



## IPNext280PTT Hybrid IP-PBX System for PTT Service

IPNext280PTT is a next-generation Hybrid IP-PBX system for interworking with PSTN interface and various IP terminals of AddPac (AP-VP300 IP Video Phone, AP-IP300 IP Phone, etc)) to provide PTT (Push-to-Talk) server function as well as multimedia IP telephony services. This product is built based on the high performance embedded RISC and suitable for the medium size companies. IPNext280PTT inter-works well with the various VoIP and video products of AddPac to provide a variety of IP application service and PTT service. AddPac Technology PTT over IP solution is a PTT group call service total solution which can be used under various wire/wireless environments such as 3G smart phone (mVoIP) and existing radio device network.

For medium size companies, SIP based AddPac PTT group call solution is composed of IPNext280PTT hybrid IP-PBX, LMR (Land-to-Mobile Radio) Gateways, WiFi IP Phone, I-Phone & Android based smart phone SIP PTT application, PTT IP phone, and network management system NMS (Network Management System).

AddPac PTT group call solution is designed on the basis of IP network to support 1:1 and group call service in any places. It allows saving communication costs with VoIP technology. The main advantage of this device is that it supports radio device network function so that user can maintain existing radio device network system and merits. It also supports group call service by expanding the radio device network coverage to nationwide 3G network.

It is designed to expand wire/wireless PTT service users by increasing the number of PTT server. Particularly, Android smart application supports 3G (mVoIP), and WiFi dual mode. It uses the verified standard signal system so that it has both excellent compatibility and scalability.

IPNext280PTT Hybrid IP-PBX system consists of CPU part and four(4) VoIP module slots in backside. AddPac IPNext280PTT supports LED displays of device status and has two(2) 10/100 Mbps Fast Ethernet ports, the RS-232C console port for Command Line Interface (CLI) in front side. IPNext280PTT supports various VoIP interfaces such as FXO, FXS, E&M, and Audio Interface depending on module options. IPNext280PTT can support maximum 32 port VoIP interface (four (4) slots x 8-Port VoIP Module).

IPNext280PTT provides the PTT server function as well as hybrid IP-PBX service features. It supports Push-to-Talk service function for LMR gateway, PTT IP Phones, WiFi Phone, 3G smart phone appl. IP based Push-to-Talk service is easy to interwork (cable, wireless) compare to pure radio based Push-to-Talk service and it has no local limitation. IPNext280PTT PTT server function supports basic Dial-Out based PtP (Point-to-Point) PTT service, Multi-Group, and Multi-Session PTT service. An audio broadcasting function for PTT service is core technologies of PTT server function. It performs broadcasting function of audio information which is transmitted from IP terminal in each group End-Point and each session End-Point and broadcast to the each group or to the entire IP terminal. PTT service causes a lot of load because it has to broadcast real time audio information to the different IP terminal so it requires high performance processing. AddPac IPNext280PTT Hybrid IP-PBX is designed on the basis of high performance embedded RISC which supports medium scale PTT service. It is an ideal product for medium size corporation and support Push-to-Talk service by interworking with AddPac LMR gateway, WiFi phone, and various PTT IP phone products.

## Product Highlights

- New 'All-In-One' Hybrid IP-PBX system Concept with Video, Voice, Audio, Data Integrated for Complete Multimedia IP Telephony System
- PTT Service Integrated Hybrid IP-PBX
- VoIP Interface for PTSN service : Maximum 32 Port (4 VoIP Module Slots)
  - 8-Port FXS Module, 8-Port FXO Module
  - 8-Port E&M Module, 4-Port FXS & 4-Port FXO Module
  - Digital E1/T1 Module
- Upgradeable System Architecture based on Programmable RISC & DSP
- Two(2) 10/100Mbps Fast Ethernet Interface
- Module Type Dual Power Supply for Redundancy
- RS-232C Console Interface(RJ45) for CLI (Command Line Interface)
- Supports Various AddPac IP end-point terminal : Video Phones, IP Phones
- RTP Proxy Service Features for Private IP and IPv6 Address
- Internal : SIP signaling  
Outbound Call : SIP and H.323 Signaling
- Various IP Telephony Call Scenario (Call Transfer, Call Park , Call Pickup etc)
- Intelligent IVR service via Scenario Editor
- Unified Messaging Service (Voice Mail, etc)
- User Presence Service
- Media Service (RingBack, Music on Hold, Announcement)
- Remote Firmware Upgrade Through FTP & TFTP Protocol
- Smart Multimedia Manager for System Setup and Configuration
- Essential Scalability Features such as DHCP Server & Relay, NAT/PAT, IEEE Transparent

## IPNext280PTT Application

- IP Telephony System Integration for Small Office, Medium Size Enterprise Network
- PTT IP Telephony Service

## Hardware Specification

- RISC PowerPC Microprocessor
- Memory
  - Boot memory 512Kbyte Flash Memory
  - Main memory 128Mbyte SDRAM
  - Flash Memory 2Gbyte NAND Flash
- Ethernet Interface
  - 10/100Mbps 2-Port Ethernet (RJ-45)
- Console Port
  - RS-232C 1-Port Console (RJ-45)
- PSTN VoIP Interface : Maximum 32Port
  - AP-FXS8 : 8-Port FXS (8 x RJ11)
  - AP-FXO8 : 8-Port FXO (8 x RJ11)
  - AP-E&M8 : 8-Port E&M (8 x RJ45)
  - AP-FXS4O4 : 4-Port FXS & 4-Port FXO (8 x RJ11)
  - AP-E1/T1 : 1-Port Digital E1/T1 (1 x RJ45)
  - AP-2E1/T1 : 2-Port Digital E1/T1 (2 x RJ45)

