

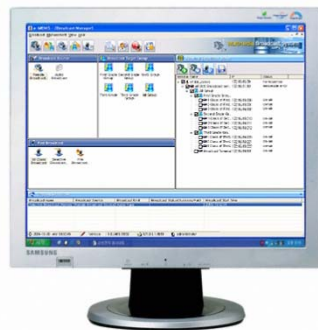


Remote Broadcasting Controller

High-performance IP Remote Broadcasting Solution



AP-IP300 IP Remote
Broadcasting Controller



e-MBMS (enhanced Multimedia
Broadcasting Management System)

AddPac

www.addpac.com

AddPac

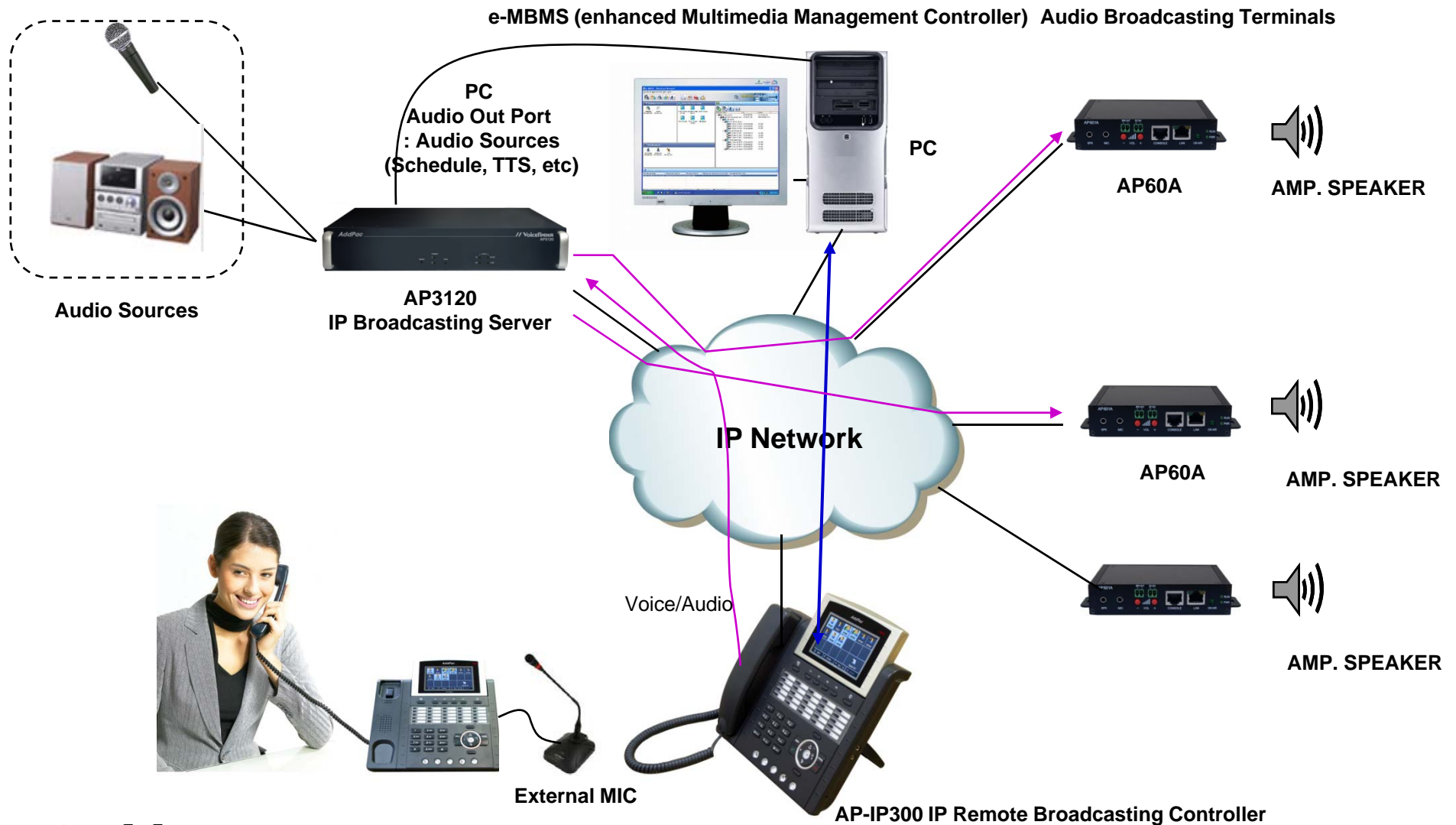
AddPac Technology

Sales and Marketing

Contents

- Remote Broadcasting Network Diagram : Example
- AP-IP300 IP Remote Broadcasting Controller
- Multiple Remote Broadcasting Service Diagram
- IP Broadcasting Solution
 - e-MBMS Multimedia Broadcasting Management
 - AP3120 IP Paging Server
 - AP601A IP Paging Terminal

Remote Broadcasting Network Diagram



Remote Broadcasting Controller

AP-IP300 High Performance IP Phone

✓ Application Select



Remote Broadcasting Controller

OSD for Group Broadcasting Service

AP-IP300 High Performance IP Phone

Chime Bell indicate "Broadcasting Start"

