Zōne Series
Paging Over Ethernet

MEDIA TECHNOLOGY SYSTEMS

zōne

Zōne™ is a powerful and cost effective ethernet based paging system.

Ethernet offers clear advantages over traditional paging systems, including reduced cable costs (>1000 paging zones carried on one UTP cable), enhanced control & monitoring (Telnet, SNMP), easy integration with other systems (BMS, FIDS/PIDS, Security), many redundancy options and sharing bandwidth with other data traffic (no proprietary cable requirements). However, ethernet's key benefit is network addressing.

Zōne™ uses ethernet's network addressing capability to eliminate the central matrix processor used in conventional paging systems. Ethernet is (by definition) a collection of source and destination addresses. The **Zōne**™ software has a simple task: match the ethernet address of the paging microphone input, with the ethernet addresses of any combination of amplifier paging zones.

In **Zōne**™, the network is the matrix.

Zōne™ has further reduced system cost and complexity by

integrating the paging station connection, the network interface, the signal processing (compressors, equalizers, duckers and ambient sensing) and the audio amplification into one 'network amplifier'. The network amplifier is available in 2, 4, 6 or 8 channels, in 50watts or 120watts output power and with integral fault monitoring and line supervision.

Zōne™'s network amplifier topology also offers the consultant the advantage of a designing a distributed solution, where the network amplifiers are located at (or close to) the paging zones

Zōne™ system size is only limited by the bandwidth of the network. As Zōne™ has no central processor and uses only one hardware element-the network amplifier, Zōne™ is linearly scaleable from 1 zone to thousands of zones and from 1 paging station to thousands of paging stations.

