



Education

Nan-Hu Elementary School
Active Learning Classrooms

Taiwan

Nan-Hu Elementary School, Active Learning Classrooms



“ ATEN International really cared about the difficulties our teachers were facing when experimenting with new technologies in order to complement our teaching process, and they fully committed themselves to revamping the e-Future classroom and improving both the learning and the teaching experience. They really made our dreams come true! ”

Fu Sheng Hsiao
Nan-Hu Elementary School Principal

About Nan-Hu Elementary School

Nan-Hu Elementary School was one of the first e-Learning schools in Taipei, Taiwan. Since 2001, it has been adopting e-Learning solutions and digitalizing all educational content. Their e-Future classroom prides itself on taking the best advantage of the high level of technology adoption and know-how among younger students to encourage a new kind of participation in learning. Due to increased digitization and the availability of more advanced active learning technologies, the school was looking for a major upgrade to its e-Future classroom, in order to solve device control issues and to improve the interactive learning experience for the benefit of both teachers and students.

Key Customer Requirements

- ✓ A simple and centralized control solution for multiple devices
- ✓ The best video quality while integrating multiple audio and video interfaces
- ✓ Multi-view function for conferencing and learning to improve the interactive learning experience
- ✓ Seamless switching between 6 different HDMI input sources with one 2x4 video wall, one 80-inch touchscreen display and two projectors

By upgrading their e-Future classroom, the Nan-Hu Elementary School wanted to solve device control issues caused by having multiple remote controls. In the past, there was an individual remote control for each device in the classroom, which caused confusion and time wasting when trying to find out which control was for which piece of equipment. So the school was looking for a simple and centralized remote control solution for multiple devices to ease the burden on the teachers.

The classroom is equipped with multiple input sources, including 2 computers, Apple TV, camera and video conferencing system, which generate different audio and video signals from a variety of interfaces. They needed an optimal solution to provide the best video quality while integrating all of the input sources.



One of the features of the e-Future classroom is to provide an interactive learning experience. The solution had to provide a multi-view function for conferencing and learning to enhance students' learning motivation.

Finally, to increase student participation, the teacher needs to display students' answers to the video wall frequently and without any delay that would interrupt the learning experience. The classroom needs a solution to seamlessly switch between 6 different HDMI input sources with one 2x4 video wall, one 80 inch touchscreen display and two projectors.

The ATEN Solution

- ✓ Provides centralized control for multiple devices
- ✓ Features an intuitive and user-friendly interface so no IT experience is needed to control the system
- ✓ Ensures top video quality and multi-view video wall options
- ✓ Guarantees seamless switching and reliable, continuous video streams
- ✓ Simple, easy power management for multiple devices

ATEN provided the ideal solution with 8x8 Matrix Switches paired with the ATEN Control System, an Ethernet-based management system, comprised of Control Boxes and Configurator software, which connects hardware devices and centralizes control of all of them. Along with the ATEN user-friendly control system UI, the teachers now can easily control everything via an iPad, from the lighting to the air conditioning, and get the classroom ready for teaching in just one minute. By adopting

VM5808H and VK2100 Control Box, the ATEN solution delivers simple, centralized control of the e-Future classroom, allowing teachers to switch to predefined user scenarios that let students show their answer on the 2x4 video wall. To achieve the multi-view and power management requirement, the solution also includes a CM1164 4-Port USB DVI Multi-View/Audio KVM™ Switch, three units of PE6208B 8-Outlet 20A/12A PDU and four pairs of VE801 HDMI HDBaseT-Lite Extenders to make the whole solution complete.





Centralized control for multiple devices

ATEN's Control System is a standard Ethernet-based management system that connects all the hardware devices in the e-Future classroom to provide centralized control directly and effortlessly via a PC, notebook or any mobile device.

User-friendly UI, no IT experience needed to control the system

The ATEN Control System's intuitive system control comes with a user-friendly UI. Teachers can now experience the latest in intuitive control through easy set up layout and human-centric control icon design. This allows them to not only customize the interface settings, but also offers flexible and intelligent control in the classroom, allowing them to quickly switch between different pre-set teaching environments..

Ensures top video quality and multi-view video wall options

ATEN's 8x8 Matrix Switch integrates different video input and output interfaces and the embedded scaler ensure the top quality of the video. And the CM1164 provides the multi-view function to enhance students' learning experience and participation.