Broadcasting Group Select

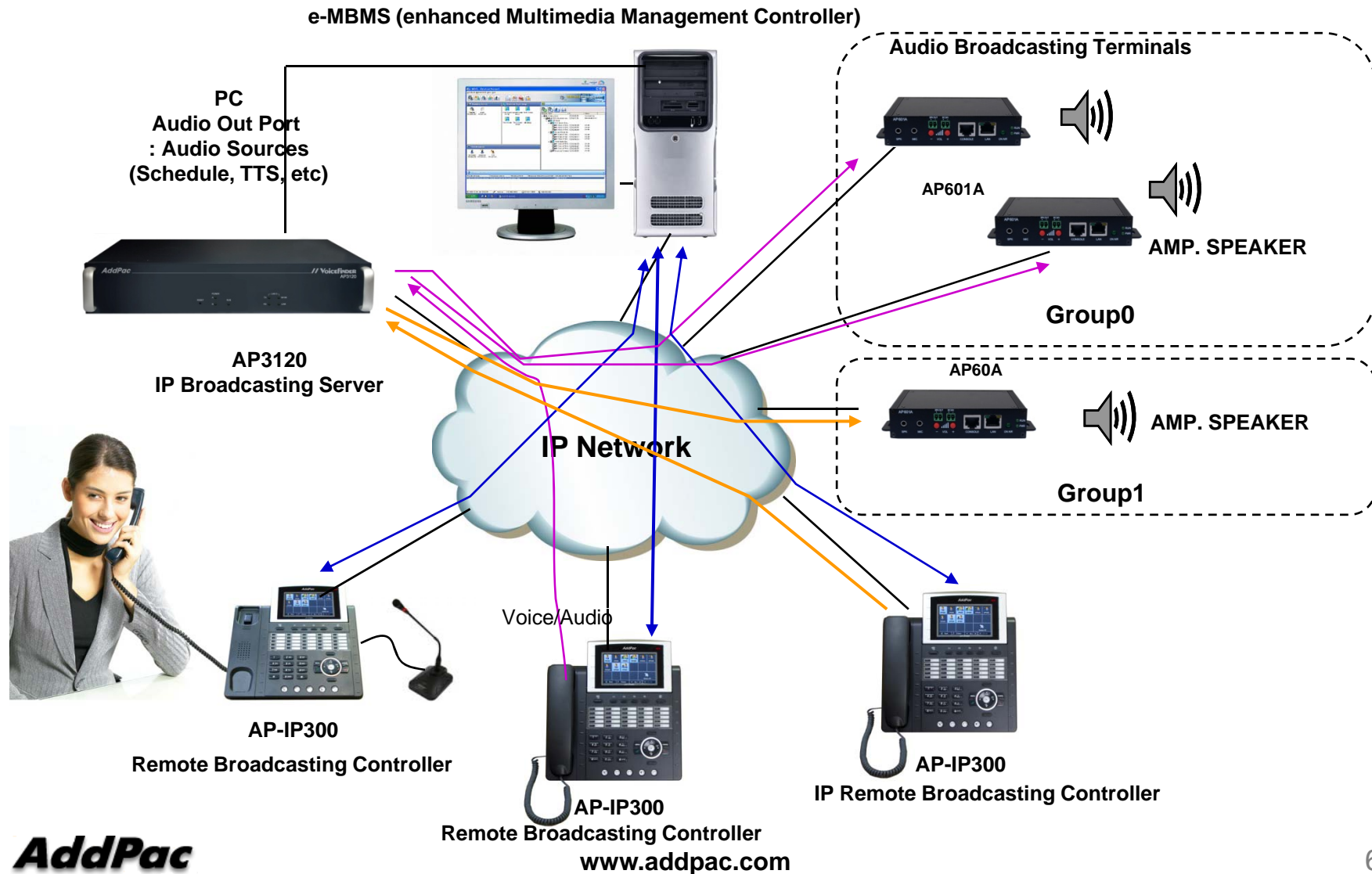
Display the ON-AIR Status

Broadcasting Start Button

Volume Control



Multiple Remote Broadcasting Service Diagram





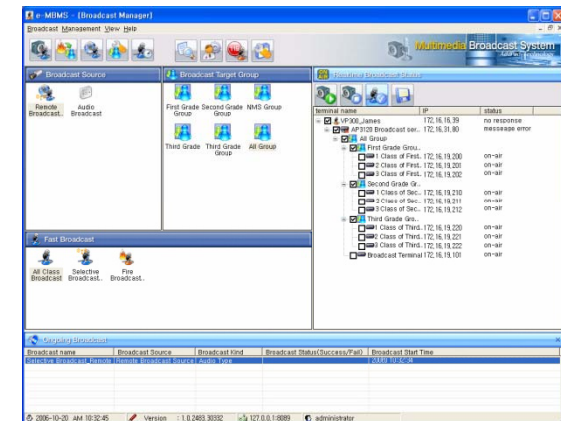
IP Broadcasting Solution

e-MBMS (enhanced Multimedia Broadcasting Management System)



e-MBMS Service Feature

- Client/Server Architecture
- PC based Window Application Program
- User and Group Management
- User Access Management
- Broadcasting Equipment Management (Server/Terminal/Controller)
- Broadcasting Source Management
- Configuration Management
- Session Management
- Schedule Broadcasting Management
- Emergency Broadcasting
- Event Management
- **Remote Broadcasting Controller Management**
- e-MBMS Redundancy Configuration/Backup
- etc





AP3120 IP Broadcasting Server

Contents

- Product Overview
- Hardware Specification
- APOS™ Service Features
- IP Audio Broadcasting Signal Flow
- Unicast & Multicast Service Feature

