

# IPNext250

## NGN Hybrid IP-PBX System

High-performance Next Generation Hybrid IP-PBX System

### Preliminary Product Overview



**AddPac**

**AddPac Technology**

Sales and Marketing

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# Product Overview

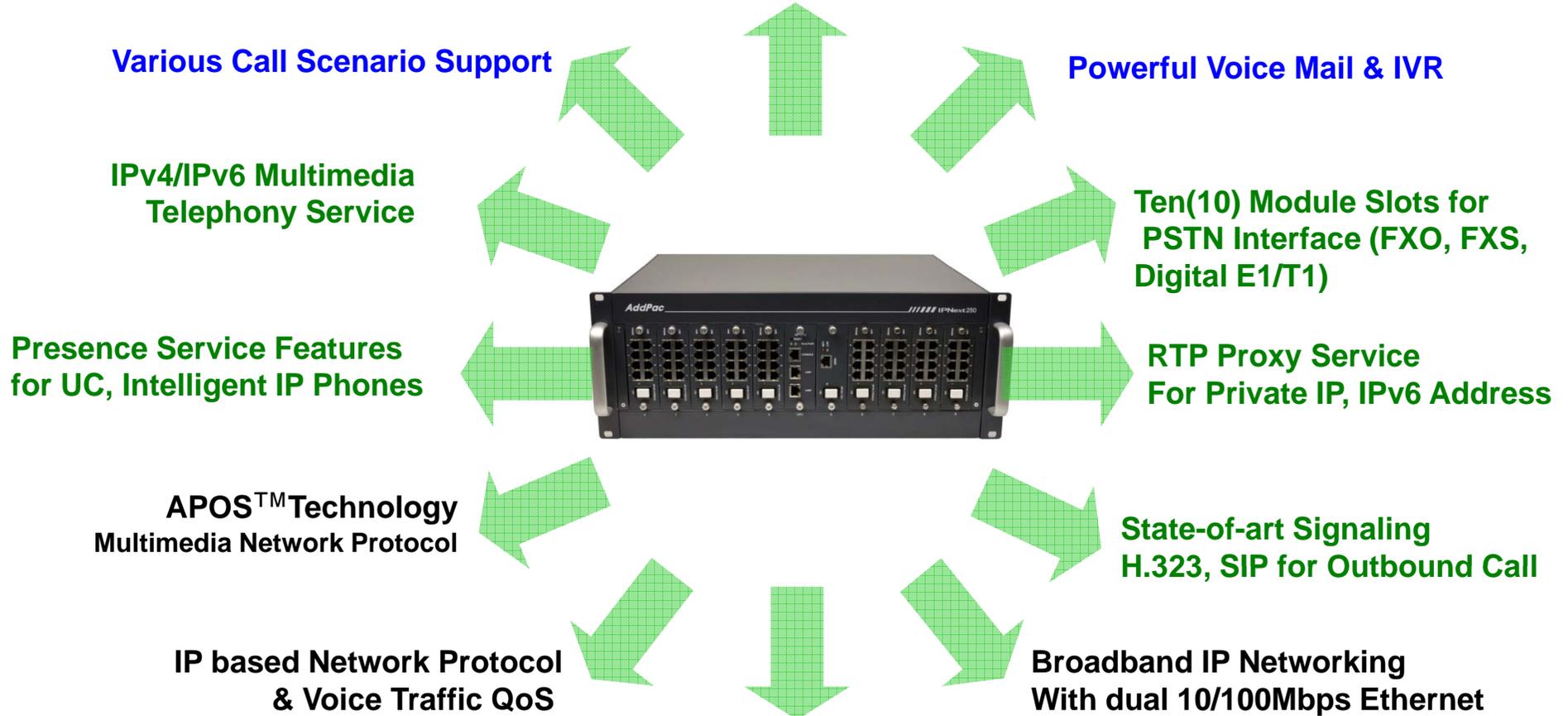
## IPNext250 Hybrid IP-PBX System

- IP based Advanced Hybrid IP-PBX Solution
- IPv4/IPv6 Multimedia Telephony Solution for Small & Medium Office
- PSTN Interface (FXO, FXS, Digital E1/T1) Support
- Powerful Management and User Friendly Features
- Fault Tolerant and Scalability Architecture
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- IVR Service with Scenario Editor
- Voice Mailing Service
- Presence Service for High-End IP Key Phone, UC
- RTP Proxy Service for Private IP service
- SIP, H.323 Signaling for Outbound Calls
- Various Call Scenario (Call Pickup, Call Park, Call Transfer, etc)
- Various IP Terminal Support

# Product Highlights

IPNext250 Hybrid IP-PBX System

## IP based Advanced Hybrid IP-PBX System



Smart Multimedia Manager for System Management

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# Hardware Specification

IPNext250 Hybrid IP-PBX System

RISC  
CPU

High-end  
DSP

IPNext250 Hybrid IP-PBX System	Basic Specifications
PSTN Voice Interface	Ten(10) VoIP Module Slots
	AP-N1-FXS8, AP-N1-FXO8, AP-N1-FXS4O4, AP-N1-E1, AP-N1-2E1
Ethernet Interface	2-Ports 10/100Mbps Ethernet Interface(RJ-45)
Flash Memory	1Gbyte NAND Flash Memory
Main Memory	128Mbyte High-speed SDRAM
Power Requirement	Power Supply / VAC 110~220V, 50/60Hz, 5V 30A, Dual Power Supply for Redundancy
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	H x W × D (180mm x 440mm x 340mm )
Weight(kg)	12.7Kg

# Hardware Specification

IPNext250 Hybrid IP-PBX System

A square logo with a dark blue background and a white border. The text "RISC" is positioned above "CPU" in a white, sans-serif font.

RISC  
CPU

- **RISC Microprocessor Computing Power**
- **Main Chassis**
  - **Network Interface**
    - Two(2) 10/100Mbps Fast Ethernet
    - One(1) RS-232C Console (RJ45)
  - **Ten(10) VoIP Module Slots for FXS, FXO, Digital E1/T1, etc**
  - **Hot-Swap VoIP Module**
  - **Module Type Dual Power Supply for Redundancy**

