



SIP & IP

Audio Solutions

Seamless communication
solutions via **SIP/IP-based
networked audio systems**

What is “SIP”

One may wonder “what is SIP?” or what are its benefits in comparison to pre-existing systems. Session Initiation Protocol, in essence, it is a signaling protocol that utilizes Voice Over Internet Protocol (VoIP) to send messages and data between endpoints. This protocol is text-based, incorporating aspects of Hypertext Transfer Protocol to deliver specified “payloads” to desired endpoints, either collectively or individually. SIP supports voice calls, video conferencing, instant messaging, and media distribution, and through it more detailed and data-rich content can be shared without undesirable compression or delays.



SIP vs IP

SIP serves as a solution to address the continually evolving needs of IP-based communications. While IP allows for communication via the internet, SIP serves as the level above. SIP allows for fast, efficient communication between devices with the added benefit of multiple media types. Both SIP and VoIP allow you to transfer voice information to and from your computer or mobile device.

Facility-wide Coverage with TOA

Here at TOA, we recognize the pivotal role that sound systems and audio play in our daily lives, whether through announcements and communications, security, or even atmosphere and music. Sound serves as one of the cornerstones of the human experience, this is why we’ve devoted nearly a century’s worth of experience, research, and engineering towards creating sound solutions that elevate users’ lives.

With so many aspects of a facility requiring modern sound systems, compatibility and ease of use become yet another challenge for facility managers and operators to tackle. To face these challenges, we’ve developed an expansive catalog of interconnected audio components to ensure each facility—irrespective of size or scale—has a bespoke modern audio system that is reliable, compatible, and provides efficient sound coverage, all whilst delivering the same high-quality sound that is synonymous with our brand.