Zōne™ software is also scaleable, where the basic server module provides a 16 station/128 zone solution, including HDD based messaging, scheduling, event handling and logging. Paging stations are either simple 8 button panels or PC/Tablet based client software. Optional modules are available for text to speech, telephone interfacing, language GUI, redundancy and to increase the number of stations/zones to potentially 32,768 paging stations and 65,536 paging zones.
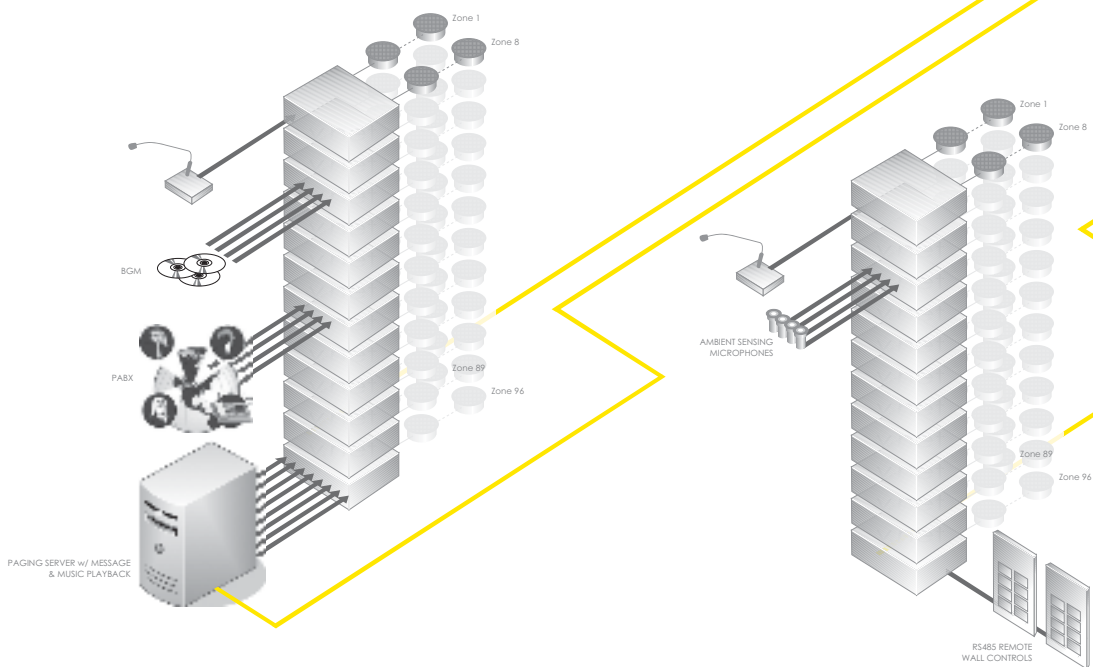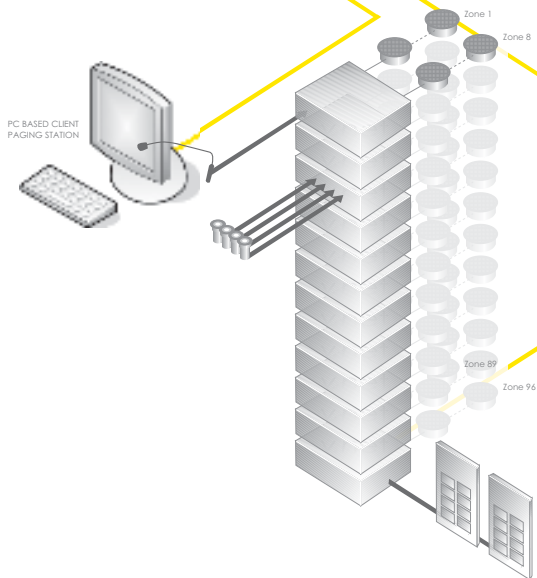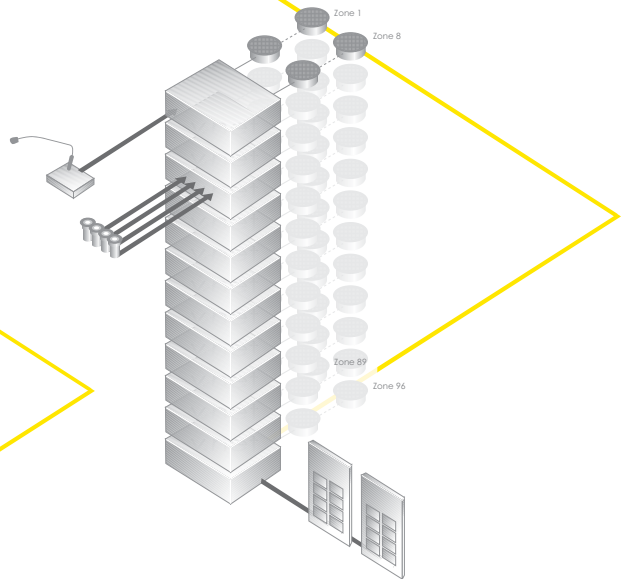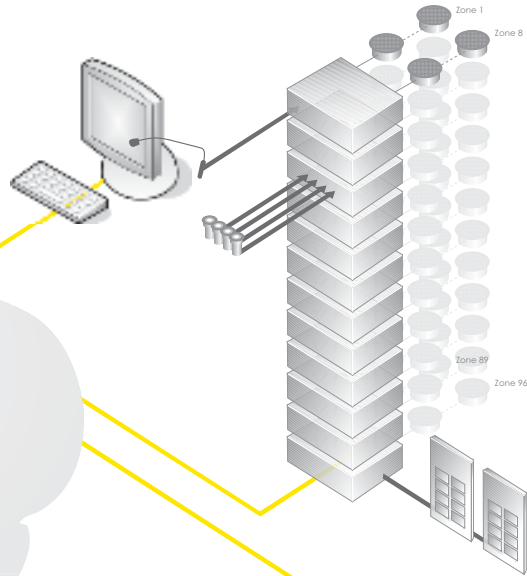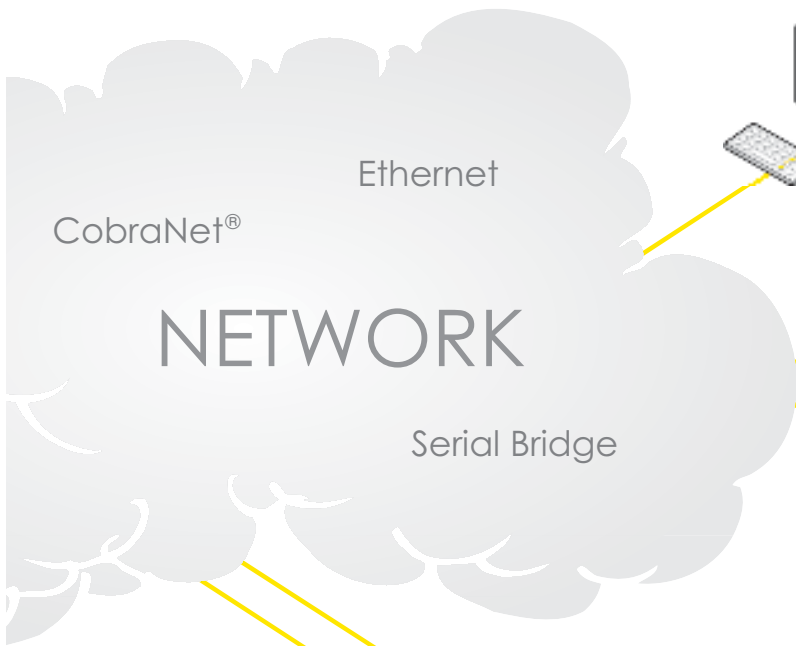
Paging networks
of up to 512 zones

