IP PA and Streaming System
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Agenda

- Introduction to IP Paging system

- Benefit of IP Paging System

- ProVu`s Product Range
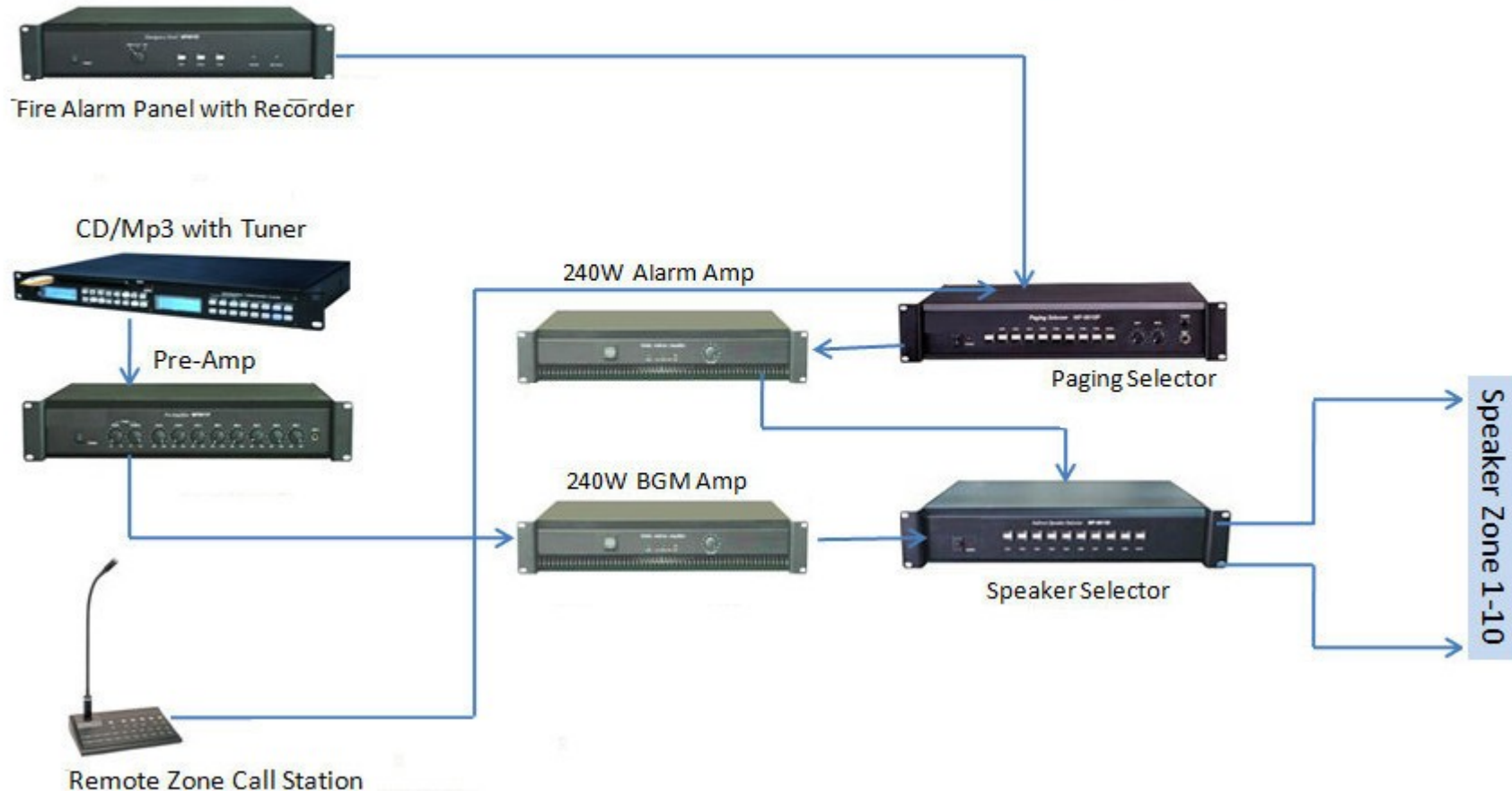
- Usage scenario

