

UNIFIED IP AUDIO SOLUTION

YOUR SPECIALIST FOR IP COMMUNICATION SOLUTION



Solution Overview

ZYCOO IP Audio Solution is a comprehensive IP audio communication system built on SIP, streaming media, and MQTT IoT technologies. Our solution supports a range of functionalities, including broadcasting, intercom, telephony, paging, and more.

The architecture comprises an IP audio server, IP audio endpoints, IP audio dispatch console, and IP audio dispatch app. The IP audio endpoints are hardware-based devices such as network speakers, network intercoms, network paging gateways, network power amplifiers, network microphone consoles, network panic buttons, and IP phones. The IP audio dispatch console, installed on a computer, and the IP audio dispatch app, compatible with both Android and iOS, are software-based components.

The IP audio server can be deployed on a computer, in the cloud, or through our dedicated IP audio server, the IAS-L100, for on-premises setups. The solution is designed to operate seamlessly over standard intranet or internet networks without requiring specialized equipment or cabling, as shown below.



Solution Features



Background Music

By using ZYCOO IP Audio Solution, users can easily create music playlists with any desired music file combination, then play background music by choosing a specific music playlist for a particular device or group. The stop, volume control, previous/next track features are all supported.



IP PBX Features

Besides the full-featured public address system, ZYCOO IP Audio Solution also has IP PBX features enabled, such as digital receptionist, inbound control, outbound control, click to page, call monitor, call whisper, call split, and so on. Furthermore, users can integrate standard SIP trunking into the system to achieve the outbound features, with no upper limit on the number of SIP trunks.



Video Intercom & Video Linkage

ZYCOO IP Audio Solution can provide video intercom and video linkage features. For example, network video intercom VI-V05 has a built-in HD camera that provides direct video calls. For all of the VI Series, external IP cameras with RTSP support can be integrated with the IP Audio Center. By simply inputting the camera's RTSP address, the system fetches the real-time stream when an intercom call is initiated.



Unlimited Paging Groups

Expansion of the paging zone when using the analog system can be difficult and costly. Users can create an unlimited number of paging zones to achieve zone-based paging, emergency alarms, background music, etc.



Dispatch User Privilege

ZYCOO IP Audio Solution supports an unlimited number of dispatch users, and more than one dispatch user can access the same paging group. With the flexibility of group permission and access level control, the administrator can easily assign different levels of authority to dispatch users. Each dispatch user can operate separately without interfering with other dispatch users, including paging, music broadcasting, conferencing, etc.



Multiple Task Types

By using the ZYCOO IP Audio Solution, users are provided with four types of tasks: immediate, timetable, dial-number, and one-click. The immediate task is triggered instantly once it is set. Timetable tasks can be scheduled to play repeatedly within a specified time range. The dial-number task is a preset task that allows users to configure background music, notifications, etc., and trigger it by dialing a number from a phone. The one-click task enables instant activation via the dispatch console's icon button.



No Server Needed

All ZYCOO IP Audio Solution's devices support Multicast and Peer-to-peer (P2P) to share data between devices without the need for a central server. While the devices are used in the same local network, multicast can distribute a single copy of data to an entire group of devices to achieve the broadcasting and paging features. In contrast, P2P provides the ability to call from a single device to another, achieving the feature.



Standard SIP

ZYCOO combines its years of experience in developing communication products, constantly innovates and breaks communication barriers, and integrates different communication products such as telephone, broadcasting, and intercom into the IP Audio Solution. Based on the standard SIP protocol, ZYCOO IP Audio Solution is compatible with third-party endpoints or system products.

S Series Network Speaker



SC10 Network Ceiling Speaker



SC15 Network Ceiling Speaker



SW15 Network Cabinet Speaker



SH10 Network Horn Speaker



SH30 Network Horn Speaker

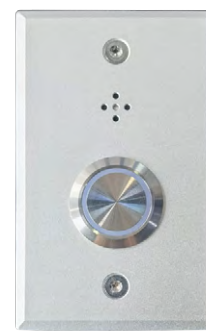


SL30 Network Column Speaker

ZYCOO SC10&SC15 Network Ceiling Speaker and SW15 Network Cabinet Speaker are highly efficient, SIP-enabled speakers with full-range driver units. They are specially designed for indoor applications to deliver premium sound quality and deliver an exceptional listening experience.

SH10 and SH30 are SIP-enabled horn speakers that provide exceptional voices for SIP paging, notification/tone broadcasting, and background music. They are suitable to be deployed in outdoor and other open spaces for public notifications and public safety purposes.

