AP601
SIP Paging Terminal
High Performance SIP based Paging Terminal

AddPac Technology

Sales and Marketing

www.addpac.com

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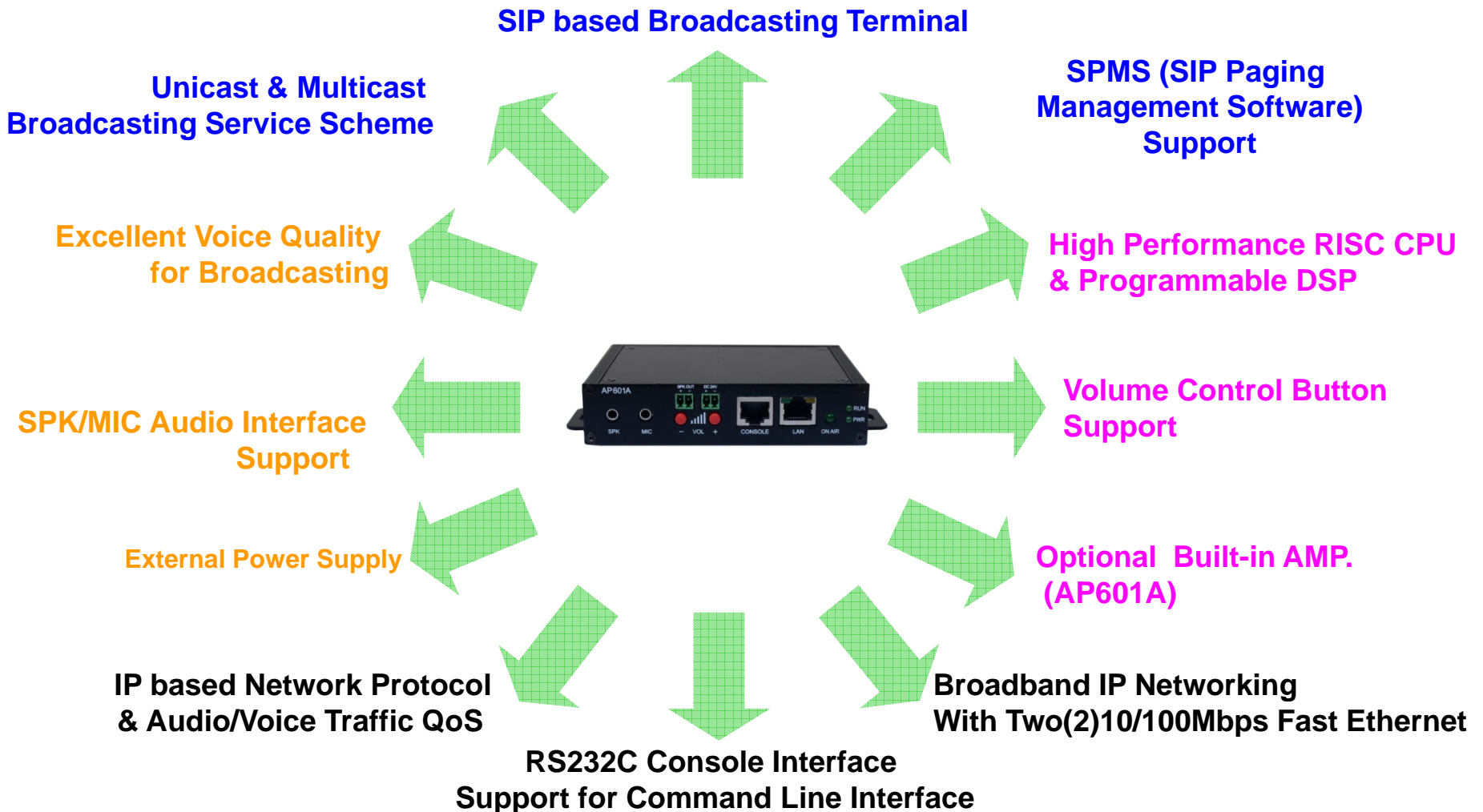
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Product Overview

- SIP based Voice Broadcasting Terminal Solution
- Hardware Architecture for Voice Broadcasting Terminal Service
- Remote Broadcasting Service at terminal side
- High Quality Voice Codec Support (High Quality Codec, G.711, G.726, etc)
- RTP/UDP Protocol Support
- Unicast and Multicast Broadcasting Scheme
- SPMS (SIP Paging Management Software) Support
- One(1) channel SPK/MIC Port
- Volume Control Button Support (Up, Down)
- Option (AP601A) : AMP. Built-in
- High-Quality Audio/Voice Service
- Firmware Upgradeable Architecture
- Broadcasting Solution with Outstanding Network Service Capability
- External Power Supply