- Summary

- Questions

What is an IP Paging System

IP paging as the name suggests is a system which allows broadcasting a message across an entire organisation over IP network

Traditional paging systems have been proprietary, inflexible and difficult to manage. IP paging can be integrated with your VoIP platform and data networks
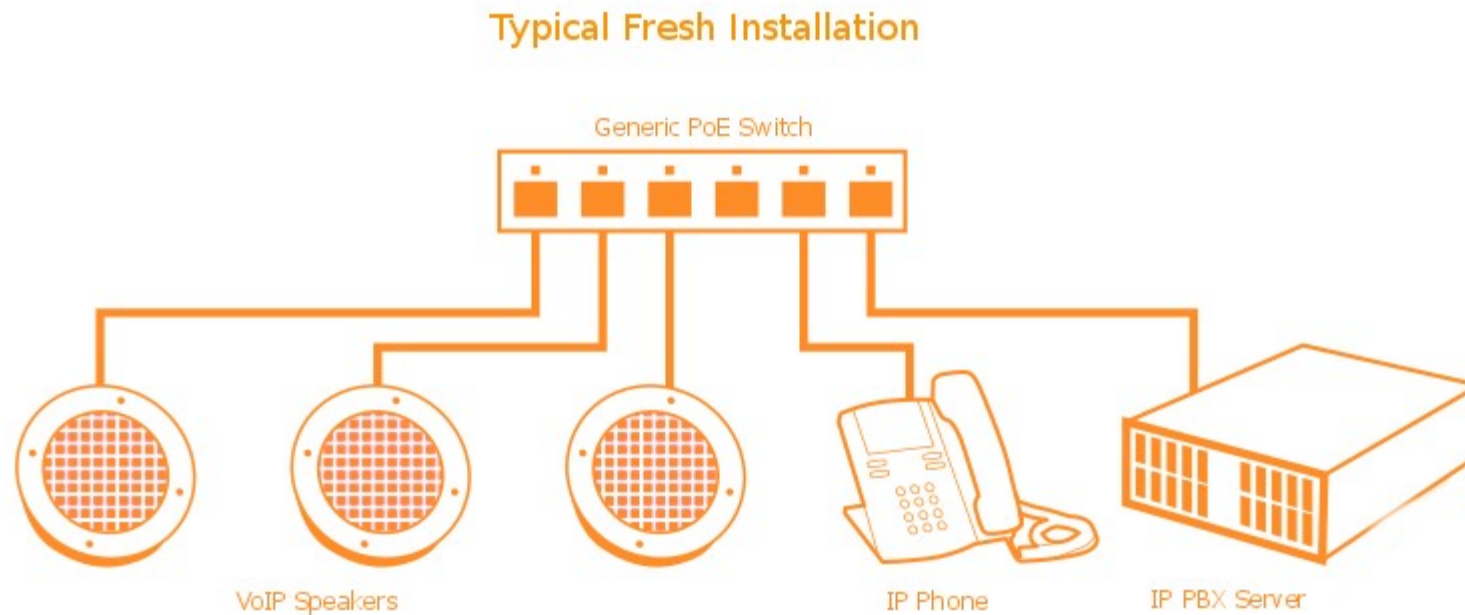
Example of Traditional systems

Public Address System with BackGround Music, Paging and Voice Alarm

Fire Alarm Panel with Recorder

CD/Mp3 with Tuner

Pre-Amp

240W Alarm Amp

Paging Selector

240W BGM Amp

Speaker Selector

Speaker Zone 1-10

Remote Zone Call Station

Typical IP Paging Installation

- A typical Paging system diagram can be seen below.
- As you can see simple installation
- Can be controlled by the VoIP PBX or Multicast paging

