

Case Study

HDBaseT at the Heart of AV



End Customer: Heart Hospital, Japan
Vertical: Healthcare



About the End Customer

One of the leading heart hospitals in Japan specifically dedicated to cardiovascular surgery and is equipped to deal with such procedures 24 hours a day, 365 days a year.

The hospital recently upgraded its facilities, with more beds, operating rooms, CT equipment, and a brand new, state-of-the-art medical image transmission system, to further raise the quality of its services.

The Challenge

Video quality and stability are not nice-to-have features in a hospital, but rather a “must” during procedures.

The requirements were straightforward: to enable the highest video quality and performance, to transmit instant and stable video images with seamless switching (so that no vital details would be missed during procedures), and to enable long distance transmission (for instant access from various locations throughout the hospital). In addition, a cost-effective, comprehensive solution was expected, without compromises on flexibility or compatibility among the different medical devices.

The Solution

The heart hospital chose to implement a thorough HDBaseT network solution that provided state-of-the-art image transmission of live surgery video, patient vitals, and picture archiving and communication system (PACS).

The solution was designed to deliver content from the operating theater to nurse stations, doctor break rooms, waiting rooms, and the president’s office, all located on different floors. Four different HDMI video inputs were routed across long distances to meet these requirements.

HDBaseT technology considerably simplified implementation. By integrating four sets of ATEN’s VE812 HDMI HDBaseT Extenders with ATEN’s VM5404H 4 x 4 HDMI Matrix Switch with Scaler, along with VE600A DVI/Audio Extenders, the HDBaseT solution enabled the long-distance transmission of HDMI content. HDBaseT allowed signals to be transmitted without interference, ensuring high-quality video transmissions. In addition, the simplicity of a single cable installation made the system easier to implement and maintain.



Results

The ATEN HDBaseT one-cable solution solved system issues such as video quality and stability, long distance transmission, cost effectiveness and compatibility. The adoption of this high-quality imaging solution enabled doctors to perform surgeries more effectively, and also advanced the quality of the hospital’s services. HDBaseT was a key factor in the overall project success as it delivered the best results vis-à-vis the needs of the customer.

About HDBaseT

HDBaseT technology, powered by the Valens chipset, enables all-in-one connectivity between ultra-HD video sources and remote displays through a single 100m/328ft CAT6 cable or fiber, delivering high definition 4k video, audio, USB, Ethernet, control signals and up to 100 watts of power.