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Product Highlights

AP601 SIP Paging Terminal

SIP based Broadcasting Terminal

Unicast & Multicast Broadcasting Service Scheme

SPMS (SIP Paging Management Software) Support

Excellent Voice Quality for Broadcasting

High Performance RISC CPU & Programmable DSP

SPK/MIC Audio Interface Support

Volume Control Button Support

External Power Supply

Optional Built-in AMP. (AP601A)

IP based Network Protocol & Audio/Voice Traffic QoS

Broadband IP Networking With Two(2)10/100Mbps Fast Ethernet

RS232C Console Interface Support for Command Line Interface

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Hardware Specification

AP601 SIP Paging Terminal

RISC CPU

High-end DSP

- RISC Microprocessor Computing Power
- High-end Programmable DSP Hardware Architecture
- High Quality Audio Encoding/Decoding Service
- One(1) 10/100Mbps Fast Ethernet (RJ45)
- One(1) RS-232C Interface (RJ45)
- SPK/MIC Audio Interface Support
- Volume Control Button Support (Up, Down)
- External Power Supply Support
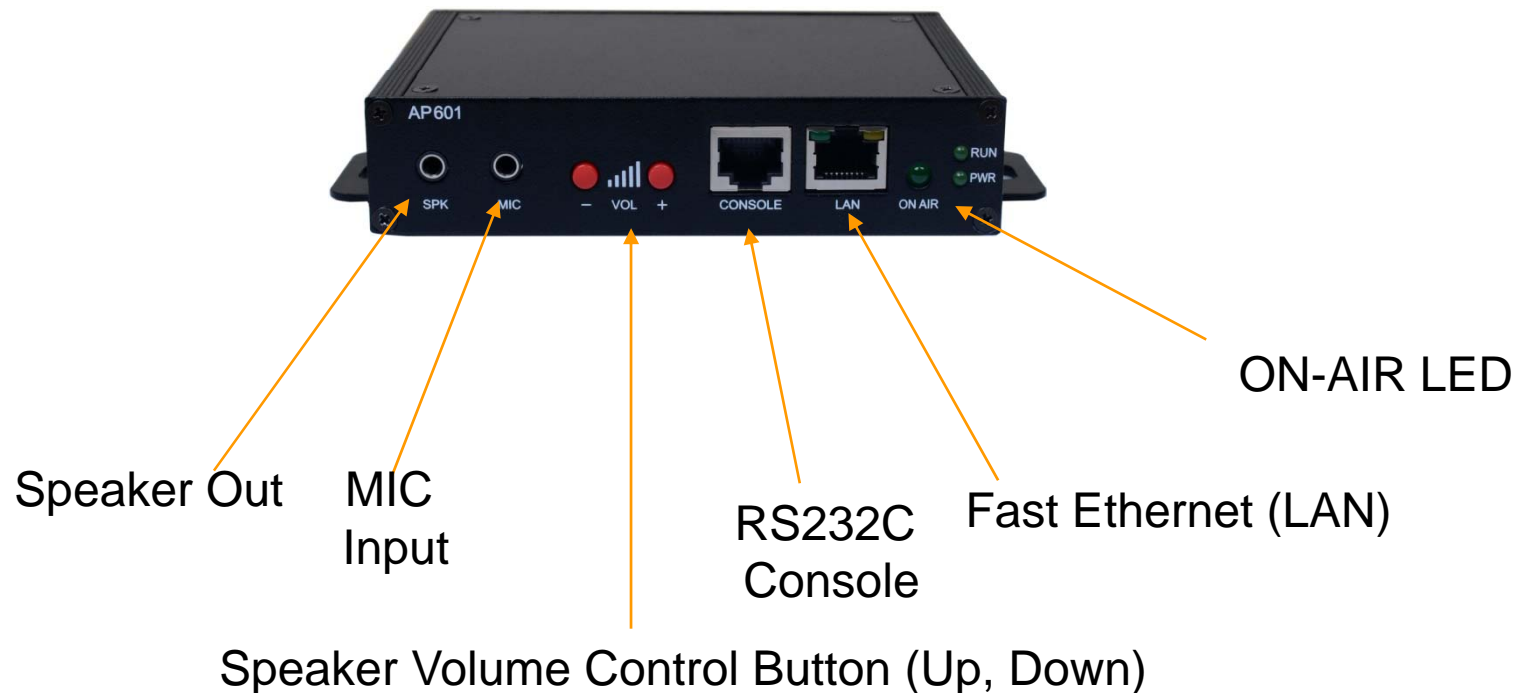- Option : 30Watt Digital AMP. Built-in (AP601A)

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Hardware Specification

AP601 SIP Paging Terminal

RISC
CPU

High-end
DSP

Front Side

Speaker Out

MIC Input

Speaker Volume Control Button (Up, Down)

RS232C Console

Fast Ethernet (LAN)

ON-AIR LED

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Hardware Specification

AP601 SIP Paging Terminal

RISC **CPU**

High-end **DSP**

Front Side
(AMP. Built-In Model : AP601A)

AMP. Speaker Out

24V DC Power Input for Internal AMP.

