Solution Brief

The Kaposvár University continues their long-term commitment to optical technology.

The Institution

The Kaposvár University was founded on the 1st of January, 2000 during the restructuring of the Hungarian higher education system. Prior to the restructuring, which integrated two separate faculties and two research institutes, the predecessor institutions constituting the Kaposvár University had successfully cooperated in several areas of research and education.

The Institute of Diagnostic Imaging and Radiation Oncology of the Kaposvár University boasts a world-renowned teacher-researcher base and applies imaging diagnostics to conduct a broad scope of animal science research enabling new human diagnostic services. Besides dynamically developing various other disciplines, such as soil-research, forestry-timber industry, geology, physics, archeology, to satisfy the ever increasing demand with the cooperating institutions and companies, its research staff maintains extensive international relations resulting in worldwide recognition for the Kaposvár University in the fields of education, research and human diagnostics.

The Challenge

The Kaposvár University possesses new onco-radiology facilities to provide the infrastructure for radio therapeutic researches and human diagnostic services. The medical center of Kaposvár University is equipped with cutting-edge CT and MR equipment 2xCT (128 slice) and 2xMR modalities for human diagnostics, 2xCT for agricultural and geological (oil industry) studies.

The strict Hungarian regulations require the University to keep all patient data for 35 years, which means many thousand of studies per month (over 1TB of data) with ever-increasing image resolution and file sizes.

The stored data means both value and responsibility, which is the main driving force behind their continuous infrastructure and organizational developments. The institute excels at both the University and Healthcare IT level with their ISO-governed and ITIL-based processes and three independent computer rooms connected by their own high-speed fiber network.

DISC BD Series

The future of archiving today.
The Solution

The Kaposvár University initially began to archive their DICOM data to a single magneto-optical (MO) drive back in 1996, but quickly realized the benefits of having an automated optical media library.

With the help of AZP Consultants Kft. they migrated from MO to an NSM 6000 DVD library, and with their on-going support, also purchased a PDD 3000 library in 2005. This PDD library was later upgraded to Blu-ray (BD) technology in 2006, and over the last few years, they have also purchased two additional DISC BD7000 Blu-ray libraries.

The University purchased a special version of the DISC library that was equipped with special LightScribe software, enabling in-library media labeling utilizing the laser in the optical drive. This was accomplished using the PoINT Jukebox Manager, dirX-AW and PoINT Storage Manager software from PoINT Software & Systems.

Besides keeping patient data in a geographically distributed, fully-redundant fault-tolerant way, while providing tele-radiology services between Budapest and London, the DISC library resources are shared between Archiving, Publishing, Research and patient DVD writing.

The Campus' On-demand multimedia streaming server, integrated with the BD library and e-Learning systems, has application-level archiving and utilizes a separate library. The DISC libraries provide off-site copies and can be mounted as well to serve data access in case of primary storage failure. The main reasons the Kaposvár University selected the DISC optical libraries were the high reliability and compatibility of the optical media, near-line behavior of the optical libraries and the low operational costs. The Kaposvár University feels that the combination of these features allows them to have a very economical solution on the primary storage side, resulting in a competitive TCO.

They are already planning to upgrade their existing DISC Blu-ray libraries to the latest 100GB BDXL technology in the near future.