



The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
Moffitt Cancer Center

Organization URL:
www.moffitt.org

Project Name:
Enterprise Video Technologies Improve Cancer Patients' Healthcare Experience

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

The mission of H. Lee Moffitt Cancer Center & Research Institute is to advance the prevention and cure of cancer. As Florida's only National Cancer Institute (NCI)-designated comprehensive cancer center, Moffitt serves patients who must often travel long distances multiple times during the course of treatment for orientation information, to consult with their physicians, and to participate in support groups that can serve as an emotional lifeline. Repeated travel is expensive and time-consuming, and can be especially difficult for cancer patients who are elderly, in poor health, or struggling to keep up with work and family. The Moffitt IT team realized that enterprise video technologies, both video on demand and real-time video interaction, would ease the burden for cancer patients. Instead of traveling up to four hours to the hospital, they could watch orientation videos from the comfort of home. And instead of making the trip to meet their doctor when an examination was not necessary, they would have the option of traveling to the closest clinic for an in-person experience with high-definition telepresence. Moffitt also wanted to maximize the time physicians could spend on patient care as opposed to traveling to conduct Grand Rounds with affiliate hospitals. A typical trip takes 1-2 days, and each day a physician is out of the office can mean a longer wait for anxious patients.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

Moffitt deployed Cisco Video Content solutions to capture, transform, and share video content, and Cisco TelePresence to provide in-person experiences between patients and physicians without travel. Capture, Transform, and Share Video Content: Moffitt captures video using any device -- including Cisco TelePresence Systems and traditional video cameras -- and shares it on any device, including patients' and clinicians' PCs, tablets, smartphones, and digital signage in the center and clinics. Video is used for: patient orientation on medical procedures; doctor introductions, allowing patients to put a face to a name before an appointment; patient educational and support sessions; clinician education, ranging from Grand Rounds and unusual surgeries to proper patient-lifting techniques; new hire training. To transform video for viewing on different devices, Moffitt staff members simply select device types and the Cisco MXE 3500 Media Experience Engine does the work. The MXE indexes keywords, such as "benign," and tags speakers so that patients or physicians can jump right to the desired section of video. Moffitt shares videos using Cisco Show and Share, a webcasting and video sharing application. One portal is provided for patients, another for physicians. Patients can also view real-time and recorded educational lectures, such as Brain Tumor Talks, on digital signage at clinics powered by Cisco Digital Media Players, part of the Cisco Digital Signs solution. Wowza Media Server streams live and on-demand video content. In-Person Experience with Cisco TelePresence: Instead of driving to the doctor's location or settling for a phone call, patients can meet in-person with their doctor from any clinic, using Cisco TelePresence systems. Patients appreciate the in-person experience, especially when receiving a diagnosis. Furthermore, physicians can gauge from the patient's facial expression whether information is being understood.

Please list the specific humanitarian benefits the project has yielded so far.

Improved Healthcare Experience for Cancer Patients: Patients diagnosed with cancer often struggle to assimilate all the information they receive, and frequently don't retain important information. Patients and their caregivers can now view information on the Show and Share portal from anywhere, anytime, on any device, and as often as needed to fully absorb the information. Cisco TelePresence allows Moffitt to include remote family members in patient treatment. Patients and their healthcare team have face-to-face conversations with family members living all over the world to discuss treatment and provide much-needed family interaction and emotional support. Patients also appreciate the opportunity to participate in support groups via live streaming video or on-demand videos. When patients need a language interpreter, including sign language, Moffitt connects the patient to an interpreter using Cisco TelePresence. Making sure patients and physicians understand each other contributes to a positive healthcare experience. Improved Physician Productivity and Organizational Communications: Moffitt clinicians and staff can now spend more time focused on patient care, thanks to the new video technologies. They can view town hall meetings, anywhere, anytime. Scheduling conflicts no longer mean missed communications because the video is available on Show and Share an hour or two after the live event. More than 700 people attended Moffitt's first live streamed town hall meeting on the newly integrated Show and Share platform, and 1,000 others viewed the video later, representing a 900% increase over Moffitt's prior streaming and video-on-demand solution. Physicians no longer have to be out of the office to deliver one-hour lectures or participate in tumor boards at Moffitt's affiliate locations on the East Coast and overseas. A physician who saves eight hours of travel can potentially conduct 32 more patient visits, shortening patient waits.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

Enterprise video content and communications technologies have elevated the level of patient care provided by Moffitt Cancer Center, improving their patients' experiences. Patients battling cancer

now have anytime access to important video-based information from anywhere -- the comfort of their own home or elsewhere -- using the Show and Share patient video portal. Essential information, such as new patient orientation or preparing for a bone-marrow transplant, can be viewed at the patient's convenience and as often as desired. Patients can also meet in person with their interdisciplinary Moffitt cancer team via Cisco TelePresence systems from Moffitt locations closer to home, reducing the burden of lengthy or frequent travel. TelePresence also brings remotely located family members into the treatment process, providing a valuable support network during what is often a very difficult time. Support groups are an essential part of helping patients cope with their cancer diagnosis and treatment. Patients can view live streaming video of speakers addressing support groups, such as Brain Tumor Talks or the Lung and Thoracic Tumor Education Group. If they are unable to participate live, they can watch the recorded video later, adding comments and engaging in dialog with other support group members.