The SL30 Network Column Speaker supports PoE+ and covers a wide frequency band to provide high sensitivity, beautiful sound, and a unique listening experience for listeners. Additionally, the IP65-rated enclosure makes the SL30 perfect for any outdoor environment.



The ZYCOO EA-B11 Call Button with Microphone is an expansion accessory that integrates a microphone and an illuminated LED button. When connected to designated models of ZYCOO network speakers, users can press the call button to dial a pre-configured destination number for two-way communication.



SIP Protocol



ONVIF



PoE



Built-in Amplifier



HD Voice



Auto Provisioning

	SC10 Network Ceiling Speaker	SC15 Network Ceiling Speaker	SW15 Network Cabinet Speaker	SH10 Network Horn Speaker	SH30 Network Horn Speaker	SL30 Network Column Speaker
Speaker Component	4" woofer unit + 1" tweeter unit	5.25" woofer unit + 1" tweeter unit	5.25" woofer unit + 1.5" tweeter unit	1.5" midrange driver unit	2" midrange driver unit	2* 3.25" woofer units + 1" tweeter unit
Power Input	PoE IEEE 802.3at or DC 12V-2A	PoE IEEE 802.3at or DC 24V-2A	PoE IEEE 802.3at or DC 24V-2A	PoE IEEE 802.3af/at or DC 24V-1A	PoE IEEE 802.3at or DC 24V-2A	PoE IEEE 802.3at or DC 24V-2A
Rated Power	8Ω 10W	8Ω 15W	8Ω 15W	8Ω 15W	8Ω 30W	4Ω 30W
Sensitivity	90dB/1m/1W	85dB/1m/1W	85dB/1m/1W	105dB/1m/1W	105dB/1m/1W	82dB/1m/1W
Max Sound Pressure Level	100dB	100dB	100dB	115dB	117dB	97dB
Frequency Range	70Hz – 20KHz	70Hz – 20KHz	70Hz – 20KHz	400Hz – 8KHz	400Hz – 8KHz	100Hz – 20KHz
IP Rating	/	/	/	IP66	IP65	IP65
Dimension	Ø150*205(mm)	Ø240*210(mm)	240*180*150(mm)	Ø220*235(mm)	Ø276*277(mm)	100*100*331(mm)
Weight	1.4KG	3.45KG	3.29KG	2KG	2.68KG	2.5KG

S Series Network Speaker



SQ10-B Network Square Speaker



SQ10-T Network Square Speaker

SQ10 Network Square Speaker is an indoor wall-mounted IP speaker, available in two models: SQ10-B and SQ10-T. Both models are equipped with a built-in microphone, allowing operators to engage in two-way communication.

Additionally, SQ10-T model features a programmable LCD screen that displays the date and time when in standby mode, eliminating the need for a separate clock system. SQ10-T also supports customizable text display for daily notifications, announcements, and alerts in emergencies. Its display-flashing feature enhances visibility, ensuring that important information is noticed promptly. This makes it ideal for use in business, education, healthcare, and other scenarios.



SIP Protocol



ONVIF



PoE



LCD Clock



Customizable Display Text



AI Voice Recognition

	SQ10-B Network Square Speaker	SQ10-T Network Square Speaker
Speaker Component	4.5" Full Range Driver Unit	
Power Input	PoE IEEE 802.3at or DC 24V-2A	
Rated Power	8Ω 10W	
Sensitivity	91dB/1m/1W	
Max Sound Pressure Level	101dB	
Frequency Range	70Hz~20KHz	
Display	/	1920*480 High Resolution Color LCD Display
Dimension	300*300*92(mm)	
Weight	3.25kg	3.5kg

VI Series Network Intercom



VI-A05
Network Intercom



VI-V05
Network Intercom



VI-D05
Network Intercom

The ZYCOO VI Series Network Intercom is a rugged, vandal-proof device, available in three models: the audio model VI-A05, the video model VI-V05, and the dual-button model VI-D05. VI Series supports PoE and offers flexible installation options, including wall-mounting and flush-mounting (compatible with standard 2-Gang electrical boxes).

In access control and emergency call scenarios, visitors can establish two-way communication with the operator simply by pressing the call button. The operator can remotely grant access via telephone keypad. Additionally, the VI-V05 provides high-definition video calls, while the VI-D05 is equipped with dual buttons that can be configured for different call destinations to meet diverse communication needs.