ON-AIR LED

Speaker Out

MIC Input

RS232C Console

Fast Ethernet (LAN)

Speaker Volume Control Button (Up, Down)
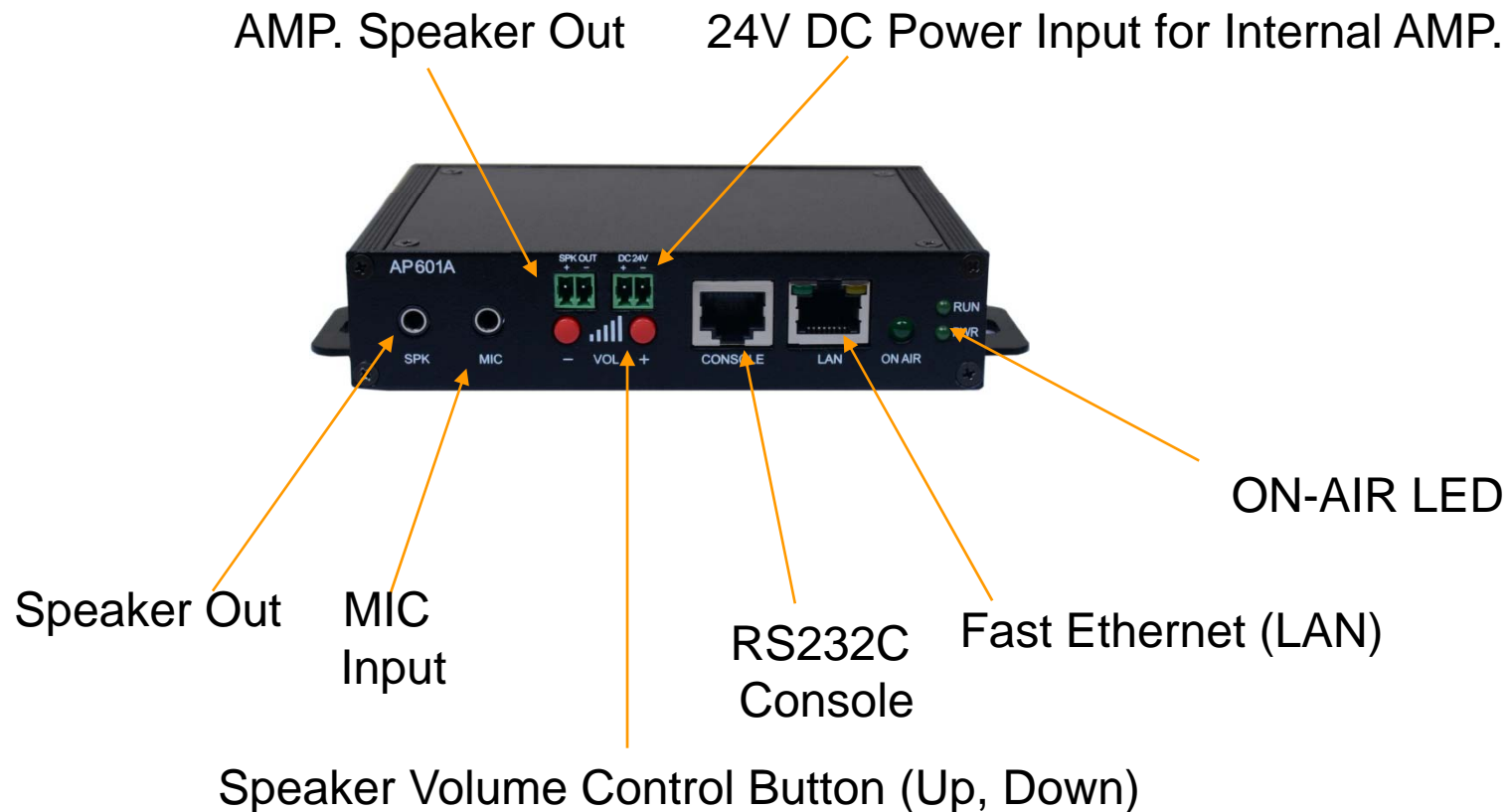
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Hardware Specification