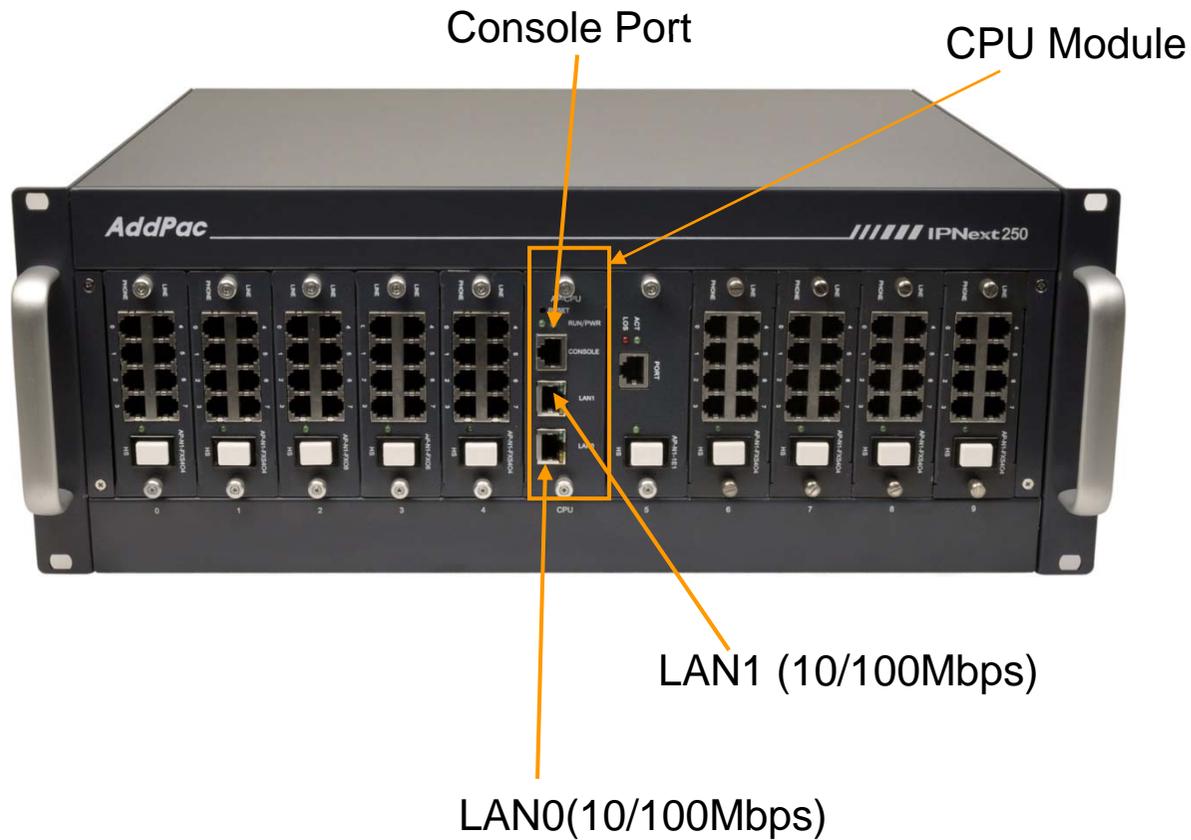
# Hardware Specification

IPNext250 Hybrid IP-PBX System

RISC  
CPU

DSP

## IPNext250 Front Side



# Hardware Specification

IPNext250 Hybrid IP-PBX System

RISC  
CPU

DSP

## IPNext 250 Back Side



# Hardware Specification

IPNext250 Hybrid IP-PBX System

RISC  
CPU

DSP

## VoIP Modules

**AP-N1-FXS8** 8-Port FXS Module



**AP-N1-FXO8** 8-Port FXO Module



**AP-N1-FXS4O4** 4-Port FXS&4-Port FXO Module



**AP-N1-E1** 1-Port Digital E1/T1 Module



**AP-N1-2E1** 2-Port Digital E1/T1 Module

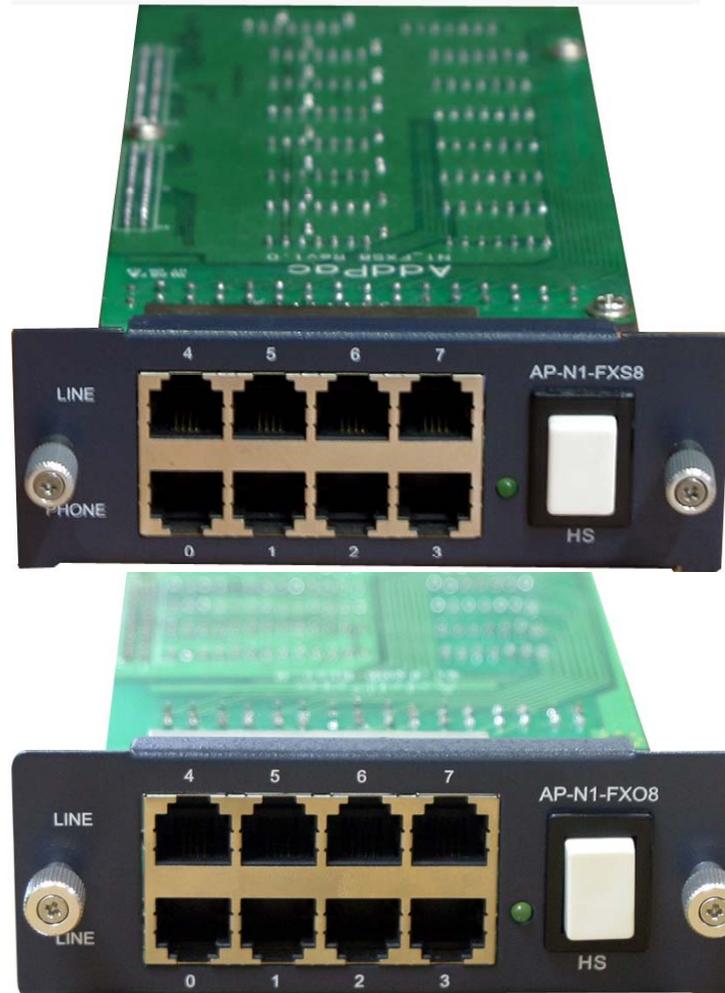


# Hardware Specification

IPNext250 Hybrid IP-PBX System

RISC  
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AP-N1-FXS8  
(8-Port FXS Module)

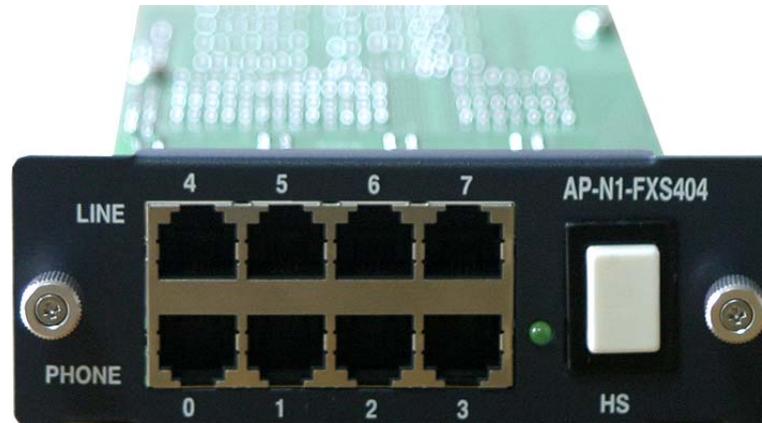
AP-N1-FXO8  
(8-Port FXO Module)

# Hardware Specification

IPNext250 Hybrid IP-PBX System

RISC  
CPU

High-end  
DSP



AP-N1-FXS404  
(4-Port FXS-  
4-Port FXO Module)



AP-N1-E1  
(Digital E1/T1 Module)

# Hardware Specification

IPNext250 Hybrid IP-PBX System

RISC  
CPU

High-end  
DSP



AP-N1-2E1  
(Digital E1/T1 Module)