Product Overview

AP3120 IP Paging Server

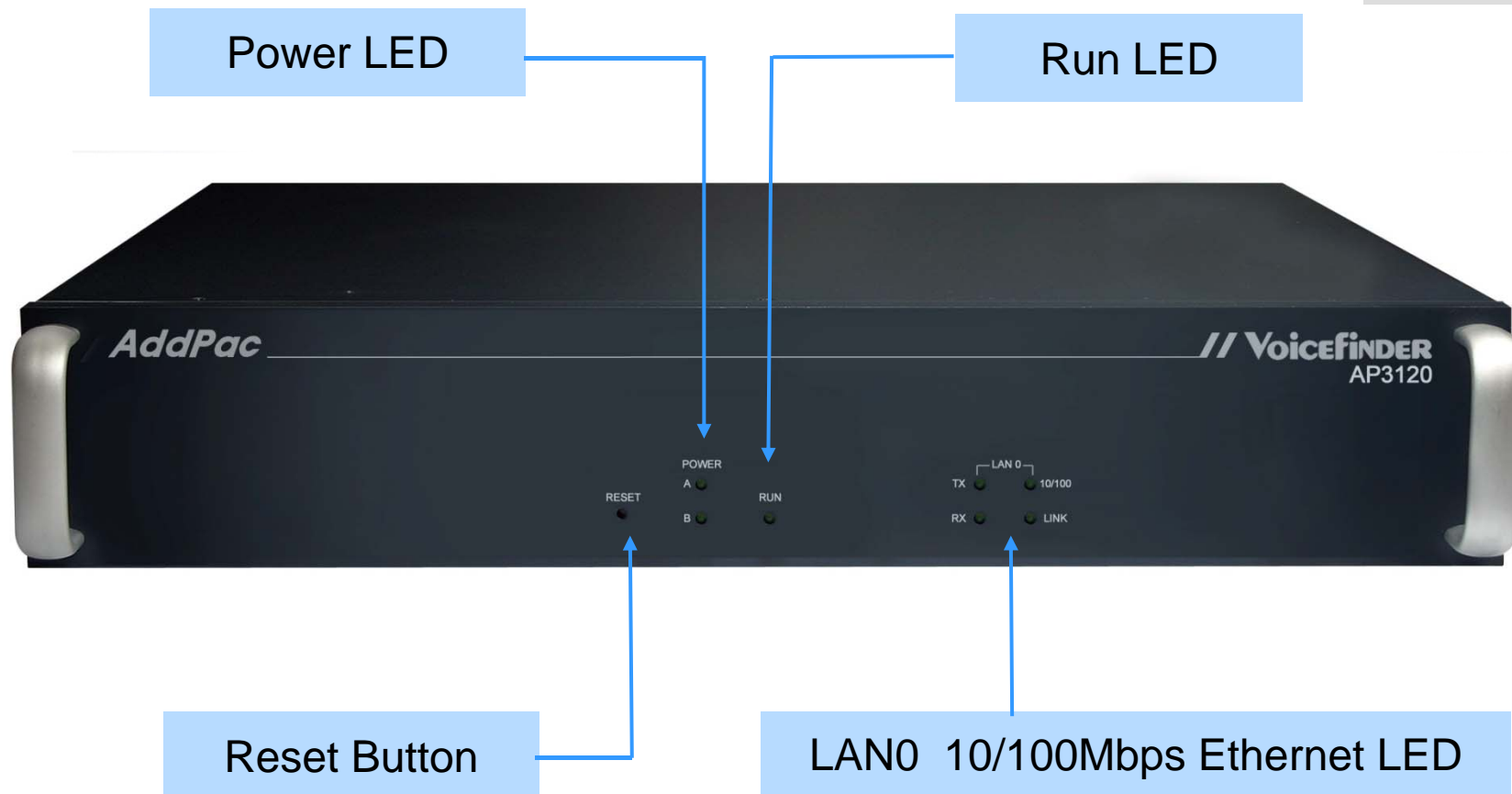
- IP based Broadcasting Service Solution
- Hardware Architecture for Voice Broadcasting Service
- Hardware Modular Architecture for Network Card, Audio Card, etc
- Embedded System Architecture for System Stability
- Real-Time Operating System
- Remote Broadcasting Service at terminal side
- High Quality Voice Codec Support
- RTP/UDP Protocol Support
- Unicast and Multicast Broadcasting Scheme
- Enhanced MBMS (Multimedia Broadcasting Management System) Support
- Firmware Upgradeable Architecture
- Broadcasting Solution with Outstanding Network Service Capability
- Dual Power Supply for System Stability

Hardware Specification

AP3120 IP Paging Server

RISC
CPU

High-end
DSP



Hardware Specification

AP3120 IP Paging Server

RISC
CPU

High-end
DSP

Network Module Slot

Voice Module Slot



LAN0 10/100Mbps Ethernet

LAN1 10/100Mbps Ethernet

Console Port

Console Port

Switch

Dual Power Interface

Hardware Specification

AP3120 IP Paging Server

RISC
CPU

High-end
DSP

- ❑ Support Various VoIP Module



- 2-Pair Audio-In/Out Ports
- Voice Band IP Broadcasting

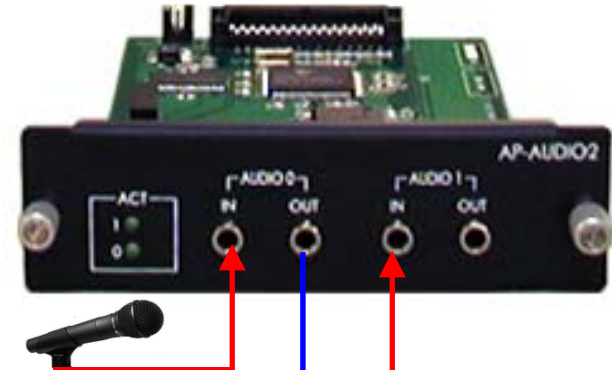
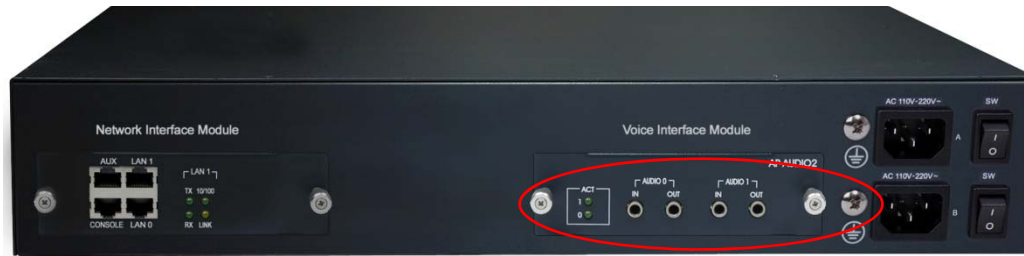
- 1-Pair Audio-In/Out Ports, FXS Analog Interface
- Voice Band IP Broadcasting

- 1-Pair Audio-In/Out Ports, FXS 2-Ports, FXO 1-Port
- Voice Band IP Broadcasting

Add

System Configuration (Audio2 Module)