AP601 SIP Paging Terminal

Back Side

External Power
Supply Adaptor

Power Switch

APOS^{TM} Service Features

AP601 SIP Paging Terminal

- **APOS Internetworking Software**
  - AddPac Operating System (APOS)
  - Support Industry Standard
  - Integrated Networking Protocols
  - Optimized Performance & Functionality
  - Easy to use, Installation, and Maintenance

SBMS
(GUI based Manager)

IP Routing

IP Network
(WAN)

Remote Access Broadcasting

Data

PPPoE

Web based
Management

FTP/TFTP

VLAN Routing

RTP

SNMP

SIP

Telnet

Audio Broadcasting

Audio Codec

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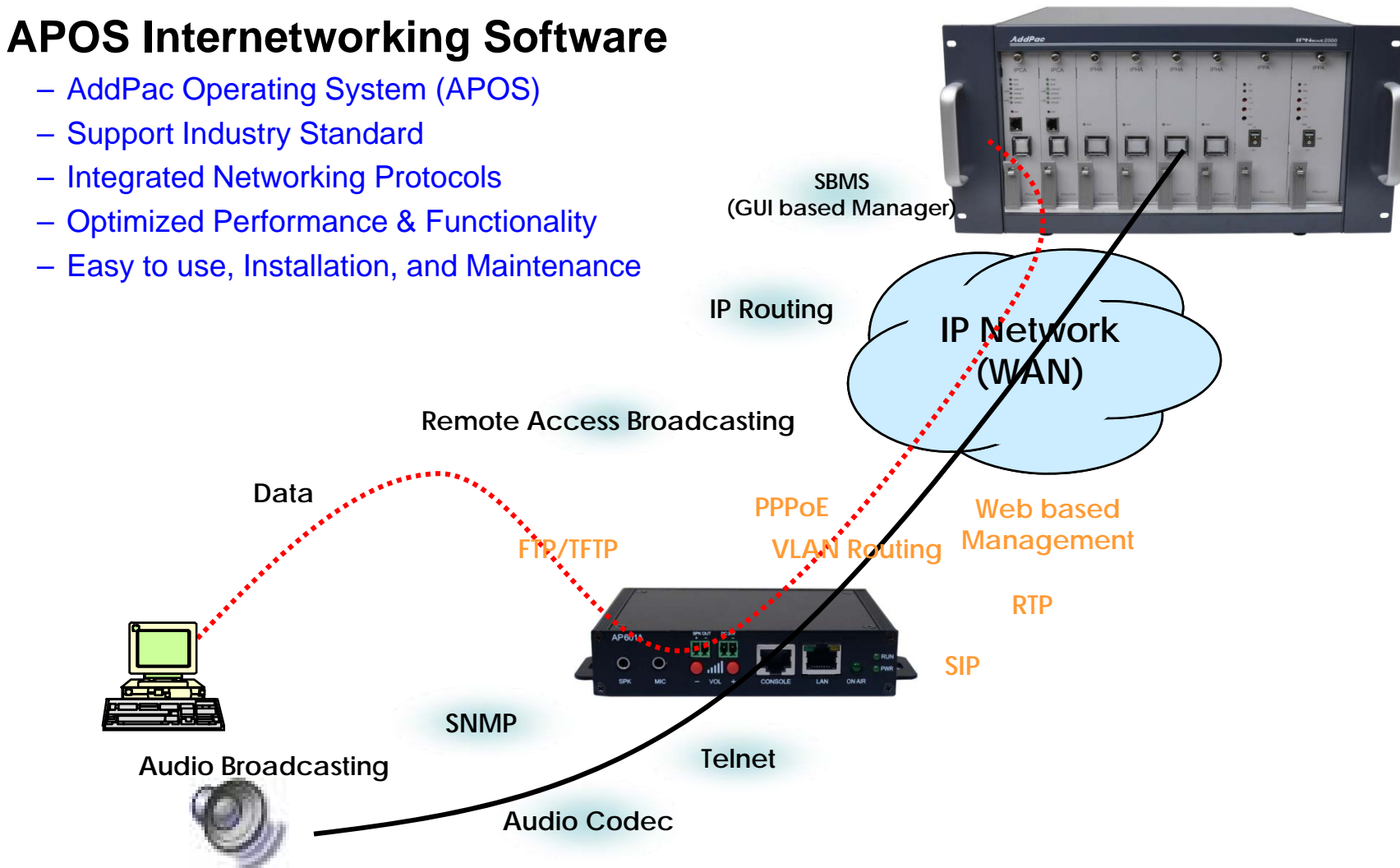
APOS™ Service Features

