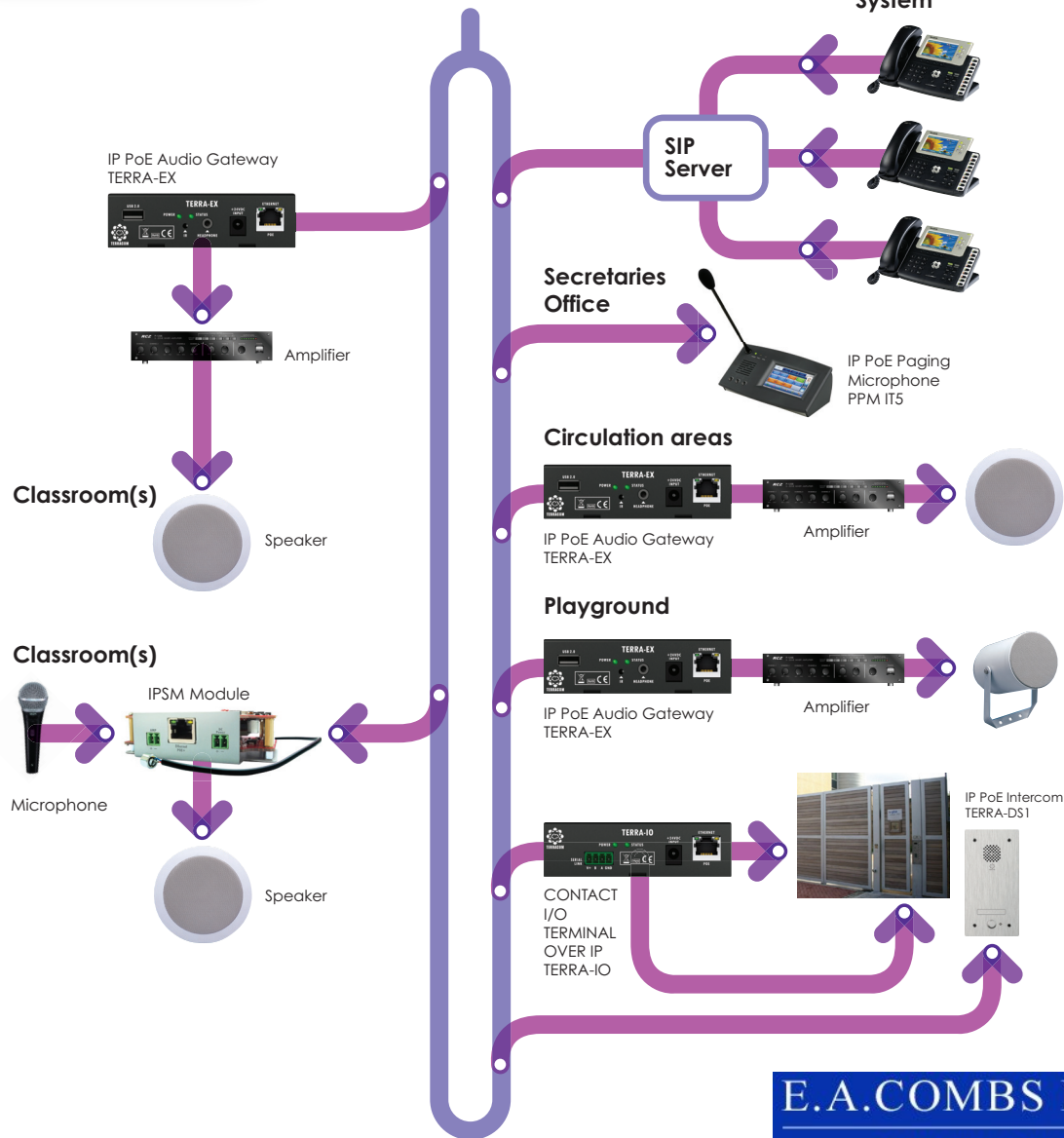


Applications  
**SCHOOL**  
 Intelligent Building Solutions



Management Server IPMS



Site Wide IP Telephone System

**Management Server Software**

Connects all facilities that can be integrated via the TerraManager software which allows each IP device to be monitored and controlled.

From a single point of access the user has a complete overview of what is going on across the whole system.

We can achieve this as each IP device is connected to a common network managed by a PC and the TerraManager software. This also has recording and editing Software allowing the user to make and edit their own recordings should they wish to make pre-recorded announcements such as "Fire Test", "All clear", "Lunch Time" etc.

A Class Change system can be set-up to broadcast tones at certain times of the day through the speaker system.

**Public Address**

Functionality of the public address is achieved using a number of devices.

**IP POE Microphone Console**

Enables the operator to make paging announcements to the playground, circulation areas and classrooms via the Reception IP PoE Microphone. The console has a touch sensitive LCD display with programmable soft keys which can be configured to select paging zones, trigger events such as open doors, play pre-recorded announcements & turn lights on. The microphone console also has a built-in speaker to allow monitoring of broadcasts & two-way communication with Intercom units and IP telephones.

**Audio Gateway**

The speakers located in the playground, circulation & classrooms are powered by 3 x amplifiers. Each amplifier is connected to the IP network via an audio gateway which takes the audio from the network and provides the amplifier with a standard line level input.

Music can be played in the circulation areas by taking the output from a music source and feeding it directly into the audio gateway. The same music source can also be routed to any other gateway or IP PoE speaker.

**IP POE Ceiling Speaker**

Some of the classrooms have used an active IP PoE ceiling speaker which can receive paging announcements from the IP PoE Microphone, the Intercom unit or any IP telephone.

The speaker also has an auxiliary microphone input which could be used to input a remote microphone or a wireless microphone. The ceiling speaker can then be used as a speech reinforcement system for the classroom.

**Intercom**

Located at the Goods In entrance enables communication directly to the Reception IP PoE microphone via its inbuilt speaker. If the Reception desk failed to answer the call it could be automatically diverted to any IP telephone. We could automatically turn on a light at the entrance gate or play a pre-recorded message via a speaker when the intercom call button was pressed while routing the call.

The gate could be opened using a soft key on the PPM IT5 microphone.

**Lighting & Power Controller**

Is used to manage the school lighting. The lighting can be zoned into individual classrooms or larger areas such as circulation and outside areas. The lighting can be activated using a key card & reader. The trigger to activate the lights could also be via movement PIR's, light sensors to sense day and night times. As we can switch mains we can also control the power to the computer equipment in each classroom. The Management Server scheduler software can be programmed to turn Power on or off to devices at set times or use the cause and effect routines to offer a more sophisticated level of control for example if a PIR is triggered it will only turn the lights on if the light sensor confirms its night time or low light conditions. The cause and effect routines allow you to make infinite configurations to provide the level of control required.

**Door Access**

The lock controller will manage the opening and closing of barriers & door locks via output contacts. The Management Server scheduler can be used to open and close doors at pre-set times. It can also be used to log entry and exit times.

**Integration with IP Telephone system**

The Management server software can interface directly with a SIP based IP telephone system. If a CISCO IP phone system is used we can make use of the CISCO "Call Manager" features. This would allow us to:

- Make paging announcements from any CISCO phone to any combination of the Public Address speaker zones/areas.
- Use the Reception IP PoE Microphone to page any individual or group of CISCO telephone handsets via their hands free speaker. This will save having to fit dedicated speakers in many areas.
- Use function keys on either the IP PoE microphone or Telephone handsets to trigger events such as open door locks, play automated messages, and turn on/off lights or power to devices.