## Power & Operational environment

- Power Requirement : VAC 110~220V, 50/60Hz, 100Watt
- Module Type Dual Power Supply
- Operation Temperature 0°C ~ +50°C
- Storage Temperature -40°C ~ +85°C
- Humidity 5%~95%

## Dimensions

- Dimension (H x W x D) : 135mm x 440mm x 488mm -19" Rack Mountable Chassis
- Weight : 12.22Kg

## Voice over IP Service

- H.323, SIP VoIP Signaling Protocol
- VAD, DTMF, CNG, G.168
- Voice Codec : G.723.1, G.729, G.726, G.711,
- Various VoIP Features
- Interoperable with Diverse VoIP Gateways
- Interoperable with Diverse VoIP Gatekeeper,

## IP Telephony Service

- Internal Call : SIP signaling
- Outbound Call : SIP and H.323 Signaling
- Speed Dial, Phone Book
- Basic Call Scenario, Coloring Service Music on Hold, Blind Transfer, Call Pickup
- Consult Call, Switching Call, Consult Transfer
- Call Waiting, Call Waiting Notify
- Call Park, Call Pickup Remote, Hunt Group
- Smart Multimedia Manager Program
- MS-Window based Smart Messenger Support

## PTT Service

- IP based PTT Service Support
- Dial-Out based PTT Service Support
  - Multi-Session, Multi-Group
  - PtP (Point-to-Point) Service
- Advanced PTT Server Features
  - 1:1 PTT
  - Group PTT
  - Emergency PTT with Alarm Notification
- Emergency PTT Service
- IP-PBX Interworking Service
- IP Terminal Interworking Service (Wi-Fi Phone, IP Phones, Soft Phone, Smart Phone Application)
- PTT Solution with Outstanding Network Service Capability

## RTP Proxy Service

- Private IP Address Support
- IPv6 Address Support
- Public and Private IP Address Inter-working

## IVR Service

- IVR Scenario Editor Support
- IVR Scenario Simulation
- IVR Scenario Run-Time Debugging

## User Presence Service

- Real-time User Presence Service
- Interworking with Smart Messenger and Presence IP Terminal

## Media Service

- Ring Back Tone, Announcement, Music on Hold
- Scheduled based Media Service
- Music on Hold

## Unified Messaging Service

- IVR Scenario for Voice Mail Recording and Retrieval
- Voice Mail Notification via E-Mail
- Quota Management for each user

## Network Management

- Standard SNMP Agent ((MIB v2) Support
- Console, Telnet, Web Based Management
- Remote Download via FTP/TFTP

## Traffic QoS Control

- Traffic QoS Control Feature for Services
- Voice, Data, Video Prioritizing Control
- Various QoS Algorithm Support

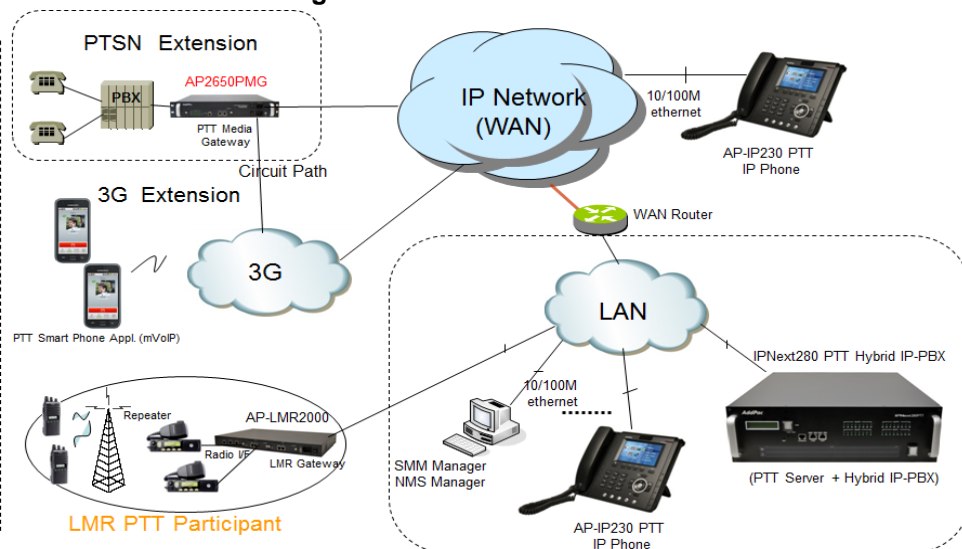
## Security Feature

- 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

## Other Feature

- DHCP Server & Relay Functions
- DDNS, NTP (Network Time Protocol)

## IPNext280PTT Network Diagram



## Ordering Information

- IPNext280PTT Hybrid IP-PBX System for PTT Service
  - Two(2) Fast Ethernet Port
  - One(1) RS-232C Console Port
  - 2GB Flash, 128 MB SDRAM
  - Four(4) VoIP Module Slots
  - APOS v8.xx Manual
- CAB-LAN Ethernet Cable
- CAB-CON RS-232C Console Cable
- VOIP Interface Module Option :
  - AP-FXS8
  - AP-FXO8
  - AP-E&M8
  - AP-FXS4O4
  - AP-E1/T1
  - AP-2E1/T1