- **IP Routing Protocols**
  - Multi-protocol Internetworking Services
  - Static & Default IP routing

- **WAN Protocols**
  - **Point-to-Point Protocol (PPPoE for ADSL)**
  - **IEEE 802.3 Ethernet**
  - **PPTP support for secure communication**

IP

IP Network
(WAN)

Internet
WWW

IP

IP

AddPac   LAN 0   LAN 1   CONSOLE   VoiceFinder AP1602

RUN
PWR   LCD   ON AIR

LAN

IP
IP
IP
IP

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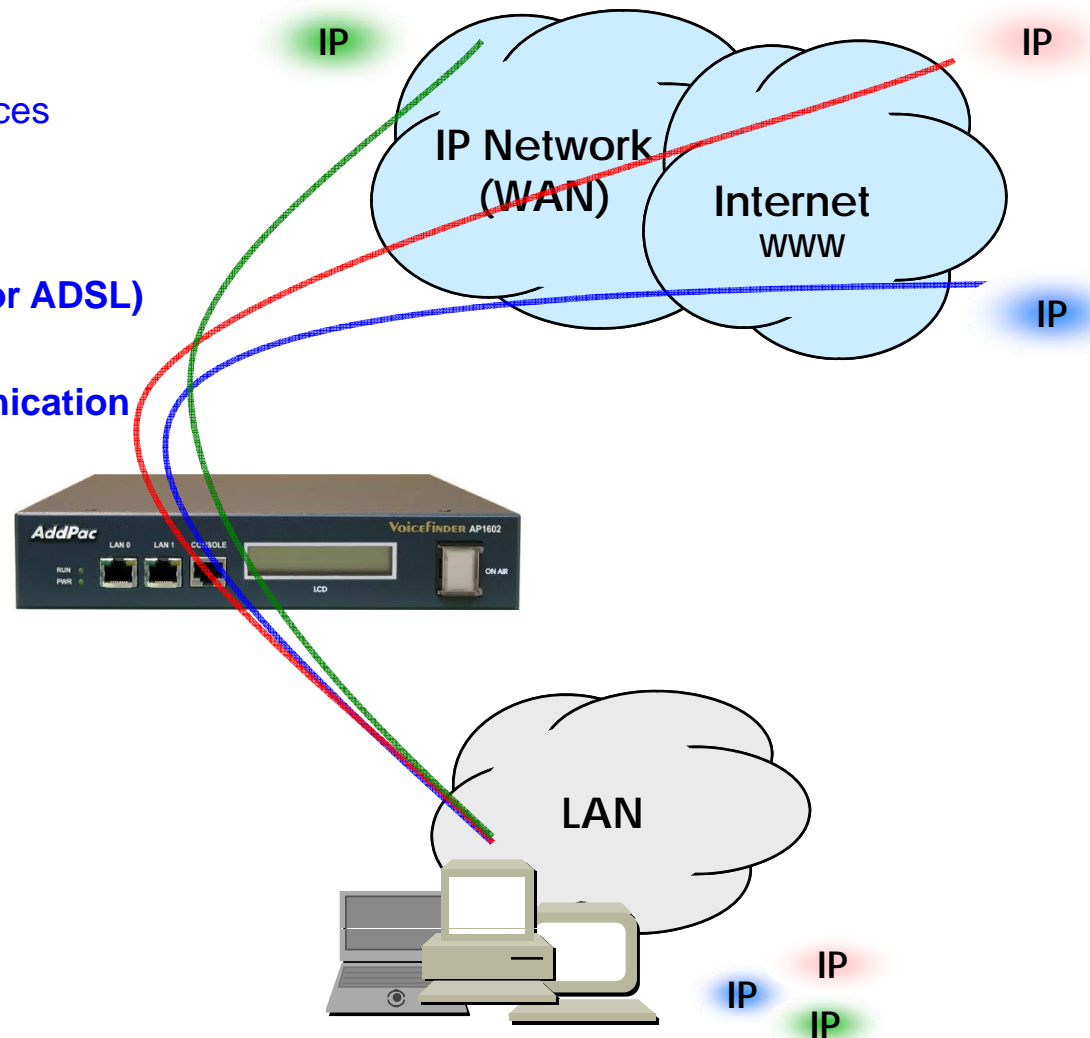
APOS^{TM} Service Features

AP601 SIP Paging Terminal

- **Network Managements**
  - Standard SNMP Agent (MIB v2) Support
  - Remote Management using Console, Telnet
  - Web based Management using HTTP Server Interface

