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Leids University Medical Center Uses DKM KVM Matrix to Distribute Signals for New Linear Accelerator (LINAC)

- **Industry:** Healthcare
- **Client:** Leids University Medical Center (LUMC)
- **Region:** Netherlands
- **Solution:** KVM Matrix Switching
- **Products:** DKM Proprietary KVM Matrix

LUMC Leids Universitair Medisch Centrum

BACKROUND

A linear accelerator (LINAC) device delivers external beam radiation treatments for patients with cancer. It delivers tightly focused, high-energy X-rays to the region of the patient's tumor while also preserving the surrounding tissue. The LINAC is controlled by a number of computer systems for control, monitoring and imaging, plus easy adjustment, calibration and servicing.

At Leids University Medical Center in the Netherlands, the Clinical Oncology/Radiotherapy department hosts five linear accelerators. When the medical center replaced an older accelerator with a new one, they decided this was a perfect opportunity update and modernize their healthcare technology infrastructure in this department.

THE CHALLENGE

With the arrival of the new accelerator, the time had come to migrate from the VGA standard to the new DVI video standard. The old environment, including the operating positions, was VGA based. During the working life of the accelerator, various systems and workstations had been added. This lowered efficiency in operation and management as time went by. LUMC was familiar with Black Box Netherlands because of other solutions the medical center had

used for other accelerators, and since those previous experiences had been very satisfying, Mr. Van Beelen, ICT manager of the radiotherapy department LUMC, contacted Black Box.

THE SOLUTION

After a thorough inventory of equipment and evaluation of the LUMC's requirements for the best in patient care, Black Box came back with a solid, fitting recommendation. We suggested LUMC choose a DKM FX HD Video and Peripheral Matrix Switching system.

This solution offers a high degree of flexibility for laboratory workers, engineers, medical center staff, and other user groups. The DKM FX system of matrix switches and extenders makes it easy to switch between different operating systems or to indicate which screens users would like to display what content. In addition, this setup offers clear in management and the ability to switch all displays between clinic and service mode with just one push of a button.

A major advantage of the DKM FX is that it is fully scalable and reconfigurable. Desired functionalities can easily be fully integrated for future requirements. A small change can be realized within minutes.All server computer equipment is neatly, safely, securely stored in a locked server cabinet, resulting in less noise and heat in the operating room. It also requires less cabling and fewer screens for less clutter in the radiotherapy room housing the LINAC and also making it simple to keep cables out of the way and prevent unauthorized access and accidental disconnects.

RESULTS

The advantages of the chosen solution are that it is convenient and easy to use; it is flexible and scalable, simplifying adds of equipment and workstations; and its installation made for a cleaner, quieter environment, which was also safer, around the LINAC.

"Black Box is very flexible! And that goes for the solution itself. They truly support the customer; for each challenge they'll find a solution." said Mr R. van Beelen, ICT Manager at the Department of Clinical Oncology/Radiotherapy at LUMC.