP Voice Call : Up to 120(4 x E1) Independent and Simultaneous Call Processing Power per Module
System BUS Interface	High-speed PCI bus architecture with Hot-swapping service support
DSP	High-end DSP (Digital Signal Processing) Chip
Network Interface	1-ports 10/100Mbps Fast Ethernet for voice processing
Operation Environment	Temperature 0℃~+45℃(operating), -40℃~+85℃ (storage), Humidity 5%~95%
Demension	165mm x 215mm x 25mm (W x D x H), 700g

Voice over IP Services

Voice Codec	G.723.1, G.726, G.729, G.711 Voice Codec
Echo Cancellation	G.165 and G.168 Compliant
FAX Support	T.38 G3(Group 3) FAX Relay FAX Bypass(G.711) Mode Support
Voice Processing	VAD, CNG, Dynamic Jitter Buffer Operation
DTMF	Detection and Generation, RFC 2833 Compliant
Voice over IP Signaling	SIP, H.323, and MGCP Triple Stack Support SIP Proxy Server Interoperability H.323 Gatekeeper and MGC Interoperability

Signaling Protocol Features

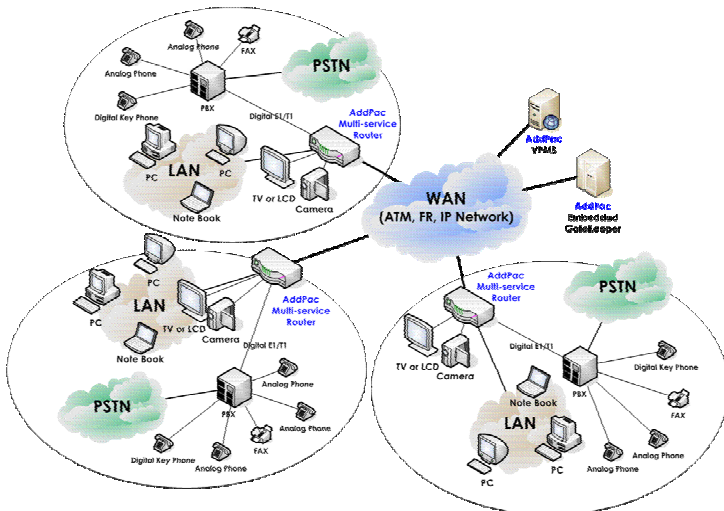|	
ISDN	ISDN-PRI Support : ETSI EURO ISDN, ANSI N12, Japan INS1500, Hong Kong Variant, Korean, etc.
CAS	MFC/R2 Signaling Protocol Other Variant CAS Protocol
Other Signaling	SS7* Signaling Protocol

Traffic QoS Control

Traffic QoS Control	Enhanced Voice Traffic QoS Service, Voice/Data Prioritizing Control, Ensuring Optimized Quality, Frame Rate with Limited Bandwidth, Various QoS Algorithm Support

WAN, ATM and IP Routing and Other Features

WAN, ATM Protocol	IPoA, PPPoA, HDLC, Frame Relay, PPP, PPPoE, Standard Compliant Protocol, and ATM protocols
IP Routing	IPv4 and IPv6 Dual Stack Routing, Static and IEEE 802.1Q VLAN Routing, RIP v1/v2, RIPng, OSPF v2/v3, BGP v4, Multicast IGMP Protocol Support
Network Management	Standard SNMP Agent (MIB v2) Support, Console, Telnet, Web Based Management, Remote Firmware (APOS) Upgrade via FTP/TFTP Support
Security Features	IP Packet Filtering, 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 Support (PAP/CHAP)
Operation & Management	Performance Analyzing (Process, CPU, Interface), Configuration Backup and Restore for APOS Management, Debugging and Diagnosis Features, System Booting/Rebooting through Watch-Dog, Data Logging Features, IP Traffic Statistics through Accounting Support
Other Features	DHCP Server and Relay, Network Address Translation (NAT), Port Address Translation (PAT), IEEE Standard Transparent Bridging (Spanning Tree Bridging and Concurrent Routing Bridging Protocol), Network Time Protocol (NTP), Cisco Style Command Line Interface (CLI), Load Balancing, etc.

Network Diagram using AP5850 Multi-service Router

Ordering Information

AP5850	AP5850 Multi-service Router Main Chassis 19-inch Rack Mountable Hardware Fives(5) Multi-service Network Module Slots 4-prots 10/100Mbps Fast Ethernet 1-port RS-232C Console APOS Internetworking Software (IPv4/IPv6)
HIM-ATMOC3-1	1-port 155Mbps ATM OC-3/STM-1 module
HIM-ATMDS3-1	1-port 45Mbps ATM DS-3 module
HIM-POSOC3-1	1-port 155Mbps POS OC-3/STM-1 Module
HIM-POSDS3-1	1-port 45Mbps POS DS-3 module
HIM-V35FR2	2-ports Serial V.35(E1/T1) module
HIM-V35FR6	6-ports Serial V.35(E1/T1) module
HIM-GELAN-1	1-port Gigabit Ethernet module
HIM-FELAN6	6-ports 10/100Mbps Fast Ethernet module
HIM-VoIP2E1*	2-ports Digital E1/T1 Voice Module
HIM-VoIP4E1	4-ports Digital E1/T1 Voice Module
HIM-AV1000	1-CH Video and Audio In/Out module
HIM-HDD1000	RAID 1 300GB HDD module
HIM-BL	HIM Blank Panel for Module Slot
AP-2UR19	2U x 19-Inch Rack Mountable Wing (2EA)
CAB-CO	Console Cable (1.8M with RJ-45 Connector)
CAB-LAN	LAN Cable (1.8M with RJ-45 Connector)
AP-VPMS	AddPac VoIP EMS Package (Opt.)

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