# Hardware Specification

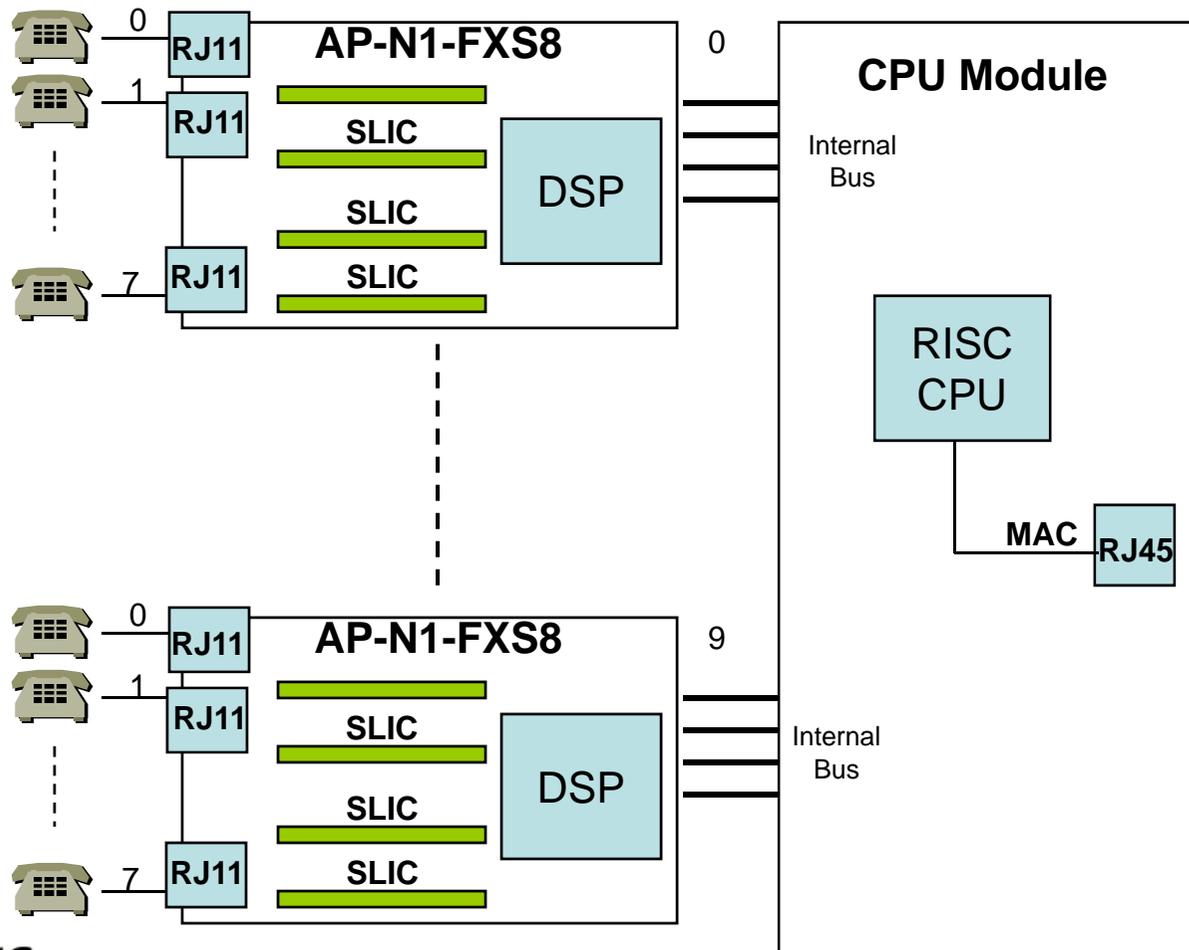
IPNext250 Hybrid IP-PBX System

RISC  
CPU

High-end  
DSP

## IPNext250 VoIP Module Combination Diagram

80-Port(8x10Module) FXS Gateway Service Diagram



# Hardware Specification

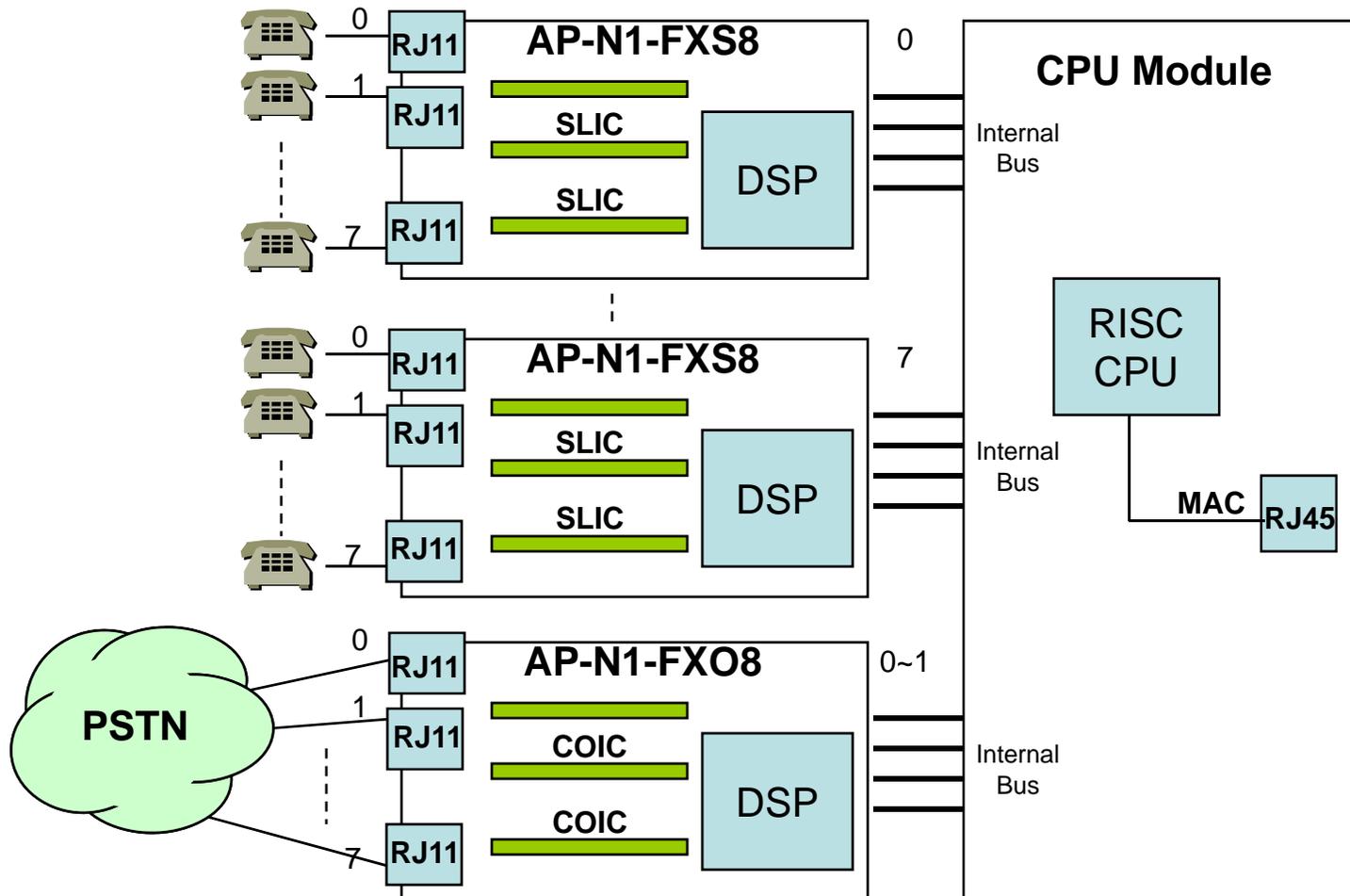
IPNext250 Hybrid IP-PBX System

RISC  
CPU

High-end  
DSP

## IPNext250 VoIP Module Combination Diagram

64-Port(8x8Module) FXS + 16 Port (8x2 Module) FXO Gateway Service Diagram



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# Hardware Specification

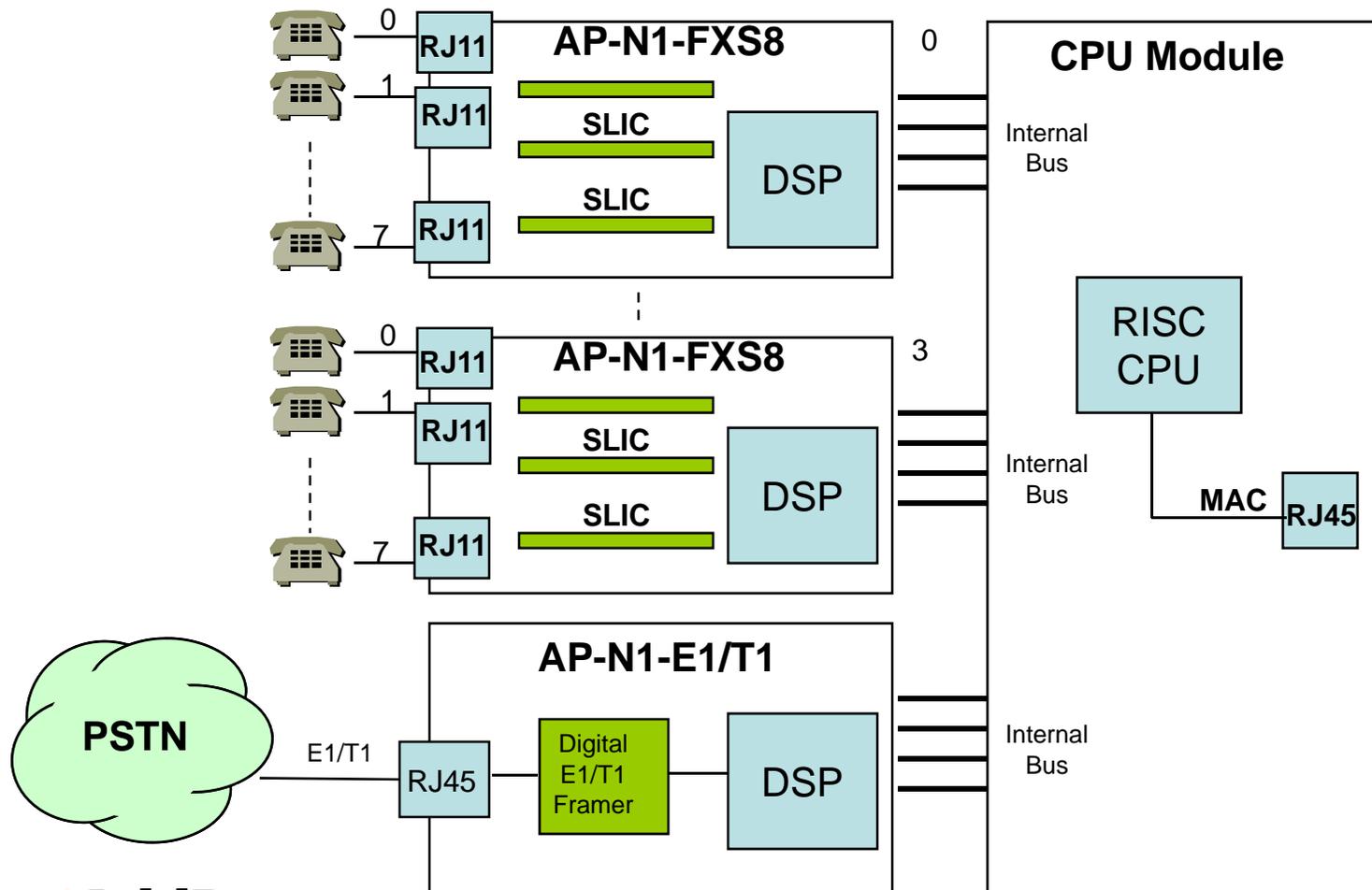
IPNext250 Hybrid IP-PBX System

RISC  
CPU

High-end  
DSP

## IPNext250 VoIP Module Combination Diagram

32-Port(8x4Module) FXS + 1 Port Digital E1 Gateway Service Diagram



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# Software Service

IPNext250 Hybrid IP-PBX System

- **Built-in AddPac APOS Internetworking Software**

- Scalability, Functionality, and Stability Features
- Advanced Call Manager Features
- Media Gateway Features
- QoS Control Features