Typical Fresh Installation

Generic PoE Switch

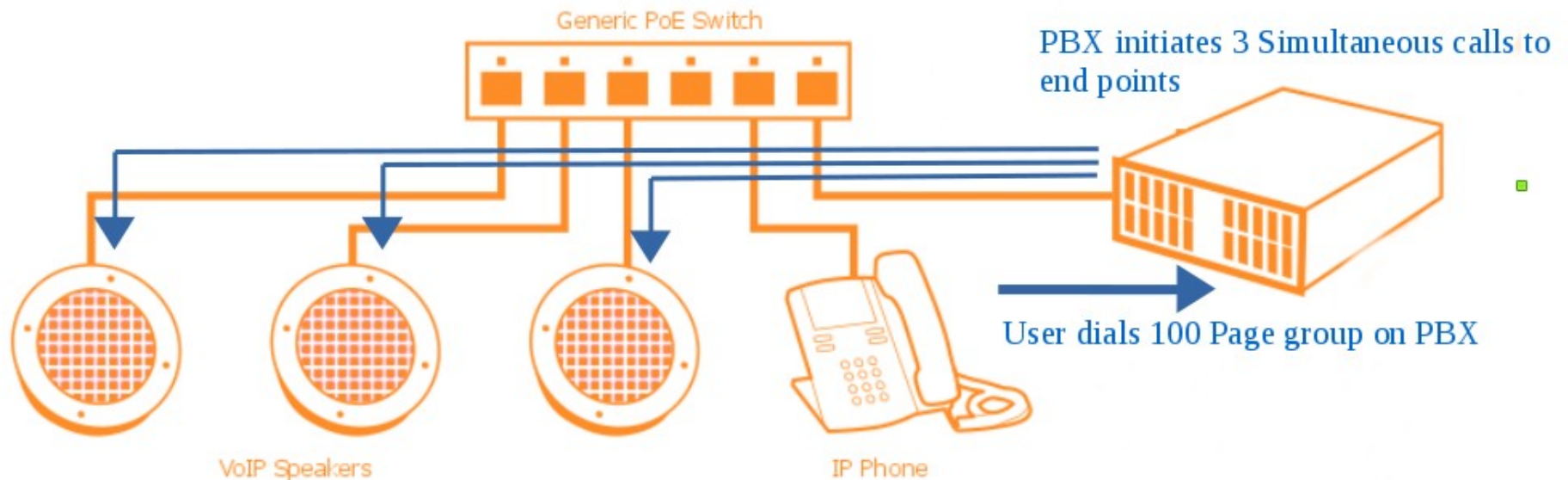VoIP Speakers   IP Phone   IP PBX Server

Benefits of IP Paging

- Central Management, monitoring and audio synchronization
- No limit on distance, IP system means you could be anywhere in the world and still make a page or manage the system
- Integration with existing analogue system and wide range of IP equipments including PBXs, IP intercoms, Alarm systems etc.
- IP networking allows you to converge all your communications systems in a single system i.e. Same IP phone for page and sip telephone calls
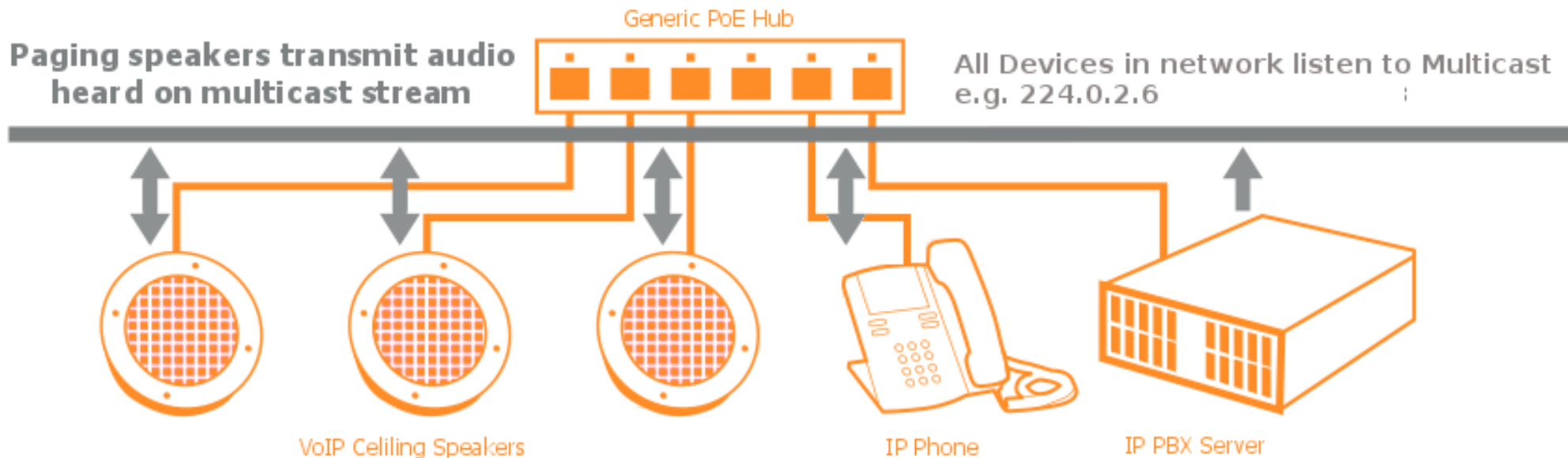
Type of IP Paging