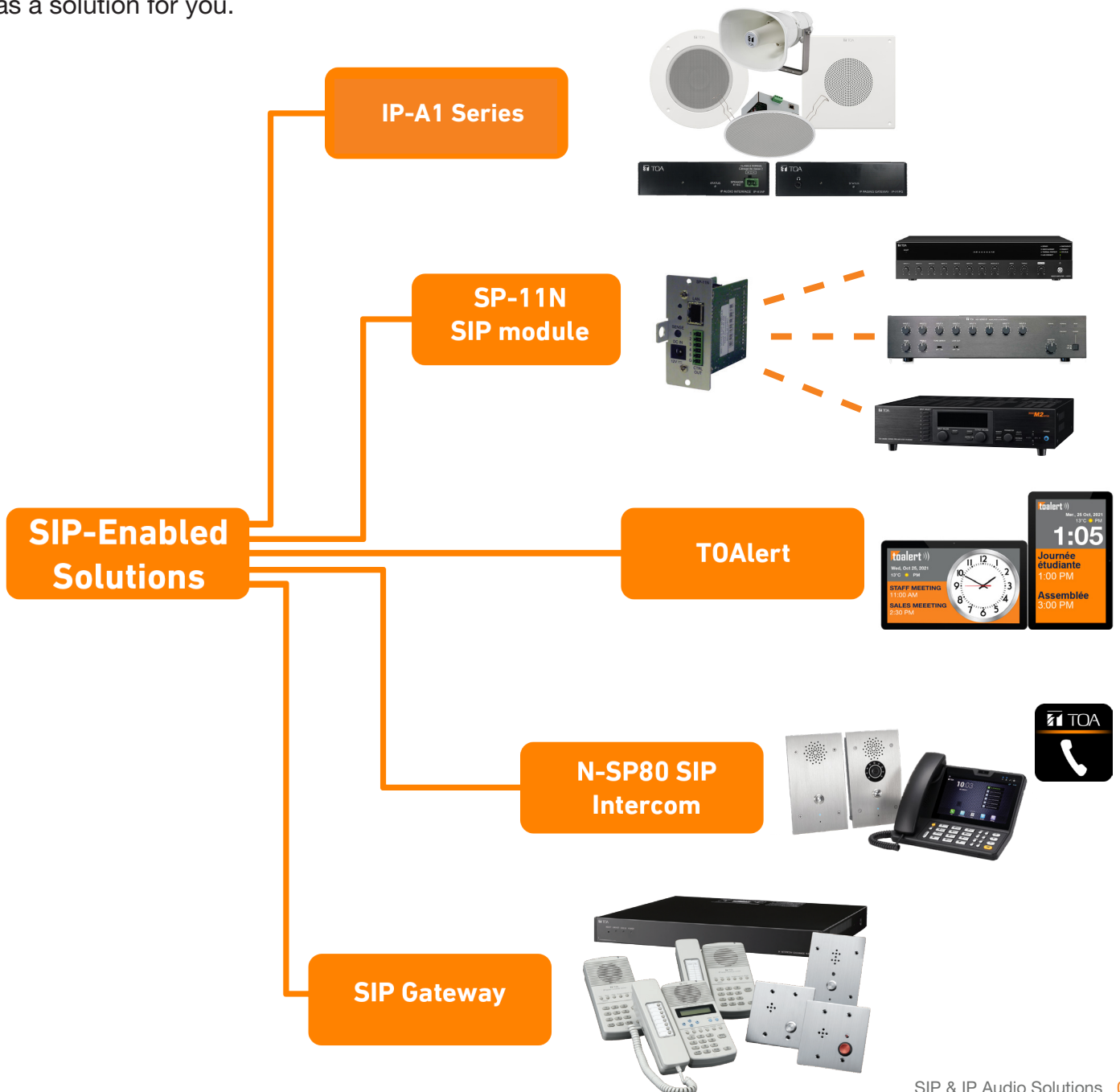
SIP-Enabled Sound Solutions

TOA provides a wide variety of SIP-enabled products for a variety of typical facility needs and functions, including: paging, announcements, voice evacuation, mass notification, access controls, BGM/FGM, and tailoring user/attendee experience. With all these available options, TOA serves a single manufacturer solution for complete sound solution, meaning that integrators are assured that compatibility and configuration challenges are a thing of the past.

TOA's SIP-Enabled Setup

At TOA, there is a major focus on being able to provide an end-to-end audio solution for our clients, and as time progresses and trends change, we aim to be able to provide modern solutions fit for a