AP3120 IP Paging Server

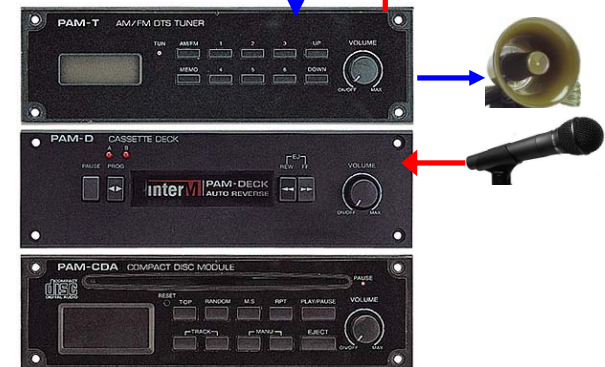


Direct Mic-In

Connect with 1:2 Stereo Jack

Audio Module HW Specification

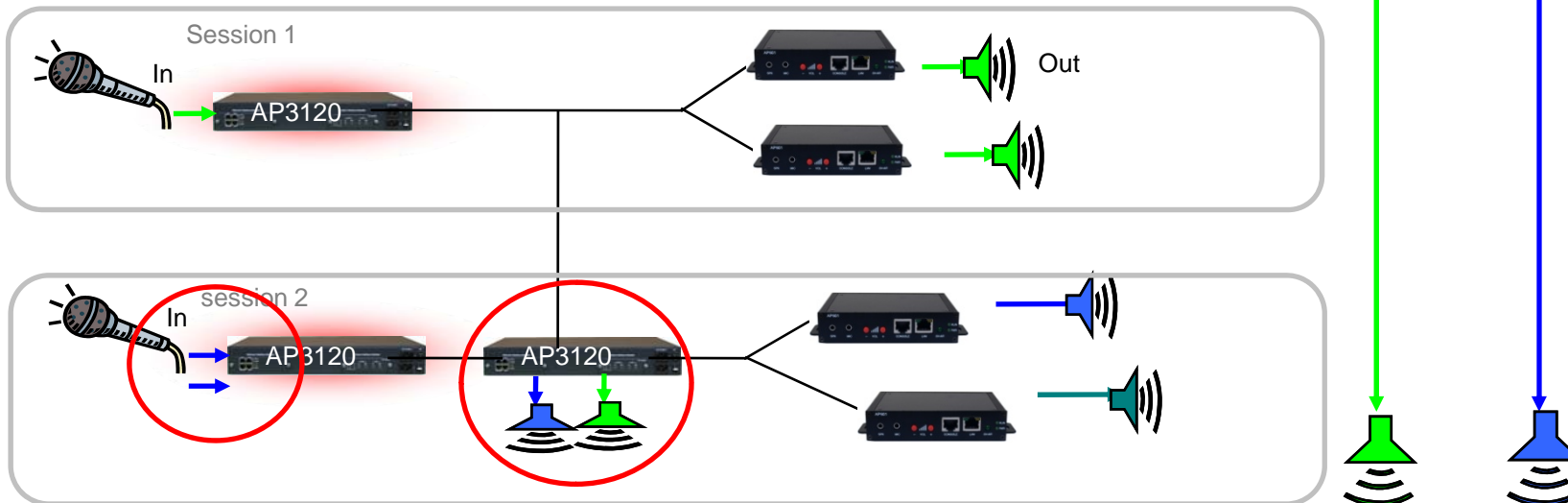
Line-In	100mVpp ~ 2Vpp/ 75Ω
Line-Out	105mW/180Ω
Frequency Characteristic (±3dB)	60Hz~20kHz
Signal to Noise Ratio	Above 70dB
Dimension (WHD)	111×32×160mm



System Configuration (AP-AUDIO2 Module)

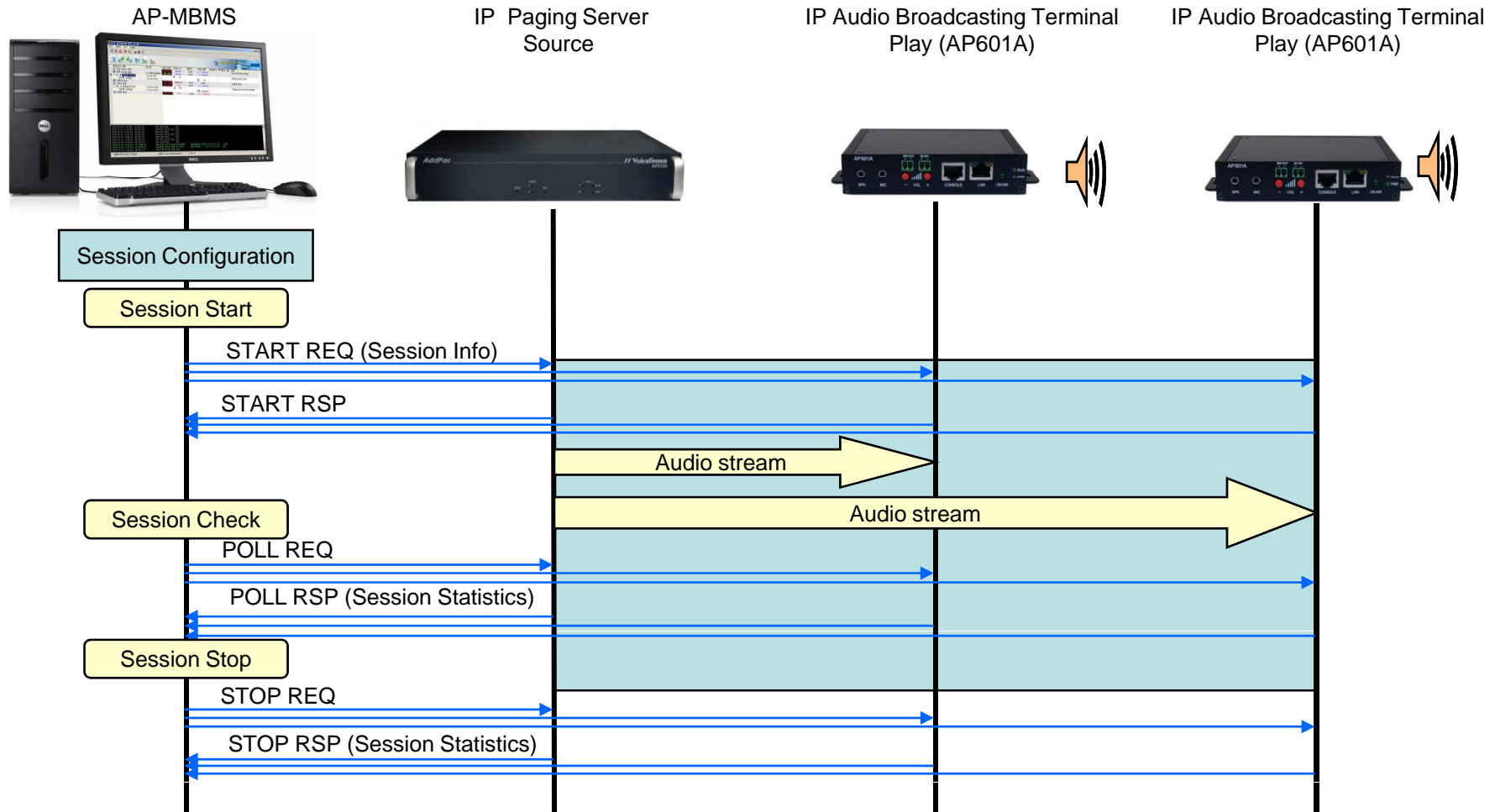
AP3120 IP Paging Server

- 2-Pair Audio-In/Out Ports
- 3.5mm Female Analog Interface
- Available to receive & send 2-Channels Broadcasting
- Support Voice Level IP Audio Broadcasting
- Sampling Rate: 8Khz