- **Programmable Video, Audio, and Voice Services**

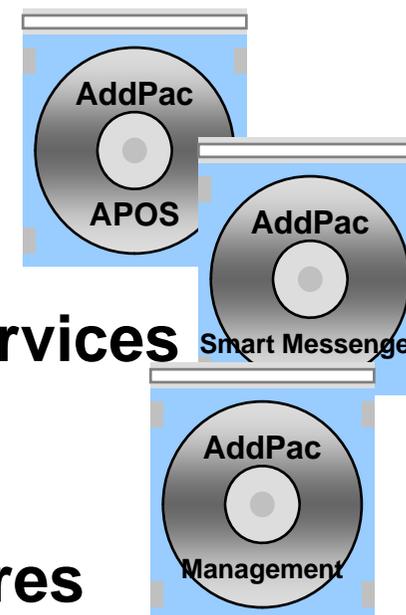
- Audio, and Voice Codec

- **Firmware Upgradeable Architecture**

- **Industry Standard Network Protocol Features**

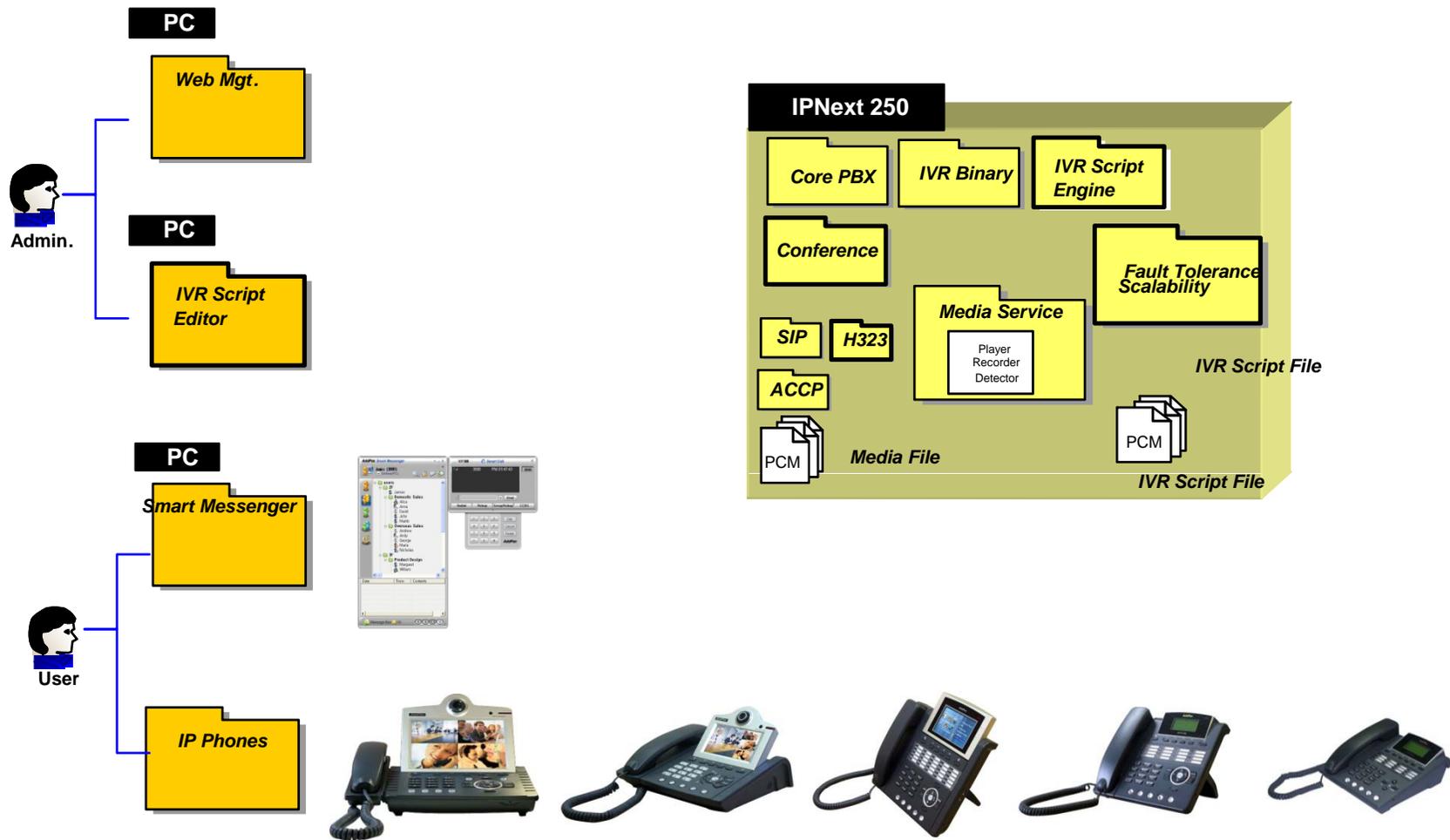
- **Highly User Friendly Management Features**

- Smart Messenger for UC
- Smart Multimedia Manager



# IP-PBX Software Components

IPNext250 Hybrid IP-PBX System



# IP Telephony Service and Features

## IPNext250 Hybrid IP-PBX System

- **Signaling Server**

- SIP Application Server, Proxy, Registrar and Location Server (RFC3261)
- Multiple ITSP Trunk with SIP & H.323 Accounts Support
  - IP UA Client Role for Registering to ITSP SIP Server
  - H.323 Gatekeeper Client Role for Registering to ITSP H.323 Gatekeeper Server

- **IVR & Auto Attendant**

- Default Auto Attendant Support
- Interactive Voice Response (IVR)
  - Provides with GUI-based Smart IVR Scenario Editor
  - Upload/Download Scenario by Smart IVR Scenario Editor
  - Supports Multiple Concurrent Scenarios
  - Supports Recordable IVR Prompts

- **Voice Mail**

- Support Voice Mail with IVR
- Access from Remote Site via Trunk Support
- Voice Mail Notification Support

# IP Telephony Service and Features

## IPNext250 Hybrid IP-PBX System

- **Number & Call Routing**

- Trunk Hunting by Preference or Sequential
- Call Hunting by Preference, Simultaneous, Random
- Call Hunting by Chained Hunting Group
- Partition for Address Grading
- Call Class for Call Access Control
- Number Translation Rule for Inbound/Outbound Call
- Centrex with Prefix Support
- Multiple Shared Devices with One Number
- Multiple Numbers on One Device
- Individual Call Park within Park Number Pool
- Group Call Park within a Group or Other Group
- Call Pickup of Ringing Call of Same Group or Other Group
- Call Pickup of Parked Call
- Call Transfer - Blind, Consult
- Call Forwarding - Unconditional, Busy, No Answer, Voice Mail
- Call Waiting
- Call Swaping
- Call Hold

# IP Telephony Service and Features

## IPNext250 Hybrid IP-PBX System

- **IP-PBX Advanced Features with AddPac IP Phones**

- Multiple Call Handling with Call Status and Calling Line Number and Name
- Plug and Play with Auto Discovery Function
- Softkey Map Download and Control
- Time and Date Setting
- Voice Mail List View
- Parked Call List View
- Call Forward Setting
- Recent Call List View
- Calling Number and Name Identification
- Individual Call Park within Park Number Pool by Softkey
- Group Call Park within a Group or Other Group by Softkey
- Call Pickup of Ringing Call of Same Group or Other Group by Softkey
- Call Pickup of Parked Call by Softkey
- Call Transfer - Blind, Consult by Softkey
- Call Waiting Indication
- Call Swaping by Softkey
- Call Hold by SoftKey
- Conference Control

# IP Telephony Service and Features

## IPNext250 Hybrid IP-PBX System

- **User & Device Management**

- LDAP (Light weight Directory Access Protocol) Support
  - Supports Hierarchical Organization
- Auto Discovery of IP Phones & Video Phones
- Monitoring Status of Phones

- **Miscellaneous\***

- Distinctive Ring by Calling User
- Auto Config & Upgrade
- Personal Directory
- Downloadable Ring
- Do not Disturb