broad range of facilities and applications. As such, we've consistently be iterating on scalable SIP systems that enable integrated communication throughout a facility. We're happy to confidently present the culmination of integrated area-specific distribution or facility-wide communication networks, ranging from small-scale SIP systems, all the way up to large scale SIP systems for complex-es and applications that require distributed audio.

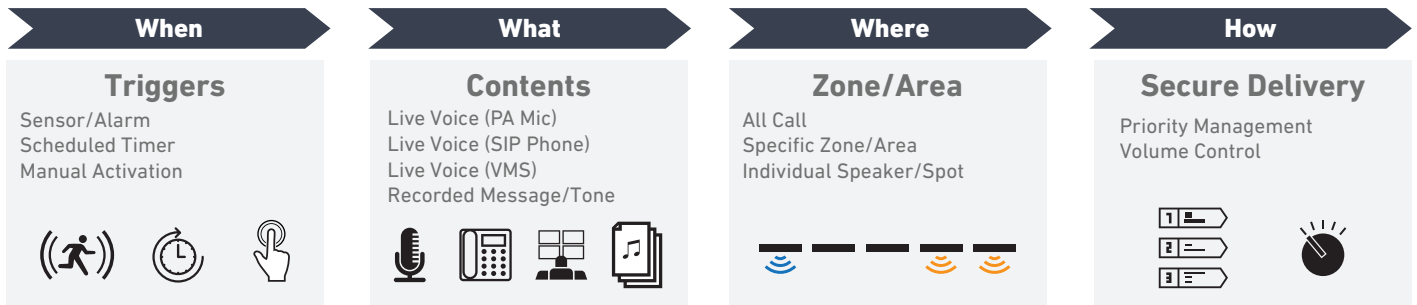
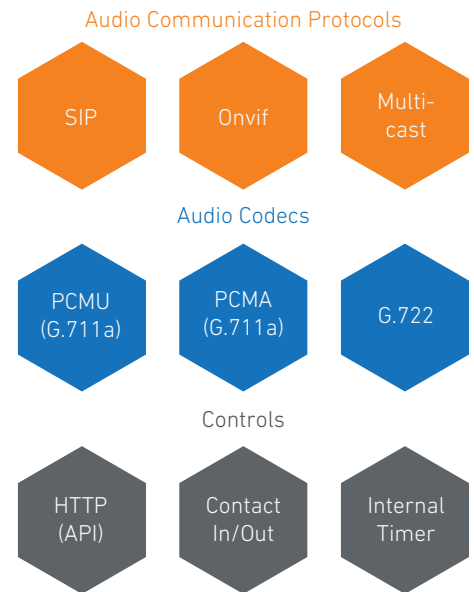
We supply a large range of audio and visual solutions for applications of all types, whether you'd like to iterate upon your existing SIP-enabled system, or develop a solution with our design team, TOA has a solution for you.