All models in the VI Series are equipped with a tamper alarm mechanism. If the device is forcibly removed, a built-in buzzer will sound, which can trigger an alert to security personnel for immediate response.



SIP Protocol



ONVIF



PoE



Vandal-Proof



Tamper Alarm



Access Control

	VI-A05 / VI-D05 Network Intercom	VI-V05 Network Intercom
Power Input	PoE(IEEE 802.3af/at)	
Rated Power	4Ω 5W	
Speaker Sensitivity	96dB ± 3/1m/1W	
THD(@1kHz)	<1%	
SNR(20kHz BW)	97dB	
Frequency Response	100Hz - 20KHz	
Microphone Sensitivity	-36 ± 3dB	
Video Resolution	/	1920*1080
Dry Contact Output Connectors	1 x 2-Pin Phoenix Connector	
Mounting	Flush-mounted or Wall-mounted Installation	
Enclosure Protection	IP66, IK10	
Dimension	114*114*40 (mm)	
Weight	284g / 296g	294g

IPS-M1 Network Speaker



Network Multi-Info Speaker
IPS-M1-D2W

The ZYCOO IPS-M1-D2W Network Multi-Info Speaker is an IP-based communication endpoint that integrates audio broadcasting, dual-sided visual display, and strobe light alerting into a single device. Built on SIP and multicast technologies, it is designed for environments that require clear voice communication and high-visibility visual alerts.

The IPS-M1-D2W features a dual-sided LCD display, allowing synchronized content to be presented on both sides simultaneously for effective visual notification. It also supports configurable text, background colors, and linked strobe light profiles to enhance awareness during both routine notifications and emergency alerts. It also supports Wi-Fi connectivity for wireless data transmission and can work with BLE-based wearable smart buttons to enable rapid emergency triggering with coordinated responses.

The IPS-M1-D2W is PoE+ enabled, simplifying installation while supporting flexible mounting options, including wall and ceiling mounting. It is well-suited for use in education, healthcare, transportation, commercial facilities, and public safety applications, delivering an integrated audio-visual communication experience.



SIP Protocol



ONVIF



PoE



LCD Clock



Customizable
Display Text



Strobe
Linkage

	IPS-M1-D2W Network Multi-Info Speaker
Speaker Component	Two Full Range Driver Units
Power Input	PoE+ (IEEE 802.3at) or External Power via 2-Pin Phoenix Connector
Sensitivity	88dB/1m/1W
Max Sound Pressure Level	98dB
Frequency Range	200Hz ~ 20kHz
Display	Two High Resolution Back-Lit Color LCD Displays
Strobe Light Color	Red, Green, Blue
Dimension	17.7" x 5.1" x 6.1" (450mm x 130mm x 155mm)
Wi-Fi Standard	IEEE 802.11 a/b/g/n/ac/ax
Bluetooth	Bluetooth 5.0 (compatible with v2.1 / v3.0 / v4.2), BLE Supported
Weight	3kg (with Mounting Bracket)

SD Series Network Power Amplifier



SD260
Network Power Amplifier



SD2140
Network Power Amplifier

The ZYCOO SD Series Network Power Amplifiers, comprising the SD260 and SD2140, are purpose-built for commercial audio applications, leveraging advanced Class-D amplification technology to deliver crystal-clear audio and outstanding reliability.

Both models support constant voltage and constant impedance speaker configurations. The SD260 delivers 2 × 60W or 1 × 120W (bridged), while the SD2140 offers higher output at 2 × 140W or 1 × 280W (bridged). Each model features a versatile range of inputs, including balanced/unbalanced line, Bluetooth, and network sources. With compatibility for SIP, Dante, and ONVIF protocols-no additional modules required-they offer a comprehensive, feature-rich solution.

Additionally, the amplifiers are equipped with a real-time adjustable mixer, an equalizer, and support scheduled playback via USB storage devices, making them ideal for scalable, intelligent audio deployments.



