



## USE CASE | LIVE STREAMING EVENT



The VITEC products selected for the congress had exhibited surprisingly good test results in comparison to other brand products, wherefore we finally decided on the VITEC MGW products. Our choice was confirmed by the commentary of the keynote speaker, after he turned to the video screen and spontaneously expressed his enthusiasm in front of the assembled audience. ”

Stefan Pagenkemper, CEO  
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[www.vitec.com](http://www.vitec.com)

# Live IP-Video Streaming in Cinema Quality

## The Background

In spring 2013 an international medical congress took place in Southern Germany. Their requirement during the presentations of the keynote speakers was to have live video broadcasts streamed directly from the operating room of a hospital two kilometers (1.24 miles) away, and projected, using an HD projector, to the screen of the main stage. For the planning of the transmission chain PMS (Perfect Media Solutions) GmbH, a specialist for IPTV and IP transmission, was commissioned.

## The Challenge

The biggest challenge for this live video transmission was in the balance of latency and quality. If you need to show a high level of video quality while transferring to a large screen using an HD projector, there is the risk of a large delay (latency) between the real event and the video shown. In this particular project, a large latency would have been devastating since there was a forward and return channel available for audio transmission. Therefore a significant delay would have been highly noticeable. In the past, when just focusing on low latency, the quality of the live videos has often been very limited. Thus it was necessary to find the best solution for superb video quality AND low latency

## The Tests

PMS GmbH tested various combinations of different manufacturers to guarantee the best possible quality. Tests were performed using HD-SDI cameras connected in different light and motion profiles; richness of detail, contrast, and color reproduction were rated. Of course, a large focus was put on the speed to keep the latency as low as possible.

## The Solution

The rigorous tests showed that VITEC's MGW series was unsurpassed in video quality, speed, and other single parameter functionalities by similar product manufacturers. The final choice for PMS GmbH was a combination of the VITEC MGW Nano Encoder and the VITEC MGW Premium Decoder, which provided a smooth live broadcast in full HD resolution (1080p) and transferred the video with a latency of less than 600ms. The result was that the keynote speaker during his speech spontaneously turned and voiced the following: "Wow, thank you for the excellent image quality. We have never had something like this."

Overall, the excellent image quality, the low delay and the absolutely smooth process were mentioned positively several times in the subsequent reviews.