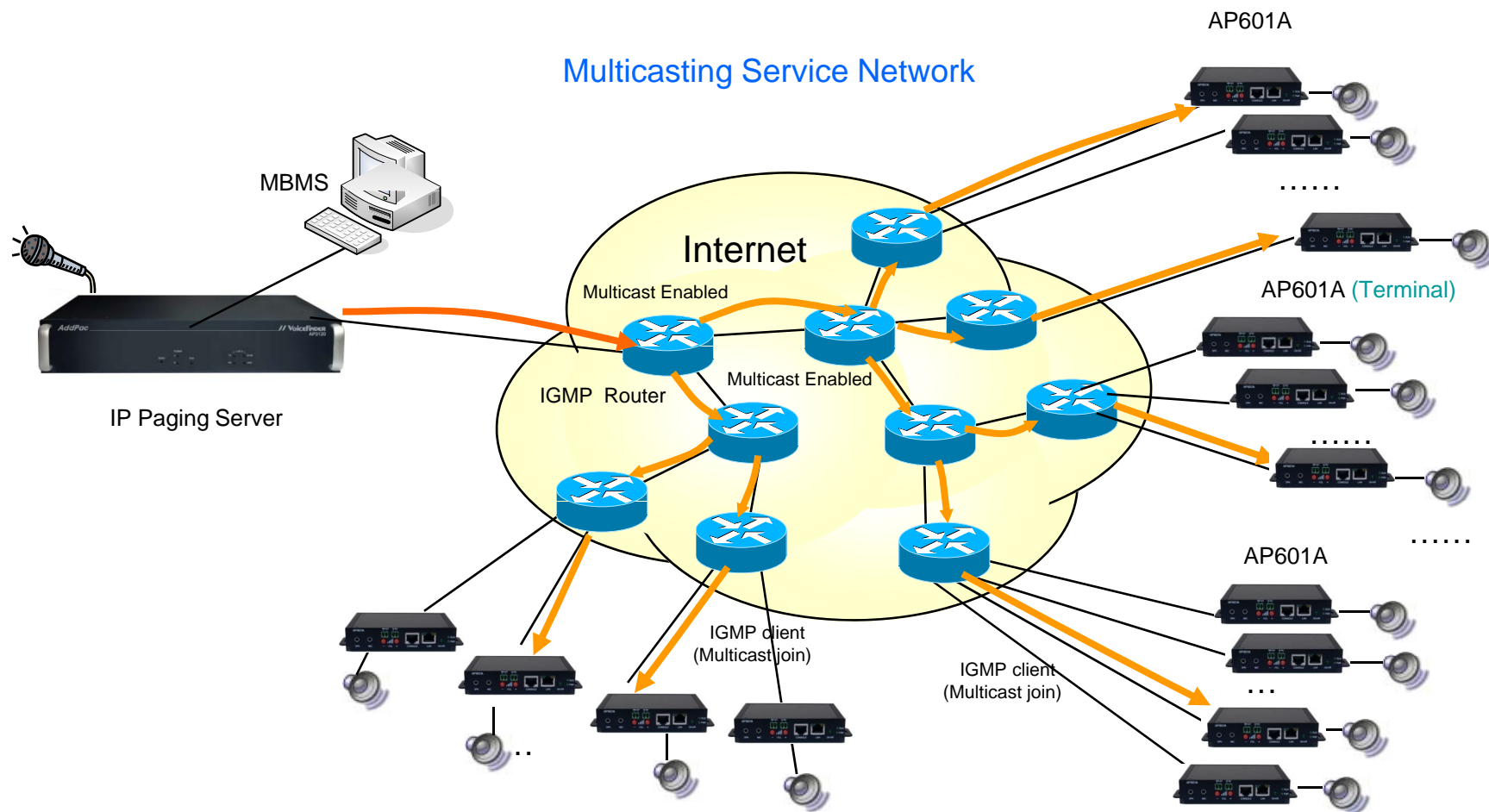
IP Audio Broadcasting Signal Flow (CASE1)