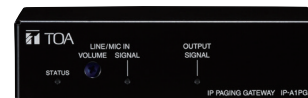
IP-A1 Series

IP-A1 series consists of a variety of commercial-grade IP audio solutions, which can be used either as an independent audio system, or serve as a fully integrated audio communication system. The series is configurable and operatable in conjunction with external SIP systems/platforms such as security video monitoring, access control, digital signage, or fire alarm systems.

Our IP-A1 series adopts common industrial standard protocols for its audio communications and controls, allowing not only for easy integration, either by only utilizing IP-A1 components, or with external devices and platforms such as SIP phones, security VMS (Video Management Software), or even access Control or Sensing systems. When it comes to modern audio solutions, incorporating IP-A1 devices into your commercial communication system allows for flexible audio communications across your network.



IP-A1 Lineup



Receiver
IP Ceiling Speaker
IP-A1PC238



Receiver
IP Horn Speaker
IP-A1SC15



Receiver
IP Ceiling Mount Speaker
IP-A1PC580R



Receiver
IP Speaker
IP-A1PC580S



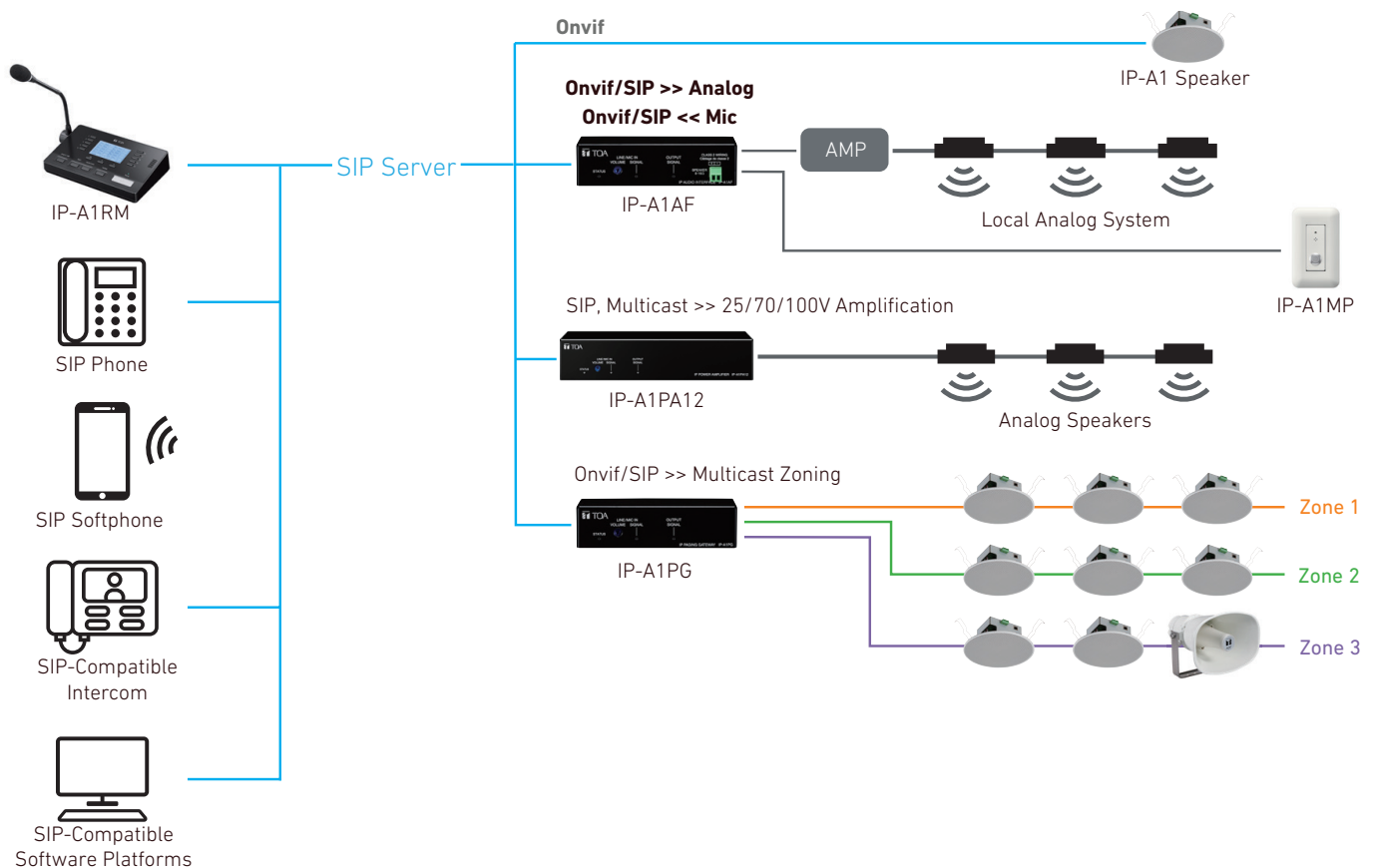
Accessory
Microphone Panel
IP-A1MP



Transmitter
Receiver
IP Horn Speaker
w/ Microphone
IP-SC15MC



IP-A1 Series Example



IP-Based Intercom

We're proud to be able to supply users with a variety of IP solutions for intercom and access control applications. Whether its a project that requires immense scalability, or systems that require authorized users straightforward entrance and denial functionality, TOA ensures that safe and secure daily operations are easy.

Our N-8000 IP Intercom System is an integrated audio communication system achieves fast, accurate communications with optimal security and reliability. Prime applications for the N-8000 include: conversation, paging broadcasting and BGM broadcasting, emergency paging and broadcasting, audio triggering, and other security functions. The N-8000 System's impressivescalabilityenablesuserstoconfigure an intercom system that satisfies their precise requirements, from a small system with just two stations to a large, complex system with up to 192 components and 3,072 stations. Its open architecture permits flexible interfacing with other systems, moreover, reducing costs by enabling users to upgrade and expand their intercom system without replacing currently installed equipment, such as surveillance cameras, telephones and access controls.



