# Smart-e

DESIGN I INNOVATE I ORIGINATE

## Education Market History

www.smart-e.co.uk +44 (0) 1306 628264

### As a trusted producer of high quality equipment with a growing range of AV products, and a reputation for technical innovation, you'll find a Smart-e solution to meet your needs

#### **Knowledge and experience**

Founded in 1999 Smart-e pioneered the transmission of high resolution multi-media audio visual (AV) signals over a single Cat5-8 cable. Since then we have designed and manufactured a wide range of switching and distribution equipment used round the world for over 100,000 AV-based displays. Our products provide professional high performance, content rich AV links between single and multiple source devices to a diverse range of displays. Professionals trust us because we have the technical knowledge and proven experience in the design and manufacture of innovative and reliable solutions that won't let them down, an essential ingredient when the majority of our products form the operating core for any installation





#### **Environment focus**

From our initial beginnings we have always had a strong commitment for repairing, reusing or recycling products, packing and components. When designing we understand our responsibilities for making environmentally friendly products. Our main focus is on creating reliable and power efficient products through careful understanding of the requirements and the environment in which they will need to work, Decreasing power consumption not only lowers costs but more importantly reduces heat dissipation which is the main source of component and ultimately product failure. This design ethos and focus gives us the confidence to offer extended warranty periods and a lifetime support to all our Smart-e products



**5 Year Warranty** All products come with a 5 year no nonsense, no cost warranty with optional extension



Lifetime Support We guarantee to support any Smart-e product we have ever supplied forever



#### **Superior Service**

We always go the extra mile to achieve complete customer satisfaction



## Smart-e

## Smart-e and the Education Market



#### Message from the Managing Director

When I first started Smart-e back in 1999 the AV technology landscape could not have been more different to how it is today. Analogue technology ruled the roost, with digital AV still a pipe dream at the mass market level. CRT monitors were the norm in the booming computer industry, and widescreen TVs were affordable only to those with large amounts of disposable income. That was the environment in which we found ourselves starting an AV design and manufacturing company at the turn of the millennium.

Our background was the Broadcast industry, which brought an excellent knowledge of video and an eye for a quality image. We saw an opportunity to try and merge the worlds of IT and AV by transmitting video signals over structured cabling. One of our biggest initial successes was with the rapidly expanding educational AV market of the early 2000s. The new government of 1997 brought with it a push for interactive learning and the mass procurement of thousands of AV products installed in schools up and down the country.

Through Becta and the NGFL we sold thousands of extenders for interactive whiteboards, SMART boards and projector screens The benefit of installing with Cat 5 e cable was soon taken by a number of early adopter installers.

Over the years we have provided dozens of complex solutions for the Education market, including matrices, remote learning and presentation solutions. You can view a curated selection of our previous work on the next page.

There is a bright future ahead for AV within the education sector, and at Smart-e we are proud of all the work we have done in the past to provide the best possible solutions to our clients.

Signed

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### **Smart-e Education**



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Smart-e

### **Project Timeline**





Lecture theatre - Control Area

Smart-e was chosen to supply high definition distribution equipment to a unique solution for Southampton University Hospital's new laboratories and education centre. The attraction of Smart-e's equipment was its ability to transmit various video formats, allowing students to view standard video and high definition images on the same feed and including the possibility of displaying 3 separate feeds simultaneouslu.

The catheter labs. proved to be the most interesting challenge. The images produced have historically been in nonstandard formats, resolution and refresh rate.

These fluoro images are then accompanied by high resolution ultrasound, camera images and SGA-type displays. The key was to combine all these different signal types into a single system. The solution was to use the TUSC-1042 rack based card system which can house various Tx and Rx cards combined with Cat 6 cable transmission.



TUSC-1042

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Digital Lab – Common Area

At the time the Smart-e SNX-16x32+ was at the cutting edge of technology. It's unique ability to mix numerous video types including HD 1080p signals into a single matrix was ideal for this Digital Lab project.

Messages about events and the research being undertaken in the Lab were broadcast via the matrix to common areas together with TV channels to any screen. Content was also taken from the 100-seater Auditorium, Usability and sound labs to elsewhere in the building, allowing guests and staff to experience what was going on around the complex.

The various connections to the matrix included HD videoservers. Digital Signage players, live camera feeds and various PC and laptop presentations. The system also allowed the Lab to record feeds to the video server which was collocated with the SNX-16x32+ in the AV comms room in the centre of the complex.



SNX-16x32+

### Projects

Dundee University

Student Union

Smart-e's MDX series of modular multi-format matrices was selected for an extensive installation in Dundee University Student Union building. The MDX-72x72+ model was chosen over and above other technologies for its simplicity, cost effectiveness, compactness and reliability.

The design remit was to provide a system capable of accepting differing video signal types including HDMI, DVI and VGA and to be able to transmit them over long distances using the existing Cat 6 cabling to be displayed on numerous displaye.

Dundee University – Student Union

The MDX-72x72+ has a number of available slots for input and output blades. These blades can be a variety of signal types including analogue, digital, Cat 6 and Fibre. This modular design approach enables the matrix be used in a wide assortment of applications. Selecting which image goes to which display is via a number of methods, which are front panel buttons, RS232 and IP control and an internal web browser.



MDX-72x72+

#### Corpus Christi College - Lecture Theatre



444K-912-WP

Smart-e were asked to test the existing structured cabling within the lecture hall of Corpus Christi College. Due to the nature of the installation it was impossible to change or alter the Cat 6 cables so it was essential to check whether the equipment about to be purchase would work effectively.

Using the 4K-9000 tester, we were able to verify the integrity of the cabling by checking the most crucial measurements including: Bit Error Rate, Mean Square Error and Maximum Error for the video, audio and control signals. Following the testing, a number of

Smart-e 444K-912-WP wall plate extenders were successfully installed in the lecterns. These units provided a simple interface for both HDMI or VGA to presentation laptops connecting directly back to the AV control room via a single Cat 6 cable



4K-9000

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#### **Diverse applications**

Smart-e systems run demanding, mission-critical applications for many command centres around the UK, and as specified designers and manufacturers of equipment for many of the world's top banks, our products are relied upon to run building-wide, multi-format video distribution systems. The use of a single cable combined with compact product design, and the flexibility of multi-functional features, offers professionals a wide range of AV solutions in different environments, including:





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