

Operation teaching system of the No. 306 Hospital of the People's Liberation Army (PLA).

Axis H.264 video encoders provide more explicit teaching of real-time remote operation.



Organization:
#306 Hospital of the
People's Liberation Army

Location:
Beijing, China

Industry segment:
Healthcare

Application:
Video monitoring of
operation teaching
system

Axis partner:
Beijing Sinowave
Communications Co., Ltd.

Mission

No. 306 Hospital of the PLA is a comprehensive modern "Class III Grade A" hospital with advanced technology and sophisticated equipment, integrating medical treatment, teaching, scientific research, disease prevention and healthcare. The hospital, established in 1971, was approved as General Hospital of the Commission of Science, Technology and Industry for National Defense (COSTIND) in January 1997 and renamed the No. 306 Hospital of the PLA.

With three buildings, the hospital provides clinical services for up to 1,800 out-patients a day and receives up to 10,000 hospitalized patients a year. It is the clinical teaching hospital for the Fourth Military Medical University of the PLA and the Medical School of Peking University, and also a joint post-graduate education center of the Third Military Medical School.

The hospital was looking for a stable, continuous, smooth IP-based video solution providing high image

quality and low-bandwidth consumption, in order to meet the requirements for many video applications, such as operation demonstration for learning, expert consultation, and to further facilitate the standardized management of the hospital.

Solution

The system selected consists of AXIS Q7401 Video Encoders, which are high-performance H.264 encoders connecting the hospital's analog cameras to the IP network. Images collected at the operation site use dual streaming technology:

- > One channel of signals is used for the real-time medical treatment displayed for operation instruction, onsite teaching, and expert remote consultation.
- > The other channel of signals is used for video storage, to create future teaching materials, as well as identify possible medical incidents and collect evidence.

"The H.264 video encoder provided by Axis transmits clearer images with lower bandwidth. The system generates high-quality images and runs stably."

Users of the No. 306 Hospital of the PLA.

Result

By using the Axis H.264 video encoders, the hospital created an IP-based video communication system which provides the perfect tool for operation teaching and remote instructions. The operation process can now be viewed on big screens outside the surgery rooms. Such a real-time teaching mode breaks away from the restrictions on time, space, and number of people allowed in operation rooms and has greatly improved the quality of the teaching process. With both audio and video data transmitted digitally on the IP network at high speed, users can now view real-time images and historical images of any operation from anywhere on the network. With fully-distributed storage, authorized personnel can also expand the storage capacity easily and efficiently.



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