- **Security Functions**
  - Standard & Extended IP Access List
  - Enable/Disable for Specific Network Protocols
  - Multi-level User Account Management
  - Auto-disconnect for Telnet/Console Sessions
  - PPP User Authentication Supports (PAP & CHAP)

- **Operation & Managements**
  - System Performance Analysis for Process, CPU, Connection Interface
  - Debugging, System Auditing, and Diagnostics Support
  - System Booting and Auto-rebooting with Watchdog Feature
  - System Managements with Data Logging
  - IP Traffic Statistics with Accounting

APOS™ Service Features

- **Network Protocols**
  - DHCP Server & Relay Functions
  - Network Address Translation (NAT) Function
  - Port Address Translation (PAT) Function
  - Transparent Bridging (IEEE Standard) Function
    - Spanning Tree Bridging Protocol Support
    - Remote Bridging Support
    - Concurrent Routing and Bridging Support
  - Cisco Style Command Line Interface (CLI)
  - Network time Protocol (NTP) Support

VoIP Service Features

- **SIP Protocol Service**
  - Gateway-based / Endpoint-based registration support
  - Secondary proxy-server assignment function
  - SIP signaling port change function
  - SIP proxy server assignment according to the domain name
  - T.38 real-time fax relay support
  - DTMF relay support with RFC2833 / OPTION message
  - Re-INVITE support

VoIP Service Features

- **Voice Codec**
  - G.711 A-Law, G.711 U-Law
  - G.726 r16, G.726 r32
  - G.729A
  - G.723.1 r63, G.723.1 r53
  - VAD (Voice Activity Detection) function support
  - DTMF relay support (H.323, SIP, MGCP common) based on RFC2833

IP Broadcasting

- **RTP Protocols**
  - Redundant RTP packet transmission in case of severe packet loss
  - Dynamic jitter buffer management and RPT packet jitter and loss compensation with heuristic & DSP error concealment
  - Static jitter buffer setting support
  - Voice frame per RTP packet number control for each codec

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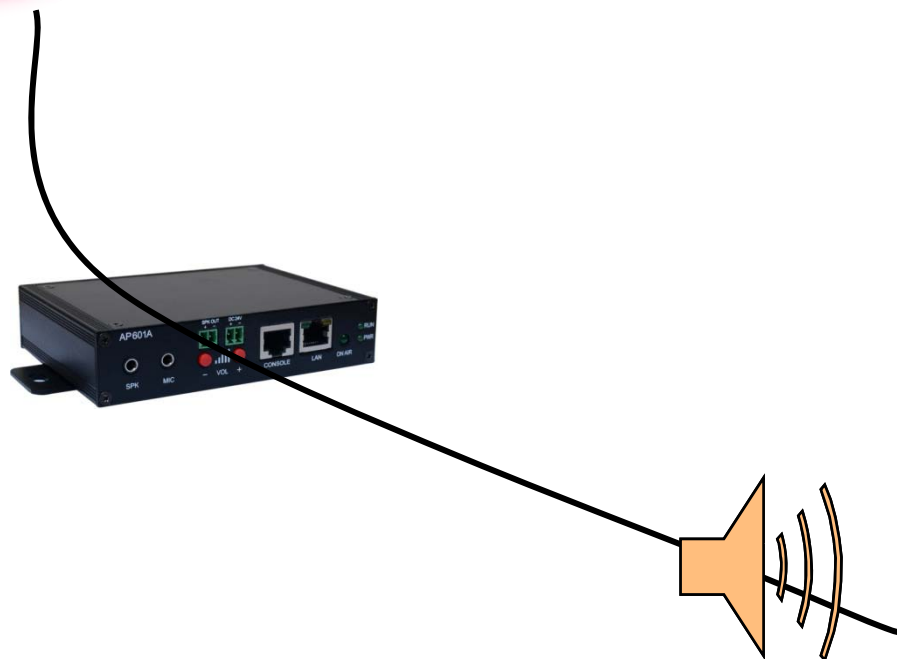
SIP Broadcasting Network Diagram

AP601 SIP Paging Terminal

SIP Broadcasting Server or Legacy IP-PBX
(Embedded or Commercial Server)