SIP Protocol



Dante



Bluetooth
Audio Input



Event
Scheduler



Equalizer



Mixer

	SD260 Network Power Amplifier	SD2140 Network Power Amplifier
SNR	85dB(20KHz BW)	
THD+N(@1kHz)	0.05%	
Audio Output Power	<p>SE Mode:</p> <ul style="list-style-type: none"> @ 100V 2 x 60W @ 25V 2 x 60W @ 4Ω(Min) 2 x 60W <p>BTL Mode:</p> <ul style="list-style-type: none"> @ 100V Bridge 1 x 120W @ 75V Bridge 1 x 120W @ 25V Bridge 1 x 120W @ 8Ω(Min) Bridge 1 x 120W 	<p>SE Mode:</p> <ul style="list-style-type: none"> @ 100V 2 x 140W @ 25V 2 x 140W @ 4Ω(Min) 2 x 140W <p>BTL Mode:</p> <ul style="list-style-type: none"> @ 100V Bridge 1 x 280W @ 75V Bridge 1 x 280W @ 25V Bridge 1 x 280W @ 8Ω(Min) Bridge 1 x 280W
Audio Input	<p>Balanced: 2 x 3-Pin Phoenix Connectors Unbalanced: 2 x RCA Jacks Bluetooth: 1 x IPX1 External 2.4G Antenna(BT 5.3 Compatible) Network: 1 x RJ45 Connector</p>	
Dimensions	440*170*44(mm)	
Weight	2.75kg	

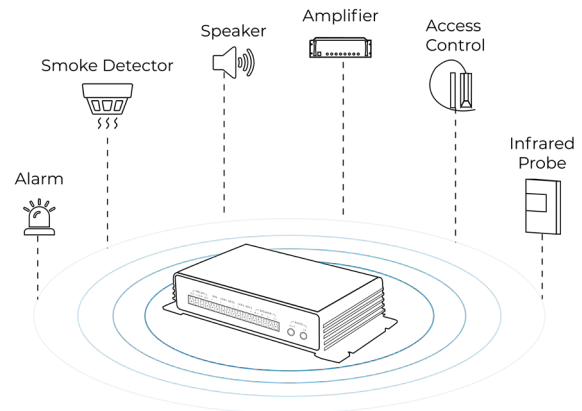
Network Paging Gateway



X10
Network Paging Gateway

The ZYCOO X10 Network Paging Gateway is a SIP enabled multifunctional intelligent IP voice communication terminal device. It converts IP voice signals to analog audio signals and plays them out through the user's optional speaker output to achieve broadcast or two-way intercom and other IP voice communication functions.

X10 supports access to sensors, sound and light alarms, door magnets, and other peripheral devices to achieve a level of automatic control, security, and other functions, which can be widely used for smart and safe city applications, to increase the efficiency of communication and information sharing, as a result, to improve public safety and citizen welfare.



SIP Protocol



ONVIF



PoE



Two-way Intercom



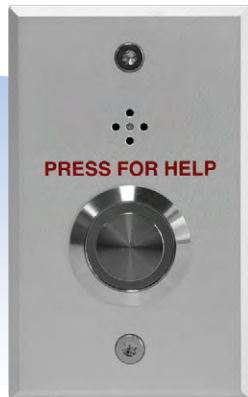
Peripheral Integration



IP-to-Analog

	X10 Network Paging Gateway
Audio Output	3.5mm Jack
Audio Input	3.5mm Jack(Microphone Only)
Power Input	PoE 802.3at on ETH0 or DC 12V-3A Jack
Volume Control	VOL+ and VOL-, press both to announce IP address
Ethernet	ETH0+ETH1, 10/100Mbps
Dry Contact	NO/NC contacts, max AC 125V-1A, DC 60V-1A
Audio Codecs	G.722, G.711 A-law, G.711 U-law, Opus
Music Streaming	MP3 sampling rate 8 – 48KHz, bit rate 64 – 320kbps, mono or Stereo

Network Panic Button/Network Volume Controller



PB-S11
Network Panic Button

The ZYCOO PB-S11 is a reliable network panic button designed for emergency and assistance calls. It supports silent alerts, up to 5 call destinations, automatic polling, customizable tones, PoE power, and flexible installation, making it ideal for schools, banks, hospitals, and service counters.



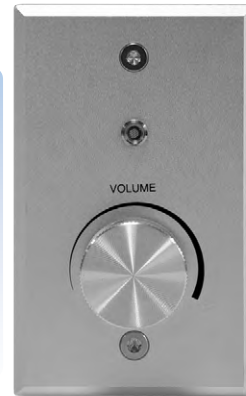
Failover Forwarding



Outgoing Call



Audio Message



VC-Z01
Network Volume Controller

The ZYCOO VC-Z01 is a compact network volume controller supporting real-time and scheduled volume adjustment via multicast. With auto-lock protection, PoE power, and flexible wall or flush mounting, it is ideal for classrooms, meeting rooms, offices, and hotels.