AP3120 IP Paging Server



Multicast Service Network Diagram

AP3120 IP Paging Server

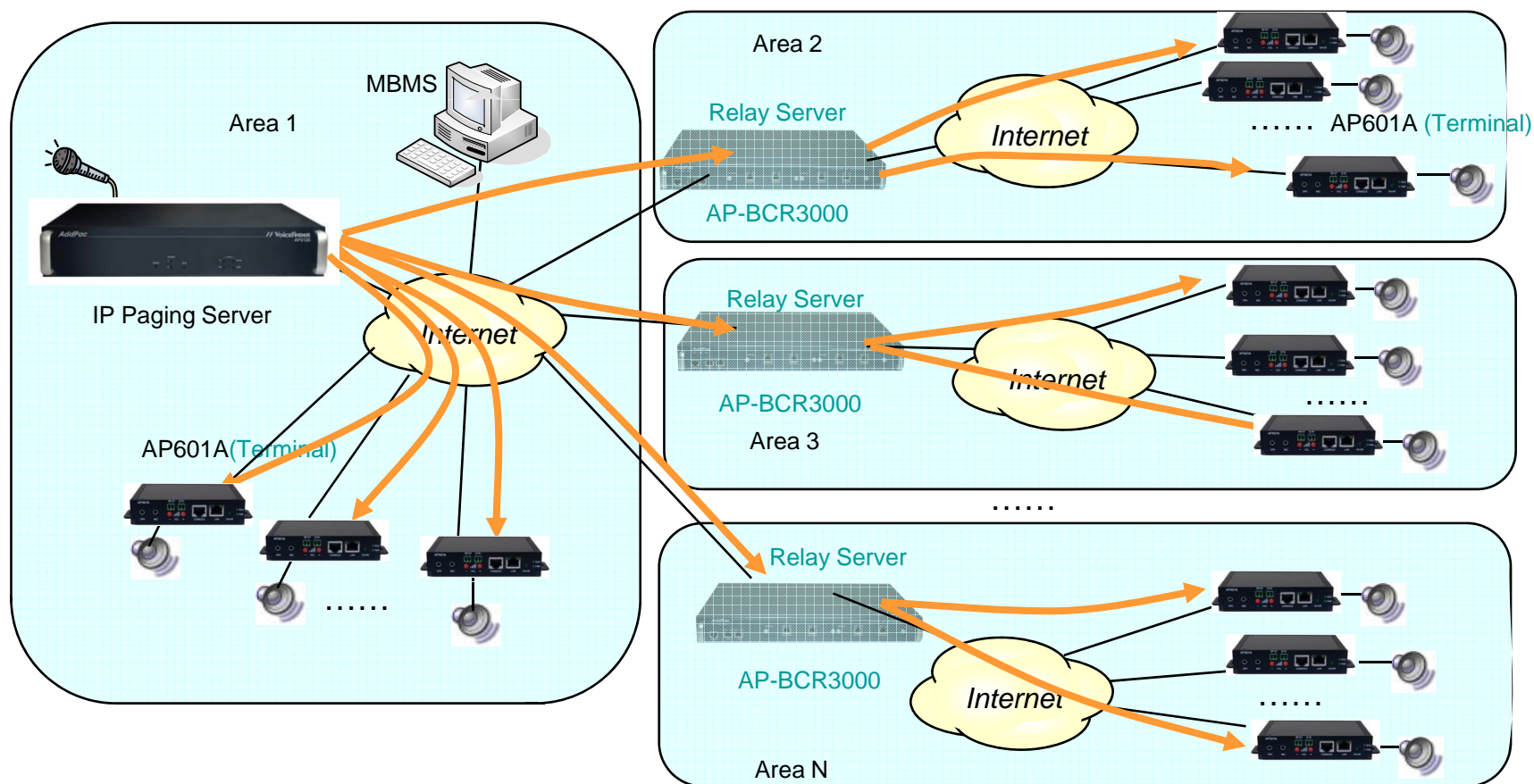


- Multicast protocol based such as [IGMP Protocol](#)
- Available to broadcast multi destination with single channel bandwidth





Unicast Service Network Diagram

AP3120 IP Paging Server

Unicasting Service Network



IP Voice Broadcasting Solution

Audio Broadcasting Manager S/W	IP Broadcasting/Paging Server	Audio Broadcasting Router :Option (Relay Server)	IP Paging Terminal AP601, AP601A
	 <p>AP3120</p>  <p>AP3110 (small site)</p>		
<p>Window based Audio Broadcasting Management Software.</p>	<p>Embedded Hardware based Broadcasting Server, Voice Codec Module, Voice Codec, G.711, G.726</p>	<p>1:N Audio Broadcasting Router. Gigabit Ethernet Support</p>	<p>Embedded Hardware based Audio Terminal. Volume Control Built-in AMP.(AP601A) G.711, G.726, Audio Codec.</p>

AP601 IP Paging Terminal



Product Overview

AP601 IP Paging Terminal

- IP based Voice Broadcasting Terminal Solution
- Hardware Architecture for Voice Broadcasting Terminal Service
- Remote Broadcasting Service at terminal side
- High Quality Voice Codec Support
- RTP/UDP Protocol Support
- Unicast and Multicast Broadcasting Scheme
- Enhanced MBMS (Multimedia Broadcasting Management System) Support
- One(1) channel SPK/MIC Port
- Option (AP601A) : AMP. Built-in
- Firmware Upgradeable Architecture
- Broadcasting Solution with Outstanding Network Service Capability
- External Power Supply

Hardware Specification

AP601 IP Paging Terminal

RISC
CPU

High-end
DSP

- RISC Microprocessor Computing Power
- High-end Programmable DSP Hardware Architecture
- High Quality Voice 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)

