



Healthcare

医療法人社団 栄悠会
綾瀬循環器病院

AYASE
HEART
HOSPITAL

Japan

Ayase Heart Hospital



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The completion of this ideally planned image transmission system using ATEN's video solution will further strengthen the hospital's medical policy. We plan to adopt other high image quality ATEN products in the future.

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Mr. EUI HAK JUNG
Director of Medical Informatics Department
Ayase Heart Hospital

One of the leading medium-sized medical facilities in Japan, Ayase Heart Hospital - under the Eiyukai Medical Group - is specifically dedicated to cardiovascular surgery and is equipped to deal with such procedures 24 hours a day, 365 days a year. Starting from September 2015, the hospital expanded its scope to increase the number of beds, operating rooms, and CT equipment. While upgrading the facilities, the hospital administration took the opportunity to build a comprehensive, state-of-the-art image transmission system to further raise the quality of its service.

Key Customer Requirements

- ✓ Essential medical imaging needed to be instantly accessible from various locations throughout the hospital
- ✓ Required clear and stable video images for monitoring
- ✓ Compatibility with a wide range of medical equipment in critical hospital environments
- ✓ A tailored solution for medical-grade applications with easy-to-use media distribution management software

During renovations, the Ayase Heart Hospital administration decided to implement a state-of-the-art medical imaging transmission system. Not only would the upgrade enable doctors to perform surgeries more effectively, but also it would increase the overall service quality of the hospital. Accomplishing this mission required a media distribution solution that would make content such as live surgery video from the doctors' head-mounted cameras, patient vitals, medical records, and a picture archiving and communication system (PACS) accessible from various locations inside the hospital.

More importantly, the medical center would need to provide pristine and stable HDMI video so that doctors and nurses could give the necessary support. The system would also allow patients' relatives to view surgery images in real-time from the waiting room. In addition, critical information would also be sent to key locations such as nursing stations, the president's office, and doctor break rooms, meaning surgeons can learn from observing each other's work and enhance the overall quality of services provided by the hospital.

As a hospital is a critical environment with a diverse range of signals from medical equipment, such as pulses from laser surgical knives, a solution that offered pre-testing and excellent technical support to avoid compatibility issues ahead of time was an essential factor.

Furthermore, Ayase Heart Hospital needed a tailored solution with easy-to-use management software to control the media distribution. Since most of the distribution software comes with a yearly licensing fee, they were looking for a more cost-effective and permanent alternative.



The ATEN Solution

- ✓ Seamless switching to deliver instant and stable video
- ✓ Long distance video transmission a single cable
- ✓ Converts various resolutions to ensure top quality
- ✓ A flexible and cost effective solution with award-winning web GUI

ATEN provided Ayase Heart Hospital with the ideal product combination of the VM5404H 4 x 4 HDMI Matrix Switch and the VE812 HDMI HDBaseT Extender. By installing four pairs of VE812 extenders connected to the Matrix Switch, ATEN was able to resolve the system's issues in terms of video quality and stability, long distance transmission and cost effectiveness. To resolve the compatibility issues, the solution also included ATEN's VE600A DVI/Audio Extender to enable signals from medical equipment with a DVI interface to be integrated into the distribution system.





Seamless switching to deliver instant and stable video

Beyond offering secure, long distance video transmission, the VM5404H 4 x 4 HDMI Matrix Switch ensures seamless switching to deliver an instant and stable video source, which ensures that medical staff doesn't lose any vital details during operations.

Converts various resolutions to ensure top quality

The Matrix Switch also easily converts various input resolutions into various output display resolutions via EDID Expert™, which selects optimum EDID settings for smooth power-up and highest quality across all displays, ensuring doctors receive the high-quality images they need to work more effectively.

Long distance video transmission over a single cable

The VE812's HDBaseT technology enables video signal extension with a single CAT6/6a cable for the longer distance transmission needed by a medium-sized hospital on the scale of Ayase Heart Hospital. The simplicity of a single cable installation made the system tidy and very easy to install.

A flexible and cost effective solution with award-winning web GUI

ATEN provided a comprehensive solution with great compatibility and support. The VM5404H and VE812 combination was the perfect for Ayase Heart Hospital in terms of the flexibility and customization it offered when being integrated with the hospital's medical equipment and pre-existing hardware, making it far more cost effective than starting from scratch. The solution also included an award-winning, license-free web GUI with an easy-to-use, designed for users interface to manage multiple video sources.