# IP Telephony Service and Features

## IPNext250 Hybrid IP-PBX System

- **Conference**

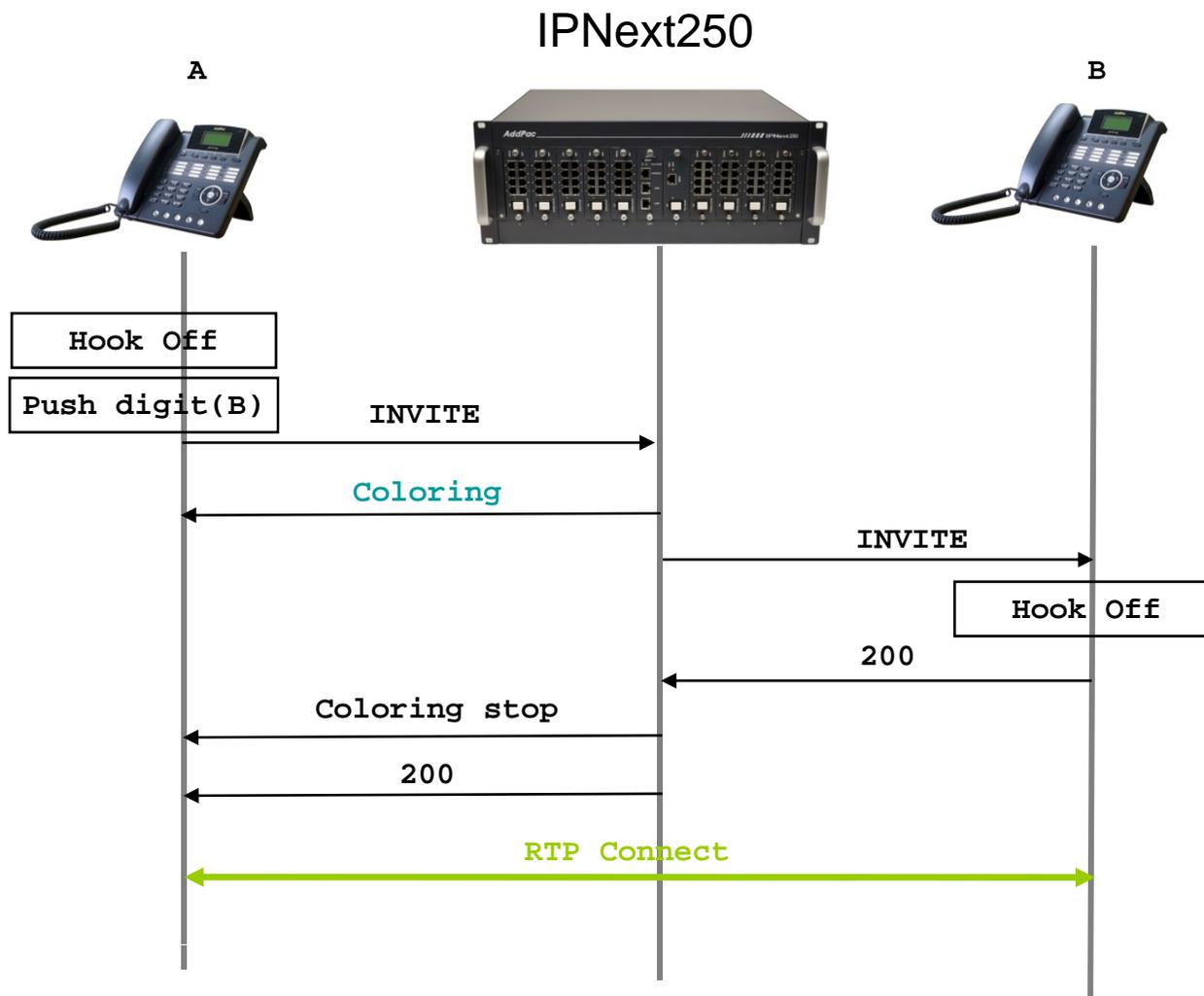
- G.711 (4-party Conference, 2 session) : basic
- Ad-hoc Conference
- Dial-Out Conference
- Meet-me Conference
- Multiple External MCU support( Video, Audio, etc) : AddPac AP-MC1000, etc
- Conference Chair and Participants Management