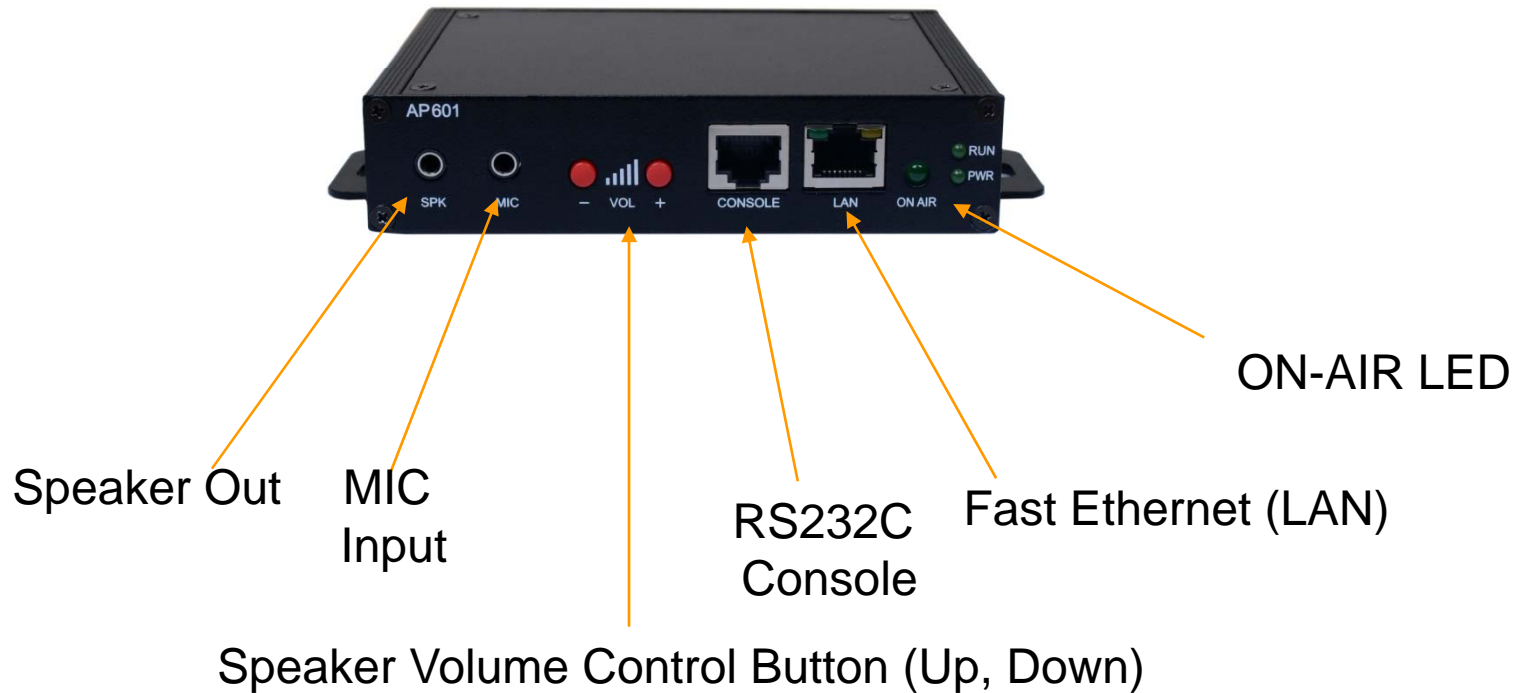
Hardware Specification

AP601 IP Paging Terminal

RISC
CPU

High-end
DSP

Front Side



Hardware Specification

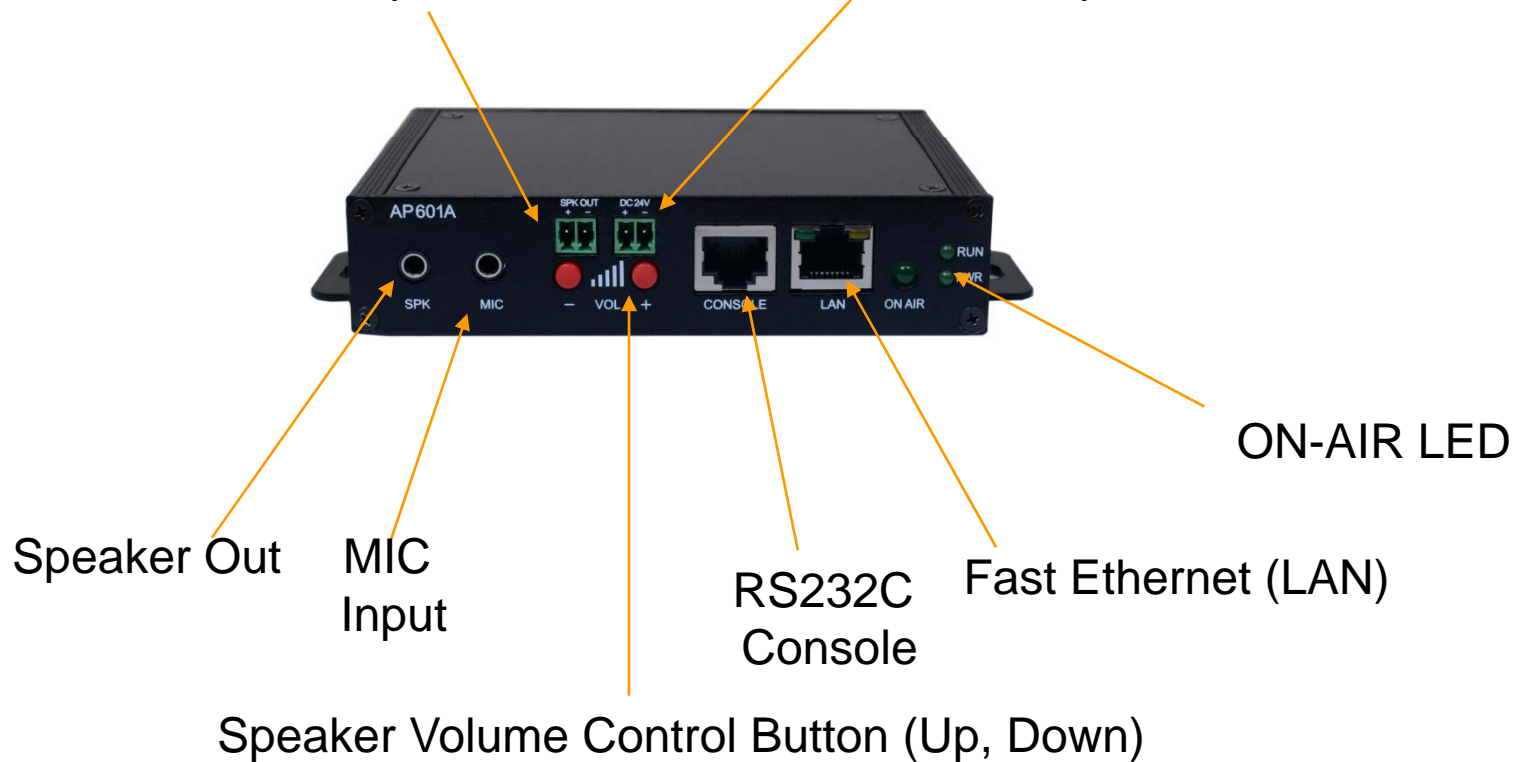
AP601A IP Paging Terminal

RISC
CPU

High-end
DSP

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

AMP. Speaker Out 24V DC Power Input for Internal AMP.