N-8000 Lineup

Transmitter

Multifunctional
Master Station
N-8000MS



Transmitter

Standard
Master Station
N-8010MS



Transmitter

Standard Hands-
Free Master Station
N-8011MS



Transmitter

Analog Standard
Master Station
N-8410MS



Transmitter

IP Multifunctional
Master Station
N-8600MS



Transmitter

Industrial-Use
Master Station
N-8020MS



Transmitter

IP Door Station
N-8640DS



Transmitter

IP Door Station
Q-N8640DSB



Transmitter

IP Door Station
N-8650DS



Transmitter

Door Station
N-8050DS



Transmitter

Flush-Mount Hands-
Free Master Station
N-8031MS



Transmitter

Flush-Mount
Master Station
N-8033MS



Transmitter

IP Door Station
Board Unit
N-8640SB



Transmitter

Master Station
Board
N-8031SB



Transmitter

Door Station
Board
N-8050SB



Transmitter

IP Remote
Microphone
N-8610RM



Transmitter

Handset
RS-141



Transmitter

Handset
RS-191



Transmitter

Handset
RS-481



Transmitter

Switch Panel
RS-140



Transmitter

IP Intercom
Switch Panel
RS-143



Transmitter

IP Intercom
Switch Panel
RS-144



Transmitter

Sub-station
(Indoor Type)
RS-150



Transmitter

Sub-station
(Indoor Vandal-
Resistant type)
RS-160



Transmitter

Sub-station
(Outdoor Vandal-
Resistant Type)
RS-170



Transmitter

Sub-station
(Emergency Use)
RS-180



Transmitter

Substation
Q-RS180BZ



Transmitter

Sub-station
(Indoor Type)
RS-450



Transmitter

Sub-station
(Indoor Vandal-
Resistant type)
RS-460



Transmitter

Sub-station
(Outdoor Vandal-
Resistant Type)
RS-470



Transmitter

Sub-station
(Emergency Use)
RS-480



Interface

SIP Gateway
N-8000SG2



Interface

Audio Interface Unit
N-8000AF



N-8000 Lineup Continued

Interface

Telephone Interface Unit
N-8000AL



Interface

C/O Interface Unit
N-8000CO



Interface

Direct Select Unit
N-8000DI



Interface

IP Network Intercom Exchange
N-8000EX



Interface

Multi Interface Unit
N-8000MI



Interface

Sub-station Interface Unit
N-8000RS



Interface

IP Network Intercom Exchange
N-8010EX



Interface

Sub-station Interface Unit
N-8010RS



Interface

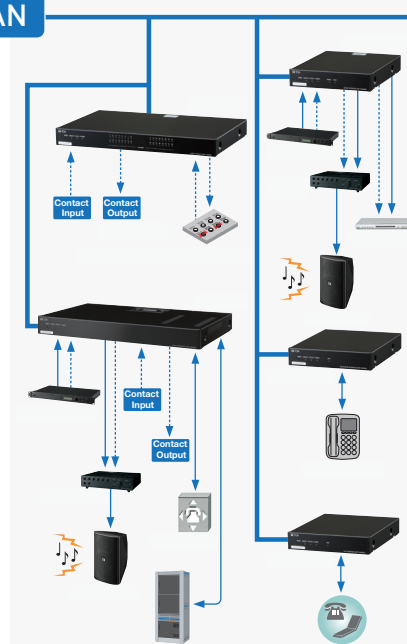
Sub-station Interface Unit
N-8400RS



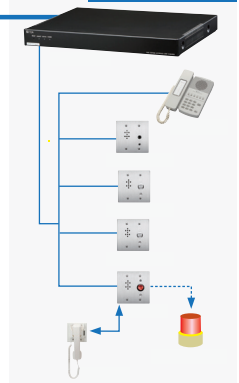
Direct Network Connection



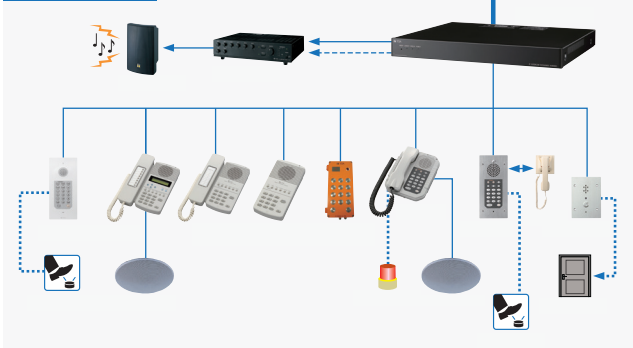
LAN/WAN



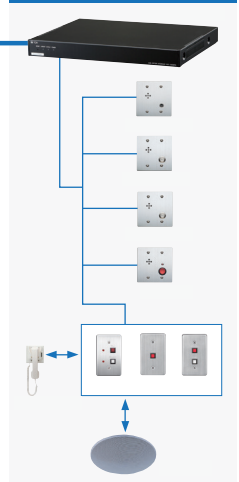
4-Wire Connection



2-Wire Connection



2-Core Shielded Wire Connection



System Specifications

LAN Connections

Max. 192 units (total no. of Exchanges, Interface Units and IP stations)

Station Connections

Max. 3,072 stations (16 stations connected to each of 192 Exchanges)

Voice Links

Max. 768 links (4 links for each of 192 connected N-8000EX Exchanges)

Paging

Zones
Max. 192 zones

Paging Outputs

Max. 384 outputs (2 outputs for each of 192 connected N-8000 Exchanges or Multi-Interface units)

BGM

Max. 8 channels (number of channels selectable from a station)

PBX Interface

Max. 384 units (2 units for each of 192 connected Multi-Interface units)

Tie-Line Interface

Max. 384 units (2 units for each of 192 connected Multi-Interface units)

Outside-Line Interface

Max. 192 units

Telephone Interface

Max. 192 units (when 192 Telephone Interface units are connected)

External Contact Output

N-8000MI
Max. 3,072 (16 outputs for each of 192 connected Multi-Interface units)

N-8000DI
Max. 6,144 (32 outputs for each of 192 connected Direct Select units)

N-8000AF
Max. 1,536 (8 outputs for each of 192 connected Audio Interface units)

External Contact Input

N-8000MI
Max. 3,072 (16 inputs for each of 192 connected Multi-Interface units)

N-8000DI
Max. 6,144 (32 inputs for each of 192 connected Direct Select units)

N-8000AF
Max. 1,536 (8 inputs for each of 192 connected Audio Interface units)

[Network Relations]

Audio Delay Time
80 ms/320 ms; changeable

Connection Delay Time
Max. 1 second (when 191 multicast paging destinations are set)