Unicast Paging

Unicast IP Paging is delivered on a one to one basis or more commonly the IP PBX is the source for it. Generally you dial an extension or a page group on the PBX and PBX then set-up a page. The problem with this scenario is that it is hard on resources as PBX is initiating x amount of SIP calls to set-up the page

Type of IP Paging

Multicast Paging

Multicast paging achieves same results but without compromising any resources. Each endpoint is set-up with a multicast address which it always listen on. When someone make a multicast it will only really make one sip call and all listening end points will grab the audio and play the audio stream

Generic PoE Hub

Paging speakers transmit audio heard on multicast stream

All Devices in network listen to Multicast e.g. 224.0.2.6

VoIP Celiling Speakers

IP Phone

IP PBX Server

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Type of IP Paging Equipments

Legacy Device converters

These products are used for converting existing legacy system to IP or to help with integration with VoIP enabled system without having to take out everything

Mainstream VoIP Products

These devices are full blown IP Paging devices with built in speakers and microphones which are ready to be connected to IP network and support VoIP system installation.

Product Range

2N Audio Range

Algo Range

How do you use the product range?

- Complete public address and voice alarm

- Background music

- VoIP Paging

- In-Store Radio

2N Audio Product Range

- 2N IP Audio Manager (SW)

- 2N Net Audio Decoder

- Net Speakers

- 2N Net Mic

- 2N Net Audio Converter

2N IP Audio Manager (SW)

- Zoning (100 zones)

- 1000 end-points

- 10 priority levels

- Volume control

- FW upgrade of all units

- Scheduling of pre-recorded announcements

- Audio synchronization

- 3rd party devices control

2N Net Audio Decoder

- IP ->Analog audio decoder & amplifier

- Built-in amplifier 14 W (PoE 8W)

- MPEG-1 Layer II (32-320 kbits/s)

- Stereo Line out / Headphones

- 2 user buttons (volume/channels)

- Slot for microSD card

- 1x digital input & output

- PoE or 12V/2A power

2N Net Speakers

- 2N Net Audio Decoder in a loudspeaker

- PoE or 12V/2A adapter

- 2nd speaker out

- SPLmax 100 dB or SPLmax 105 dB (ceiling speaker)

- PoE (SPLmax 97dB or 101dB with Celing Speaker)

* SPL = Sound Pressure Level

LAN   Speaker   Reset   DC IN
        OUT

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2N NetMic

- Live paging

- Pre-recorded messages

- Priority assignment

- Zones selection

- Zones status indicator

- 12 buttons

- PoE

SIP Audio Converter

- 2 way audio

- SIP PBX support

- 18W amplifier

- Configuration from Web browser

- High quality audio (G.722)

