Case Study: BW Monastery

Introduction

Founded in 2002, the BW Monastery in Singapore opened the doors to its newly built four-storey Woodlands monastery in August 2017. The monastery has close to 3500 members. Besides classrooms, the monastery contains two halls to host large crowds for events, assemblies and seminars.

The Grand Shrine Hall located on the ground floor can accommodate 320 people at any one time and is typically full during their events. A multipurpose hall (Hall of Jewels) located on the fourth floor, which can hold 400 people, is utilized to accommodate overflowing visitors.

Challenge

Usage of audio-visual system to enhance the worship experience. Ability to live stream the events to multipurpose hall, classrooms and multiple sites in Singapore.

Solution

Two large tensioned motorized projector screens are installed on each side of both halls. Using Epson's 12,000 Lumens 3LCD Laser Projector, slides containing text and graphics are projected on the screen to guide chanting and learning during prayer events and seminars. As the projectors were only available in a black finish, they were cladded in a white matte plastic to match the interior design of the monastery.

Fohnn's LFI Linea Focus beam steering allowed the selected sources of chants and music to be extremely detailed and clear. With the addition of subwoofers and amplifiers, live music was made possible. Full processing capabilities including limiters, compressors, noise gates, FIR filters, gain, and EQ, can be remotely controlled via Fohnn-Net and Fohhn Audio Soft user interfaces.

Yamaha's 16-Channel analogue mixers are used, but a 48-channel TF5 digital console can also be used for larger scale performances. A selection of Shure and Sennheiser wireless microphones are at the disposal of the monks for chanting, singing and performing. Boosters were installed around the halls to ensure there was no interference and signal loss when it was crowded.

During special religious occasions such as Vesak Day, the projectors can live stream content feeds from the shrine hall, so crowds in the multi-purpose hall, classrooms or at other sites can remain connected to proceedings in the main hall. The content feeds include 5 of DataVideo's wall and ceiling mounted PTZ cameras, as well as roving camera video streams.

BlackMagic Design's Smart Videohub was also introduced into the platform on each level to connect, route and cleanly switch between all the HD video sources. Furthermore, all classrooms were equipped with Crestron's encoder and decoder to cater for live event streaming, which

allowed both educators and learners to enjoy stunning clarity.

A customized GUI programmed with Crestron's control app on an iPad was designed to support high-speed and real-time multitasking.

Result

Even latecomers, who may have to stand behind a shoulder-to-shoulder congregation numbering in the hundreds, are able to follow the real-time action easily and remain engaged in the proceedings.

The monastery's AV team could now enjoy enhanced mobility and easy access to microphone and speaker volume control, video controls, and the option to switch out holding images with the live feed, all with a simple swipe on a smart device.

"Interference between the speakers and the microphones had been a common problem for the monks before, but with the LF-220 solution, the problem of feedback has been eliminated"

- Lim Jue Ming, Chief Executive Officer

Project Features

- **Epson 12,000 Lumens 4K Laser 3LCD Projector**
  Pro L1505UNL

- **Remaco Extra Large Tab Tension Projection Screen**
  TEN XXL-4326C

- **Fohhn Electronically Steerable Line Array Speakers, Subwoofer, Amplfier**
  LFI-220, AS-31, D-2.1500