Seamless switching and reliable, continuous video streams

ATEN's Seamless Switch technology delivers stable and reliable continuous video streams and instant real-time source switching without delays.

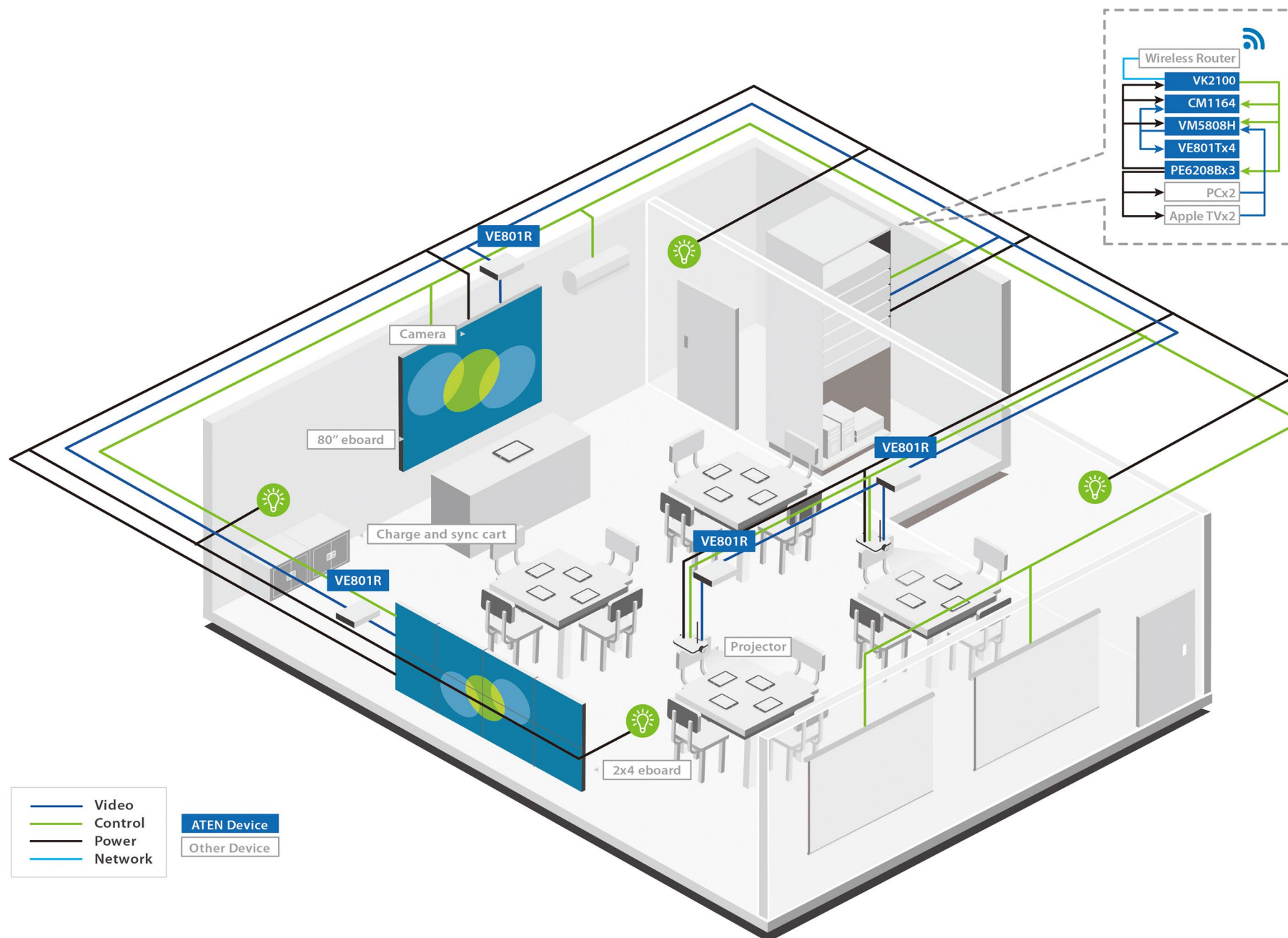
Simple, easy power management for multiple devices

By utilizing the ATEN Control System in conjunction with PE6208B PDUs, the teaching staff can now centrally power on/off multiple displays at once as well as manage other equipment in the classroom, such as lighting and air conditioning.