- Pre-recorded announcements

- Standalone unit

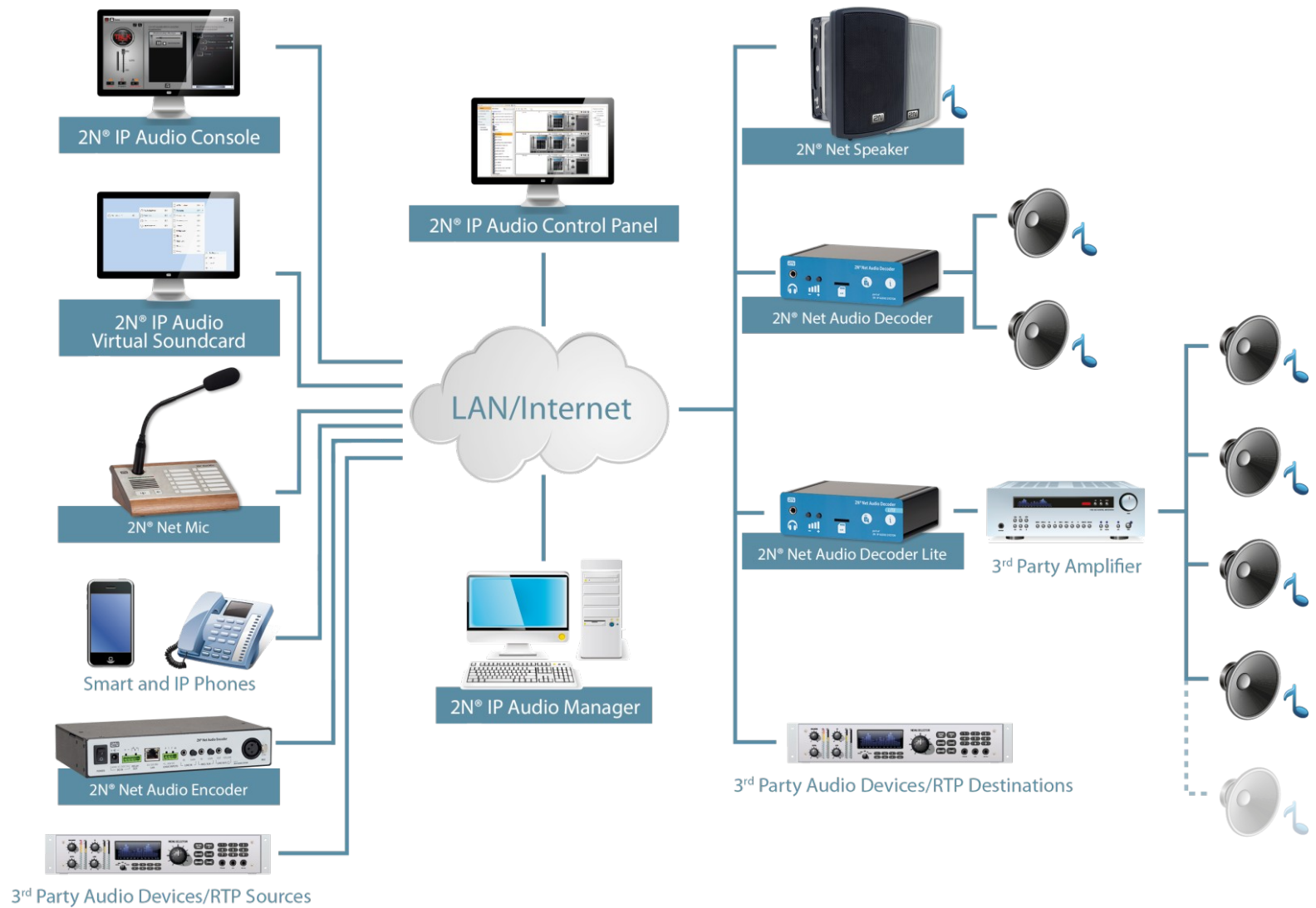   * Also available in Built-in Speaker version