- **Music & Announcement**

- Music on Hold
- Replaceable Announcements
- Dialing Music / Tone Service

# SIP based Basic Call Scenario

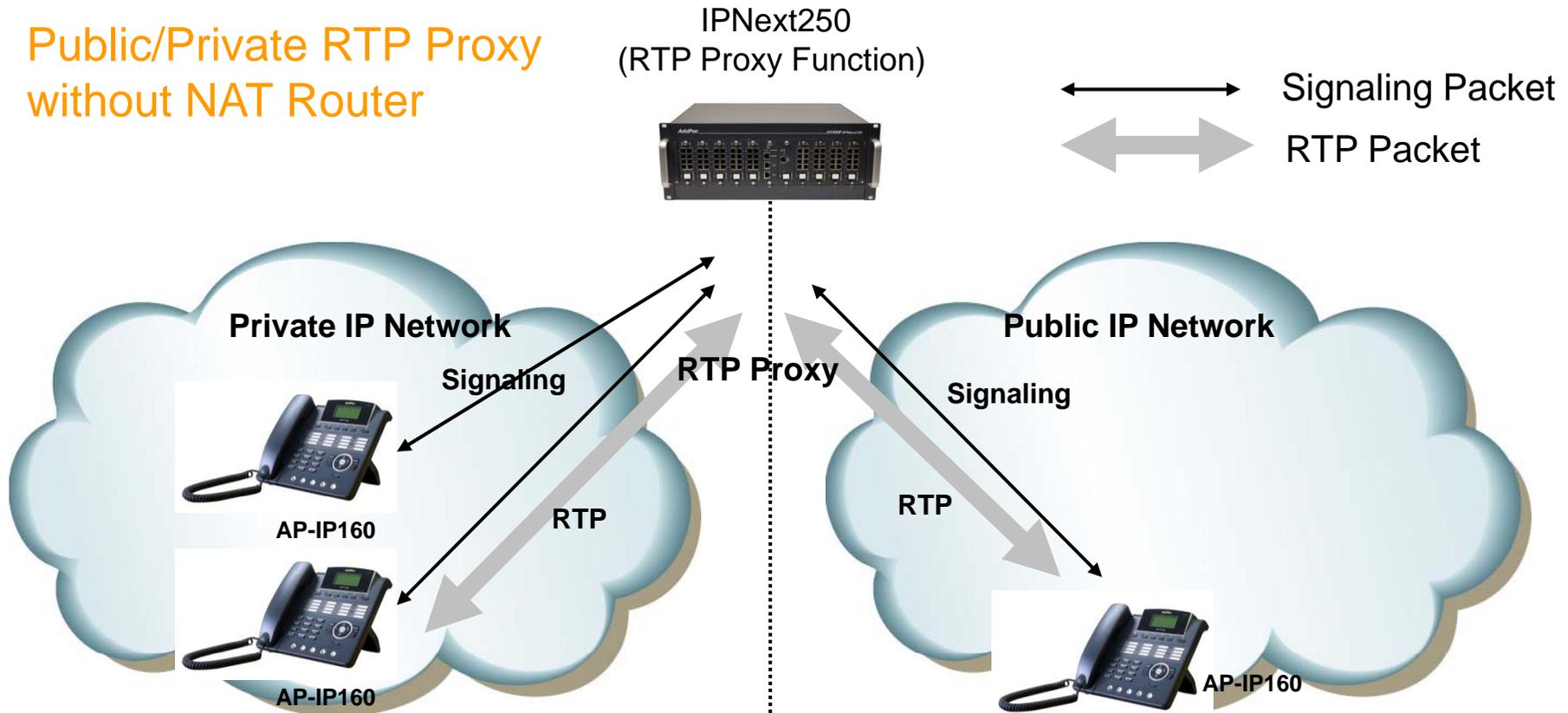
IPNext250 Hybrid IP-PBX System



# RTP Proxy Service

IPNext250 Hybrid IP-PBX System

Public/Private RTP Proxy  
without NAT Router

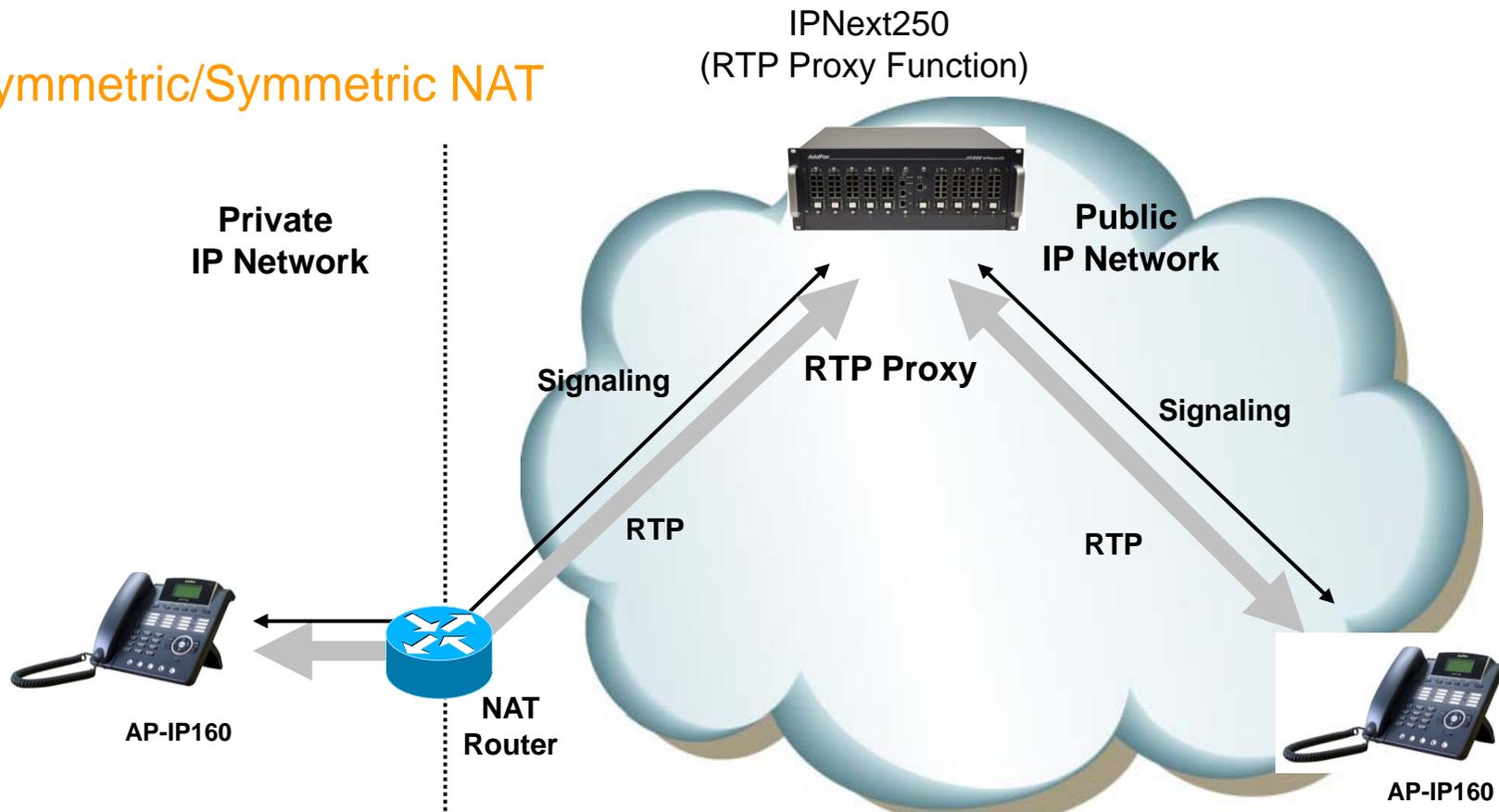


- Located between public and private network
- IPNext250(Call manager + RTP proxy) has public and private address
- IPNext250 determine that the call is internal or external

# RTP Proxy Service

IPNext250 Hybrid IP-PBX System

## Asymmetric/Symmetric NAT

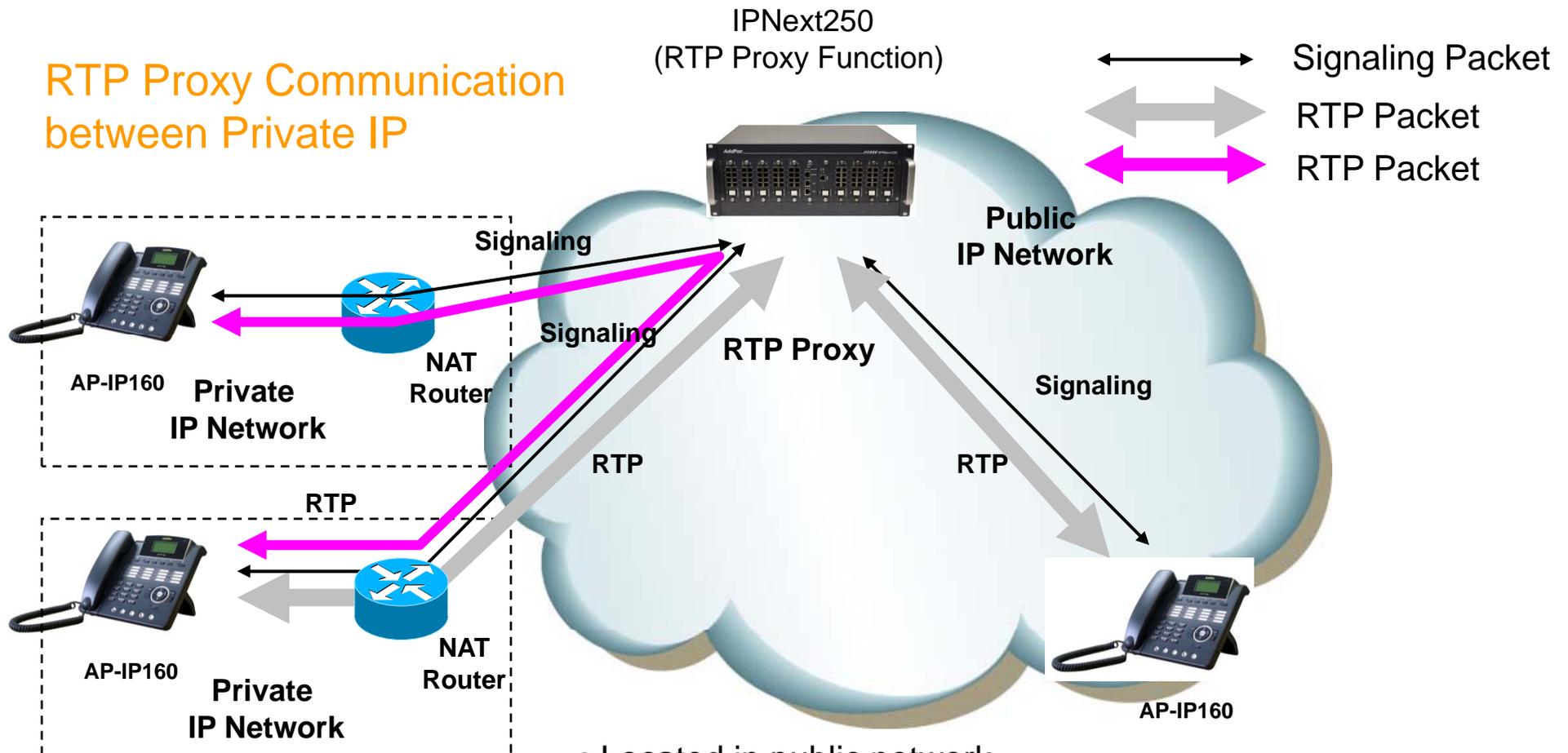


- Located in public network
- RTP Proxy has single public address
- Auto detect for asymmetric NAT via incoming RTP packet