- **3-Series Control System ®**
  CP3

- **Crestron HD Streaming Receiver & Room Controller 100**
  DM-RMC-100-STR

- **Blackmagic Design Video Router**
  Smart Videohub Cleanswitch 12x12

- **DataVideo PTZ Camera**
  PTC-150

Case Study: ST Electronics
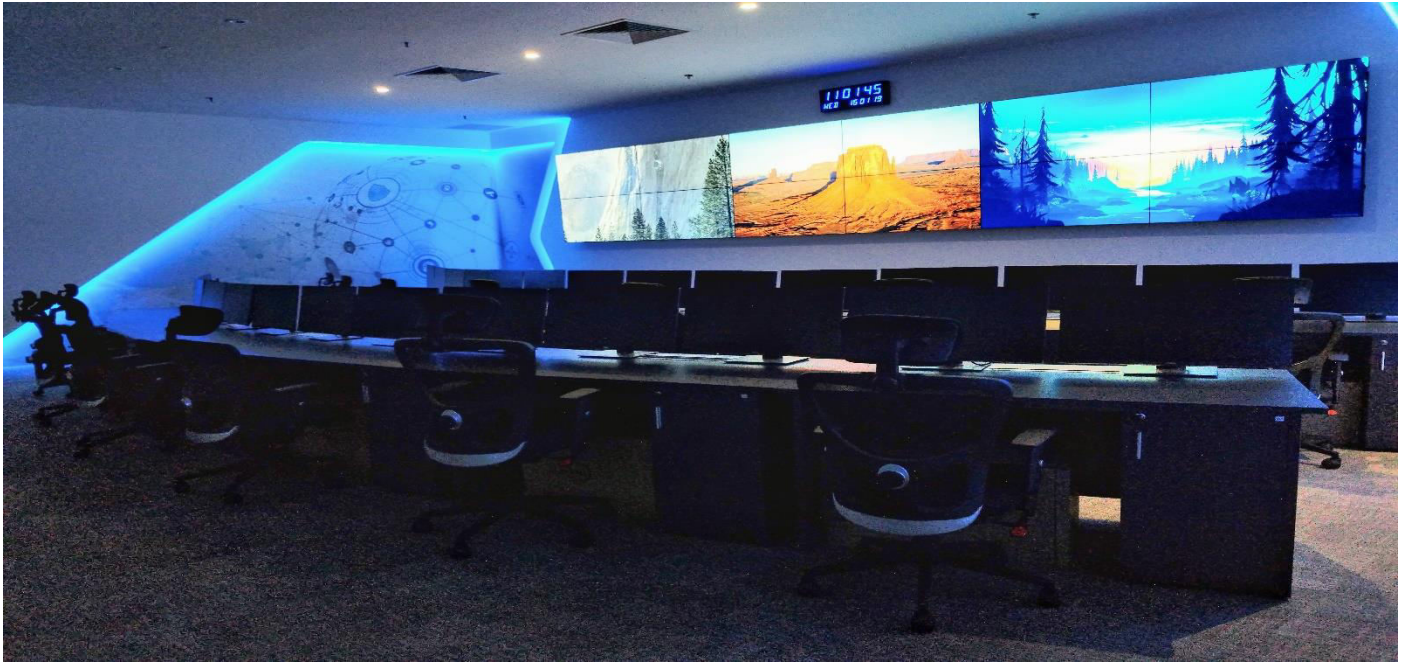
Introduction

ST Electronics, a subsidiary of ST Engineering, is a leading solutions provider for intelligent transportation, public safety & security, smart Info-Communications Technology (ICT) infrastructure, cyber security and defence systems.

A Customer Experience Centre was designed to provide customers and visitors with a visually impressive and immersive demonstration of their products and services. The Customer Experience Centre will also provide a first-hand experience of both current and future offerings from ST Electronics.

Challenge

Due to the large space with multiple areas showcasing various products, the customer required a system that allowed them the flexibility to edit, manage and control the content conveniently. The individual areas needed to wow customers and visitors and create a consistent experience throughout the Customer Experience Centre.

Solution

A wide range of audio visual technologies were incorporated across the Customer Experience Centre, including a digital signage system with multiple video walls that have the capability to distribute unique content to each location on the network from a single PC. This also allows for a cascade of images and a variety of display image scenarios by utilizing a custom-designed control system.

ACESIAN

The Customer Experience Centre houses a fully operational security command center, with 12 PC sources and 1 live TV source. A Digibird Video Wall Processor allows users to treat the with a 6 x 2 Samsung 55" Super Narrow Bezel Video Wall Displays like an open canvas. Using an Apple iPad, users can select the size and position of the source to be projected on the video wall.

The Centre features a state-of-the-art 6 meters-wide curved Samsung LED video wall. The bracketry was fully customized and fabricated to achieve the curved effect which allows the image to seamlessly blend into the built environment around it. The newly launched Samsung LED video wall has a pixel pitch of 2.5, which is one of the smallest in the market. With best-in-class picture quality, combined with exceptional durability, the LED video wall was one of the "wow" factors.

The 30-seater boardroom is installed with a Epson EB-2245U projector, with the visual projected on a Remaco motorized 120-inch screen. This was chosen due to the high ambient light in the room. Switching is handled by a Crestron DMPS3-300-C, which integrates the control system, multi-format matrix switcher, mic mixer, audio DSP, and amplifier all into one. An Apple iPad was deployed as a wireless touch panel which allows users the flexibility to control the AV system and lighting while moving around the room. Crestron's AirMedia wireless presentation was used for to enhance collaboration while supporting various platforms and services that customers or visitors might have on their personal device.

Result

ST Electronics was extremely impress with the impact of the solution as well as enjoying the flexibility of displaying multiple content to different areas without hassle. They are now able to deliver content that engages, informs and entertain customers and visitors alike.

"We would like to thank all members of the Acesian team for working so diligently to ensure our Customer Experience Center is up and running. We were truly impressed with the dedication, professionalism and reliability of both the sales and technical team.