2N Mobile Audio Gateway

- SIM <-> analogue audio converter

- Fast and effective way to inform the public from a mobile phone

- Ability to set the highest priority

- 3.5mm Line out

- Relay contact

- Secured access

- Battery Back-up

2N – System Overview

- 2N® IP Audio Console
- 2N® IP Audio Virtual Soundcard
- 2N® Net Mic
- Smart and IP Phones
- 2N® Net Audio Encoder
- 3rd Party Audio Devices/RTP Sources

- 2N® IP Audio Control Panel
- LAN/Internet
- 2N® IP Audio Manager

- 2N® Net Speaker
- 2N® Net Audio Decoder
- 2N® Net Audio Decoder Lite
- 3rd Party Amplifier
- 3rd Party Audio Devices/RTP Destinations

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Algo Range

- Algo 8180 & Algo 1186 Horn Speaker

- Algo 8186 SIP Paging Horn Speaker

- Algo Paging Adaptor

- Algo 8128ABR Strobe Alerter

Algo 8180 with Algo 1186

- Dual purpose loud ringing and/or public announcement capabilities

- 106dBA internal speaker or 120dBA with external Horn Speaker

- Relay Output

- Multicast receive or broadcast capability

- Outputs for external speaker, slave amplifier, or visual alerter

- Significantly louder (eight to twenty times) than typical telephones

- SoundSureTM ambient noise compensation adjusts output for noise

- Selectable/customisable alert tones or announcements

- POE

8188 SIP Ceiling Speaker

- POE

- Linux OS ARM Cortex-A8 32-Bit RISC Processor with Crypto Accelerator

- 1 Gbyte Memory

- 88 dBA 1m/1W (1 kHz)

- 6.5" (16.5 cm) Coaxial with PEI Dome Tweeter. Mica filled polypropylene cone.

- High efficiency and high output wideband speaker

- Multicast receive or broadcast capability

- SoundSure ambient noise compensation

Algo 8186 SIP Horn Speaker (March 2016)

- Dual purpose loud ringing and/or public announcement capabilities

- Three axis rotation for widest range of vertical and horizontal adjustments

- Wall or ceiling mount.

- PoE for plug and play network connectivity

- Suitable for outdoor and wet environments- IP66

- Outputs for external speakers, slave amplifier, or visual alerter, relays

- 110 dBA

8301 Paging Adapter – March 2016

- POE IEEE 802af Class 0

- Dual Extensions for Page or Alerting

- Eliminates narrowband FXS port or ATA

- Aux Input 3.5mm Jack for analogue music input

- 3.5mm jack for Headset or PC Speakers

- Line Output Low impedance balanced output

- Audio Memory – 1Gbyte

- Programmable 1-1000ms synchronization delay

- Programmable relay (dry contact) output

Front View

Rear View

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Algo 8128 SIP Strobe Alerter

- 16 Selectable flash patterns, rates, and intensities

- Particularity suitable for Loud environment or quiet (e.g. library)

- Wall or ceiling mounting is possible either directly to the surface or over a double gang electrical box