# RTP Proxy Service

IPNext250 Hybrid IP-PBX System

## RTP Proxy Communication between Private IP

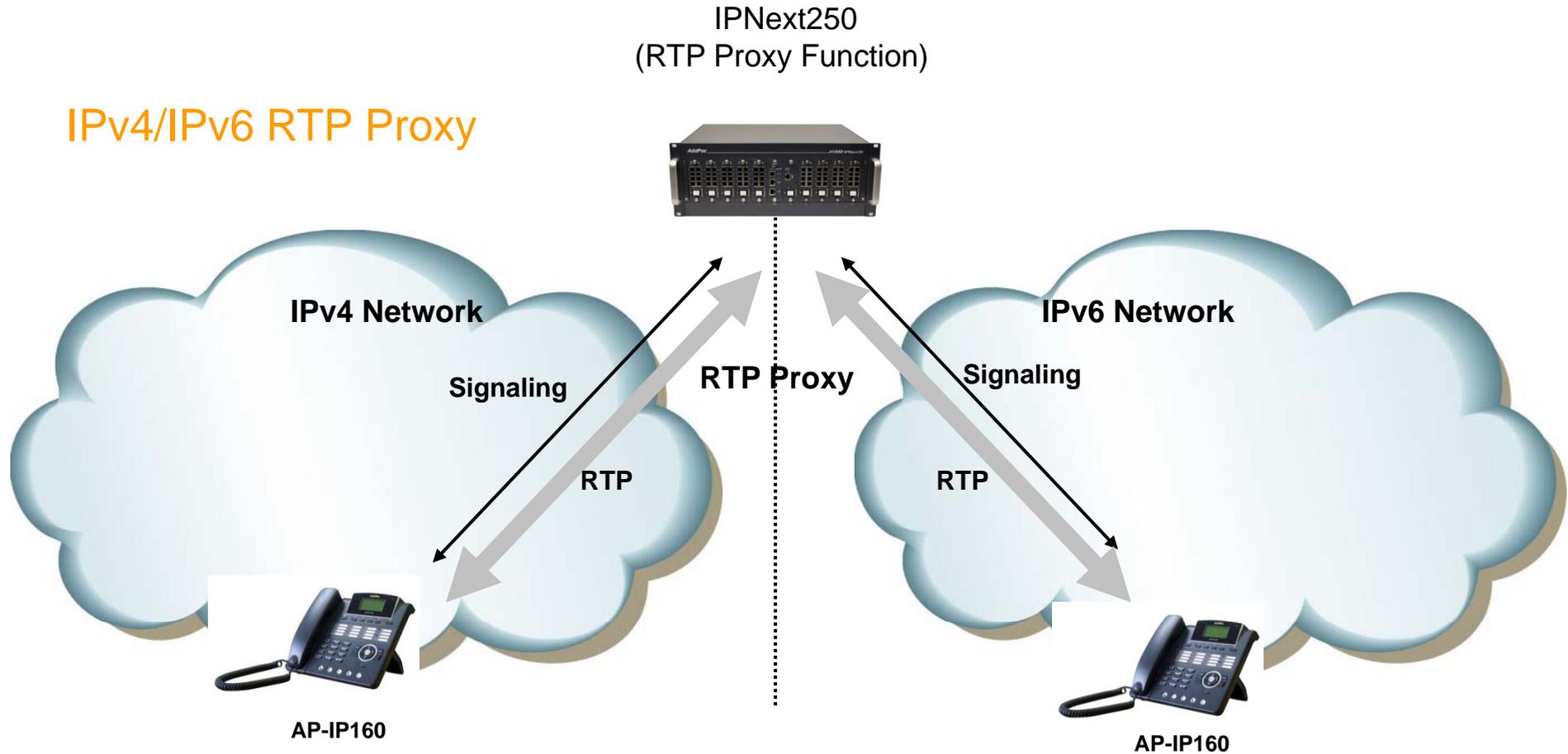


- Located in public network
- RTP Proxy has single public address
- Auto detect for asymmetric NAT via incoming RTP packet

# RTP Proxy Service

IPNext250 Hybrid IP-PBX System

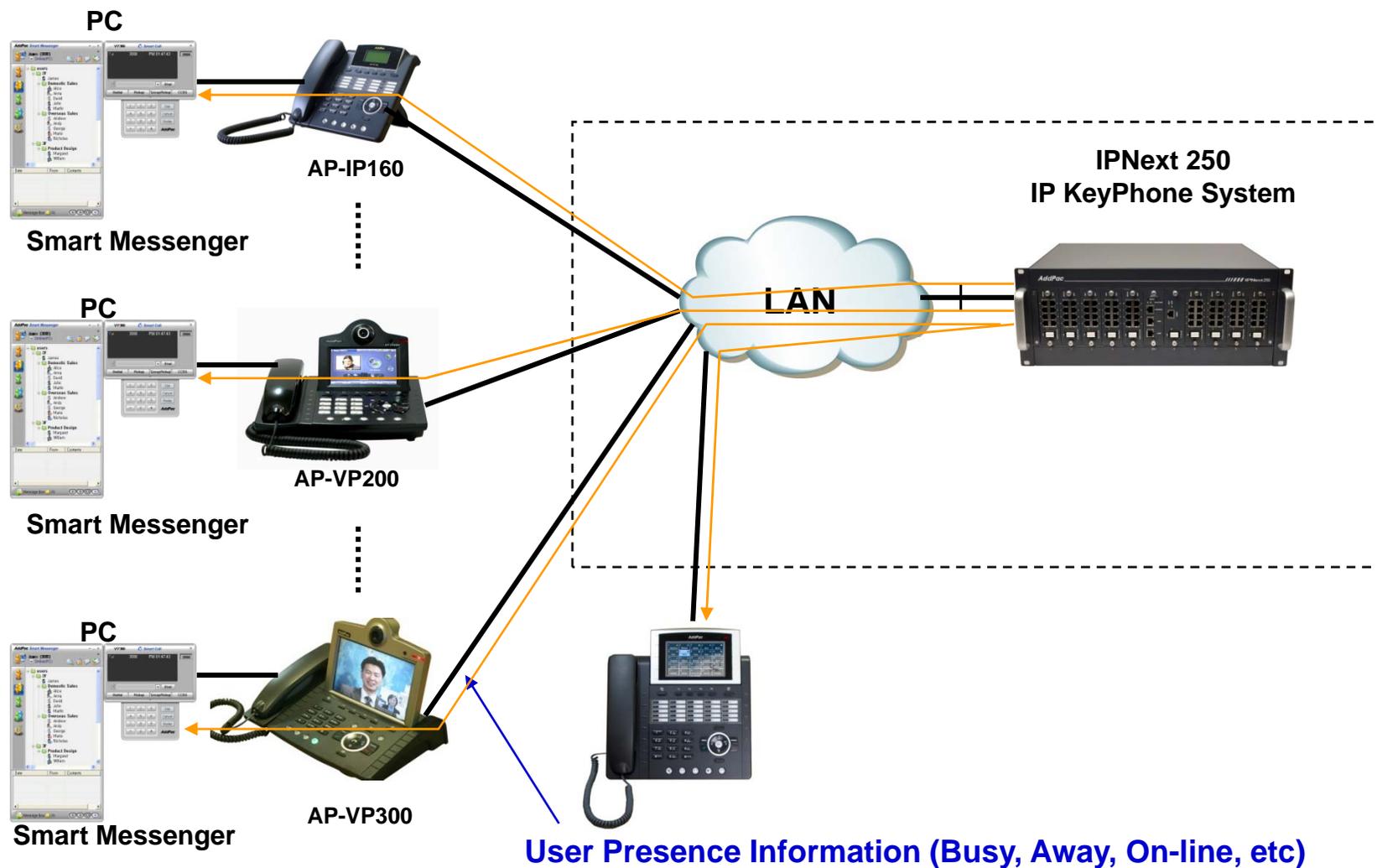
## IPv4/IPv6 RTP Proxy



- IPNext250(Call manager + RTP proxy) has IPv4 and IPv6 address

# User Presence Service for UC

IPNext250 Hybrid IP-PBX System



# Network Service and Features

## IPNext250 Hybrid IP-PBX System

- **Basic Network Protocols**
  - ARP, IP, IPv6, TCP, UDP, ICMP, ICMPv6, SCTP, IGMP, MLD
- **Routing Protocol**
  - IPv4 : Static
  - IPv6 : Static
- **Service Protocol**
  - FTP, Telnet, TFTP, DHCP Server/Relay, SNMP Server
  - CDP (Cisco Discovery Protocol)
  - DNS Resolver , DDNS(nsupdate)
  - Bridge
  - Syslog
  - IP/IPv6 policy control (QoS)
  - VPDN (Virtual Private Dial-up Network : L2TP Server)

# Network Service and Features

## IPNext250 Hybrid IP-PBX System

- IPv4/IPv6 Interworking
  - NAT/PAT for IPv4
  - IP connect (formerly ip-share) and device cascade for IPv4
  - IP/IP, IP/GRE tunneling
  - NAT-PT
  - 6to4, Autoconfig tunneling
- IPv4 Address Configuration
  - Fixed (Static)
  - DHCP
  - PPPoE
- IPv6 Address Configuration
  - Fixed (Static)
  - EUI-64
  - Autoconfig (Neighbor Advertisement and Solicitation)

# Network Service and Features

IPNext250 Hybrid IP-PBX System

- **Miscellaneous**
  - Cisco Style CLI
  - Standard & Extended IPv4/IPv6 Access List
  - Multi-level User Account Management
  - IP accounting
  - fsh (Embedded file system shell)
  - STUN Client

# Network Service and Features

IPNext250 Hybrid IP-PBX System

- **SNMP MIBs**
  - MIB-II
  - RMON MIBs (Statistics, History, Alarm, Hosts Group)
  - RFC2465 Management Information Base for IP Version 6: Textual Conventions and General Group
  - RFC2466 Management Information Base for IP Version 6: ICMPv6 Group
  - RFC2452 IP Version 6 Management Information Base for the Transmission Control Protocol
  - RFC2454 IP Version 6 Management Information Base for the User Datagram Protocol
  - AddPac Enterprise MIBs
  - etc