Infinite Knob



Automatic Lock



Event Scheduler

	PB-S11 Network Panic Button	VC-Z01 Network Volume Controller
Power Input	PoE (IEEE 802.3af/at)	PoE (IEEE 802.3af/at)
Microphone Sensitivity	-36±3dB	/
Mounting	Flush-mounted or Wall-mounted Installation	Flush-mounted or Wall-mounted Installation
Ethernet	10/100Mbps Adaptive	10/100Mbps Adaptive
Enclosure Protection	IP66, IK10	IP66, IK10
Dimension	114*70*40(mm)	114*70*40(mm)
Weight	208g	210g

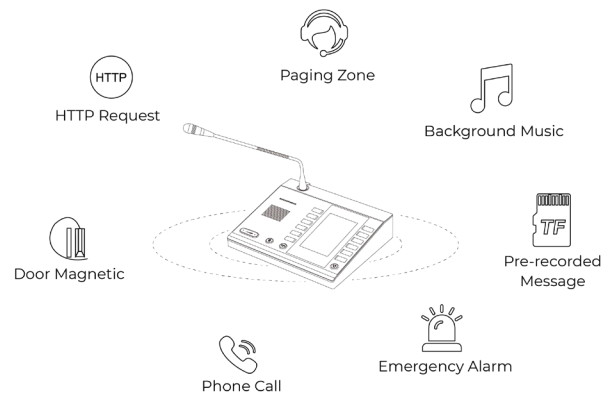
Network Dispatch Microphone Console



M100

Network Dispatch Microphone Console

The M100 Dispatch Microphone Console is a versatile and high-performance SIP-enabled device for seamless communication. It features 30 programmable fast keys that can be used for paging, intercom, music playback, outbound phone calls, and emergency alarm activation. With multicast and peer-to-peer technology, it serves as a standalone serverless console for individual and group paging, internal calls, and more. The console also allows users to save music and prerecorded messages in the local storage TF card, ensuring reliable and efficient communication capabilities.



SIP Protocol



PoE



Server-less
Paging



Event
Scheduler



TF-Card



Peripheral
Integration

	M100 Network Dispatch Microphone Console
TF Card	32GB
Power Input	DC 12V 1A or PoE IEEE 802.3af/at
Speed Dial Key	10 physical buttons (Use with the screen, support 10*3 rows of programmable buttons)
RS485	Half duplex
Speaker Max Sound Pressure Level	100dB
Speaker Sensitivity	95±3dB / 1W / 1m
Gooseneck Microphone Max Sound Pressure Level	110dB
Gooseneck Microphone Sensitivity	36±2dB
LCD Display Size	4.3 inches
LCD Display Resolution	480p*272p
Dimension	210*190*46(mm)
Weight	1.2KG

IP Audio Server



IAS-L100
IP Audio Server

The IAS-L100 is a hardware server pre-installed with the ZYCOO IP Audio Center system, providing a ready-to-use, out-of-the-box solution. It can be used with ZYCOO speakers, intercoms, paging gateways, and other equipment to realize IP audio endpoints auto-provisioning and centralized management, mass notifications, background music, audio & video intercom, emergency broadcasting, audio conferencing, IP phone calling, and more. In addition, with the use of SIP protocol, it supports third-party SIP-enabled endpoints and SIP system integrations.



HD Music

Supports 320Kbps high-quality MP3 files and streaming media. Users can click to play music or schedule automated playback. Additionally, playing different music in different zones is supported.



SIP Paging

Supports multiple methods for live paging. Users can dial a single device or group number from an IP phone or SIP microphone, or use the ZYCOO IP Audio Dispatch Console to trigger paging with a single click.



Auto Provisioning

Using the MQTT IoT protocol, the IP Audio Center can auto-provision, manage, and control local or remote ZYCOO IP audio endpoints within one single system.



SIP Trunk

The IP Audio Center supports SIP trunks for integration and as a result, inbound and outbound phone calls are supported.



Video Linkage

IP cameras with RTSP support can be integrated with the IP Audio Center. Simply inputting the camera's RTSP address, and the system fetches the real-time streaming when an intercom call is initiated.



Audio Conferencing

ZYCOO IP Audio Center supports audio conferencing, and it can manage the conference using the IP Audio Dispatch Console. Options to invite, mute/unmute, and remove participants are supported.