- Cover is water tight to allow contact with rain or spray if properly installed

- Long range visibility from any angle

- Provisioning and management via web interface

- PoE support

- Long life expectancy

Usage Scenario

- Leisure & Entertainment

- Security industry

- Education

- Transportation

- Healthcare

- Manufacturing

- Retail

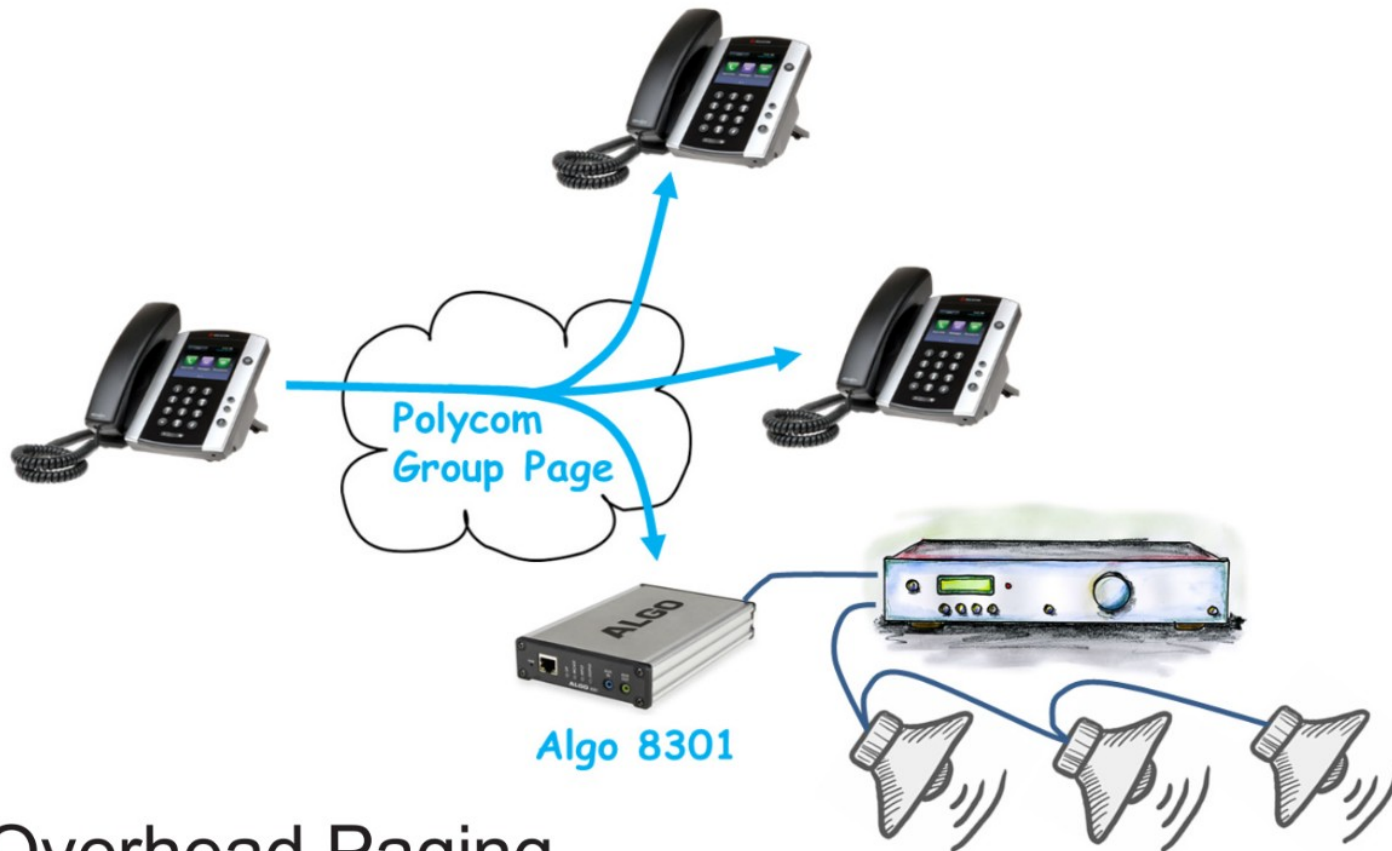# Group Paging with Algo and Polycom VVX handsets

SIP Initiated Group Paging

Polycom VVX Phone calling Algo 8180 Paging Speaker which simultaneously launches a local Polycom Group Page