- Ong Lay Kim, Marketing Manager

Project Features

- **Samsung P2.5 LED Signage**
  IF025H

- **Samsung 65" Smart Signage Display**
  QB65H

- **Samsung 43" Smart Signage Display**
  DC43J

- **Samsung 55" Super Narrow Bezel Video Wall Display**
  UD55E-B

- **Digibird Video Wall Controller**
  DB-VWC2-M4

- **Epson 4200 Lumens WUXGA Projector**
  EB-2245U

- **Remaco 120" Motorized Projection Screen**
  PRO-2424

- **Crestron 3-Series® DigitalMedia™ Presentation System 300**
  DMPS-300-C

- **Crestron Wall Plate 4K DigitalMedia 8G+® Transmitter 100, White Textured**
  DM-TX-4K-100-C-1G-W-T

- **Crestron 4K DigitalMedia 8G+® Receiver & Room Controller 100**
  DM-RMC-4K-100-C

- **Crestron AirMedia® Presentation System 200**
  AM-200

- **Crestron AirMedia® Presentation System 200**
  DIN-4DIMFLV4

Case Study: Teledirect Singapore
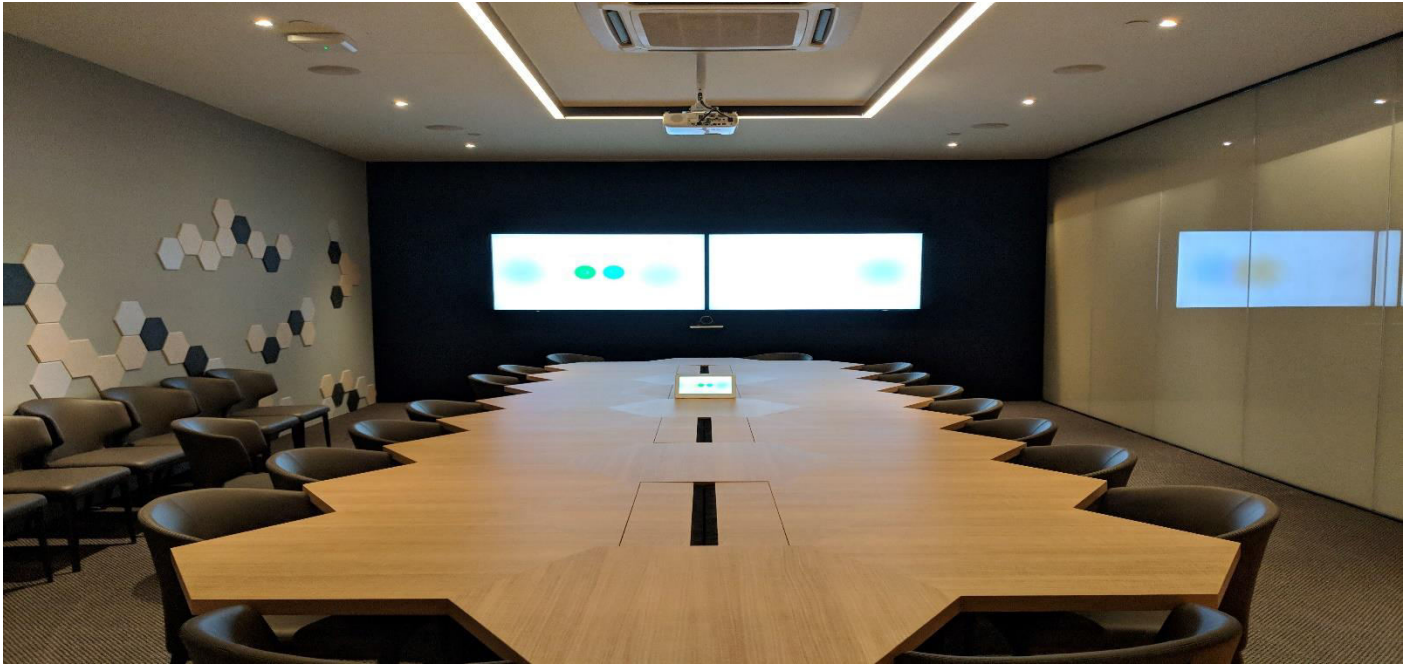

Introduction

Located in Singapore and 7 other key locations in Asia and Europe, Teledirect provides outsourced contact center services to companies in the financial, IT, technology, e-commerce, airline, luxury and hospitality sectors.

Teledirect focuses in high-end, high-touch services for organizations that demand maximum performance. They provide their clients with the infrastructure, personnel and overall call-center management to meet or exceed their service levels.