	IAS-L100 IP Audio Server
SIP Endpoints	100 (Max)
CPU	2.41GHz Intel Processor
RAM	4GB DDR3L
Storage	16GB EMMC + 240GB SSD
Ethernet Interface	2 x 10/100/1000Mbps
USB Interface	1 x USB3.0 + 1 x USB2.0
Rated Power	100~240V/50Hz
Dimension	440*232*44.5(mm), Standard 1U Rack
Weight	3.00KG

Software

○ IP Audio Center

• ZYCOO IP Audio Center is the engine of ZYCOO IP Audio Solution. It is a software solution which can be installed on dedicated hardware or cloud- based servers.



- The IP Audio Center manages all IP audio endpoints, including network speakers, intercoms, IP phones, SIP paging gateways, etc. Paging groups (zones), paging schedules, intercom calls, meetings, music/audio files are also managed by the IP Audio Center.
- For simplified control and distributed management, the IP Audio Center provides integration with ZYCOO IP Audio Dispatch Console and the IP Audio Dispatch App for users to manage different paging groups (zones) with different IP audio applications.

Key Features and Specifications

SIP Accounts	4000 (Max)
Simultaneous Calls	500 (Max)
Simultaneous Conference Attendees	500 (Max)
SIP Paging	500 (Max)
MP3 Files	Unlimited
Playlists	128(Max)
Triggered Paging Tasks	Unlimited
Paging Groups (zones)	Unlimited
Recording Time	Unlimited (Wav format, 1MB/min)

○ IP Audio Dispatch Console

• ZYCOO IP Audio Dispatch Console is a multi-platform (Windows, MacOS and Linux) application dedicated for ZYCOO IP Audio Solution dispatch users.



- With the IP Audio Dispatch Console, dispatch users can broadcast background music, make live SIP paging, create scheduled paging tasks, start and manage audio conference calls, initiate emergency broadcast, monitor IP audio endpoints status and more.
- Multiple dispatch user login is supported and they can work separately without interfering with each other's paging zones. This feature makes the distributed multi-site IP audio system possible.

Key Features and Specifications

Endpoints Status Monitoring	Supported
Paging	Supported
Alarm	Supported
Alarm List	Supported
Text-to-Speech (TTS) Paging	Supported
Prerecorded Message Paging	Supported
Volume Control	Supported
Tasks	Supported
Music Player	Supported
Log	Supported
Intercom	Supported
Meeting	Supported
Video Intercom Window	Supported

○ IP Audio Dispatch App

• IP Audio Dispatch App is a simple and easy to use mobile application developed for ZYCOO IP Audio dispatch users. The APP allows users of iPhone or Android based devices a mobile alternative to the PC based dispatch console.



- With the IP Audio Dispatch App, background music, pre-recorded message paging, emergency broadcasting and IP audio endpoint status monitoring can be configured and maintained.
- IP Audio Dispatch App is perfect for users who are on the go. It allows users to do the work instantly anywhere and any time.

Key Features and Specifications

Endpoints Status Monitoring	Supported
Paging	Supported
Alarm	Supported
Alarm List	Supported
Text-to-Speech (TTS) Paging	Supported
Prerecorded Message Paging	Supported
Volume Control	Supported
Tasks	Supported
Music Player	Supported
Log	Supported

IP Audio Solution for Schools

ZYCOO IP Audio Solution for Schools provides a unified platform for daily announcements, scheduled bell ringing, paging, emergency alerts, intercom, visual notifications, and silent alarms. Designed for campus-wide communication and safety, the system ensures timely, efficient, and reliable audio-visual messaging across all school areas.



Emergency alerts for incidents or natural disasters



Intercom communication with the security room in emergency



Paging individuals from the broadcast room



Making announcements and notifications in playgrounds or academic buildings



Scheduling bells for daily classes



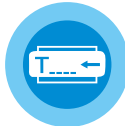
Playing soothing music during activities

IP Audio Solution for Hospitals

ZYCOO IP Audio Solution for Hospitals enables clear and efficient communication across medical facilities, supporting daily announcements, paging, emergency alerts, intercom, scheduled notifications, and remote access control for critical areas. Designed for reliability and responsiveness, the system enhances hospital operations, patient safety, and staff coordination.



Emergency communication for inpatients



Visual notifications in the outpatient lobby



Broadcast instructions in the patient areas



Schedule timetable-triggered tasks to broadcast routine announcements



Remote access control to enhance the safety of entry and exit in critical areas



Play soothing music in the rehabilitation areas

DELIVERING INNOVATIVE IP COMMUNICATION SOLUTIONS WORLDWIDE



ZYCOO Communications LLC

www.zycoo.com

zycoo@zycoo.com