



2N Audio-over-IP System

The Crescent Primary School: Networked PA & Bell-timing

The Crescent Primary School in Croydon is a brand new school with many forward-thinking and innovative ideas built into the design. A fully integrated networked audio system is all part of the plan...

Location: **Croydon, UK**
Client: **Croydon Council**
Supplier: **Midland Communications**

Client:

The Crescent Primary School in Croydon is a brand new £7.3million school project undertaking an entire redevelopment of the former Selhurst Grammar School buildings.

Though the historical external structure of the listed building remains, the interior has been completely restructured to provide a fresh and modern learning environment and the integrated technology within the school reflects this 21st century regeneration project.

System Requirements:

With an initial brief to provide a through-school zoned public address and bell-timing system, audio system integrators Midland Communications were contacted by the client to undertake a full system and site survey to offer the best and most efficient solution, making use of the latest technologies to future-proof the investment.

The sound system required individual distribution to a total of 13 different zones which, using conventional analogue audio technology, would have been a complicated and costly task. However, as the school's newly installed network infrastructure had significant available bandwidth, the option of a 'networked public address system' (also known as 'audio-over-IP or 'AoIP') offered the ideal solution for the project..



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The Solution:

Working in conjunction with CIE's System Design Team, Midland Communications developed a fully integrated Public Address and Bell Timing system based around the 2N Net Speaker Audio-over-IP system.

This server-based system allows for full control and distribution of voice and music audio signals via the school's standard Cat5e network cable infrastructure, therefore negating the need to run additional audio cables throughout the entire school.

In addition, using the 2N Net Speaker system's software control interface, any number of audio sources (such as microphones, music, tones & chimes and emergency messages) can be sent to any or all of the school's 13 individual zones, easily activated from a desktop PC or tablet device.

These different audio signals can also be sent to any or all zones throughout the school from the system's 2N NetMic - an IP-connected zone-paging microphone which is positioned in the school reception office. This audio-over-IP microphone allows for zone control, live voice paging from the microphone, as well as the ability to store and replay pre-recorded messages and tones which, in the Crescent Primary School project, is used for emergency messaging and bell timing (ie, indicating start and end of each lesson, etc).

With power to the system being provided by conventional 100v line amplification from CIE's InterM multi-channel professional amp range, the system is broadcast over a series of different loudspeaker types to suit each particular zone environment. Standard wall-mount cabinet speakers are used in the classrooms for voice and music, bi-directional & column speakers are used in the corridors and halls for clear voice reproduction in these high ambient noise areas and the system even stretches to the school's outdoor areas (playgrounds and playing fields) using IP-rated weatherproof horn speakers for events such as school sports days, fetes and local community events.

The system also includes a Clockaudio professional UHF wireless microphone system (also known as a 'roaming mic'). As this microphone is connected to the audio-over-ip distribution system, the microphone signal can be broadcast throughout the entire school (i.e. 'all zones') or used in individual zones; it can therefore be used for presentations and assemblies in the school hall, or even outdoors for events and activities in the playground and sports fields. This integrated PA and bell-timing system was designed and built into a fully-wired 19" rack by CIE's in-house specialist audio technical team.

Products used in this project



2N - 914010E Net Audio Decoder - Audio Over IP Endpoint



2N - 914075E Net Audio Encoder - Analogue audio to IP signal converter



2N 914071E Net Mic IP Zne Paging Microphone



Clockaudio CW7000/38 UHF Wireless Microphone System



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