SIP

Algo paging endpoints have Multicast broadcast capability. While paging or alerting, they can simultaneously multicast over the network.
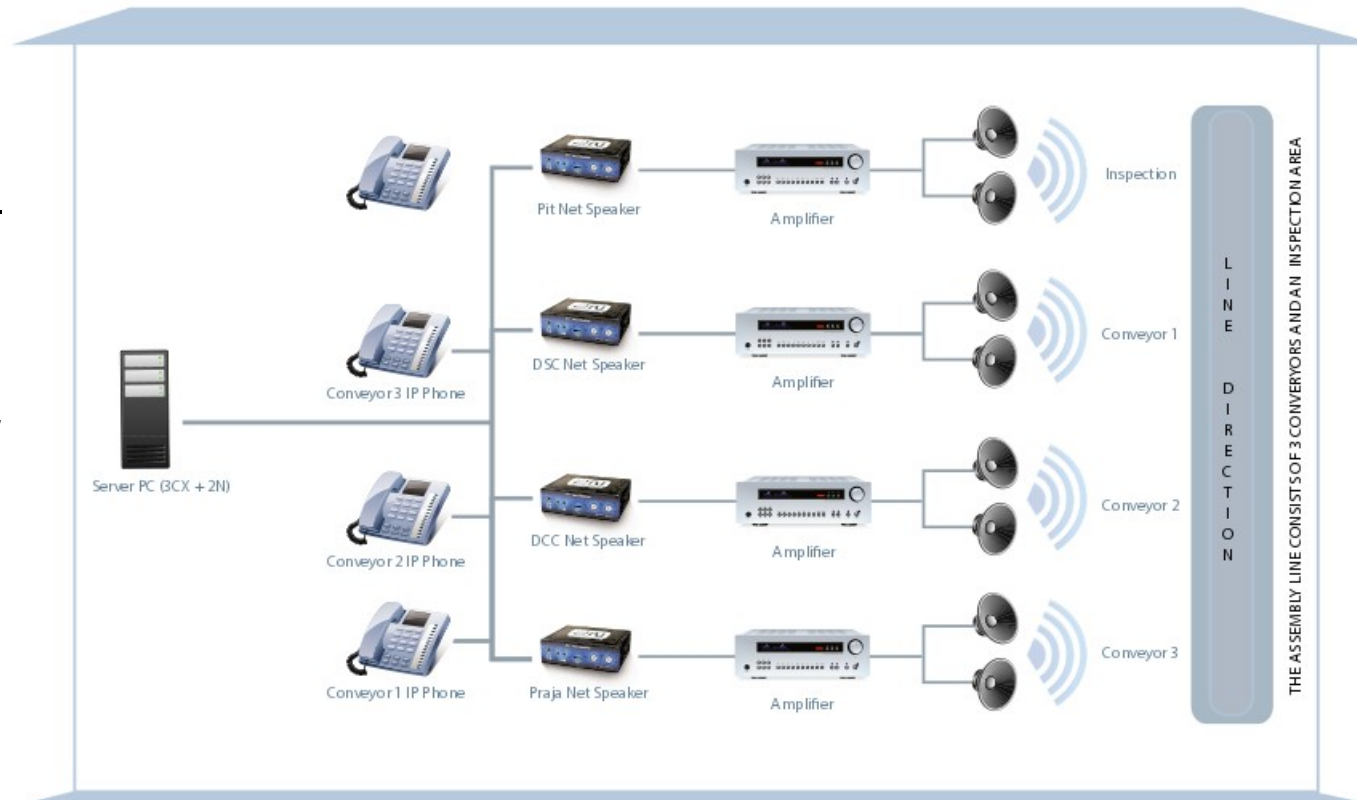
Lobby
Algo 8188

Multicast

Warehouse
Algo 8180 & 1186

Group Paging without Dedicated Extension- Cloud telephony

Polycom Group Page

Algo 8301

Overhead Paging without Dedicated Extension

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2N Audio Decoders at Tata Motors

Tata Motors were looking for an IP public address system with possibility to deliver audio content to various destinations on vehicle assembly line. The system should have been able to connect to PBX with 3rd party software. Also, employees should be able to set priorities of what will be streamed based on the importance of the announcements

Integration with VoIP Infrastructure

Both Algo and 2N are known to work with major industry players such as:

- ShorTel
- Cisco CCM
- Asterisk
- FreeSwitch
- BroadSoft
- Avaya
- Polycom
- Mitel
- MetaSwitch
- NEC
- And Most IP Phones manufacturer which support Multicast Paging e.g. Snom, Yealink, Panasonic etc.

Summary

- Simple to install and configure systems

- Central Management, monitoring and audio synchronization

- Integration with existing IP infrastructure

- ProVu backed technical support

Presentation will be available to download from ProVu website shortly

Questions and Feedback

Contact Us

Any questions or pricing query please get in touch.

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