Paging Authorization Member

1000
IP Phone

1001
IP Phone

LAN/WAN

Paging Group Members

1002
SIP Paging Terminal

1003
SIP Paging Terminal

xxxx
SIP Paging Terminal

SIP Signaling + RTP Voice Stream

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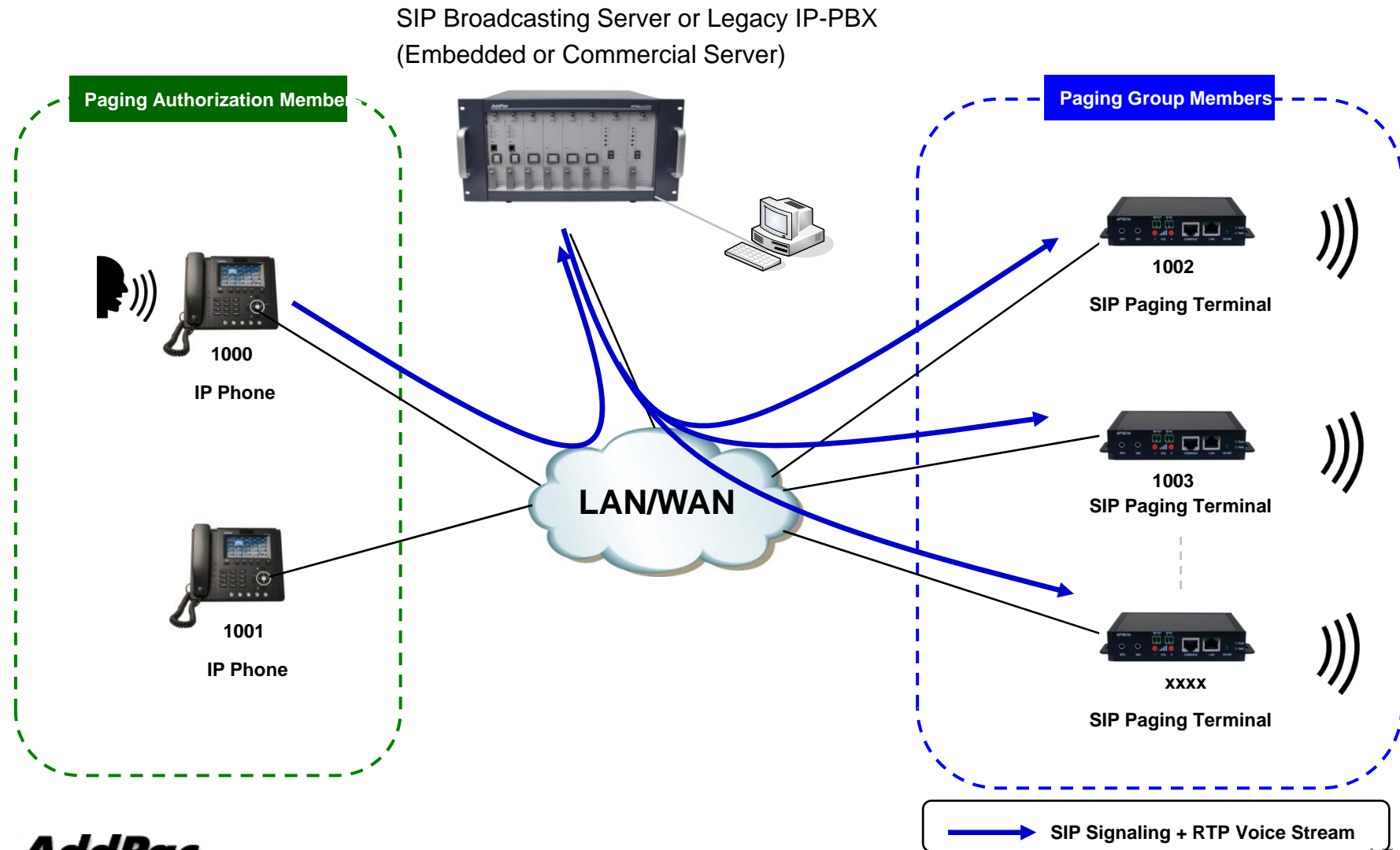
Paging Group Signaling Flow

AP601 SIP Paging Terminal

IP Phone 1000

SIP Broadcasting Server or Legacy IP-PBX

SIP Paging Terminal 1002

1003

SIP Paging Terminal 1004

NVITE(9000)

200OK

INVITE(1002)

Answer-Mode : Auto

200OK

INVITE(1003)

Answer-Mode : Auto

200OK

INVITE(1004)

