## Application Example Vox@Net



## Introduction

Vox@Net permits a public address / evacuation system to be implemented on a TCP/IP network.



## System Description

Vox@Net enables audio and control signals to be distributed to remote Ateis SINAPS-M/XM systems via a TCP/IP network, offering considerable savings in cable infrastructure and permitting coverage over large areas when a Virtual Local Area Network (VLAN) can be established.

Pre-recorded messages and music are stored within a server in MP3 format. The number of messages and music tracks is limited only by the available disk drive capacity. A control station, normally comprising an all-in-one touchscreen/PC and a paging microphone, permits scheduling of messages and music and well as ad-hoc broadcasts of recorded messages and live announcements. Up to ten music or message files can be broadcast simultaneously. The control panel layout on the touchscreen can be customised by the user to provide a logical control layout. The server and control station can run on the same PC if required. For more demanding applications, the server can be duplicated to achieve a redundant configuration.

The server and control station computers communicate directly with the TCP/IP network. Where analogue signals are involved, such as inputs from paging microphones or outputs at remote SINAPS-M/XM paging systems, interface units provide the connection to the TCP/IP network. A serial data link, also carried via the network, provides control information such as zone selection, in each remote SINAPS-M/XM system. The serial link is presented on the same interface unit as the analogue output.

Vox@Net Server is the server software and license package for storage of music and messages. Note that the license is in no way related to any performance rights issues regarding broadcasting of copyright music. One package is required for each server.

**Vox@Net Control** is the control station software, license and hardware package for control of the system and providing the audio interface for the paging microphone. One package is required for each control station.

Vox@Net Remote is the software, license and hardware interface package for producing the analogue output and serial control data at each remote location. One package is required at each location. Further analogue outputs can be added at a location that already has a Vox@Net Remote by using the Vox@Net Out module. Vox@Net Out does not include a license fee as this is not required when a Vox@Net Remote module is present.

A system USB dongle is supplied pre-configured with the client's system topology and will require updating if the topology is changed. The system will operate for five days without the dongle, which is sufficient time for the dongle to be updated or replaced if lost or damaged.

Status of remote stations is reported via the serial data link, which can also be used for central configuration of the remote stations.

Use of the Modbus protocol permits interfacing of the system with third party systems enabling such applications as text-to-speech to be implemented.

The system can support up to 99 call stations and up to 200 remote stations.

The application in the diagram shows Automatic Noise Sensing (ANS). This feature is part of the SINAPS range (see IDA4XM) and permits the level of broadcast audio to be automatically adjusted in response to variations in ambient noise.



Typical Remote Station Rack Layout To construct the system shown in the diagram, the following components would be required:

2 x Server PC

2 x Vox@Net Server software and license

2 x Control Station PC and touch-screen

2 x Vox@Net Control software, license and audio interface 2 x Paging microphone

For each remote station:

1 x Vox@Net Remote 1 x Vox@Net Out

1 x IDA4XM controller

- 1 x PSS series paging microphone
- 1 x PABFMP noise sensing microphone
- 1 x Power supply with standby batteries Amplifiers to suit loudspeaker load
- 1 x Equipment rack