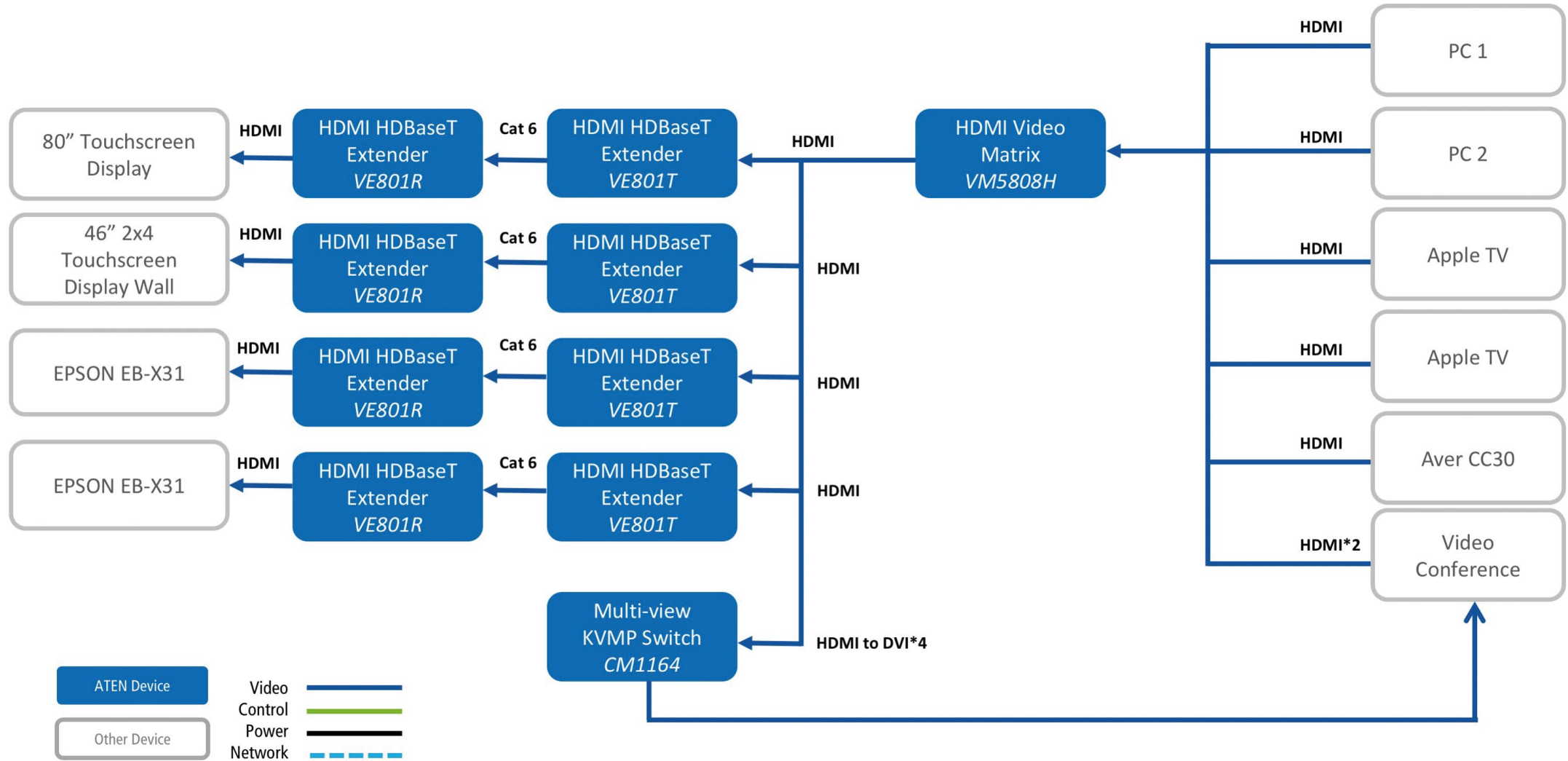


VM5808H

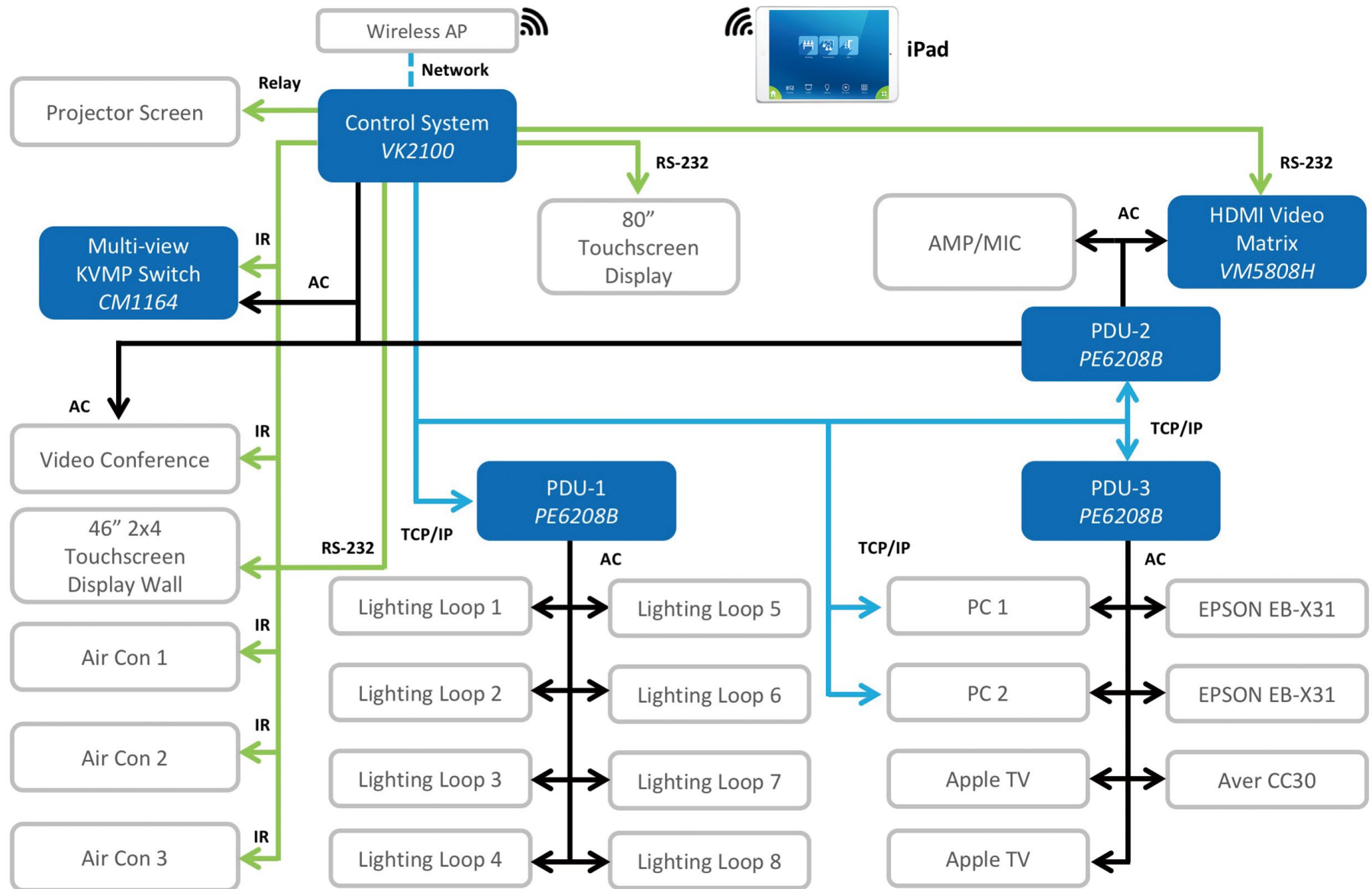
Perspective Diagram (Classroom Solution Guide)



Solution Architecture Diagram (Video & Audio Connection)



Solution Architecture Diagram (Control Connection)



Product

VM5808H

Video Matrix Switches

- Seamless Switch™
- Video Wall
- EDID Expert™
- ESD protection for HDMI



VE801

HDMI HDBaseT-Lite Extender



CM1164

4-Port USB DVI Multi-View/Audio KVMP™ Switch



Product



VK2100

ATEN Control System - Control Box

- RS 232
- IR
- Relay
- Ethernet Protocol



PE6208B

8-Outlet 1U Metered & Switched eco PDU





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