# IP Multimedia Terminals

## IPNext250 Hybrid IP-PBX System

- AP-VP500 Video Phone
- AP-VP350 MCU Video Phone
- AP-VP300 Video Phone
- AP-VP280 Video Phone
- AP-VP250 Video Phone
- AP-VP150 Video Phone
- AP-VP120 Video Phone
- AP-IP300 Premium IP Phone
- AP-IP160 IP Phone
- AP-IP120 IP Phone
- AP-IP90 IP Phone
- AP-WP100 WiFi Phone
- AP-SMP100 Soft Phone
- AP-PT100 Presence Terminal
- AP-PT50 Presence Terminal
- AP-PT20 Presence Terminal



# AP-PT100 Presence Terminal

IPNext250 Hybrid IP-PBX System

- User Presence and Touch Screen based Speed Dialing Terminal
- “7 Inch Color TFT LCD with Touch Screen
- Inter-working with IP Terminal, Presence Server, Call Manager
- Multiple Terminal Cascading Feature
- User Presence Group Feature
- Firmware Upgradeable Architecture
- PoE (Power over Ethernet) Function
- Internal Speaker



# AP-PT50 Presence Terminal

IPNext250 Hybrid IP-PBX System

- Speed Dialing Terminal with User Presence Indication LAMP
- Inter-working with IP Terminal, Presence Server, Call Manager
- Multiple Terminal Cascading Feature
- User Presence Group Feature
- Firmware Upgradeable Architecture
- 60 Speed Dial Key with User Presence LAMP
- Connector for Cascading
- Optional PoE (Power over Ethernet) Interface
- Two(2) 10/100Mbps Fast Ethernet Interface
- External Power Adaptor (5V, 2A)



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# Smart Messenger for UC

IPNext250 Hybrid IP-PBX System

- **Smart Messenger Program**

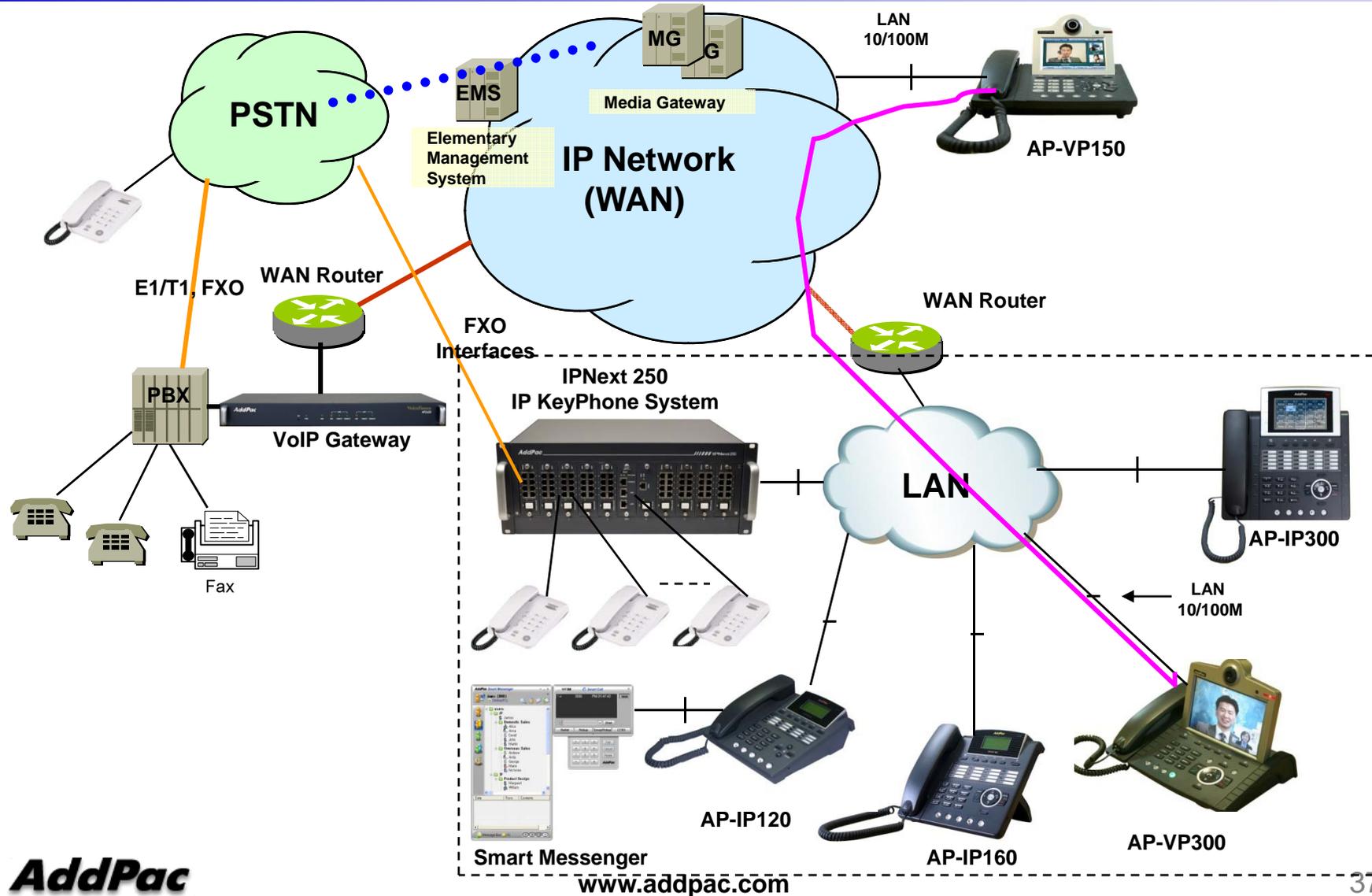
- PC based MS-Window Program
- Support Messenger Service
- Support Various Address Book
- Support User Presence Information (Busy, Away, On-line, etc)
- Support User Search Feature
- Interoperation with Address Book and Smart Phone
- Support Smart Phone Control and Setup
  - Call Control and Forward Setup
- Support Unified Message Box
  - Voice Mail Box
  - Short Message Box



**Smart Messenger**

# Standard IP KeyPhone System Application

IPNext250 Hybrid IP-PBX System

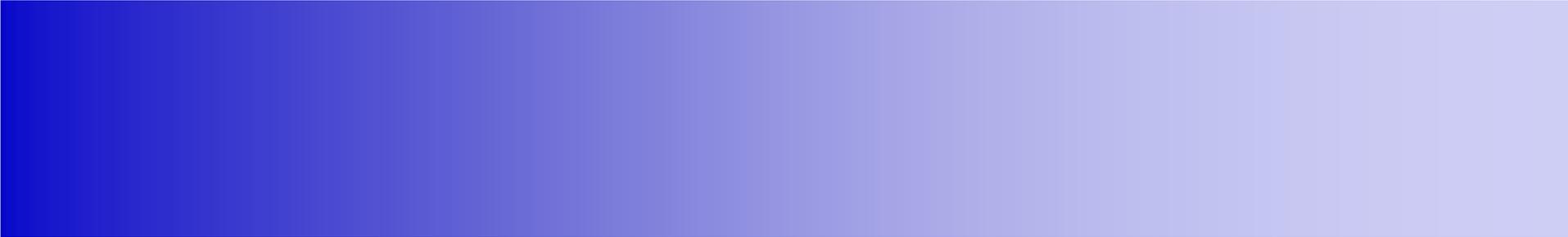


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# Ordering Information

- **IPNext250 Hybrid IP-PBX System**
  - IPNext250 Hybrid IP-PBX System Main Body
  - High-performance RISC CPU
  - Ten(10) VoIP Interface Module Slots
  - 2-ports 10/100Mbps Fast Ethernet and 1-port RS-232C Console
  - Module Type Dual Power Supply for Redundancy
  - Including Network Cable Set & Power Supply Cable,etc.
  - VoIP Interface Modules (Option)
    - : AP-N1-FXS8, AP-N1-FXO8, AP-N1-FXS4O4, AP-N1-E1, AP-N1-2E1, etc
- **Built-in APOS Internetworking Software for IPNext250**
- **Including 1 Year Hardware Warranty**
- **Product Documents**
  - Install and Operation Guide (PDF)
- **Pricing**
  - AddPac Technology Regional Sales Manager
  - Authorized Sales and Marketing Representatives
  - Please Contact [www.addpac.com](http://www.addpac.com)



# Thank you!

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