Answer-Mode : Auto

200OK

RTP

RTP

RTP

RTP

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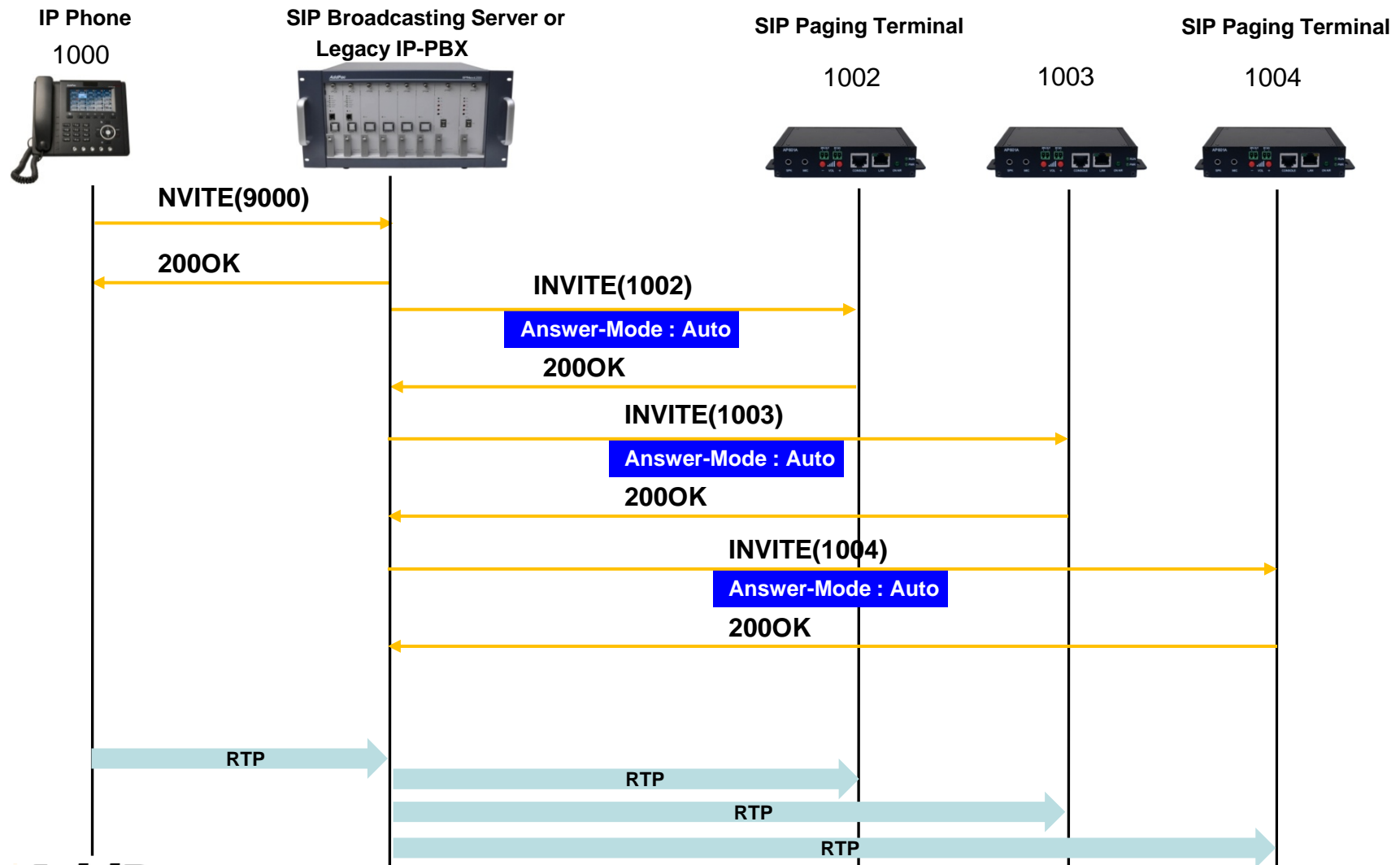
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WSMM Configuration for Paging Group
(WSMM : Web based Smart Multimedia Manager)
: AddPac IP-PBX Solution

Extension – Paging Group

Paging Group
A paging group has members of user extensions who will receive broadcasting announcement with auto answering by speaker phone. This is half-duplex one-way broadcasting.

Paging Group Configuration

Paging Extension
This is paging extension number to make the paging by dialing digits.

Play Announcement
If enabled, group members will hear announcement at broadcasting. The announcement can be selected among announcement files and can be uploaded at Announcements and Tones menu.

Group Members
These members can receive broadcasting announcement.

Authorization Members
Only these authorized member can start this paging by dialing the paging extension digits.

Ordering Information

- **AP601 SIP Paging Terminal Hardware**
  - AP601 Main Body
  - RISC Microprocessor with High-end Programmable DSP Architecture
  - Including Network Cable Set & Power Supply, etc.
- **Built-in APOS Internetworking Software for AP601**
- **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

Thank you!

AddPac Technology Co., Ltd.
Sales and Marketing

Phone +82.2.568.3848 (KOREA)
FAX +82.2.568.3847 (KOREA)
E-mail sales@addpac.com