

# CASE STUDIES

## NSW PRIMARY SCHOOL AUDIO SYSTEM EXPANSION



### INITIAL PROJECT REQUIREMENT

A primary school in New South Wales faced a significant challenge: several areas across the campus were not covered by the existing PA system. The school's primary requirement was to extend audio coverage to these underserved areas while utilising the current infrastructure. The goal was to ensure that important announcements, emergency alerts, and event-related communications could be clearly heard throughout the school premises, including classrooms, corridors, and outdoor spaces.

### SPECIFIC PROJECT OBJECTIVES

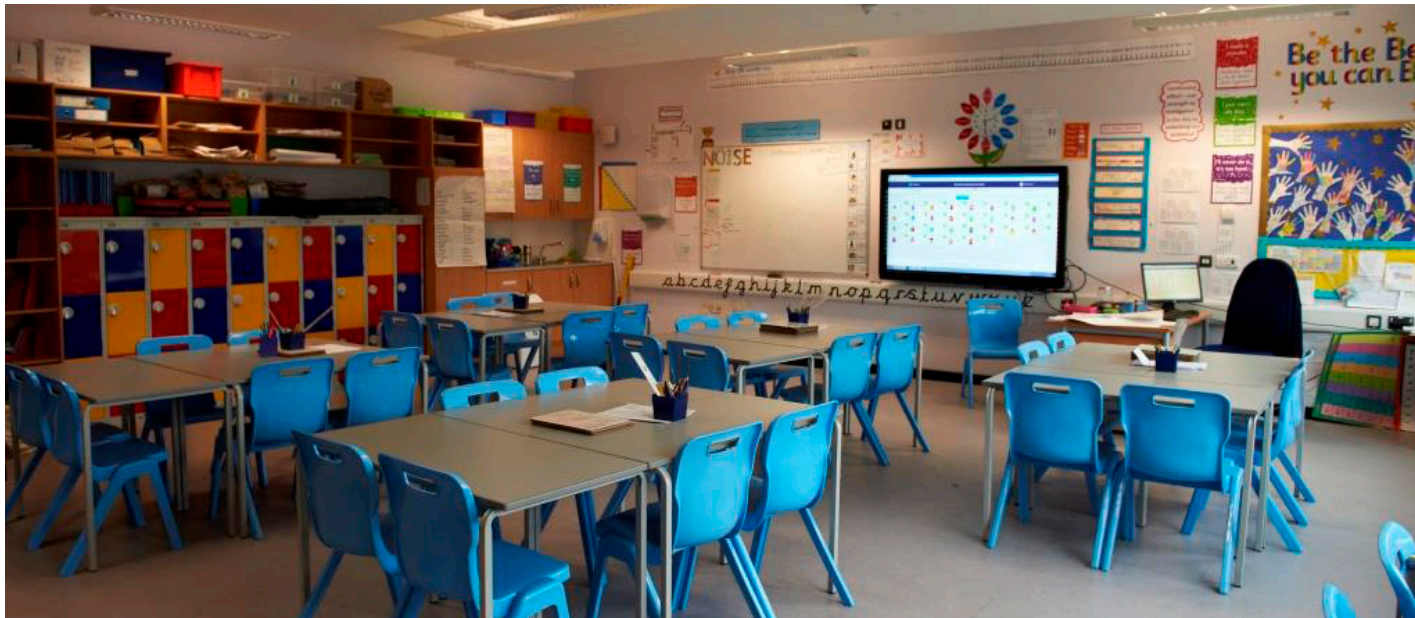
The key objectives for this project were:

1. **Cost-Effective Solution:** The school sought a solution that would maximise the existing resources, minimising the need for extensive new equipment or systems.
2. **Minimal Impact on Infrastructure:** A critical aspect of the project was to minimise any disruption to the existing building structure. This meant keeping new cabling across the campus to a minimum to preserve the integrity of the building and avoid expensive construction work.
3. **Seamless Audio Integration:** The new system needed to integrate smoothly with the existing PA system, ensuring clear and consistent audio coverage without creating a complex, hard-to-manage solution.



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## PRODUCT SELECTION

The chosen solution involved a combination of Bell Commander and Barix devices. These products were selected for several key reasons:

\* **Use of Existing Network Infrastructure:** Both Bell Commander and Barix could utilise the school's existing network to deliver audio to different buildings, which significantly reduced the need for additional cabling. This was a critical factor in keeping the project cost-effective and minimally invasive to the infrastructure.

\* **Flexibility and Scalability:** The Bell Commander system allowed for flexible zoning and scheduling of audio broadcasts, while Barix enabled audio over IP, making it easier to extend coverage to remote or previously underserved areas of the campus.

## UNIQUE ASPECTS OF THE PROJECT

One particularly interesting challenge in this project was managing audio latency when using the Barix system. Due to the nature of networked audio, there was a noticeable delay when transmitting audio signals, particularly when it came to live sources like radio microphones.

To address this:

\* A combination of analog and network audio was used. For areas where low-latency audio was critical (such as areas near the radio microphone source), an analog mixer amplifier was deployed to ensure real-time audio delivery.

\* For the school's outdoor oval, where the slight delay wasn't as noticeable or critical, the Barix units were used to send the microphone signal over the network. This approach allowed the school to cover the entire area without the audience perceiving any problematic delay.

## KEY RESULTS

The successful implementation of the project provided the school with enhanced audio coverage across all critical areas, improving overall communication throughout the campus. Some of the key results included:

\* **Complete Audio Coverage:** The areas that previously had no PA system coverage were now fully integrated into the school's audio network.

\* **Cost Savings:** By leveraging the existing network infrastructure, the school avoided significant costs associated with running new cables or overhauling the entire PA system.

\* **Hands-on Learning:** This project served as a valuable learning experience, as it was the first large-scale Bell Commander/Barix project for the team. The complexity of integrating analog and network audio in a school environment provided key insights for future projects.



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### CLIENT FEEDBACK

The client was highly satisfied with the final outcome, particularly noting the Annunicom PS Touch device's user-friendly interface. They appreciated how simple it was for staff to operate, allowing for quick and efficient control over the PA system without requiring extensive training. In summary, the primary school project in NSW successfully met the client's needs by delivering a well-integrated, cost-effective audio solution with minimal disruption to the existing infrastructure, while also providing valuable learning opportunities for the installation team.

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