Challenge

The proposed audio-visual technology must be simple to use and have the flexibility to accommodate various room configurations and meeting applications (e.g. meetings, trainings, townhalls, etc.).

The solution should also provide employees with a consistent user experience as they move throughout the office.
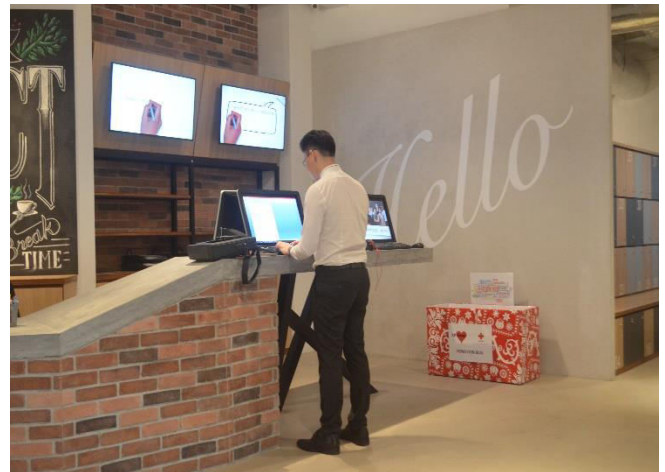
Solution

A training center with the ability to breakup into 3 individual rooms was proposed. When the walls are opened, a partition sensor installed on the ceiling will automatically trigger the combined room configuration.

Each of the three spaces features Epson front projection and Remaco motorized screen as the primary display. The rooms can show individual information unique to each space or share the

information across all the displays in a combined mode.

The spaces are further equipped with a Cisco Room Kit for video conferencing, together with a Samsung 55" commercial panel as a secondary display. Presentations can be shared during the video conferencing session.

Barco ClickShare was introduced to each space for wireless presentation. This allowed presenters and participants to use their own devices and removed the need for cables and hassle. Collaboration are simpler and user-friendly with just one click.

Audio Technica wireless handheld and head-worn microphones, paired with multiple ceiling speakers, allow presenters and participants to be heard clearly through an integrated video and audio-conferencing system, in any of the room combinations.

Crestron digital matrix switcher was used for ultra-fast and lossless digital video and audio switching. A wired touch panel allows presenters to control the system in their individual space. In the combined mode, an iPad with the Crestron app becomes the "master" control and provides users the versatility and flexibility to move around while still being in control of the system.

The walls of the training center can be opened to accommodate their pantry area and used for townhall meetings. The area is equipped with a 3 x 3 Samsung video wall that can be used for presentations or playing live TV channels.

The 12-seater boardroom uses a Crestron hybrid presentation switcher for signal routing flexibility and high-performance signal processing without the need for separate components.

Equipped with an Epson front projection and Remaco motorized screen as a primary display for presentations, the system can automatically switch to 2 Samsung 75" Full HD panels for the video conferencing mode.

The system can be controlled wirelessly from the desk by an iPad loaded with the Crestron app. Through the touch panel, users can control the system functionality, lighting and the smart glass, which changes the glass partition from clear to a frosted appearance.

Using a digital room booking system manufactured by GoGet, touch screens mounted outside the door to each meeting room gives employees the ability to quickly check availability and book rooms on the spot. It can also be used to manage room bookings via the email calendar.

In addition to the installation in the training center and boardroom, Samsung 55" digital signages were installed throughout the office. This provided an ideal solution for wayfinding and communicating information to visiting clients and employees alike. The thin bezels exude a more professional and polished look.

Result

Teledirect employees enjoy a consistent user experience and did not need to waste time understanding how technology worked in each room. This has resulted in greater efficiency and productivity.

Project Features

- **Crestron 8x8 DigitalMedia™ Switcher**
  DM-MD8X8

- **Crestron 3-Series® Control Processor**
  CP3

- **Crestron 3-Series® DigitalMedia™ Presentation System 300**
  DMPS3-300-C

- **Crestron Cameo® Keypad - International Version**
  C2NI-CB

- **Epson 4200 Lumens WUXGA 3LCD Projector**
  EB-2247U

- **Remaco 120" Motorized Projection Screen**
  PRO-2424

- **Cisco Room Kit Plus P60**
  CS-KITP60-K9

- **Samsung 3 x 3 Video Wall**
  UD55E-B

- **Samsung 55" Digital Signage Panel**
  DC55E

- **GoGet 11.6" Touch Screen with LED for Room Scheduling**
  Room Sync Plus LED

- **Barco Meeting Room Standalone Wireless Presentation**
  CS-100