Hardware Specification

AP601 IP Paging Terminal

RISC
CPU

High-end
DSP

Back Side



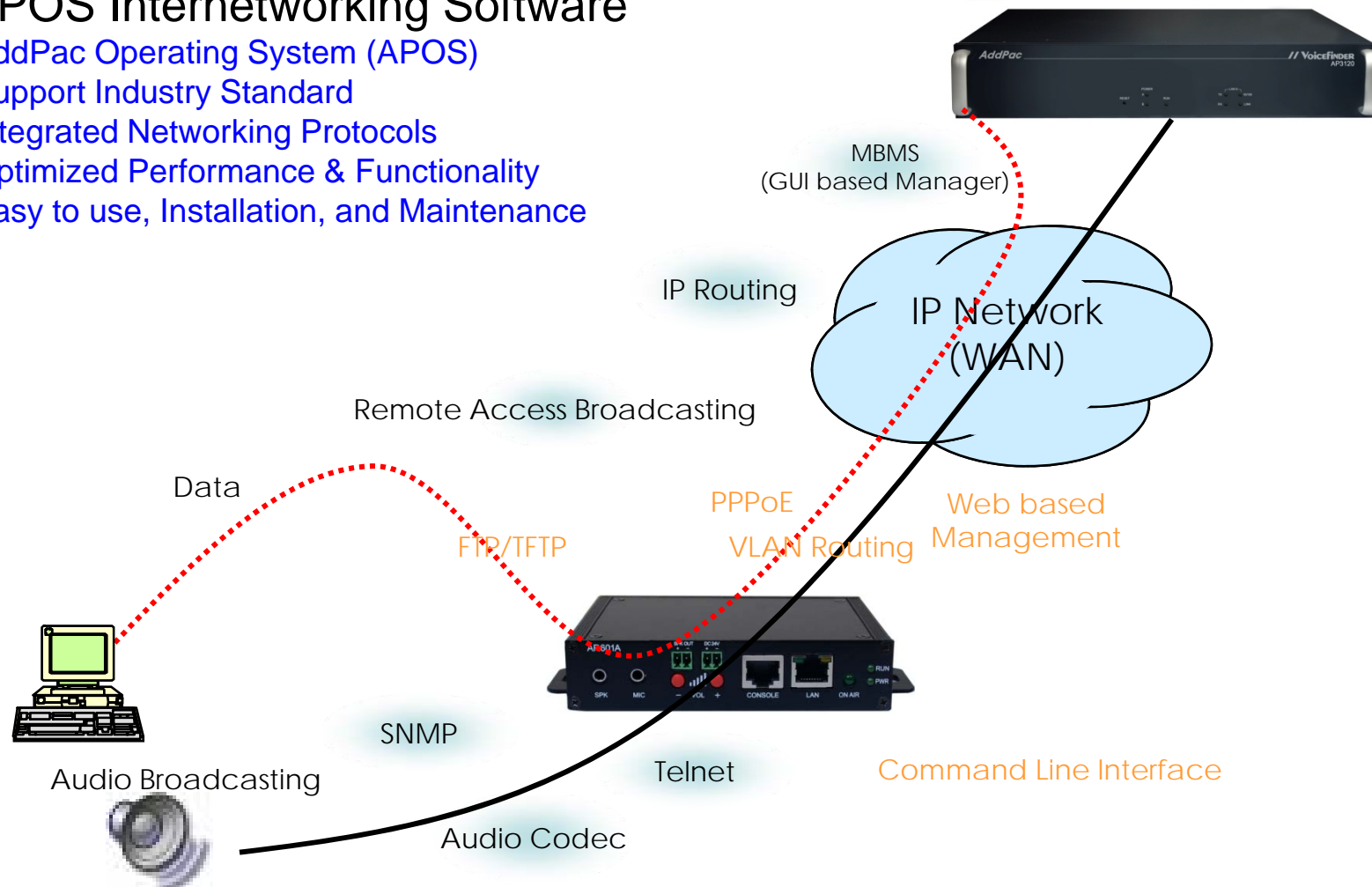
External Power
Supply Adaptor

Power Switch

APOS™ Service Features

AP601 IP Paging Terminal

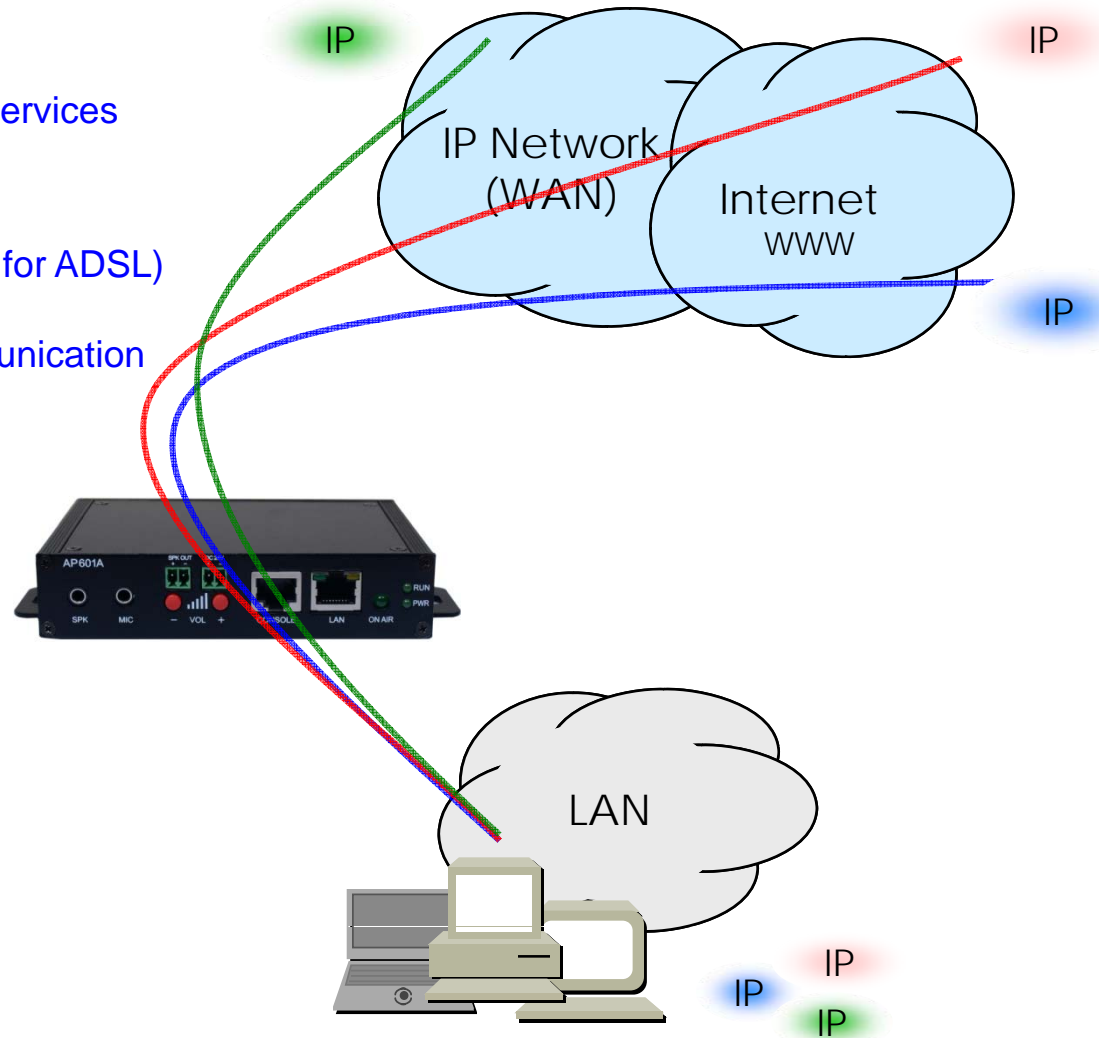
- APOS Internetworking Software
 - AddPac Operating System (APOS)
 - Support Industry Standard
 - Integrated Networking Protocols
 - Optimized Performance & Functionality
 - Easy to use, Installation, and Maintenance



APOS™ Service Features

AP601 IP Paging Terminal

- 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



APOS™ Service Features

AP601 IP 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

AP601 IP Paging Terminal

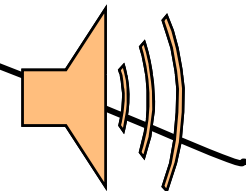
- Network Protocols
 - DHCP Server & Relay Functions
 - Network Address Translation (NAT) Function
 - Port Address Translation (PAT) Function
 - Transparent Bridging (IEEE Standard) Function
 - Spanning Tree Bridging Protocol Support
 - Remote Bridging Support
 - Concurrent Routing and Bridging Support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

APOS™ Service Features

AP601 IP Paging Terminal

- Audio Codec
 - G.711, G.726, etc, Audio Codec
- RTP Protocols
 - Redundant RTP packet transmission in case of severe packet loss
 - Dynamic jitter buffer management and RTP 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

IP Broadcasting





Thank you!

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