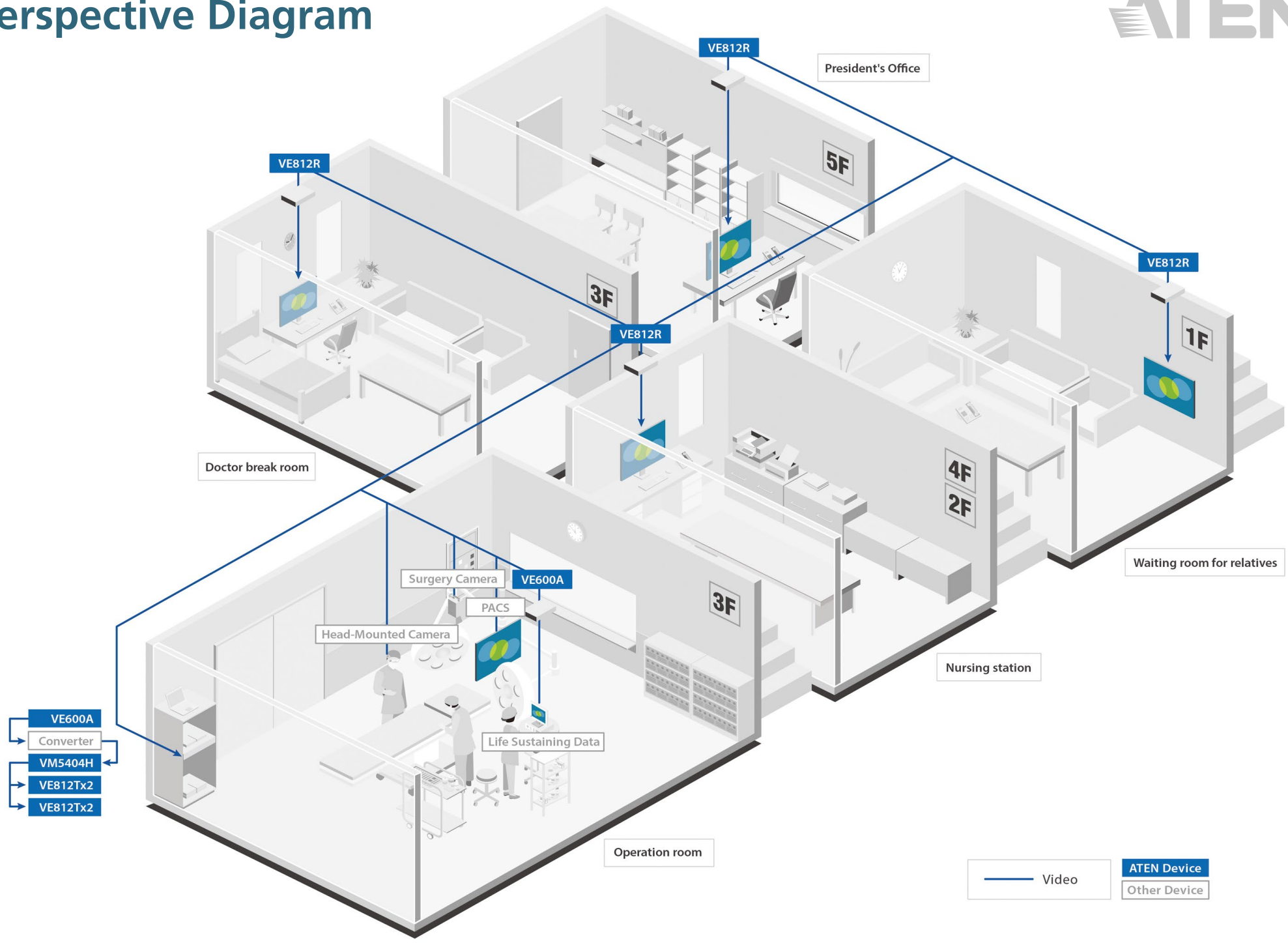


VE812



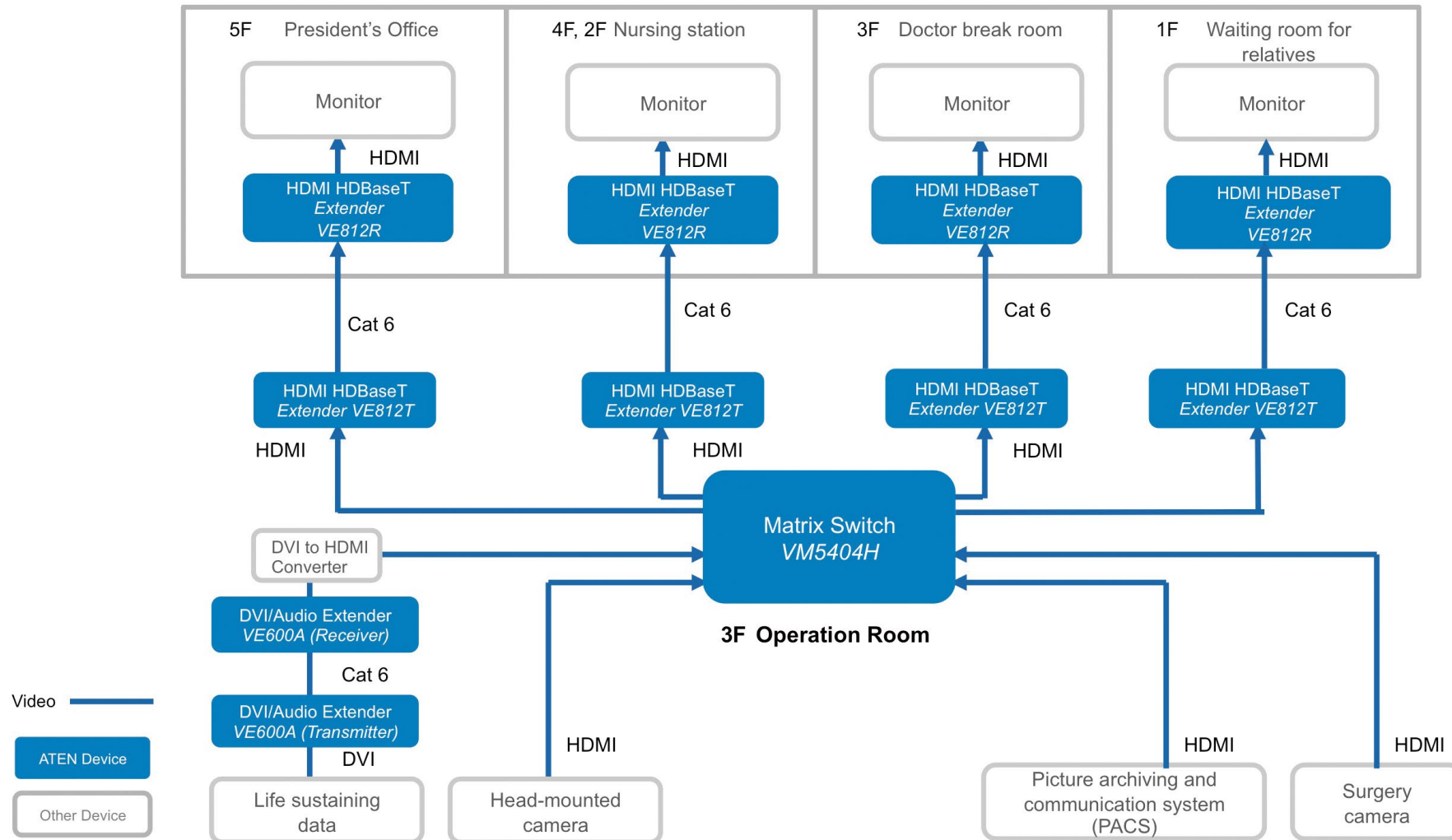
VM5404H

Perspective Diagram



— Video
— ATEN Device
— Other Device

Solution Architecture Diagram



Product



VM5404H

4 x 4 HDMI Matrix Switch with Scaler

- Connects any of 4 HDMI sources to any of 4 HDMI displays
- Seamless Switch™ to provide real-time switching and stable signal transmissions
- EDID Expert™ to select optimum EDID settings for highest quality display
- Easy to use web GUI that allows to set various profiles and quickly manage multiple video sources



VE600A

DVI/Audio Extender (1920 x 1200@40m)



Product



VE812

HDMI HDBaseT Extender

- One Cat 5 cable to connect the transmitter and receiver
- Long distance transmission - up to 100m
- HDBaseT Anti-jamming to resist signal interference during high-quality video transmissions.





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