

Webcasting Live Surgery in HD



An omNovia Customer Story:

Live from the Operating Room

“Being able to webcast my live surgeries with HD live video streaming allows my students and colleagues to watch the operation as if they were next to me.”



DR. Aaron Cohen - MD
Neurological Surgeon
Methodist Hospital of Indianapolis

Dr. Aaron Cohen, MD is a well-renowned neurosurgeon who is currently working at Methodist Hospital of Indianapolis, Indiana. His unique operating skills, such as operating to remove a brain tumor while the patient is fully awake to maximize the safety of the operation has been recently featured on CNN.

He recently was the winner of the Advancement in Health Care Award from the Indianapolis Business Journal for his work in the development of new treatment and procedures that help save and improve lives.

The Challenge

As a surgeon devoted to improving surgical education through the use of technology, Dr. Cohen has used various medical imaging systems in the past to

train other doctors remotely or for consultation.

However, most of the live imaging systems required either satellite connections and/or costly hardware equipment's in order to provide an acceptable image quality under the microscope.

In addition, the web-based solutions he has tried failed to provide an adequate video streaming. *“While you’re in a remote quarterly sales meeting with your team, I don’t think you would be too upset if you don’t see your boss who is not happy about your numbers in HD. But when it comes to live streaming medical images, every pixel does matter.”* said Dr. Cohen.

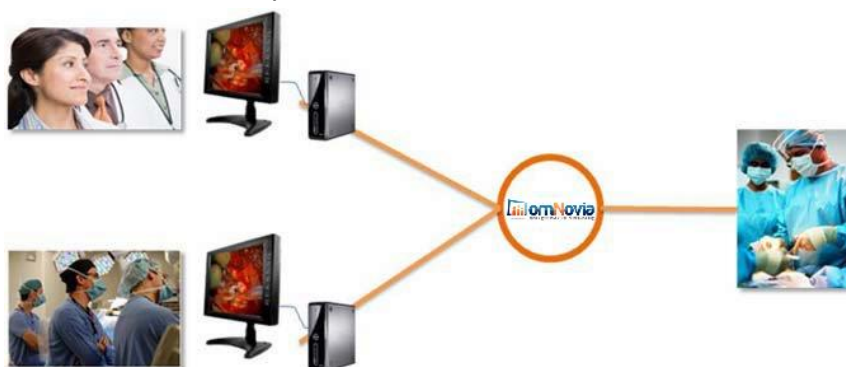
The Approach

In June 2010, when Dr. Cohen spoke with the account managers at omNovia for the first time, he was seeking a replacement for a video-conferencing system which required participants to download proprietary software. It was causing lengthy delays as people struggled with technical issues and even prevented participants from joining the webcast. Latency and low video quality were among the other problems he had.

After the initial consultation, his account manager created a trial account for him. Dr. Cohen immediately recognized three main advantages with the omNovia system:

- Superior image quality
- Ease of setup and access
- Multi-purpose conferencing environment instead of a mere video streaming tool

He also tested the platform and was able to live stream his operation with image sizes anywhere between 640 x 480 pixels to 1920 x 1080 pixels (full HD). Low latency also exceeded his expectations.



The Benefits

The quality of the image in combination with a low latency significantly increased the overall quality of his surgery webcasts. Now the doctors participating in the remote surgery, as well as the ones watching the webcast for training purposes, were able to see every detail of the surgery including microscopic nerves and communicate with each-other in real time.

The Next Steps

In addition to the live webcasting capability, Dr. Cohen's team uses their omNovia virtual room to hold online meetings and discuss previously recorded surgeries, x-rays or other media. 3D video streaming is among the next steps his team would like to take.

System Setup

No additional software or hardware

Required Bandwidth: 0.8 Mb to 5 Mb per second

Internet Speed: 10 Mb Up, 25 Mb Down

For more information on this case study or our live event webcasting services please visit us on the Web at www.omnovia.com.

If you wish to reach Dr. Cohen, you can e-mail him at acohenmd@gmail.com.