Bandwidth Used
Max. 2.08 Mbps (one-way)/unicast paging to 16 locations

Max. 130 Kbps (two-way)/per call

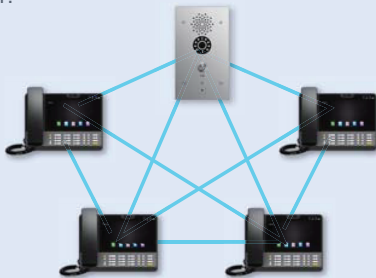
SIP Based Intercom

Conversely, our N-SP80 SIP intercom system takes a more modular and third party-compatible approach. Supporting high-quality audio and as well as video transmission. The device features easy unlocking operation that gives users simple an intuitive and straight-forward set of controls, making it ideal for installing at a building entrance, carpark gate, or other point of entry. With TOA, you're also assured of thorough after-sales service, ensuring the utmost quality whether its installation day or years after. With nearly a century of experience in the industry, we proudly serve as a specialist manufacturer of security and audio equipment serving customers in over 120 countries worldwide.



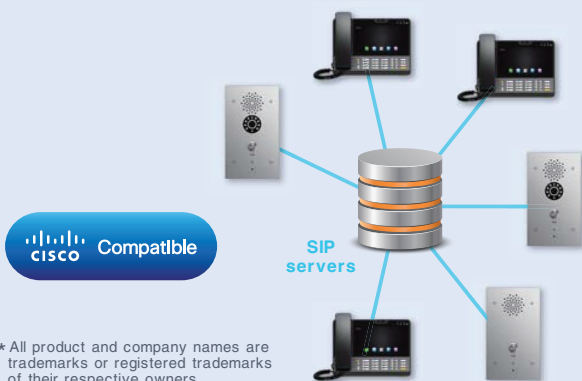
Supports peer-to-peer communication

Build a system with stations only—no need for an SIP server.



Compatible with variety of SIP servers

Where an SIP server is already in place, adding an N-SP80 station is easy. It's compatible with Cisco CUCM, Asterisk and Genetec Sipelia.*



Doors unlockable from master station keypad



N-SP80 Lineup

Master Station

SIP Multimedia Station
N-SP80MS2



Accessory

Heater Surface Mount
Back Box
YC-832HSW AM



Door Station

SIP Video Door station
N-SP80VS1



Accessory

Surface Mount
Back Box
YC-811-AM



Door Station

SIP Audio Door Station
N-SP80AS1



Accessory

4 Size Back Box
YC-400



App

N-SP80 Intercom
System Mobile App
N-SP80APP



Accessory

N-SP80MS2 Wall
Bracket
N-SP80WB2

**Coming
Soon**

Interface

Standalone PCB SIP
Board
N-SP80SB



SIP Integration Through the SP-11N Module

The SP-11N is a VoIP phone paging module supported SIP (Session Initiation Protocol) with Auto-answer function. It can be connected to an IP network and directly registered as one SIP phone station on various SIP server management software. It also has VOX and mute functions designed for use with TOA's 9000M2, 900, 700 and BG-2000 series amplifiers. Through this, TOA is able to provide an extended catalogue of sound solutions, now including amplifiers, speakers, and other TOA components that aren't already SIP-enabled. The SP-11N can be paired with the SP-11NRB standalone chassis. This chassis allows systems that do not support TOA's 900 series modules to take advantage of the capabilities of the SP-11N AM.



SIP Module
SIP Integration Module
SP-11N



Standalone Chassis
Standalone PCB SIP
Board
SP-11NRB

**Coming
Soon**

Expander
SP-11N Zone
Expansion Adapter
SP-11NEX

System Example



Visual Messages & Announcements With TOAlert

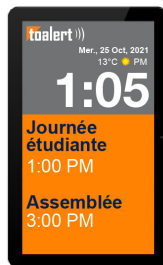


With TOAlert, you can easily manage and control daily events and emergency notifications, using preloaded message templates to create custom communications. Creating time-synchronized bells, audio tones, and notifications is achievable with the TOAlert scheduling tool. Deliver these tailored messages by room, floor, department, grade, or other desired layout. Use TOAlert to deliver clear and instant communications, exactly how you see fit.

TOAlert Lineup

Display

EverAlert Dynamic Full
HD Display
EADV2



Interface

EverAlert
Dynamic View
EABOX



Interface

Integration
Box
EAIV3



Accessory

Dynamic Display
Power Backup Kit
EABATKIT



Accessory

Dynamic Display Wall
Mounting Bracket
EASMB



TOAlert's communication system keeps people safe and secure, while saving time, money and complexity when managing organizational communications. It is the single solution that improves safety, connection and efficiency throughout a building or campus. Many industries have discovered the benefits of daily messaging, emergency notifications and synchronized time.





We supply sound, not equipment.



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