This is a server based solution, where the server software can be configured for either a maximum of 16 paging stations/512 zones, or a maximum of 256 paging stations/512 zones. Most commercial buildings and shopping centers have only a small number of paging stations, but potentially a large number of zones. For these applications, the 16/512 solution will work well.

For complex applications with split rentable areas, (eg convention centers, exhibition centers), and applications with a large number of stand-alone paging zones (eg, airport terminals), then the increased number of paging stations will require the 256/512 solution.

The PC/Tablet based paging stations use a simple client application to connect to the server software using a telnet port.

Zone 1
Zone 8

BGM

Zone 1
Zone 8

PABX

AMBIENT SENSING
MICROPHONES

Zone 89
Zone 96

Zone 89
Zone 96

PAGING SERVER w/ MESSAGE
& MUSIC PLAYBACK

RS485 REMOTE
WALL CONTROLS

Ethernet

CobraNet®

NETWORK

Serial Bridge

Zone 1
Zone 8

Zone 89
Zone 96

Zone 1
Zone 8

Zone 89
Zone 96

PC BASED CLIENT
PAGING STATION

Zone 1
Zone 8

Zone 89
Zone 96

picture of front panels

picture of rear panels

Amplifier Specifications

* 2, 4, 6 or 8 channels
* 50watt/4ohm, 120watt/4ohm, 250watt/4ohm-70volt (Q4 2006)
* VT-50/2...8, VT-100/2...8 70volt transformer packs
* Control and monitoring of temperature; fault; HPF; Bridge; input signal, & gain; output voltage, current, power, impedance & gain.
* CobraNet® protocol for audio transport

* SNMP protocol for control and monitoring of amplifier variables
* Optional DSP signal processor with ambient sensing & BGM ducking on each input and compressor & 8 band parametric equalizer on each zone output.

Basic 24/24 Standalone System

* 8 Paging stations with DSP for compressor and parametric equalizer
* 4 Channels of background music
* 1 channel of HDD based message system
* 1 channel of PABX
* 24 Paging zones with in built DSP for ambient sensing, ducking, compressors and 8 bands of parametric equalizer

* 4 levels of paging priority
* RS485 Zone controls for volume and source selection.
* CobraNet® audio transport over ethernet (20 bit, 48kHz sample rate, 5.33millisconds latency)-fully compliant with IEEE802.x
* SNMP control and monitoring

Server based solutions in 16/512 or 256/512 configurations

* 256 Paging stations/Background music channels with DSP for compressor and parametric equalizer
* Simple button or PC/Tablet based paging stations
* 32 channels of HDD based message system
* 8 channels of HDD or external BGM systems
* 8 channels of telephone/PABX paging stations
* 256 channels of ambient sensing
* 512 Paging zones with in built DSP for ambient sensing, ducking, compressors and 8 bands of parametric equalizer
* 20 levels of paging priority
* Event scheduling
* Event logging

* Paging server redundancy
* RS485 Zone controls for volume and source selection.
* Amplifier has sensing for fault, temperature, circuit voltage, current, impedance and power
* Automated amplifier changeover in the event of a fault
* Line monitoring for impedance, including open and short circuit.
* LAN connection to security, building management systems, FIDS/PIDS
* CobraNet® audio transport over ethernet (20 bit, 48kHz sample rate, 5.33millisconds latency)-fully compliant with IEEE802.x
* SNMP control and monitoring
* Text to speech synthesis module (Q1 2008)